

PLANNING JUSTIFICATION **REPORT & AGGREGATE RESOURCES ACT SUMMARY STATEMENT** BRECHIN QUARRY

Part of Lots 11, 12 & 13, Concession 1,
Former Geographic Township of Mara,
Township of Ramara, County of Simcoe

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Prepared for:

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LIST OF REVISIONS

Sections 1.0, 2.4 and 3.1.3 of the December 2023 Planning Justification Report and Sections 5.2.2 and 5.3 of the ARA Summary Statement have been revised in April 2024 to reflect the revisions made in the revised Stage 1&2 Archaeological Report dated February 5, 2024.

1.0 EXECUTIVE SUMMARY

LCP Quarry Limited (LCP), is applying for a Class A licence under the Aggregate Resources Act (ARA) to permit a below the water table quarry on properties municipally known as 2440 Concession 1, 2530 Concession 1, 1506 Highway 12 and 1646 Highway 12, in the Township of Ramara . The development is referred to as the proposed Brechin Quarry, is located in the Township of Ramara, County of Simcoe and is legally described as being located on Part of Lots 11, 12 and 13, Concession 1 in the former geographic Township of Mara. The properties are bound by Provincial Highway 12 to the east, Concession Road 2 to the north, Concession Road 1 to the south and private properties to the west.

The three eastern most properties were previously used for livestock pasturing but have sat vacant in recent years. The western portion of the site is mostly wooded but includes an abandoned air strip and associated hanger buildings that was previously used by the Mara Flying Club. An abandoned, raised rail bed bisects the licence area in a north/south direction with extraction proposed entirely to the east of the rail bed. Three rural residential properties fronting on Highway 12 are located immediately east of the Subject Lands.

Extraction of the Subject Lands will occur in three lifts and two phases. The final quarry floor for the proposed quarry will slope from approximately 207.6 metres above sea level (masl) in the northeast to approximately 202.6 masl in the southwest. Once extraction of aggregate material is complete, the Subject Lands will be rehabilitated by allowing the quarry excavation area to flood forming a quarry lake with shoreline wetland features and natural environment features within some of the setbacks. Ecological enhancements are proposed in the western portion of the site to mitigate for habitat that will be removed during extraction.

The area proposed to be licenced under the ARA is 151.4 hectares (ha) and the proposed extraction area is 91.5 ha. The entrance/exit is proposed to be from Concession Road 2, approximately 450m west of Highway 12 and is proposed to be permitted to ship an annual limit of 2,000,000 tonnes from the site.

This report has been prepared to address the requirements of the following applications:

- Aggregate Resources Act: Class A Aggregate Resources Act Licence for a below the water table quarry;
- Planning Act: An amendment to the Township of Ramara Official Plan to re-designate the site to permit the extraction of aggregate resources and to allow ecological enhancements, mitigation and monitoring in the western portion of the site; and

- Planning Act: An amendment to the Township of Ramara Zoning By-Law 2005.85 to rezone the site to permit the extraction of aggregate resources and to allow ecological enhancements and monitoring in the western portion of the site.

The proposed Brechin Quarry is consistent with the Provincial Policy Statement (PPS) and conforms to the Growth Plan, Lake Simcoe Protection Plan, County of Simcoe Official Plan and the Township of Ramara Official Plan for the following reasons:

- Aggregate extraction is an established use in the area and the site is identified for potential future extraction in the County of Simcoe and Township of Ramara Official Plans;
- The County of Simcoe and Township of Ramara Official Plans identify the Subject Lands as being within a High Potential Mineral Aggregate Resource Area (HPMARA);
- The site contains approximately 69 million tonnes of close to market high quality aggregate. The availability of aggregates close to market is important for economic, social and environmental reasons;
- The proposed extraction area is predominately fallow, underutilized land. The proposed extraction area contains areas of threatened and endangered species habitat, significant wildlife habitat, non significant woodlands, non significant wetlands, and fish habitat. Extraction within these features will occur in accordance with Provincial and Federal requirements;
- The proposed rehabilitation plan and ecological enhancement plan includes an overall increase in natural cover on the properties and a net gain of natural systems within the study area;
- Adjacent key natural heritage features and key hydrologic features will not be negatively impacted by the proposed quarry and will be maintained in the long-term based on the proposed rehabilitation plan;
- No significant built heritage or significant cultural heritage landscapes are identified on or surrounding the proposed quarry;
- With the exception of two archaeological sites, the balance of the subject lands do not contain archaeological resources. The two sites that contain cultural heritage value or interest will be conserved until a Stage 3 assessment is completed for these specific areas. One of the sites is located within the extraction limit while the other is located outside of the extraction limit;
- The proposed quarry has been designed to minimize social impacts on surrounding sensitive receptors (noise, dust, blasting, water resources [i.e. wells] and traffic); and
- The proposed quarry has been designed to minimize impacts on surrounding agricultural uses and operations.

2.0 INTRODUCTION

LCP Quarry Limited (LCP), (the “Applicant”) seeks to develop a quarry on property located south of the Village of Brechin, in the Township of Ramara (the “Subject Lands”). The proposed Brechin Quarry is located in the Township of Ramara, County of Simcoe and is legally described as being located on Part of Lots 11, 12 and 13, Concession 1 in the former geographic Township of Mara.

The general location of the proposed Brechin Quarry is shown on **Figure 1**. The Subject Lands are bound by Provincial Highway 12 to the east, Concession Road 2 to the north, Concession Road 1 to the south and private properties to the west. The Applicant is applying for a Class A licence under the Aggregate Resources Act (ARA) to permit a below the water table quarry at the Subject Lands. See **Figure 2** for an air photo to provide an aerial context of the proposed Subject Lands.

The area proposed to be licenced under the ARA is 151.4ha and the proposed extraction area is 91.5ha. Extraction of the Subject Lands will occur in three lifts and two phases. The final quarry floor for the proposed quarry will slope from approximately 207.6 masl in the northeast to approximately 202.6 masl in the southwest. Once extraction of aggregate material is complete, the Subject Lands will be rehabilitated by allowing the quarry excavation area to flood forming a quarry lake with shoreline wetland features and natural environment features within some of the setbacks.

An existing ARA licenced quarry operated by Lafarge Canada Inc. (Lafarge) is located to the northeast of the site. This quarry is known as the Lafarge Brechin Quarry and has ARA Licence #3582. An existing ARA licenced quarry operated by James Dick Construction Limited (James Dick) is located to the south of the site. This quarry is known as the Mara Limestone Aggregate Limited Quarry and is also referred to as the James Dick Gamebridge Quarry and has ARA Licence #3717.

This report provides a summary of the proposed Brechin Quarry, and the conclusions and recommendations of the associated technical reports. This report also provides a summary and analysis of planning policy applicable to the site, which includes the Provincial Policy Statement, A Place to Grow: Growth Plan for the Greater Golden Horseshoe, Lake Simcoe Protection Plan, County of Simcoe Official Plan, and Township of Ramara Official Plan. Regulations and legislative requirements in the Township of Ramara Zoning By-law have also been considered. The Aggregate Resources Act Summary Statement, as required for the Aggregate Resources Act application is also included in this report.

2.1 Proposed Brechin Quarry

The properties that comprise the Subject Lands are municipally known as 2440 Concession 1, 2530 Concession 1, 1506 Highway 12 and 1646 Highway 12, Ramara. The three eastern most properties were previously used for livestock pasturing but have sat vacant in recent years. Two intermittent water courses flow away from each other originating in the centre of the site, one in a general north-south direction and the other in a general east-west direction. Four existing driveways provide access to the Subject Lands with three driveways located on Concession 1 and one on Highway 12. The western portion of the site is mostly wooded but includes an abandoned air strip and associated hanger buildings that was previously used by the Mara Flying Club. Three rural residential properties fronting on Highway 12 are located immediately east of the Subject Lands. An abandoned, raised rail bed bisects the licence area in a north/south direction with extraction proposed entirely to the east of the rail bed.

The Subject Lands are located within a rural area of the Township, predominately surrounded by agricultural farm operations, and situated between two existing ARA licenced quarries to the northeast, and to the south. Lake Simcoe is located approximately 1km west of the Subject Lands. See **Figure 3** for the surrounding land uses within 1km of the proposed quarry.

The proposed licence area for the Brechin Quarry will span 151.4ha and the proposed extraction area is 91.5ha. The 59.9ha within the licence that will not be extracted accounts for setbacks, buffers and additional lands that provide for natural environment enhancement and water discharge areas. The extraction area contains the following setbacks:

- a minimum of 150 metres (m) from the three surrounding rural residential dwellings on the eastern portion of the site to provide additional buffering against the adjacent land uses;
- 30m from Highway 12 and Concession 1;
- 100m and 80m enhanced setbacks on the northern and western limits of the northern parcel to provide opportunities for ecological offsetting and enhancement; and
- the western most property will be kept outside of the extraction area and used for ecological mitigation, monitoring and enhancement opportunities.

The proposed access point for the Brechin Quarry is to be from Concession Road 2, approximately 450m west of Highway 12. The proposed location is suitable from a sight line and safety perspective and will require an entrance permit from the Township of Ramara. The main haul route for the Brechin Quarry will be through Concession Road 2 to the intersection at Highway 12 where the majority of truck traffic is expected to travel south towards the GTA. The portion of Concession Road 2 from the entrance/exit to Highway 12 will require upgrades.

The operating hours for extraction at the quarry will be Monday to Friday 7am to 6pm and Saturdays 7am to 12pm. Processing, loading and shipping would be permitted during those hours in addition to starting at 5:30am Monday to Friday. The site would not operate on Sundays or statutory holidays.

The site is proposed have an annual tonnage limit of 2,000,000 tonnes being permitted to be shipped from the site.

The proposed Brechin Quarry has been designed with a phasing plan that is integrated with the surrounding lands to minimize disturbance. The quarry has been designed to be extracted in two phases (Phase A and Phase B). Each phase contains two sub-phases (Phase A1 and A2, and Phase B1 and B2). Phase A is located in the northern portion of the Subject Lands while Phase B is the remaining southern portion of the Subject Lands. Quarry operations will commence in Phase A of the proposed lands with extraction of that phase proceeding in south and westerly directions. Phase B will also be extracted in south and westerly directions. The operational plan schematic of the proposed quarry is included as **Figure 4**.

A portable primary crusher is permitted in most locations of the operation and will generally follow the active extraction area throughout the life of the operation. The aggregate will be transported via conveyor and/or haul trucks to the processing area which will be located within the north portion of Phase 1 throughout the life of the operation. The site has been designed so that highway trucks can queue on-site without having to queue along Concession 2. Highway trucks will be loaded in the general processing area.

Phase A1 occupies the north-eastern portion of the site and will be extracted in three lifts to a depth of +/- 206 masl. Phase A2 is located west of the initial phase and will be extracted in three lifts to a depth of +/- 207 masl. Phase B1 occupies the south-central portion of the site and will be extracted in three lifts to a depth of +/- 204 masl. Phase B2 occupies the most southern portion of the site, and will be extracted in three lifts to a depth of +/- 203 masl. The maximum depth of extraction ranges from approximately 207.6 masl in the northeast to approximately 202.6 masl in the southwest.

Both Phases A and B contain intermittent streams which will be removed as part of the operation. The intermittent stream located in Phase A will be relocated within the western and northern setbacks of the northern portion of the Subject Lands.

An Environmental Compliance Approval (ECA) and Permit to Take Water (PTTW) from the Ministry of Environment, Conservation and Parks (MECP) will be required for the operation prior to and water taking and/or discharge from the operation to ensure operations do not adversely impact surrounding water resources and wells.

Operational controls such as setbacks, restrictions on the type and location of equipment, and requirements for berms and localized shielding have been incorporated into the Aggregate Resources Act Site Plans based on recommendations of the various technical reports. These mitigation measures will ensure the proposed quarry does not result in unacceptable impacts on surrounding sensitive residences, agricultural operations, water resources and natural heritage features.

Rehabilitation of the quarry includes the creation of a quarry lake, wetland and terrestrial habitat. The Rehabilitation Plan schematic for the proposed Brechin Quarry is included as **Figure 5** and includes the creation of the following features as part of the final landform:

- a 87.7ha quarry lake with a final lake elevation of 232 masl;
- 0.6ha of shoreline wetland around the edge of the lake;
- 4.7ha of wetland habitat creation within the setbacks along the northern portion of the site (illustrated as Areas D1, D2, F, G, and H);
- 5.4ha of terrestrial habitat creation within the setbacks along the northern and southeast portions of the site (illustrated as Areas A and B);
- 4.1ha of terrestrial habitat that will be created prior to extraction in Phase B within the western most parcel in the licence boundary (illustrated as Areas C); and
- 5.2ha of wetland habitat that will be created prior to extraction in Phase B within the western most parcel in the licence boundary (illustrated as Area E).

See the Aggregate Resources Act Site Plans for additional details regarding the operational and rehabilitation design.

2.2 Pre-Consultation

The Applicant commenced pre-consultation with the agencies in 2019. Since that time, the following meetings have occurred:

- 1) November 26, 2019 – pre-consultation meeting with Township of Ramara;
- 2) December 15, 2020 – pre-consultation meeting with the Ministry of Natural Resources and Forestry (MNR) and Ministry of the Environment, Conservation and Parks (MECP);
- 3) July 08, 2021 and September 22, 2021 – additional pre-consultation meetings with the MECP, County of Simcoe, Township of Ramara, and Lake Simcoe Regional Conservation Authority (LSRCA) to discuss the proposed application and Lake Simcoe Protection Plan (LSPP) policies; and
- 4) March 23, 2023 – project status update meeting with the Township of Ramara.

Please see **Appendix A** for a copy of the pre-consultation record.

2.3 Required Applications

The Subject Lands are currently designated “Rural”, “Agricultural” and “Greenlands” in the County of Simcoe Official Plan. The portion of the Subject Lands designated “Greenlands” in the County of Simcoe Official Plan are located outside of the proposed extraction area. An Official Plan Amendment to the County of Simcoe Official Plan is not required.

The following land use applications are required in order to permit extraction, as proposed, from the Brechin Quarry Site:

- Aggregate Resources Act licence application for a Class A below the water table quarry;
- An amendment to the Township of Ramara Official Plan to re-designate the site from the Agriculture and Rural designations to the Mineral Aggregate Extraction Area and Mineral Aggregate Extraction Area special policy designations to permit the extraction of aggregate resources from the site and to designate the western portion of the site to only allow ecological enhancements, mitigation and monitoring. A proposed draft Official Plan Amendment is attached as **Appendix B**; and
- An amendment to the Township of Ramara Zoning By-Law 2005.85 to rezone the site from the Agriculture ("AG") and Rural ("RU") Zones to the Mineral Aggregate Extraction Zone ("MAE") and Mineral Aggregate Extraction Exception XX Zone ("MAE-XX") to permit the proposed Brechin Quarry and to zone the western portion of the site to only allow ecological enhancements, mitigation and monitoring. A proposed draft Zoning By-Law Amendment is attached as **Appendix C**.

The MNRF is the approval authority for the application under the Aggregate Resources Act. The County of Simcoe is currently the approval authority for the Official Plan Amendment application and the Township of Ramara is the approval authority for the Zoning By-Law Amendment.

2.4 List of Technical Reports

The proposed Brechin Quarry has been designed based on the recommendations and mitigation measures provided in the completed technical reports. These reports provide the basis of the operational controls and design of the proposed quarry and have been considered in preparing this report.

Based on the pre-consultation meeting with the agencies, the following reports and plans have been submitted to constitute a complete application:

- 1) Aggregate Resources Act Site Plans for the proposed Brechin Quarry, prepared by MHBC, dated April 2024;
- 2) Level 1 and Level 2 Hydrogeological and Hydrological Report, prepared by Azimuth Environmental Consulting, dated December 2023;
- 3) Maximum Predicted Water Table Report, prepared by Azimuth Environmental Consulting, dated December 2023;
- 4) Natural Environment Report, prepared by Azimuth Environmental Consulting, dated December 2023;

- 5) Traffic Impact Assessment, prepared by T. Y. LIN International Canada Inc. (TYLin), dated December 2023;
- 6) Noise Impact Assessment, prepared by HGC Engineering, dated December 14, 2023;
- 7) Stage 1-2 Archaeological Assessment, prepared by Amick Consultants Ltd., dated February 05, 2024;
- 8) Cultural Heritage Screening Report with Ministry of Tourism, Culture and Sport Checklist for Built Heritage Resources and Cultural Heritage Landscapes Potential, prepared by MHBC, dated December 2023;
- 9) Blasting Impact Analysis, prepared by Explotech, dated December 2023; and
- 10) Agricultural Impact Study, prepared by MHBC, dated December 2023.

3.0 SITE DESCRIPTION AND SURROUNDING LAND USES

The proposed Brechin Quarry is located on the intersection of Highway 12 and Concession Road 2, approximately 2.5 km south of the Village of Brechin, Township of Ramara, County of Simcoe. The Subject Lands are also situated approximately 1 km east of Lake Simcoe.

The Subject Lands are predominately agricultural and vacant lands, wetlands, and forested land. The topography of the Subject Lands generally consist of flat terrain with elevations ranging from a high of approximately 244 masl to a low of approximately 231 masl. The Subject Lands generally drain to the north, east and south. The raised rail bed that bisects the site prevents the drainage of water across the site. Adjacent lands surrounding the proposed licence area generally maintain the same elevations as within the licence boundary.

One (1) storage building and a small shed are present on the western portion of the Subject Lands, outside of the extraction area. This building and shed were previously utilized for the Mara Flying Club as a plane hangar however, they have since been abandoned. The area within the extraction limit is vacant land however, the ruins of a former agricultural barn and silo are located in the southwest portion of the Subject Lands.

Three (3) single-family residential dwellings are located along Highway 12 on the eastern portion of the Subject Lands. The proposed licence boundary will abut the lots and the extraction boundary is set back 150m from each dwelling. Berms are proposed within the setback of the Subject Lands around these properties to mitigate for potential impacts from the operation.

The proposed quarry will utilize an entrance/exit on Concession Road 2 with the haul route along Concession Road 2 east towards Highway 12. The majority of truck traffic is expected to travel south on Highway 12 towards the GTA. Highway 12 is a Provincial Highway that is designed to accommodate high volumes of traffic.

3.1 On-Site and Adjacent Resources and Uses

The County of Simcoe Official Plan designates the Subject Lands as "Agricultural", "Rural" and "Greenlands" (Schedule 5.1). See **Figure 6**. The County of Simcoe Official Plan also identifies the Subject Lands as:

- Being within the identified Bedrock Aggregate Resources of the High Potential Mineral Aggregate Resource Areas (Schedule 5.2.1). See **Figure 7**;
- Partially containing two watercourses that intersect the Subject Lands, in accordance with Schedule 5.2.2. See **Figure 8**;
- Not being located within the Oak Ridge Moraine ANSI, Provincial ANSI or Regional ANSI (Schedule 5.2.3);
- Being outside of identified Wellhead Protection Area and Surface Water Intake protection Zones (Schedule 5.2.4);
- Being located within a Highly Vulnerable Aquifer (Schedule 5.2.5). See **Figure 9**;
- Being partially within a Significant Groundwater Recharge Area (Schedule 5.2.6). See **Figure 10**; and
- Being located on a Trans Canada Highway 12 which is identified as a Provincial Highway as well as Concession Roads 1 and 2 which are identified as Local Roads (Schedule 5.5.1). See **Figure 11**.

The Township of Ramara Official Plan designates the Subject Lands as “Agriculture” and “Rural” (Schedule A). See **Figure 12**. The Town Official Plan also identifies the Subject Lands as:

- Being located on an Arterials: Provincial Highway (Highway 12), local Street (Concession Road 2) and a Seasonal Road: no Winter Maintenance (Concession Road 1) (Schedule B). See **Figure 13**;
- Not being located within the Township’s Natural Area Framework of Core Areas and Corridors and Supportive and Complimentary Areas and Corridors (Schedule C). See **Figure 14**; and
- Being located within a High Potential Mineral Aggregate Resource Area (Schedule D). See **Figure 15**.

The Township of Ramara Zoning By-law 2005.85 zones the Subject Lands as Agriculture “AG” and Rural “RU”. See **Figure 16**.

3.1.1 On Site and Adjacent Mineral Aggregate Resource

The County of Simcoe and Township of Ramara Official Plans identify the Subject Lands as being within a High Potential Mineral Aggregate Resource Area (HPMARA). See **Figures 7 and 15**.

On-site geological testing has been completed on the proposed Brechin Quarry lands which confirms the site contains several geological formations that yield high quality aggregate products that can be used for a wide variety of aggregate products, including most road building and construction projects, and potentially concrete production.

The proposed quarry contains approximately 69 million tonnes of high quality aggregate resources.

3.1.2 On Site and Adjacent Agricultural Uses

The lands within the proposed extraction limit are predominantly vacant, fallow lands not in agricultural production. Remaining lands within the proposed licence area consist of natural features consisting of forested areas and streams. There are no agricultural buildings or structures located on-site. The surrounding lands are characterized by large parcels of land which are actively cash cropped, as well as wooded areas, pasture lands, livestock farms, and mineral aggregate operations.

The County of Simcoe and Township of Ramara Official Plans designate the northern parcel of the Subject Lands as "Agriculture" which identifies it to be part of the prime agricultural area. The County and Township Official Plans designate the southern parcels of the Subject Lands that are located within the proposed extraction limit as "Rural". See **Figures 6 and 12**. These parcels within the Rural designation are not located within a prime agricultural area.

An Agricultural Impact Assessment (AIA) was completed by MHBC which shows that the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) Canadian Land Inventory soils mapping identifies that the Subject Lands contain Class 1, 3 and 6 agricultural soils (see Figure 2 of the AIA).

The AIA concluded the lands designated Agriculture are not considered prime agricultural land. While Aggregate extraction is permitted on prime agricultural land within prime agricultural areas in accordance with the PPS, Growth Plan, County of Simcoe Official Plan and Township of Ramara Official Plan, since the lands are not considered prime agricultural land, agricultural rehabilitation is not required in accordance with PPS Policy 2.5.4.1.

Surrounding agricultural land uses and structures on properties within 1.5km of the Subject Lands have been documented as part of the AIA to assess the potential impact from the proposed aggregate expansion on the agricultural uses/operations and determine the extent of mitigation that may be required.

The AIA includes the following recommendation to reduce the impacts of the proposed quarry on agricultural resources:

- The livestock operation located at 1569 Highway 12 shall be included in the private well monitoring program if the landowner provides access.

3.1.3 On Site and Adjacent Cultural Heritage Resources

Within Ontario, cultural heritage resources consist of archaeological resources, built heritage resources, and cultural heritage landscapes.

Significant cultural heritage resources are identified as resources that are valued for the important contribution they make to our understanding of the history of a place, an event, or a person.

Provincial, County and Township policies require that significant built heritage resources and significant cultural heritage landscapes be conserved and that significant archaeological resources are identified, assessed and conserved by removal and documentation, or by preservation on site.

Built Heritage Resources and Cultural Heritage Landscape

A Cultural Heritage Screening Report was prepared by MHBC to identify any potential built heritage resources as well as cultural heritage landscapes which may be present within the Subject Lands, and provide a preliminary evaluation of resources as applicable.

The Subject Lands are not designated under the *Ontario Heritage Act* and does not have cultural heritage value. The Cultural Heritage Screening Report concluded that the Subject Lands do not contain any potential built heritage resources, and do not contain any significant cultural heritage landscapes, therefore no further cultural heritage study is required.

Archaeological Resources

Amick Consultants Ltd. conducted a Stage 1-2 Archaeological Assessment for the proposed licenced area. The purpose of the Stage 1 Archaeological Assessment is to conduct a desktop background investigation to determine if the Subject Lands contain the potential for archaeological resources. The results of the Stage 1 Assessment concluded a significant proportion of the study area does exhibit archaeological potential and therefore a Stage 2 Property Assessment is required.

The Stage 2 Archaeological Assessment included a field pedestrian survey completed in 2020 which required the completion of a test pit survey. As the site could not be plowed due to existing on-site conditions, individual test pits in 2.5 and 5m intervals were completed. As a result of the Stage 2 Assessment of the study area, four sites were discovered, the Bruce (BdGt-26) Site, the Bruce Well I (BdGt-25) Site, the Bruce Well (BdGt-24) Site, and the Corbill (BdGt23) Site, as well as two positive outlier test pits, were identified.

Amick Consultants Ltd. concluded that:

- The Bruce Well (BdGt-24) and Corbill (BdGt-23) Site require further work as Stage 3 assessments due to further Cultural Heritage Value or Interest (CHVI);
- The Bruce Well I (BdGt-25) and Bruce (BdGt-26) site do not require further work as they have little to no further CHVI; and
- The two positive outlier test pits do not require further archaeological work.

As a result, the proposed Brechin Quarry site plans include the below recommendations from the Stage 1-2 Archaeological Assessment to ensure the two remaining sites and surrounding protective buffers will be conserved until a Stage 3 assessment is completed for these specific areas. The Stage 1-2 Archaeological assessment concluded that the balance of the study area outside of the two noted site areas and surrounding protective buffer do not contain archaeological resources.

- The Corbill (BdGt-23) Site has further CHVI;
- A Stage 2 on the Corbill (BdGt-23) Site has been completed. Stage 3 will be required prior to any Stage 4 Mitigations;
- No alterations or ground disturbing activities may be carried out within the protected area prior to a report being submitted stating that the Corbill (BdGt-23) Site has no further CHVI;
- Indigenous communities with interest in the site must be further engaged, including communities already engaged and any expressing interest in the intervening time between stages;
- If the proponent determines they want to extract the protected area, they must hire a licensed archaeologist to complete stage 3 and proposed a Stage 4 mitigation strategy for review by MCM;
- If the aggregate license is surrendered, a covenant must be registered on title for the property of block containing the protected site;
- A 70 buffer from the edge of the Corbill (BdGt-23) Site is required;
- A post and wire fencing must be erected at the limits of the 70m protect/avoid area as part of the implementation of the strategy or as part of granting the license.
- The Bruce Well (BdGt-24) Site has further CHVI;
- A Stage 2 on the Bruce Well (BdGt-24) Site has been completed. Stage 3 will be required prior to any Stage 4 Mitigations;
- No alterations or ground disturbing activities may be carried out within the protected area prior to a report being submitted stating that the Bruce Well (BdGt-24) Site has no further CHVI;
- Indigenous communities with interest in the site must be further engaged, including communities already engaged and any expressing interest in the intervening time between stages;

- If the proponent determines they want to extract the protected area, they must hire a licensed archaeologist to complete stage 3 and proposed a Stage 4 mitigation strategy for review by MCM;
- If the aggregate license is surrendered, a covenant must be registered on title for the property of block containing the protected site;
- A 70 buffer from the edge of the Bruce Well (BdGt-24) Site is required;
- A post and wire fencing must be erected at the limits of the 70m protect/avoid area as part of the implementation of the strategy or as part of granting the license.

3.1.4 On Site and Adjacent Natural Heritage Features

The County of Simcoe Official Plan identifies that watercourses traverse the site (see **Figure 8**). The County of Simcoe Official Plan designates a portion of the Subject Lands as Greenlands and the area is located outside of the proposed extraction area, therefore the proposed extraction area is not located within the County of Simcoe Greenlands area.

The Township of Ramara Official Plan identifies that the site is not located within the Township’s Natural Area Framework of Core Areas and Corridors and Supportive and Complimentary Areas and Corridors. See **Figure 14**. The Township Official Plan does not identify any natural heritage features on-site.

Azimuth Environmental Consulting, Inc. (Azimuth) completed a detailed ecological assessment of the Subject Lands and 120m surrounding the site (known as the “study area”).

As a result of the ecological assessments, a Natural Environment Report (NER) was prepared in collaboration with RiverStone Environmental Solutions Inc. (RiverStone), who completed a detailed Fisheries & Drainage Feature Assessment of the proposed quarry and surrounding area. The purpose of the NER is to identify significant Key Natural Heritage Features (KNHFs) present within the study area and address potential impacts to such KNHFs. Terrestrial environmental features described in the NER were documented by Azimuth, while aquatic environmental features and matters related to fish habitat were documented by RiverStone.

The proposed quarry lands are typical of the rural landscape. The NER identifies that the Subject Lands contain fallow pasture and grasslands, several minor wetland areas, manmade ponds, natural marsh areas and forested land. Based on collected background information and multiple site investigations, the NER has confirmed that the following Key Natural Heritage Features are present within the study area:

- Habitat for Threatened or Endangered Species
 - Bobolink and Eastern Meadowlark (Threatened)
 - Little Brown Myotis, Northern Myotis, Tri-colored Bat (Endangered)
 - Butternut (Endangered)
 - Black Ash (Endangered)

- Significant Woodland
 - Woodland D
 - Woodland E

- Significant Wildlife Habitat
 - Bat Maternity Colonies
 - Waterfowl Nesting Habitat
 - Amphibian Breeding Habitat (Woodland)
 - Open Country Bird Breeding Habitat
 - Shrub/Early Successional Bird Breeding Habitat
 - Terrestrial Crayfish Habitat
 - Special Concern and Rare Wildlife Species
 - Barn Swallow
 - Wood Thrush
 - Eastern Wood-pewee
 - Grasshopper Sparrow
 - Monarch
 - Golden-winged Warbler
 - Snapping Turtle
 - Chimney/Meadow Crayfish

- Fish Habitat
 - Tributary A & Pond 1 (permanent direct/seasonal indirect fish habitat)
 - Tributary G & Pond 2 (seasonal direct fish habitat)
 - Tributary H (permanent direct fish habitat)

Additional natural heritage features are listed as follows:

- Wetland (Non-Significant; Wetland Unit #1, Wetland Unit #2, Wetland Unit #3); and
- Woodland (Non-Significant; Woodland A, Woodland B, Woodland C, Woodland F)

Of the above noted Key Natural Heritage Features, the collected background information and multiple site investigations determined that only the following Key Natural Heritage Features are present within the proposed extraction area for the site and have the potential for being impacted by the development:

- Habitat of Endangered and Threatened Species for Bobolink (Threatened) and Eastern Meadowlark (Threatened);

- Significant Wildlife Habitat for the following species:
 - Amphibian Breeding Habitat (Woodland)
 - Terrestrial Crayfish Habitat
 - Habitat for Special Concern and Rare Wildlife Species (Barn Swallow, Grasshopper Sparrow, Monarch, Chimney/Meadow Crayfish); and

- Fish Habitat in the tributaries identified as Tributary A and Tributary G.

The report confirmed that three Ontario Wetland Evaluation System (OWES) evaluations were completed for wetlands within the proposed extraction limit that meet minimum standards for eligibility for assessment under OWES (*i.e.* size, special features), all of which were determined to be non-significant wetlands. The assessments are included as appendices in the NER.

Refer to figures 2 through 5 of the NER which identifies the Habitat of Threatened and Endangered Species, Significant Woodland, Significant Wildlife Habitat and other natural features that has been documented across the Subject Lands. Refer to figure 3 in Appendix A of the NEP which identifies fish habitat.

Impact Assessment of Identified On-Site Key Natural Heritage Features

Habitat for Threatened or Endangered Species

The Natural Environment Report included multiple field surveys to determine the presence of on-site Bobolink and Eastern Meadowlark habitat that is anticipated to be impacted by the proposed quarry development. Through correspondence with the Ministry of the Environment, Conservation and Parks (MECP), it is anticipated that an acceptable mitigation and compensation strategy can be achieved to offset the impacts of Bobolink and Eastern Meadowlark habitat through the Provincial Endangered Species Act (ESA) C-Permit Application Form and associated Overall Benefit permitting process by creating and maintaining a larger, better quality habitat off-site. The ARA Site Plans include notes that require the issuance of the necessary ESA permits prior to the removal of any Bobolink and Eastern Meadowlark habitat.

The NER concluded that Little Brown Myotis, Northern Myotis, Tri-colored Bat habitat will not be directly impacted by the proposed quarry development as these species were observed outside of the proposed extraction area. A 15m setback is required between the proposed extraction area and these species habitat to avoid indirect impacts to the species. The ARA Site Plans have been developed to ensure the minimum 15m setback is implemented. As a result, the NER concludes there is no expectation the proposed works will negatively impact Little Brown Myotis, Northern Myotis, Tri-colored Bat, or the habitat upon which they depend.

Two individual Butternut trees were identified within the central portion of the western property. Extraction will be setback approximately 413m and 417m from the individual Butternut trees. As such, there is no expectation that the proposed works will negatively impact either individual Butternut stems or their associated critical habitat buffers. Furthermore, the woodland and wetland restoration works proposed for this property will not occur where Butternut have been identified or their associated critical habitat buffers.

Black Ash trees were identified within the western portion of the Subject Lands outside of the extraction area. Extraction will be setback a minimum of 435m from the Black Ash trees. As such, there is no expectation that the proposed works will negatively impact either individual Black Ash stems or their associated critical habitat buffers.

Furthermore, the woodland and wetland restoration works proposed for this parcel will not occur where Black Ash have been identified or their associated critical habitat buffers.

Significant Woodland

The NER concludes that Woodlands D and E located on the western property meet one or more standards for significance based upon a number of criteria, while Woodlands A, B, C and F do not meet standards for consideration as significant natural heritage features. No portion of Woodland D or Woodland E are located within the proposed extraction limit and will not be subject to removals as a result of the proposed quarry development. Minimum setbacks of approximately 16m and 34m will be maintained between the full extent of the proposed works and the limit of Woodland D and Woodland E respectively. There is no expectation the proposed works will negatively impact Significant Woodlands located on the Subject Lands or adjacent lands.

Significant Wildlife Habitat

The following Significant Wildlife Habitat (SWH) was documented within the study area but entirely outside of the proposed extraction area:

- Bat Maternity Colonies
- Waterfowl Nesting Habitat
- Open Country Bird Breeding Habitat
- Shrub/Early Successional Bird Breeding Habitat
- Special Concern and Rare Wildlife Species
 - Wood Thrush
 - Eastern Wood-pewee
 - Golden-winged Warbler
 - Snapping Turtle

Due to the observed locations of the above SWH and the physical features of the site (i.e. the existing abandoned railway which helps provide a physical and hydrological barrier) there is no expectation that the proposed works will negatively impact the ecological form and function of the above noted features.

The following SWH was documented within the proposed extraction limit of the study area and has the potential to be impacted by the proposed quarry development:

- Amphibian Breeding Habitat (Woodland)
- Terrestrial Crayfish Habitat
- Habitat for Special Concern and Rare Wildlife Species (Barn Swallow, Grasshopper Sparrow, Monarch, Chimney/Meadow Crayfish)

Refer to figures 5a, 5b and 5c of the NER which identifies the Significant Wildlife Habitat that has been documented across the Subject Lands.

The NER concludes that impacts to the Amphibian Breeding Habitat and Terrestrial Crayfish Habitat can be offset through implementation of a detailed Natural Restoration Plan presented in the NER. The Natural Restoration Plan includes creation and enhancement of 9.5ha of woodland and 10.5ha of wetland (9.9ha of wetland at quarry closure) primarily along the western perimeter of the northern portion of the extraction limit (maintaining linkages/connectivity) and in the western property outside of the extraction limit. Woodland/wetland creation and enhancements implemented through the Natural Restoration Plan is also anticipated to offset impacts to non-significant woodland and wetland features subject to removals within the proposed extraction limit.

Impacts to Barn Swallow, Grasshopper Sparrow, and Monarch are anticipated to be avoidable through implementation of the mitigation approach detailed in the NER and outlined in the recommendations below. See Section 7.3 of the NER for additional details regarding the impact assessment of the Significant Wildlife Habitat that has been documented within the study area.

The NER concludes that with consideration for environmental mitigation measures described below to be added to the site plans, there is no expectation that negative ecological impacts to the above SWH would result from the proposed development.

Fish Habitat

RiverStone completed a detailed field study to determine the potential impacts the proposed quarry development might have on on-site and adjacent fish habitat. A Fisheries Report was prepared and is included as an appendix to the Azimuth NER. Fieldwork included identifying and documenting Tributaries A through H and an on-site pond in the southeast corner of the Subject Lands. Impacts to fish habitat are predicted in Tributaries A and G.

As a result of the fieldwork and analysis, the report recommends that Request for Reviews be submitted to Fisheries and Oceans Canada (DFO) regarding impacts to fish habitat within Tributary A and Tributary G.

Other Natural Heritage Features

The proposed application includes the removal of evaluated non-significant wetlands and non-significant woodlands. The Natural Restoration Plan includes creation and enhancement of 9.5ha of woodland and 10.5ha of wetland (9.9ha of wetland at quarry closure)

Ecological Mitigation

To protect the ecological features and associated functions identified in the Natural Environment Report from negative impacts, the following avoidance and mitigation measures have been recommended and included on the ARA Site Plans:

- Prior to any site alteration within the area identified as habitat for Bobolink and Eastern Meadowlark, the requirements of Part IV of O.Reg. 830/21 of the ESA shall be met.

- The licensee shall seek to ensure that onsite personnel are educated to ensure that, if identified, SAR are not wantonly injured or killed, and to ensure that damage to features which could constitute habitat is avoided. Information shall be conveyed through a SAR expert and include:
 - Species habitat and identification;
 - Requirements under the ESA including avoidance of harm to the species and damage to relevant habitat;
 - Appropriate action to take if the species is encountered;
 - How to record sightings and encounters; and
 - That care should be taken when undertaking construction activities in order to avoid harming the species or damaging/destroying habitat.
- Tree removal shall be avoided between March 15 and November 30 of any given year.
- Along the north and west licence boundary, wildlife fencing shall be installed according to provincial Reptile and Amphibian Exclusion Fencing (MECP, 2021e) guidelines.
- Wildlife exclusion fences shall be inspected after spring thaw and throughout the active season for tears or other damage.
- Prior to the commencement of site works, silt fencing shall be applied along the length of directly adjacent natural or naturalized features, and routine inspection/maintenance of the silt fencing shall occur.
- Silt fencing shall be maintained until lands abutting the work area (e.g. noise berms) are considered stabilized with self-sustaining vegetation such that potential runoff of sediment into adjacent natural areas is effectively controlled.
- Areas A and B shall comprise an Upland Planting Zone and shall be planted after construction of the berm.
- Areas D1 and D2 shall comprise a Wetland Edge Planting Zone and shall be completed when the water mitigation system is installed.
- Areas F, G, and H shall comprise Permanently Flooded Zones and shall be completed when the water mitigation system is installed.
- Areas C and E shall comprise an Upland Planting Zone and Wetland Edge Planting Zone respectively, and shall be planted prior to extraction commencing in Phase 2.
- In all restoration areas, any necessary earth movement shall be completed in advance of the commencement of local restoration works, to avoid damaging plant and seed materials.
- Woody and herbaceous invasive species (*i.e.* trees, shrubs and vines) shall be treated and removed prior to the initiation of planting and seed mix application.
- Invasive species control methods may include (if required) mowing, soil tillage, spot burning using a drip torch, and flooding. Herbicide application shall be undertaken on a species-specific basis and shall only be applied judiciously and as a last measure. Spot sprayers and/or wicking devices shall be used to minimize the inadvertent spread of herbicide to native vegetation.

- In Area D2, the driveway and associated culvert shall be installed in advance of the commencement of local restoration works, to avoid damaging plant and seed materials.
- In Area E, the existing culvert crossing under the former airport runway shall be removed or blocked prior to the commencement of restoration works, to facilitate an appropriate moisture regime conducive to the establishment of a wetland vegetation community.
- Upland Planting Zones (Areas A-C) shall include the following trees species (or approved equivalents):
 - Trembling Aspen (*Populus tremuloides*)
 - Largetooth Aspen (*Populus grandidentata*)
 - Balsam Poplar (*Populus balsamifera*)
 - Paper Birch (*Betula papyrifera*)
 - Freeman’s Maple (*Acer x freemanii*)
 - Eastern White Pine (*Pinus strobus*)
 - Eastern White Cedar (*Thuja occidentalis*)
 - Eastern Redcedar (*Juniperus virginiana*)
 - Bitternut Hickory (*Carya cordiformis*)
 - Black Cherry (*Prunus serotina*)
 - Northern Red Oak (*Quercus rubra*)
- Upland Planting Zones (Areas A-C) shall include the following shrub species (or approved equivalents):
 - Chokecherry (*Prunus virginiana*)
 - Common Juniper (*Juniperus communis*)
 - Staghorn Sumac (*Rhus typhina*)
 - Grey Dogwood (*Cornus racemosa*)
 - Alternate-leaved Dogwood (*Cornus alternifolia*)
 - Wild Black Currant (*Ribes americanum*)
- Upland Planting Zones (Areas A-C) and berms identified on Figure 7 shall include a suitable upland native seed mix such as TRCA_SD-6 Ontario Butterfly Meadow Mix or TRCA-SD-5 Farm Field Edge Pollinator Mix (or approved equivalent), installed at a minimum density of 25 kilograms/hectare.
- Wetland Edge Planting Zones (Areas D1-D2 and E) shall include the following shrub species (or approved equivalents):
 - Nannyberry (*Viburnum lentago*)
 - Red-osier Dogwood (*Cornus sericea*)
 - Bebb’s Willow (*Salix bebbiana*)
 - Pussy-willow (*Salix discolor*)
 - Heart-leaved Willow (*Salix eriocephala*)
 - Meadow Willow (*Salix petiolaris*)

- Wetland Edge Planting Zones (Areas D1-D2 and E) shall include a suitable native mesic/wetland edge mix such as TRCA-SW-2 Wet Slope Mix (or approved equivalent), installed at a minimum density of 25 kilograms/hectare.
- Restoration areas and berms shall include initial application of a nurse crop of Annual Oats (*Avena sativa*) for spring/summer seed mix application(s) and/or winter wheat (*Triticum aestivum*) for fall seed mix application(s), installed at a minimum density of 30 kilograms/hectare.
- Tree and shrub materials shall be planted as bare root stock or potted stock (minimum 1-gallon) at a minimum density of 2.5m on-centre.
- In Upland Planting Zones, shrubs shall not represent more than 10% of woody materials planted.
- Natural restoration zones shall be monitored at least once annually for at least the first two (2) years after woody plant and seed mix materials are installed.
- A survival rate of 80% of the original number of planted stems is the recommended target after two years for each planting Area.
- If after two (2) years, dead tree/shrub material exceeds 20% in any planting Area, woody materials shall be replaced during the spring planting season of the following year to meet or exceed the 80% survival threshold.

The RiverStone Fisheries Report provides the following additional recommendations for inclusion on the ARA Site Plans:

- Baseflow to Pond 1 and connectivity between the pond and the McNabb Drain Tributary must be maintained.
- Blast designs should be in accordance with Fisheries and Oceans Canada (DFO) *Guidelines for the use of explosives in or near Canadian fisheries waters* provided in Appendix 9.
- A qualified professional should be retained to prepare a blasting plan that is compliant with DFO regulations.
- Removal of the portions of the tributary that are located within the extraction area should be part of a request for review by DFO and DFO requirements shall be complied with.
- A request for project review be submitted to DFO for the removal of Tributary G and DFO requirements shall be complied with.

3.1.5 On-Site and Adjacent Water Resources

A Level 1 and 2 Hydrogeological and Hydrological report was prepared by Azimuth Environmental Consulting Inc. for the proposed Subject Lands. WSP Canada Inc. was retained to prepare a Geologic Report and a Groundwater Modelling and Private Well Impact Assessment Report. Both of these reports are included as appendices to the Azimuth Hydrogeological and Hydrological report.

The water resources report work program included five primary phases: Borehole Drilling Program; Physical Testing; Borehole Instrumentation; Environmental Monitoring; and Data Analysis and Reporting. These five phases are described in detail in the Azimuth Hydrogeological and Hydrological report.

The County of Simcoe Official Plan identifies that watercourses traverse the site (see **Figure 8**) and that part of the site is within a highly vulnerable aquifer (see **Figure 9**) and a significant groundwater recharge area (see **Figure 10**). The water resources report concludes that the recharge function of the site will be maintained and the aquifer will be protected.

The Subject Lands are located within the Lake Simcoe watershed and primarily positioned within the Ramara Creeks Subwatershed area which drains towards Lake Simcoe. The southeast segment of the Subject Lands occurs within the Talbot River Subwatershed, which drains to the southeast toward the Talbot River, which ultimately, drains into Lake Simcoe. During operations, water collected within the quarry sump will be pumped out of the quarry and will travel north to drain into the McNabb Drain, which will ultimately feed into Lake Simcoe. As part of rehabilitation, the quarry sump will be removed, allowing the quarry to fill with water over time. Once the water reaches its final lake elevation, any over flow water will be able to passively drain out of the lake and travel north to drain into the McNabb Drain, which will ultimately feed into Lake Simcoe.

The Subject Lands are identified as being within the Simcoe Lowlands physiographic region. The Simcoe Lowlands represent areas that were flooded by glacial Lake Algonquin and are bordered by shorecliffs, beaches, and boulder terraces. This area covers approximately 2,850 square kilometres and is separated into two areas: the Lake Simcoe basin and the Nottawasaga River basin. The proposed quarry is located within the eastern extent of the Lake Simcoe Basin, which borders the region known as the Carden Plain. The Simcoe Basin is generally associated with sandy beach type deposits; however, the study area is situated within a distinct "clay" and "limestone" plain which occurs along the northeast shoreline of Lake Simcoe. This terrain is more indicative of the limestone plains of the Carden Plain, which suggests the proposed quarry is situated in a transition area between these two (2) distinct physiographic regions.

The proposed quarry is located in an environment with thin sandy silt till overburden deposits on top of multiple limestone formations, including the Verulam Formation, the Bobcaygeon Formation, the Gull River Formation, the Shadow Lake Formation and the underlying Precambrian basement. The quarry floor is proposed to be 10m above the contact between the Bobcaygeon Formation and the Gull River Formation to ensure that

any incremental impact on the cumulative groundwater drawdown from extraction on the Subject Lands would have no negative impact on the surrounding private residential wells.

Overall the study concludes that the proposed quarry provides an opportunity to establish a quarry that will have minimal or negligible impacts to the surrounding natural environment, including ground water and surface water regimes, and therefore represents a suitable location for the proposed activities.

During the operational and rehabilitation periods, a multi-disciplinary monitoring program will be implemented for the purpose of verifying that the extraction will not adversely impact surface water or groundwater resources. For information on private wells please see Section 3.3.1 of this report.

To ensure the protection of sensitive surface water and sensitive groundwater receptors the study makes the following recommendations for inclusion on the ARA Site Plans:

- 1) Prior to the start of water taking and/or water discharge, a PTTW and an ECA shall be obtained and the licensee shall operate in compliance with these approval instruments, including the associated monitoring and reporting. The proposed groundwater and surface water monitoring programs outlined in Section 13 of this report shall be considered for inclusion in these instruments.
- 2) The Licensee shall implement the Complaints Response Program as outlined in Section 12 of this report in the event of a water well interference complaint.

3.2 Surrounding Land Uses

Provincial, County and Township policies require new mineral aggregate operations to minimize social impacts on surrounding sensitive land uses. The provincial standards require a noise study and blasting study be completed if there are sensitive receptors located within 500m of the proposed extraction area of the proposed quarry.

Lands within 500m of the proposed quarry include:

North: Agricultural farm properties.

South: Agricultural lands and forested areas. Mara Limestone Aggregate Limited Quarry (also referred to as the James Dick Gamebridge Quarry - Licence #3717).

North-East: Lafarge Canada Inc. Brechin Quarry (Licence #3582), vacant land and an active rail line.

East: A cluster of three rural residential dwellings, commercial business, agricultural land and forested areas. An active rail line traverses in a north-south direction.

West: Agricultural farm properties and forested areas. Further west is Lake Simcoe and shoreline residential dwellings.

The surrounding rural residential dwellings are considered sensitive land uses and the proposed quarry has been appropriately designed, buffered and/or separated to protect these uses from adverse impacts in accordance with provincial guidelines, standards and procedures.

3.3 Mitigation Measures to Minimize Impacts on Surrounding Land Uses

Provincial, County and Township policies require mineral aggregate operations to be designed to minimize impacts on surrounding sensitive land uses in accordance with provincial guidelines, standards and procedures. The following sections of this report outline the considerations related to water wells, noise, blasting, dust and traffic on how the proposed quarry has been designed to minimize impacts on the surrounding land uses.

3.3.1 Wells

A Level 1 and 2 Hydrogeological and Hydrological report was prepared by Azimuth Environmental Consultants Inc. for the proposed quarry. One of the objectives of the hydrogeological and hydrological studies was to assess potential impacts on surrounding private wells.

The water resources report work program included five primary phases: Borehole Drilling Program; Physical Testing; Borehole Instrumentation; Environmental Monitoring; and Data Analysis and Reporting. These five phases are described in detail in the Azimuth Hydrogeological and Hydrological report.

The wells within the study area are primarily the wells that service the three residential properties located east of the Subject Lands. Private well surveys were distributed in July 2019 to the thirty-six (36) properties within the study area. Two (2) of the 36 property owners responded to the well survey and Azimuth was granted permission to access one of the properties to obtain well depth and water level information. Additional attempts to contact neighbouring properties occurred in February and June 2022.

WSP completed a detailed cumulative impact assessment of groundwater drawdown from the full development of the Subject Lands taking into consideration the existing Lafarge and James Dick quarries. The assessment analyses for potential impacts to private wells within approximately one kilometer of the proposed quarry. Overall, impacts to water supply wells are not predicted as a result of extraction of the proposed quarry since extraction will remain above 202.6 masl.

While it is unlikely that wells will be impacted, a detailed groundwater monitoring program will be implemented to monitor water levels between the quarry operation and private water wells. In the event a surrounding resident has a concern, a complaints response program has been developed and will be included on the ARA Site Plans. The complaints response program is as follows:

1. Immediately upon receiving a complaint, a temporary water supply shall be arranged and provided to the property for as long as required to complete the Complaints Response Program.
2. As soon as can be arranged, a representative of the licensee or their agent will visit the well to make an initial assessment of the complaint. This will include a well/system inspection (where accessible) by a licensed pump maintenance contractor to determine the ground water level, pressure tank configuration, pump depth setting and condition of the well system. The available ground water level data from existing monitoring wells will be reviewed by a licensed professional geoscientist/engineer to estimate the potential ground water level drawdown at the potentially affected well that is the subject of the complaint response. The data will also be evaluated to determine changes in ground water levels that may have occurred due to natural climate conditions. The compiled information regarding the well system and the ground water conditions will be used by the professional hydrogeologist/engineer to prepare an opinion on the likelihood that the well interference is attributable to quarry activities.
3. If it is concluded that the well interference is most likely attributable to quarry dewatering activities from the proposed quarry and the water supply is at risk, the delivery of the temporary water supply shall continue, and a water supply restoration program will be implemented. The decision as to whether to proceed with the water supply restoration program will be based on a review of ground water level information by the professional geoscientist/engineer and well construction and performance information from the licensed pump maintenance contractor as noted above.

The water supply restoration program consists of the following measures which are applicable for local water supply wells where the operation of the water supply wells may have been compromised by quarry excavation or, based on the analysis of all monitoring data, are assessed to likely be compromised in the near future:

- Well System Rehabilitation – The well system may be rehabilitated by replacement or lowering of pumps, pump lines flushing, well deepening, etc. to improve performance. Where water is unavailable in the shallow bedrock and a well in deeper bedrock is being considered, a water sample(s) would be taken from the existing well for chemical, physical and bacteriological analyses prior to deepening the well to provide a basis of comparison. If the ground water in the deeper bedrock is found to be of acceptable quality by the homeowner, either directly from the well or with treatment, it would be developed as the domestic supply. Any modifications to a well would be conducted in accordance with Ontario Regulation 903 (or as amended), and by licensed contractors as required;

- Well Rehabilitation, Replacement or Additional Well(s) – The well could be hydro-fractured, replaced or augmented with a new well(s). The feasibility of well replacement would be based on a test drilling program or from monitoring data. Where water is unavailable in the shallow bedrock and a well in deeper bedrock (compared to the original water supply well) is being considered, a water sample(s) would be taken from the existing well for chemical, physical and bacteriological analyses to provide a basis of comparison. If the ground water in the deeper bedrock is found to be of acceptable quality by the homeowner, either directly from the well or with treatment, it will be developed as the domestic supply. Construction of a new well(s) would be conducted in accordance with Ontario Regulation 903(or as amended), and by licensed contractors as required;
- Water Treatment Considerations – Appropriate water treatment will be incorporated into any restored water supply as discussed above, reflecting MECP treatability guidelines.

Where the quarry activities are determined to have negatively affected a water well supply, the licensee would be responsible for the costs associated with the water supply restoration program. It is important to note that water supply restoration activities undertaken to address an adverse effect shall be done so in consultation with the affected property owner in order to implement a mutually agreeable solution.

3.3.2 Noise

An acoustical assessment was prepared by HGC Engineering to assess potential noise impacts from the proposed quarry on surrounding sensitive residential receptors.

The acoustical assessment identified eleven sensitive receptors and five vacant lots surrounding the proposed quarry site. Generally, the receptors and lots located west of the proposed extraction are categorized as a Class 3 acoustical environment while the lots located in close proximity to Highway 12 are categorized as a Class 2 acoustical environment. HGC Engineering designed the site to meet Ministry of Environment, Conservation and Parks noise limits for the applicable Class category for each receptor (i.e. Class 2 and Class 3). A Class 3 area includes the most stringent noise limits since Class 3 noise limits are used for a rural area with an acoustical environment that is dominated by natural sounds having little or no road traffic, such as:

- a small community;
- agricultural area;
- a rural recreational area such as a cottage or a resort area; or
- a wilderness area.

A Class 2 area includes areas that are dominated by road traffic during daytime hours, such as the road noises emitted from the volume of traffic on Provincial Highway 12.

HGC Engineering concluded that the proposed Brechin Quarry has been appropriately designed and/or separated to ensure the Ministry of Environment, Conservation and Parks noise limits would be met at all surrounding residential receptors. HGC Engineering has recommended that the following mitigation measures be implemented and included on the ARA Site Plans:

- The Quarry is permitted to operate from 7am to 6pm, Monday to Friday, and 7am to 12pm on Saturdays. Processing and shipping is permitted to commence at 5:30am on Monday to Friday. Drilling and primary crushing is restricted to only occur from 7:00am to 6:00pm;
- No operations on Sundays or Statutory holidays;
- The site plans identify the locations the processing area shall be restricted to depending on when operating at grade or on the floor of the first bench in Phase 1A;
- Acoustical berms are to be constructed in the following locations:
 - along a portion of the eastern boundary of the proposed licence boundary surrounding the three existing receptors on Highway 12;
 - along the western boundary of the proposed extraction limit adjacent to the neighbouring farm property; and
 - in localized locations surrounding the processing area throughout the life of the operation. See the site plans for details.
- The rock drill must have localized shielding in a portion of Phase 1A and 2A when operating atop Bench 1. See the site plans for details;
- Operation of the primary crusher within a portion of Phase 2A while atop Bench 2 is not permitted. See the site plans for details;
- The sound power levels of the drill and processing equipment employed within the subject licenced area shall be limited to the limits as detailed in the site plans;
- sound emission levels for all equipment used in site preparation and rehabilitation must comply with the limits outlined in Ministry of Environment, Conservation and Parks Guideline NPC-115;
- The berms surrounding the processing area are permitted to be constructed of overburden material or aggregate stockpiles;
- It is recognized that advancements of equipment or different configurations may allow additional equipment or equipment to be substituted for certain activities while still meeting MECP guidelines. Variations to the noise control measures may be permitted, provided that the sound level revisions can demonstrably meet the applicable MECP limits as confirmed through documentation by a professional engineer. Prior to modification, notification shall be given to the MNRF;

- An updated Noise Impact Assessment, prepared by a professional engineer, will be submitted to the MNRF within 12 months following the quarry operator receiving notification of a building permit issued for a noise-sensitive use on the properties designated as VL1 through VL4 in the Noise Impact Assessment completed by HGC Engineering dated October 2023. If the updated study concludes that the sound levels of the quarry may not comply with the applicable limits, the report must include the following:
 - Details regarding the noise control measures required to reduce the sound levels of the quarry to comply with the applicable limits;
 - A timetable for implementation of the noise control measures, including dates for achieving compliance with specific milestones;
 - A timetable for submitting further assessments to demonstrate compliance with the applicable sound level limits at the properties designated as VL1 through VL4.

3.3.3 Blasting

A Blast Impact Analysis was prepared by Explotech Engineering to ensure vibration and overpressure levels from on-site blasting can be carried out safely and designed to meet the Ministry of Environment, Conservation and Parks Model Municipal Noise Control By-law and guidelines.

The analysis concluded that the blasting operations for the proposed quarry can be carried out safely and within guidelines set by the Ministry of Environment, Conservation and Parks to protect surrounding buildings and structures.

Explotech Engineering has recommended the following mitigation measures:

- An attenuation study shall be undertaken by a competent independent blasting consultant during the first 12 months of operation in order to obtain sufficient quarry data for the development of site specific attenuation relations. This study will be used to confirm the applicability of the initial guideline parameters and assist in developing future blast designs.
- All blasts shall be monitored for both ground vibration and overpressure at the closest sensitive receptors adjacent the site, or closer, with a minimum of two (2) digital seismographs – one installed in front of the blast and one installed behind the blast. Monitoring shall be performed by and independent third party engineering firm with specialization in blasting and monitoring.
- The guideline limits for vibration and overpressure shall adhere to standards as outlined in the Model Municipal Noise Control By-law publication NPC 119 (1978) or any such document, regulation or guideline which supersedes this standard.
- In the event that calculations suggest the vibrations at the closest portion of the rail line will exceed 2/3 of the applicable limit, an additional vibrations monitor shall be installed at the closest portion of the rail line.

- Vibrations imparted on the rail line shall be maintained below industry best practices for structures of this nature or railway owner corporate policy.
- When blasting on site is to take place employing blast parameters which suggest vibration in excess of 10mm/s (75% of DFO 13mm/s limit) imparted on an active spawning bed, an additional seismograph shall be installed at the location of the closest spawning bed, or closer to the blast, to confirm compliance with DFO guideline limit for ground vibration of 13mm/s.
- Orientation of the aggregate extraction operation and shall be designed and maintained so that the direction of the overpressure propagation and flyrock from the face shall be away from structures as much as possible.
- Blast designs shall be continually reviewed with respect to fragmentation, ground vibration and overpressure. Blast designs shall be modified as required to ensure compliance with applicable guidelines and regulations.
- Once blasting progress encroaches to within 250m of any offsite sensitive receptor, a formal review of accumulated blast records including vibration data and blast designs shall be undertaken. This review will identify what modifications to blasting protocol and procedures are required to address the reduced separation distance.
- Clear crushed stone shall be used for stemming.
- Blasting procedures such as drilling and loading shall be reviewed on a yearly basis and modified as required to ensure compliance with industry standards.
- Detailed blast records shall be maintained. The MECP (1985) recommends that the body of blast reports shall include the following information:
 - Location, date and time of the blast.
 - Dimensional sketch including photographs, if necessary, of the location of the blasting operation, and the nearest point of reception.
 - Physical and topographical description of the ground between the source and the receptor location.
 - Type of material being blasted.
 - Sub-soil conditions, if known.
 - Prevailing meteorological conditions including wind speed in m/s, wind direction, air temperature in °C, relative humidity, degree of cloud cover and ground moisture content.
 - Number of drill holes.
 - Pattern and pitch of drill holes.
 - Size of holes.
 - Depth of drilling.
 - Depth of collar (or stemming).
 - Depth of toe-load.
 - Weight of charge per delay.
 - Number and time of delays.

- The result and calculated value of Peak Pressure Level in dB and Peak Particle Velocity in mm/s.
- Applicable limits and any exceedances.

In addition to the above, the Brechin Quarry would also be subject to the following prescribed conditions that apply to Class A ARA Licences:

- No blasting shall occur on a holiday, or between 6pm and 8am.
- The licensee or permittee shall monitor all blasts for ground vibration and blast overpressure and prepare blast monitoring reports in accordance with provincial guidelines on limits on blast overpressure and ground vibration for blasting operations.
- The licensee or permittee shall retain the blast monitoring reports for a period of seven years after each blast.

3.3.4 Dust

The Province has the following prescribed conditions that apply to Class A ARA Licences to minimize impacts related to dust on surrounding sensitive receptors. These conditions will apply to the proposed quarry and have been included on the ARA Site Plans:

- Dust will be mitigated on site;
- Water or another provincially approved dust suppressant will be applied to internal haul roads and processing areas as often as required to mitigate dust;
- Processing equipment will be equipped with dust suppressing or collection devices, where the equipment creates dust and is being operated within 300m of a sensitive receptor; and
- If required, an Environmental Compliance Approval will be obtained for processing equipment to be used on-site.

3.3.5 Traffic

A Traffic Impact Study was completed by TYLin International Canada Inc. (TYLin) to:

- address transportation impacts, including the site access and site traffic volumes generated by the quarry;
- assess the potential impacts to the road network; and
- recommend potential improvements to the road network to accommodate the projected traffic generated by the quarry.

The Brechin Quarry is proposed to operate from 7am to 6pm, Monday to Friday, and 7am to 12pm on Saturdays. Processing and shipping is permitted to commence at 5:30am Monday to Friday. The site proposes an annual tonnage limit of 2,000,000 tonnes to be

shipped from the operation. The site proposes to construct the entrance/exit on Concession 2, approximately 450m west of Highway 12. The proposed haul route would travel east on Concession 2 for 450m with the majority of truck traffic expected to travel south on Highway 12 towards the GTA. No other new entrances are proposed as part of this application. Concession 2 is identified by the Township as a local municipal road while Highway 12 is identified as a provincial highway which has a planned function to accommodate truck traffic and larger volumes of traffic. See **Figure 13**.

The Traffic Impact Study assessed the road capacity, intersection operations, including a queueing analysis, a signal warrant analysis and sight lines under existing conditions and future conditions. The study concluded that:

- The proposed access location on Concession 2 approximately 450m west of Highway 12 satisfies and exceeds MTO and TAC minimum intersection spacing requirements;
- The proposed quarry is estimated to generate 56 outbound and 37 inbound truck trips during the weekday a.m. peak hour and 37 inbound and 37 outbound truck trips during the weekday p.m. and Saturday mid-day peak hours;
- The existing intersection of Highway 12 and Concession Road 2 operates well under existing conditions. The existing intersection is expected to continue to operate well under future background conditions, and can readily accommodate the additional traffic volumes associated with the proposed quarry. No improvements are required to address the intersection operations;
- The introduction of site traffic to the study area road network is expected to have a minor impact on future operations based on the differences between the future total and future background capacity results for each future horizon year. No improvements are required to address the road capacity;
- A queueing analysis of the existing intersection confirms that queue lengths at the intersection of Highway 12 at Concession Road 2 under existing and future conditions are minimal and are able to be accommodated by the existing available storage length for each movement during the weekday a.m., p.m., and Saturday mid-day peak hours. No improvements are required to address road lane queueing capacity;
- The quarry has been designed to accommodate queueing truck traffic on site by siting the scale and scale house approximately 100m in the site from Concession 2. A review of the aggregate truck queueing internal to the proposed Quarry confirmed the 100 metre distance between the scale house and Concession 2 would be adequate to accommodate internal queueing, and a spillback of the internal queue onto Concession Road 2 would not be anticipated during the study peak hours;
- A traffic signal warrant analysis was conducted for the existing intersection of Highway 12 and Concession Road 2 in accordance with the requirements of Ontario Traffic Manual Book 12. The analysis concludes that a traffic signal is not warranted for any future horizon year (2025, 2030, and 2035) under future background or future total traffic conditions;
- The portion of Concession Road 2 that will be used by aggregate trucks to travel between the future quarry access and Highway 12 will likely require structural upgrades in order to accommodate truck traffic without undue deterioration of the road surface. It is recommended that consultation with the Township occur to perform

a review of the existing load capacity (geotechnical assessment) of Concession Road 2 and determine what upgrades would be required to accommodate quarry truck traffic to and from Highway 12 via Concession Road 2; and

- The existing flare (paved shoulder) on Highway 12 for southbound right-turning traffic should also be reviewed for its capacity to accommodate aggregate trucks. The possibility of extending the length of the existing taper/portion of paved shoulder should also be reviewed. Given the relatively low volume of aggregate trucks predicted to complete the turn, it is recommended to upgrade the existing southbound right-turn taper to accommodate aggregate traffic instead of constructing an exclusive right-turn lane.

The Traffic Impact Study provides the following recommendations for inclusion on the ARA Site Plans:

- Prior to shipping, the Licensee shall enter into an agreement with MTO to upgrade the southbound right-turn taper from Highway 12 to Concession Road 2.
- Prior to shipping, the Licensee shall enter into an agreement with the Township of Ramara to upgrade Concession Road 2 from the entrance/exit to Highway 12.
- The scale house shall be located 100 m inside of the site to accommodate queuing of trucks on-site.

4.0 PLANNING ANALYSIS

The following is a review of the land use policies contained in the Provincial Policy Statement, Growth Plan, Lake Simcoe Protection Plan, County of Simcoe Official Plan, Township of Ramara Official Plan and Township of Ramara Zoning By-law related to the proposed Brechin Quarry.

4.1 Provincial Policy Statement (2020)

This Provincial Policy Statement (PPS) was issued under Section 3 the Planning Act and came into effect May 1, 2020.

The PPS provides policy direction on matters of provincial interest related to land use planning and development. The PPS provides for appropriate development while protecting resources of provincial interest, public health and safety, and the quality of the natural environment (Part 1, Preamble).

The PPS is a policy-led planning approach that recognizes the complex inter-relationship among environmental, economic and social factors in land use planning. The PPS supports a comprehensive, integrated and long-term approach to planning and recognizes linkages among policy areas (Part III, How to Read the Provincial Policy Statement).

The PPS recognizes the Province's natural heritage resources, water, agricultural lands, mineral 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 fibre, minimize environmental and social impacts, provide recreational opportunities and meet its long-term needs (Part IV: Vision for Ontario's Land Use Planning System).

The proposed Brechin Quarry is required to be consistent with the requirements of the PPS. The following are policy excerpts from the PPS that are relevant to the proposed Brechin Quarry. A response follows each excerpt to demonstrate how the proposal is consistent with the PPS.

1.1.1 Healthy, liveable and safe communities are sustained by:

- a) promoting efficient development and land use patterns which sustain the financial well-being of the Province and municipalities over the long term;*
- c) avoiding development and land use patterns which may cause environmental or public health and safety concerns;*

- h) promoting development and land use patterns that conserve biodiversity;
and*

The efficient development of the site as an aggregate quarry provides economic benefits for the local community through the creation of local jobs and additional tax base. The Province benefits by having access to additional high quality close to market aggregate resources. The proposed Brechin Quarry has been designed to protect the environment and surrounding land uses through the implementation of the technical report recommendations prepared with this application.

1.1.4.1 Healthy, integrated and viable rural areas should be supported by:

- e) using rural infrastructure and public service facilities efficiently;*
- f) promoting diversification of the economic base and employment opportunities through goods and services, including value-added products and the sustainable management or use of resources;*

The proposed Brechin Quarry is located in a rural area that is identified as a High Potential Mineral Aggregate Resource Area by the County of Simcoe and Township of Ramara Official Plans. The proposed quarry will utilize the existing road network with an entrance/exit on Concession 2 and will use Concession 2 to Highway 12 as the haul route. The proposed quarry will also provide employment opportunities and supports in diversifying the economic base from the Township of Ramara and County of Simcoe. The management or use of mineral aggregate resources is considered to contribute to healthy, integrated and viable rural areas.

1.1.5.2 On rural lands located in municipalities, permitted uses are:

- a) the management or use of resources*

The southern parcels of the proposed Brechin Quarry are located on rural lands as identified by the County of Simcoe and Township of Ramara and is proposed to be utilized for the management or use of mineral resources, which is a permitted use. The northern parcel of the proposed Brechin Quarry is located within the County and Township's identified Prime Agricultural Area which will be discussed later in this section of the report.

1.1.5.4 Development that is compatible with the rural landscape and can be sustained by rural service levels should be promoted.

The proposed Brechin Quarry has been designed to be compatible with the rural landscape through a number of means including:

- **The creation of berms to mitigate acoustical impacts on the surrounding residential properties;**

- **The dust suppression notes listed on the site plans ensure dust will be mitigated on site to reduce impacts on air quality;**
- **On-going water monitoring will ensure surrounding wells will not be negatively impacted;**
- **The existing road network has been confirmed it has capacity for the additional truck traffic; and**
- **The proposed rehabilitation ensures the end use for the site will provide aquatic and terrestrial habitat and maintains the rural landscape.**

1.1.5.5 Development shall be appropriate to the infrastructure which is planned or available, and avoid the need for the unjustified and/or uneconomical expansion of this infrastructure.

The proposed Brechin Quarry will utilize the existing infrastructure available in the area. The quarry will utilize Highway 12 as the haul route. Highway 12 is a Provincial highway that is designed to carry large volumes of traffic and is already utilized as a haul route for existing quarries in the area.

1.1.5.7 Opportunities to support a diversified rural economy should be promoted by protecting agricultural and other resources-related uses and directing non-related development to areas where it will minimize constraints on other uses.

The County of Simcoe Official Plan and Township of Ramara Official Plan both identify the site as a High Potential Mineral Aggregate Resource Area which is to be protected for future aggregate extractive uses subject to the applicable Planning Act applications. The proposed Brechin Quarry will support a diversified rural economy by providing additional jobs, products for sale, and adding to the municipal tax base.

1.2.6.1 Major facilities and sensitive land uses shall be planned and developed to avoid, or if avoidance is not possible, minimize and mitigate any potential adverse effects from odour, noise and other contaminants, minimize risk to public health and safety, and to ensure the long-term operational and economic viability of major facilities in accordance with provincial guidelines, standards and procedures.

The proposed quarry has been planned and developed to minimize and mitigate adverse effects on surrounding sensitive land uses. Refer to Section 3.3 of this report for details on the mitigation measures that will be implemented to minimize impacts on surrounding land uses.

1.6.7.2 Efficient use should be made of existing and planned infrastructure, including through the use of transportation demand strategies, where feasible.

The proposed Brechin Quarry represents an efficient use of existing infrastructure by utilizing the existing road network along Concession 2 and Highway 12.

1.6.8.4 The preservation and reuse of abandoned corridors for purposes that maintain the corridor's integrity and continuous linear characteristics should be encouraged, wherever feasible.

An abandoned rail corridor traverses through the Subject Lands and is located west of the proposed extraction limit. The quarry has been designed to not impact this corridor. Furthermore, the application ensures the preservation of the existing abandoned corridor to maintain the corridor's integrity and continuous linear characteristics.

1.6.9.1 Planning for land uses in the vicinity of airports, rail facilities and marine facilities shall be undertaken so that:

- a) their long-term operation and economic role is protected;*

A former rail corridor traverses through the Subject Lands and is located west of the proposed extraction limit. An active rail corridor is located east of the Subject Lands. The quarry has been designed to not impact these active and abandoned rail corridors. As such, the long-term operation and economic role of the rail facilities will be protected.

1.7.1 Long-term economic prosperity should be supported by:

- c) optimizing the long-term availability and use of land, resources, infrastructure and public service facilities;*
- i) sustaining and enhancing the viability of the agricultural system through protecting agricultural resources, minimizing land use conflicts, providing opportunities to support local food, and maintaining and improving the agrifood network;*
- k) minimizing negative impacts from a changing climate and considering the ecological benefits provided by nature;*

The application optimizes the long-term economic prosperity for the Municipality, County and Province by making available approximately 69 million tonnes of close to market high quality aggregate while also providing additional jobs to the local population. The application will also utilize the existing transportation system infrastructure. Multiple technical studies including an Agricultural Impact Assessment have been completed and confirm that the application will not impact the viability of the surrounding agricultural system and ensures land use conflicts are minimized. A Natural Environment Report has also been completed to ensure the ecological functions and features associated with the site are not negatively impacted.

2.1.1 *Natural features and areas shall be protected for the long term.*

A Natural Environment Report has been completed for the Subject Lands which confirms that natural features and areas will be protected for the long term. Refer to Section 3.1.4 of this report for additional details on the Natural Environment Report

2.1.2 *The diversity and connectivity of natural features in an area, and the long-term ecological function and biodiversity of natural heritage systems, should be maintained, restored or, where possible, improved, recognizing linkages between and among natural heritage features and areas, surface water features and ground water features.*

The proposed quarry is located outside of the natural heritage system and has been designed to ensure the diversity and connectivity of the natural features on the site are maintained throughout the life of the operation by creating woodland and wetland features within the setback areas and on the western property prior to key milestones throughout the life of the operation. Diversity and connectivity of the natural features on the site are also maintained as part of rehabilitation through the creation of various features including the quarry lake, shoreline wetlands, 2:1 side slope connections, and wetland and woodland creation.

2.1.4 *Development and site alteration shall not be permitted in:*

a) *significant wetlands in Ecoregions 5E, 6E and 7E1;*

A Natural Environment Report and OWES were conducted which concludes that the Subject Lands do not contain significant wetlands.

2.1.5 *Development and site alteration shall not be permitted in:*

b) *significant woodlands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River);*

d) *significant wildlife habitat;*

Unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.

A Natural Environment Report was conducted which concludes that the area proposed for extraction does not contain significant woodlands and that the on-site significant woodlands would not be negatively impacted by the development of the quarry. The Natural Environment Report has confirmed significant wildlife habitat exists on-site and concludes negative impacts are not anticipated to the significant wildlife habitat within the study area provided that the recommended mitigation measures are implemented.

2.1.6 Development and site alteration shall not be permitted in fish habitat except in accordance with provincial and federal requirements.

A Natural Environment Report was conducted which concludes that the Subject Lands do contain fish habitat and that there is the potential for impacts to fish habitat within Tributary A and Tributary G. As a result, the ARA Site Plans include notes that require Request for Reviews be submitted to Fisheries and Oceans Canada (DFO) prior to the removal of Tributaries A and G to ensure that development occurs in accordance with the federal requirements under the Fisheries Act.

2.1.7 Development and site alteration shall not be permitted in habitat of endangered species and threatened species, except in accordance with provincial and federal requirements.

A Natural Environment Report was conducted which concludes that the Subject Lands do contain habitat of the following endangered and threatened species:

- **Bobolink and Eastern Meadowlark (Threatened)**
- **Little Brown Myotis, Northern Myotis, Tri-colored Bat (Endangered)**
- **Butternut (Endangered)**
- **Black Ash (Endangered)**

Impacts to the Little Brown Myotis, Northern Myotis, Tri-colored Bat habitat, Butternut and Black Ash species are not expected to occur as they are located outside of the extraction area. Bobolink and Eastern Meadowlark habitat has been identified within the proposed extraction limit and removal of this habitat will occur in accordance with the requirements of Endangered Species Act. The removal of threatened and endangered species habitat will be mitigated by creating and maintaining a larger, better quality habitat off-site as part of the *Endangered Species Act* permitting process. The ARA Site Plans include a note that requires the necessary ESA permits be obtained prior to the removal of this habitat.

2.1.8 Development and site alteration shall not be permitted on adjacent lands to the natural heritage features and areas identified in policies 2.1.4, 2.1.5, and 2.1.6 unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions.

The ecological function of lands adjacent to the proposed quarry has been evaluated in the Natural Environment Report. The report recommends mitigation measures to demonstrate there will be no negative impacts on the adjacent natural features or their ecological function as a result of the proposed extraction.

2.2.1 Planning authorities shall protect, improve or restore the quality and quantity of water by:

- a) *using the watershed as the ecologically meaningful scale for integrated and long-term planning, which can be a foundation for considering cumulative impacts of development;*

A water resources report was completed and concluded the proposed extraction area will protect sensitive surface water features and sensitive ground water features.

- b) *minimizing potential negative impacts, including cross-jurisdictional and cross-watershed impacts;*

The proposed quarry is located within the Lake Simcoe watershed and primarily positioned within the Ramara Creeks Subwatershed area which drains towards Lake Simcoe. The southeast segment of the Subject Lands is positioned within the Talbot River Subwatershed. Ultimately, both of these subwatersheds drain into Lake Simcoe. The operation has been designed to pump water collected on the quarry floor north towards the McNabb Drain to minimize potential impacts to the existing surface water regime. No negative impacts are expected to the groundwater and surface water regimes.

- c) *evaluating and preparing for the impacts of a changing climate to water resource systems at the watershed level;*

The proposed operation and rehabilitated landform has the ability to operate similar to a reservoir, which are routinely used by Conservation Authorities to manage water based on changing climates. Quarries have the ability to store water during major storm events and release water during periods of low flow.

- d) *identifying water resource systems consisting of groundwater features, hydrologic functions, natural heritage features and areas, and surface water features including shoreline areas, which are necessary for the ecological and hydrological integrity of the watershed;*

The water resources report identified water resource systems on-site and in the surrounding lands. No negative impacts to the water resource systems are expected and ongoing monitoring will ensure extraction does not negatively impact the systems.

- e) *maintaining linkages and related functions among ground water features, hydrologic functions and natural heritage features and areas, and surface water features including shoreline areas;*

Water resources and natural heritage features surrounding the proposed quarry lands have been assessed for potential impacts resulting from extraction of aggregate in the proposed quarry. The Water Resources report and Natural Environment report conclude the proposed quarry will not negatively impact the linkages and related functions of surrounding water resources and natural heritage features.

f) *implementing necessary restrictions on development and site alteration to:*

1. *protect all municipal drinking water supplies and designated vulnerable areas; and*

No municipal drinking water supplies are located in the vicinity of the proposed quarry extraction area. The site is located within a designated vulnerable areas. The water resources report concludes that with the implementation of the water resources recommendations, the recharge function of the site will be maintained and the aquifer will be protected.

2. *protect, improve or restore vulnerable surface and ground water, sensitive surface water features and sensitive ground water features, and their hydrologic functions;*

A water resources report was completed and concluded the proposed extraction area will protect sensitive surface water features and sensitive ground water features.

- g) *planning for efficient and sustainable use of water resources, through practices for water conservation and sustaining water quality;*

The proposed quarry will be required to monitor and protect water resources, including private residential wells in accordance with Ministry of Environment, Conservation and Parks permit requirements.

2.2.2 *Development and site alteration shall be restricted in or near sensitive surface water features and sensitive ground water features such that these features and their related hydrologic functions will be protected, improved or restored.*

Mitigative measures and/or alternative development approaches may be required in order to protect, improve or restore sensitive surface water features, sensitive ground water features, and their hydrologic functions.”

A water resources report was completed and concluded the proposed extraction area has been designed to protect sensitive surface water features and sensitive ground water features.

2.3.1 *Prime agricultural areas shall be protected for long-term use for agriculture.*

Prime agricultural areas are areas where prime agricultural lands predominate. Specialty crop areas shall be given the highest priority for protection, followed by Canada Land Inventory Class 1, 2, and 3 lands, and any associated Class 4 through 7 lands within the prime agricultural area, in this order of priority.

The northern parcel of the proposed Brechin Quarry is located within the County of Simcoe’s prime agricultural area. The Township of Ramara also designates this parcel as Agricultural. Furthermore, CLI mapping shows the Subject Lands contain Class 1, 3, and 6 soils. An Agricultural Impact

Assessment has been completed for the Subject Lands which concluded the lands designated Agriculture are not considered prime agricultural land. Refer to Section 3.1.2 of this report for additional details on the Agricultural Impact Assessment.

2.3.6.1 Planning authorities may only permit non-agricultural uses in prime agricultural areas for:

- a) extraction of minerals, petroleum resources and mineral aggregate resources;*

The northern parcel of the proposed Brechin Quarry is located within the County of Simcoe's prime agricultural area. The Township of Ramara also designates this parcel as Agricultural. The application is to permit the extraction of mineral aggregate resources, which is a permitted use. An Agricultural Impact Assessment has been completed for the Subject Lands which concluded the lands designated Agriculture are not considered prime agricultural land.

2.3.6.2 Impacts from any new or expanding non-agricultural uses on surrounding agricultural operations and lands are to be mitigated to the extent feasible.

An Agricultural Impact Assessment has been completed which concludes that there will be no anticipated impacts to surrounding agricultural operations from the proposed quarry.

2.5.1 Mineral aggregate resources shall be protected for long-term use and, where provincial information is available, deposits of mineral aggregate resources shall be identified.

The County and Township Official Plans identify the Subject Lands as part of their High Potential Mineral Aggregate Resource Areas. As such, this area has been protected and managed through the County and Township Official Plans for future mineral aggregate resource use.

2.5.2.1 As much of the mineral aggregate resources as is realistically possible shall be made available as close to markets as possible.

Demonstration of need for mineral aggregate resources, including any type of supply/demand analysis, shall not be required, notwithstanding the availability, designation or licensing for extraction of mineral aggregate resources locally or elsewhere.

Detailed on-site rock quality and quantity testing has occurred which confirms that the site contains approximately 69 million tonnes of high quality aggregate resource. This application will ensure that this high quality aggregate is protected for the long-term and used in a wise manner to support growth and infrastructure requirements.

2.5.2.2 Extraction shall be undertaken in a manner which minimizes social, economic and environmental impacts.

The application has been designed to ensure extraction is undertaken in a manner which minimizes social, economic and environmental impacts. See Section 3.3 of this report for details on the mitigation measures that will be implemented to minimize impacts on surrounding land uses.

2.5.3.1 Progressive and final rehabilitation shall be required to accommodate subsequent land uses, to promote land use compatibility, to recognize the interim nature of extraction, and to mitigate negative impacts to the extent possible. Final rehabilitation shall take surrounding land use and approved land use designations into consideration.

The application has been designed to ensure progressive and final rehabilitation will be undertaken in a manner that promotes land use compatibility, to recognize the interim nature of extraction, and to mitigate negative impacts to the extent possible. Final rehabilitation of the site was designed with the consideration of surrounding land uses and approved land use designations.

2.5.3.2 Comprehensive rehabilitation planning is encouraged where there is a concentration of mineral aggregate operations.

Rehabilitation of the proposed quarry includes the creation of terrestrial habitat and aquatic habitat that has been designed to be incorporated into the existing landscape. Wetland features will be created along the lake shorelines and within the setback limits to provide additional aquatic habitat and wildlife diversity for the site. The creation of wetland and woodland features will occur within the western parcel to provide additional benefits to the existing habitat in that area.

2.5.4.1 In prime agricultural areas, on prime agricultural land, extraction of mineral aggregate resources is permitted as an interim use provided that the site will be rehabilitated back to an agricultural condition.

Complete rehabilitation to an agricultural condition is not required if:

- a) outside of a specialty crop area, there is a substantial quantity of mineral aggregate resources below the water table warranting extraction, or the depth of planned extraction in a quarry makes restoration of pre-extraction agricultural capability unfeasible;*
- c) other alternatives have been considered by the applicant and found unsuitable. The consideration of other alternatives shall include resources in areas of Canada Land Inventory Class 4 through 7 lands, resources on lands identified as designated growth areas, and resources on prime agricultural lands where rehabilitation is feasible. Where no other alternatives are found, prime agricultural lands shall be protected in this*

order of priority: specialty crop areas, Canada Land Inventory Class 1, 2 and 3 lands; and

d) agricultural rehabilitation in remaining areas is maximized.

A portion of the Subject Lands is located within the County of Simcoe's prime agricultural area and CLI mapping shows the Subject Lands contain Class 1, 3, and 6 soils. The Subject Lands is not located inside a specialty crop area. An Agricultural Impact Assessment has been completed for the Subject Lands which concluded the lands designated Agriculture are not considered prime agricultural land. Refer to Section 3.1.2 of this report for additional details on the Agricultural Impact Assessment.

Detailed on-site rock quality and quantity testing confirms that the site contains approximately 69 million tonnes of high quality aggregate resource with the majority of that resource being located below the water table. As a result, rehabilitation back to an agricultural condition is not required and instead includes the creation of terrestrial habitat and lake based aquatic habitat with shoreline wetland habitat.

2.6.1 Significant built heritage resources and significant cultural heritage landscapes shall be conserved.

A Cultural Heritage Screening Report has been completed which concludes that no significant built heritage or significant cultural heritage landscapes are identified on or surrounding the proposed quarry.

2.6.2 Development and site alteration shall not be permitted on lands containing archaeological resources or areas of archaeological potential unless significant archaeological resources have been conserved.

A Stage 1-2 Archaeological assessment has been completed for the site which found two sites that contain Cultural Heritage Value or Interest that were not fully documented through the assessment. As a result, the proposed ARA Site Plans include notes to ensure these sites and surrounding protective buffers will be conserved until a Stage 3 assessment is completed for these specific areas. The Stage 1-2 Archaeological assessment concluded that the balance of the study area outside of the two noted site areas and surrounding protective buffer do not contain archaeological resources.

2.6.3 Planning authorities shall not permit development and site alteration on adjacent lands to protected heritage property 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.

A Cultural Heritage Screening Report has been completed which concludes that no protected heritage properties are identified on adjacent lands.

3.2.1 Development on, abutting or adjacent to lands affected by mine hazards; oil, gas and salt hazards; or former mineral mining operations, mineral aggregate operations or petroleum resource operations may be permitted only if rehabilitation or other measures to address and mitigate known or suspected hazards are under way or have been completed.

The proposed quarry represents the wise use and management of an aggregate resource in an area identified as a mineral aggregate resource area. There are no known or suspected hazards.

In summary, the proposed Brechin Quarry is consistent with the policies of the Provincial Policy Statement.

4.2 A Place to Grow: Growth Plan for the Greater Golden Horseshoe (2020)

The proposed Brechin Quarry is located within the Greater Golden Horseshoe (GGH) Growth Plan Area. The Growth Plan for the Greater Golden Horseshoe 2020 was prepared and approved under the Places to Grow Act.

The Growth Plan is a policy document which guides the building of stronger, more prosperous communities through the management of growth. The intent of the Growth Plan is to plan for growth and development in a way that supports economic prosperity, protects the environment, and helps communities achieve a high quality of life. The Growth Plan contains various policies that guide decisions on how land is developed. These include but are not limited to building compact, vibrant and complete communities, managing growth, protecting natural resources, optimizing the use of infrastructure, and providing for different approaches to managing growth that recognizes the diversity of communities.

The Growth Plan includes policies related to the establishment of a provincial natural heritage system. To date, the County of Simcoe has not implemented the provincial mapping of the Natural Heritage System and therefore the areas designated Greenlands in the County of Simcoe Official Plan are considered the Natural Heritage System for the Growth Plan (4.2.2.4). The proposed Brechin Quarry is not located within an area designated Greenlands in the County of Simcoe Official Plan and therefore is not located within the Natural Heritage System. See **Figure 6**.

The Growth Plan also includes policies related to the establishment of a provincial agricultural system. To date, the County of Simcoe has not implemented the provincial mapping of the Agricultural System and therefore the areas identified as prime agricultural areas in the County of Simcoe Official Plan are considered the Agricultural System for the Growth Plan (4.2.6.8). The northern portion of the proposed Brechin Quarry is considered a prime agricultural area and designated Agriculture in the County of Simcoe Official Plan and therefore a part of the site is located within the Agricultural System. See **Figure 6**.

Section 4.2.8 of the Growth Plan includes specific policies for the evaluation of mineral aggregate operations. Policy 4.2.8.8 of the Growth Plan states:

Except as provided by the policies of this subsection, decisions on planning matters must be consistent with the policies in the PPS that pertain to the management of mineral aggregate resources.

Section 4.1 of this report provides an analysis of the applicable policies in the PPS and confirms that the proposed Brechin Quarry is consistent with the policies in the PPS. Since the site is located outside of the Natural Heritage System, policies 4.2.8.3 and 4.2.8.4 of the Growth Plan also apply to the proposed Brechin Quarry.

4.2.8.3 In prime agricultural areas, applications for new mineral aggregate operations will be supported by an agricultural impact assessment and, where possible, will seek to maintain or improve connectivity of the Agricultural System.

The northern portion of the Subject Lands is located within the County of Simcoe's prime agricultural area. An Agricultural Impact Assessment has been completed and concluded the lands designated Agriculture are not considered prime agricultural land and the application will not impact the long-term viability and productivity of the surrounding prime agricultural area.

4.2.3.4 For rehabilitation of new mineral aggregate operation sites, the following apply:

- a) the disturbed area of a site will be rehabilitated to a state of equal or greater ecological value and, for the entire site, long-term ecological integrity will be maintained or enhanced;*
- b) if there are key natural heritage features or key hydrologic features on the site, or if such features existed on the site at the time of the application:
 - i. the health, diversity, and size of these key natural heritage features and key hydrologic features will be maintained or enhanced; and*
 - ii. any permitted extraction of mineral aggregate resources that occurs in a feature will be completed, and the area will be rehabilitated, as early as possible in the life of the operation;**
- c) aquatic areas remaining after extraction are to be rehabilitated to aquatic enhancement, which will be representative of the natural ecosystem in that particular setting or ecodistrict, and the combined terrestrial and aquatic rehabilitation will meet the intent of policy 4.2.8.4 b); and*
- d) outside the Natural Heritage System for the Growth Plan, and except as provided in policies 4.2.8.4 a), b) and c), final rehabilitation will appropriately reflect the long-term land use of the general area, taking into account applicable policies of this Plan and, to the extent permitted under this Plan, existing municipal and provincial policies. In prime agricultural*

areas, the site will be rehabilitated in accordance with policy 2.5.4 of the PPS, 2020.

The proposed Brechin Quarry has been designed to address this policy and includes the following requirements:

- **No extraction will occur west of the abandoned rail line and key natural heritage and key hydrologic features in this area will be maintained and enhanced by creating 5.2ha of new wetland and 4.1ha of new woodland prior to extraction commencing in Phase B.**
- **5.3ha of wetland, 5.4ha of woodland and watercourses are proposed to be created within the setback area around a portion the quarry prior to extraction commencing in Phase A. As part of final rehabilitation this area will be modified to include 4.7ha of wetlands and 5.4ha of woodland.**
- **Prior to the removal of any endangered or threatened species habitat or fish habitat on-site, federal and provincial requirements have to be met and this will ensure a overall net benefit for any habitat removed.**
- **Due to the depth of extraction proposed below the water table, the creation of terrestrial habitat within the extraction area is not feasible. The extraction area will be rehabilitated to an aquatic area consisting of a 87.7ha lake, 0.6ha of shoreline wetland and terrestrial linkages to the setback areas and surrounding lands.**

Overall, following final rehabilitation the proposed Brechin Quarry site will be considered a key natural heritage (significant woodland, significant wildlife habitat, endangered and threatened species habitat, fish habitat and wetlands) or a key hydrologic feature (i.e. wetlands, watercourses and lakes). This rehabilitation plan is an appropriate landform that reflects the long-term land use for the general area.

In summary, the proposed Brechin Quarry conforms to the policies of the Growth Plan.

4.3 Lake Simcoe Protection Plan (2009)

The Subject Lands are located within the Lake Simcoe watershed and therefore the proposed applications are required to conform to the policies of the Lake Simcoe Protection Plan (LSPP). The following LSPP policies apply to the proposed quarry.

6.41-DP Policies 6.41 -6.44 apply to applications for new mineral aggregate operations and wayside pits and quarries that are outside of the Greenbelt area and the Oak Ridges Moraine area.

The proposed Brechin Quarry is considered a new mineral aggregate operation under the policies of the LSPP and is located outside of the Greenbelt area and the Oak Ridges Moraine area. As such, the following policies apply.

6.42-DP No new mineral aggregate operations and no wayside pits and quarries, or any ancillary or accessory use thereto shall be permitted in the following key natural heritage features and key hydrologic features:

- a. significant wetlands;*
- b. significant habitat of endangered species and threatened species; and*
- c. significant woodlands unless the woodland is occupied by young plantation or early successional habitat (as defined by the MNR).*

The proposed Brechin Quarry does not include any aggregate operations, ancillary or accessory uses within significant wetlands or significant woodlands. The proposed extraction does contain habitat of endangered species and threatened species. During pre-consultation the applicant met with the approval authorities for the LSPP regarding the interpretation of policy 6.42 b). During pre-consultation it was agreed that the policy of the LSPP related to habitat of endangered and threatened species was out of date and does not reflect current policy requirements under the PPS and legislated requirements under the Endangered Species Act. It was confirmed that removal of the habitat on-site (Eastern Meadowlark and Boblink) would be permitted in conformity with the LSPP subject to compliance with the Endangered Species Act. The applicant will be applying to MECP for an overall benefit permit to provide enhanced habitat for the species. See Appendix A for a copy of the pre-consultation record.

6.43-DP An application for a new mineral aggregate operation or a new wayside pit or quarry may only be permitted in a key natural heritage feature, a key hydrologic feature or its related vegetation protection zone, other than a feature mentioned in policy 6.42, where the application demonstrates the following:

- a. the health, diversity and size of these key natural heritage features will be maintained or restored and, to the extent possible, improved to promote a net gain of ecological health; and*
- b. any permitted extraction of mineral aggregates that occurs in a feature will be completed, and the area will be rehabilitated, as early as possible in the life of the operation.*

6.44-DP Every application for a new mineral aggregate operation must demonstrate:

- a. how the connectivity between key natural heritage features and key hydrologic features will be maintained before, during and after the extraction of mineral aggregates; and*
- b. how the operator could immediately replace or restore any habitat that would be lost from the site with equivalent habitat on another part of the site or on adjacent lands.*

A Natural Environment Report has been completed for the Subject Lands which confirms that with the implementation of the recommended mitigation measures, the proposed quarry will not have negative impacts to the key natural heritage features within the study area.

The proposed quarry has been designed to ensure the diversity and connectivity of key natural heritage features and key hydrologic features throughout the life of the operation based on the following:

- **The site is not located within a Natural Heritage System.**
- **No extraction will occur west of the abandoned rail line and key natural heritage and key hydrologic features in this area will be maintained and enhanced by creating 5.2ha of new wetland and 4.1ha of new woodland prior to extraction commencing in Phase B.**
- **5.3ha of wetland, 5.4ha of woodland and watercourses are proposed to be created within the setback area around a portion the quarry prior to extraction commencing in Phase A. As part of final rehabilitation this area will modified to include 4.7ha of wetlands and 5.4ha of woodland.**
- **Prior to the removal of any endangered or threatened species habitat or fish habitat on-site, federal and provincial requirements have to met and this will ensure a overall net benefit for any habitat removed.**
- **Due to the depth of extraction proposed below the water table, the creation of terrestrial habitat within the extraction area is not feasible. The extraction area will be rehabilitated to an aquatic area consisting of a 87.7ha lake, 0.6ha of shoreline wetland and terrestrial linkages to the setback areas and surrounding lands.**

In summary, the proposed Brechin Quarry conforms to the Lake Simcoe Protection Plan.

4.4 County of Simcoe Official Plan (2016)

The Brechin Quarry lands are designated “Agricultural” and “Rural” in the County of Simcoe Official Plan (County OP) in accordance with Schedule 5.1. See **Figure 6**. The application is required to conform to the County OP.

Section 1.3 of the County Official Plan sets county goals which have been derived from the County’s Strategic Plan, and relevant provincial policy.

1.3 *The goals of this Plan are:*

- *To protect, conserve, and enhance the County's natural and cultural heritage;*
- *To achieve wise management and use of the County's resources;*
- *To implement growth management to achieve lifestyle quality and efficient and cost-effective municipal servicing, development and land use;*
- *To achieve coordinated land use planning among the County's local municipalities and with neighbouring counties, districts, regions, and separated cities, and First Nations lands;*
- *To further community economic development which promotes economic sustainability in Simcoe County communities, providing employment and business opportunities; and,*
- *To promote, protect and enhance public health and safety.*

Furthermore, Section 3.1 outlines that the planning strategy of the County OP is based on four themes, including the management or resource based development including aggregates.

3.1 *Strategy*

- *Enabling and managing resource-based development including agriculture, forestry, aggregates, and tourism and recreation.*

Emissions

3.3.21 *Where a land use change is proposed that is likely to adversely affect existing uses or be adversely affected by existing uses, a feasibility study that assesses the impacts of odour, noise, vibration, particulates, or other emissions may be required in accordance with appropriate provincial government guidelines. Some uses (e.g. residential) may be sensitive to the odour, noise, vibration or other emissions, associated with facilities such as highways, arterial roads, railway corridors, various types of industries, and sewage treatment facilities. The feasibility study shall be prepared to the satisfaction of the County and/or a local municipal council and other appropriate agencies and shall include recommendations on how impacts can be mitigated. The approval of the development proposals shall be based upon the achievement of adequate separation distances between land uses where required and other mitigation recommendations. For land use changes associated with new or expanded pits and quarries, reports necessary to satisfy the Aggregate Resources Act are sufficient to satisfy the requirements of this section.*

The Aggregate Resources Act required a number of technical studies be completed for this application. Each technical report provides a number of recommendations that ensure any potential impacts are appropriately

mitigated in accordance with provincial guidelines. Refer to Section 3.3 of this report for additional details on the mitigation requirements of the technical reports.

3.3.22 Major facilities, such as utility and transportation facilities and corridors, airports, sewage treatment facilities, waste disposal sites, industrial installations, and mineral aggregate operations, and sensitive land uses shall be appropriately designed, buffered, and/or separated from each other in accordance with Provincial standards and guidelines to prevent unacceptable adverse effects from odour, noise, vibration, and other contaminants.

The application has been designed to ensure that the proposed quarry prevents unacceptable adverse effects. Refer to Section 3.3 of this report for additional details on the mitigation requirements of the technical reports.

Railway Lines

3.3.24 The County acknowledges the importance of rail infrastructure and recognizes its critical role in long-term economic growth and the efficient and effective movement of goods and people. The County shall ensure the continued viability and ultimate capacity of the rail corridors and yards (if applicable) are protected and shall identify and support strategic infrastructure improvements such as targeted grade separations. The County encourages protection of non-active rail line corridors from encroachment of sensitive land use development to allow for future expansion of rail services.

All proposed development adjacent to railways shall ensure that appropriate safety measures such as setbacks, berms and security fencing are provided, to the satisfaction of the County or local municipality, whichever is the approval authority of the application, in consultation with the appropriate railway. Where applicable, the County will ensure that sightline requirements of Transport Canada and the railways are addressed.

A former rail corridor traverses through the Subject Lands and is located west of the proposed extraction limit. An active rail corridor is located east of the Subject Lands. The proposed quarry will not impact the continued viability and ultimate capacity of the rail corridors and yards. As such, the long-term operation and economic role of the rail facility will be protected.

Section 3.6 of the County OP outlines policies for lands within the Agricultural Designation. Sections 3.6.1 – 3.6.4 outline the objectives of the Agricultural Designation while the polices start at Section 3.6.5.

3.6.1 To protect the resource of prime agricultural lands and prime agricultural areas, while recognizing the inter-relationship with natural heritage features and areas and ecological functions, by directing development that does not satisfy the Agricultural policies of this Plan to Settlements and the Strategic Settlement Employment Areas and Economic Employment Districts and directing limited uses that are more suitable to the Rural designation accordingly.

- 3.6.2 *To enable the agricultural industry to function effectively in prime agricultural areas by minimizing conflicting and competing uses while accommodating uses and facilities which support the agricultural economy in accordance with the Planning Act and the Farm Practices Protection Act and its successors.*
- 3.6.3 *To ensure the availability and sustainability of prime agricultural areas for long-term use for agriculture and support a diversified agricultural economy.*
- 3.6.5 *Prime agricultural areas are identified by the Agricultural designation on Schedule 5.1 and shall be protected for long-term use for agriculture. All types, sizes and intensities of agricultural uses and normal farm practices shall be promoted and protected in accordance with provincial standards.*
- 3.6.6 *Permitted uses within the Agricultural designation are agricultural uses, agriculture-related uses (PPS 2014), processing of agricultural products, on-farm diversified uses, natural heritage conservation and forestry, mineral aggregate operations subject to Section 4.4, and agricultural produce sales outlets generally marketing production from the local area.*
- 3.6.10 *Development in prime agricultural areas should wherever possible be designed and sited on a property so as to minimize adverse impacts on agriculture and the natural heritage system and cultural features.*
- 3.6.12 *Non-agricultural uses in prime agricultural areas may only be permitted for:*
- a) extraction of minerals, petroleum resources and mineral aggregate resources, in accordance with the appropriate policies of this Plan, Provincial policy statements issued under the Planning Act and Provincial plans; or*
- Impacts from any new or expanding non-agricultural uses on surrounding agricultural operations and existing land uses are to be mitigated to the extent feasible. Local municipalities shall utilize site plan control to regulate the impact of non-agricultural uses in prime agricultural areas.*

The northern parcel of the proposed Brechin Quarry is designated Agricultural in the County OP and as a result is located within the County of Simcoe’s prime agricultural area. An Agricultural Impact Assessment has been completed for the Subject Lands which concluded the lands designated Agricultural are not considered prime agricultural land. Furthermore, the AIA concluded that there will be no anticipated impacts to surrounding agricultural operations from the proposed quarry. The application proposes a mineral aggregate operation on the Subject Lands, which is a permitted use in the County OP Agricultural Designation. The proposed quarry has been planned and developed to minimize and mitigate adverse effects on surrounding land uses and features. Refer to Section 3.3 of this report for details on the mitigation measures that will be implemented to minimize impacts on surrounding land uses.

Section 3.7 of the County OP outlines the policies for lands within the Rural Designation. Sections 3.7.1 and 3.7.2 outline the objectives of the Rural Designation while the policies start at Section 3.7.3.

3.7.4 The following are permitted in the Rural designation:

- a) those land uses permitted in the Agricultural designation;*
- b) development related to the management or use of resources (subject to section 4.4 and other policies of this Plan as applicable);*

3.7.10 Development in rural areas should wherever possible be designed and sited on a property so as to minimize adverse impacts on agriculture and to minimize any negative impact on significant natural heritage features and areas and cultural features.

The southern parcels of the proposed Brechin Quarry lands are located within the Rural designation of the County OP and mineral aggregate operations are a permitted use subject to the policies in Section 4 of the County OP. The proposed quarry has been planned and developed to minimize and mitigate adverse effects on surrounding land uses and features. Refer to Section 3.3 of this report for details on the mitigation measures that will be implemented to minimize impacts on surrounding land uses.

Section 3.13 of the County OP outlines the policies of the Lake Simcoe Protection Plan. Refer to Section 4.3 of this report for a separate analysis of the Lake Simcoe Protection Plan policies.

Section 4.4 of the County Official Plan provides a policy framework for new and/or expansions to existing aggregate developments.

4.4 Aggregate Developments

Proposed new and/or expansions to existing mineral aggregate operations shall require a local municipal official plan amendment, unless otherwise permitted. The Ministry of Natural Resources licenses and regulates mineral aggregate operations under the Aggregate Resources Act. Accordingly when considering Section 4.4 Aggregate Developments and Section 4.5 Resource Conservation, applications for proposed new and/or expansions to existing mineral aggregate operations are to be supported by studies that are based on predictable, measurable, objective effects on people and the environment, and evaluated in accordance with Provincial policy, Provincial standards, regulations and guidelines, and if approved under the Aggregate Resources Act, will operate under a site specific license/permit and according to site plan provisions.

A local official plan amendment application and Ministry of Natural Resources and Forestry licence application have been submitted and the applications include all of the studies required by the County of Simcoe, Ministry of Natural Resources and Forestry and the Township of Ramara.

4.4.1 Mineral aggregate operations are not subject to Section 3.3.15, 3.3.19, 4.5.6 and 4.5.18 and shall be located according to the following criteria:

i. Shall not be located in significant wetlands or significant coastal wetlands;

The proposed quarry is not located within significant wetlands or significant coastal wetlands.

ii. Shall not be permitted in significant woodlands, significant valleylands, significant wildlife habitat, significant areas of natural and scientific interest, and coastal wetlands (not subject to 4.4.1(i)) unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions;

The proposed quarry does not contain any significant woodlands, significant valleylands, significant areas of natural and scientific interest, and coastal wetlands. The proposed extraction area does contain significant wildlife habitat. A Natural Environment Report was completed and concludes that with implementation of the environmental mitigation measures there will be no negative to significant wildlife habitat.

iii. Shall not be permitted in fish habitat except in accordance with provincial and federal requirements;

A Natural Environment Report was conducted which concludes that the Subject Lands contain fish habitat and there is the potential for impacts to fish habitat within Tributary A and Tributary G. The application is being submitted to the Department of Fisheries and Oceans Canada (DFO) to ensure that development occurs in accordance with federal requirements under the Fisheries Act prior to the removal of Tributaries A and G.

iv. Shall not be permitted in habitat of endangered species and threatened species, except in accordance with provincial and federal requirements;

A Natural Environment Report was conducted which concludes Bobolink and Eastern Meadowlark habitat will be impacted by the proposed Brechin Quarry. Prior to the removal of this habitat, an overall benefit permit will be required from MECP in accordance with the requirements of the Endangered Species Act.

v. Shall not be permitted on adjacent lands to the natural heritage features and areas identified above unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions;

The ecological function of lands adjacent to the proposed quarry has been evaluated in the Natural Environment Report. The report recommends mitigation measures to demonstrate there will be no negative impacts on the adjacent natural features or their ecological function as a result of the proposed extraction.

- vi. Within the Niagara Escarpment Plan area, shall not be located in the Escarpment Natural or Escarpment Protection Areas identified on Schedule 5.3.1;*
- vii. Within the Oak Ridges Moraine Conservation Plan area, shall be permitted in the Natural Linkage Area and Countryside Area Designations identified on Schedule 5.3.2, and be subject to the policies of Section 3.11 and the provisions of the Oak Ridges Moraine Conservation Plan;*
- viii. Within the Oak Ridges Moraine Conservation Plan area, shall be permitted in the Natural Linkage Area and Countryside Area Designations identified on Schedule 5.3.2, and be subject to the policies of Section 3.11 and the provisions of the Oak Ridges Moraine Conservation Plan;*

The proposed quarry is located outside of the Niagara Escarpment Plan, Oak Ridges Moraine Conservation Plan, and Greenbelt Plan.

In assessing negative impact, proposed mitigation measures, rehabilitation and ecological enhancements, if any, shall be considered.

The proposed quarry includes avoidance and mitigation measures, and a rehabilitation plan to ensure natural heritage features are not negatively impacted a result of the development. A rehabilitation plan has been designed to ensure the site is properly rehabilitated to an end use that is compatible with the surrounding natural heritage features.

4.4.2 High potential mineral aggregate resource areas shall be protected for potential long-term use. As much of the mineral aggregate resources as is realistically possible shall be made available as close to markets as possible. Demonstration of need for mineral aggregate resources, including any type of supply/demand analysis, shall not be required, notwithstanding the availability, designation or licensing for extraction of mineral aggregate resources locally or elsewhere.

The application optimizes the potential long-term use of high potential mineral aggregate resources by making available approximately 69 million tonnes of a close to market high quality aggregate.

4.4.5 High potential mineral aggregate resource areas include all identified Sand and Gravel and Bedrock Aggregate Resources shown on Schedule 5.2.1. The mapping is approximate and can be further refined through detailed information and consultation with the Province and the County. Such areas shall be protected to allow as much of the resource as is realistically possible to be made available for use to supply resource needs, as close to markets as possible, in a manner which

minimizes social and environmental impacts. All applications for new or expanded mineral aggregate operations shall satisfy the requirements of the Aggregate Resources Act or its successor and be supported by an EIS and meet all applicable policies of this Plan, including Sections 3.3.5, 3.8, and 4.5. A County Official Plan amendment is not necessary to permit aggregate development however County interests and issues will be addressed through a local municipal Official Plan amendment. Licensed pits and quarries will be added to Schedule 5.2.1 during the five year review of the Plan.

The proposed quarry is located within the County’s identified high potential mineral aggregate resource areas and makes available 69 million tonnes of a high quality aggregate resource. See Figure 7. The Aggregate Resources Act requires the completion of multiple technical studies including a Natural Environment Report. Refer to Section 3.3 of this report for the proposed technical report mitigation measures.

A local Official Plan amendment application has been submitted to the Township of Ramara and will be circulated to the County for review and comment. See Appendix B for a copy of the proposed local Official Plan amendment.

4.4.6 Mineral aggregate operations shall minimize impacts to adjacent or nearby uses by reason of dust, noise, effects on water table and quantity or other effects from mining activities or transportation of aggregates.

The operation is appropriately designed, buffered and/or separated from adjacent land uses to minimize impacts. Refer to Section 3.3 of this report for the proposed technical report mitigation measures that will ensure impacts to adjacent or nearby uses are minimized.

4.4.7 Progressive and final rehabilitation shall be required to accommodate subsequent land uses, to promote land use compatibility, and to recognize the interim nature of extraction. Final rehabilitation shall take surrounding land use and approved land use designations into consideration.

Rehabilitation of the proposed quarry includes the creation of terrestrial habitat and aquatic habitat that has been designed to be incorporated into the existing landscape. The final landform is compatible with the surrounding existing landscape.

4.4.8 The County may require a Cultural Heritage Report in support of a proposed new or expanded mineral aggregate operation to identify significant cultural features as outlined in Section 4.6. If significant cultural features are identified they shall be conserved which may include mitigation measures and/or alternative development approaches.

A Cultural Heritage Screening Report has been completed which concludes that no significant built heritage or significant cultural heritage landscapes are identified on or surrounding the proposed quarry.

4.4.11 *In prime agricultural areas, on prime agricultural land, extraction of mineral aggregates is permitted as an interim use provided that rehabilitation of the site will be carried out whereby substantially the same areas and same average soil quality for agriculture are restored. On these prime agricultural lands, complete agricultural rehabilitation is not required if:*

- a) *there is a substantial quantity of mineral aggregates below the water table warranting extraction; or*
- b) *the depth of planned extraction in a quarry makes restoration of pre-extraction agricultural capability unfeasible; and*
- c) *other alternatives have been considered by the applicant and found unsuitable; and*
- d) *agricultural rehabilitation in remaining areas will be maximized.*

A portion of the Subject Lands is located within the County of Simcoe’s prime agricultural area and CLI mapping shows the Subject Lands contain Class 1, 3, and 6 soils. An Agricultural Impact Assessment has been completed for the Subject Lands which concluded the lands designated Agricultural are not considered prime agricultural land. Refer to Section 3.1.2 of this report for additional details on the Agricultural Impact Assessment.

Detailed on-site rock quality and quantity testing confirms that the site contains approximately 69 million tonnes of high quality aggregate resource with the majority of that resource being located below the water table. As a result, rehabilitation back to an agricultural condition is not required and instead includes the creation of terrestrial habitat and lake based aquatic habitat with shoreline wetland habitat.

4.5.33 *Development and site alteration are not permitted in fish habitat except in accordance with provincial and federal requirements.*

A Natural Environment Report was conducted which concludes that the Subject Lands contain fish habitat and that there is the potential for impacts to fish habitat within Tributary A and Tributary G. As a result, the ARA Site Plans include notes that require Request for Reviews be submitted to Fisheries and Oceans Canada (DFO) prior to the removal of Tributaries A and G to ensure that development occurs in accordance with the federal requirements under the Fisheries Act.

4.6.1 *Significant built heritage resources, and significant cultural heritage landscapes, will be conserved.*

A Cultural Heritage Screening Report has been completed which concludes that no significant built heritage or significant cultural heritage landscapes are identified on or surrounding the proposed quarry.

4.6.5 Development and site alteration shall not be permitted on lands containing archaeological resources or areas of archaeological potential unless significant archaeological resources have been conserved.

A Stage 1-2 Archaeological assessment has been completed for the site which found two sites that contain Cultural Heritage Value or Interest that were not fully documented through the assessment. As a result, the proposed Brechin Quarry site plans include notes to ensure these sites and surrounding protective buffers will be conserved until a Stage 3 assessment is completed for these specific areas. The Stage 1-2 Archaeological assessment concluded that the balance of the study area outside of the two noted site areas and surrounding protective buffer do not contain archaeological resources.

4.6.6 *Development and site alteration shall not be permitted on adjacent lands to protected heritage property 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.*

A Cultural Heritage Screening Report has been completed which concludes that no protected heritage properties are identified on adjacent lands.

4.6.9 *Applicants shall provide to the County of Simcoe a copy of the completed Archaeological Assessment reports for heritage resource register purposes.*

An Archaeological Study have been completed for the site and has been included as part of the materials submitted with the application.

4.8.23 *Where development is proposed in the vicinity of a Provincial Highway, MTO shall be consulted during any planning process. Storm water management plans that are submitted in support of proposed development in the vicinity of a Provincial Highway shall be forwarded to the MTO for review and approval.*

The Transportation Engineer consulted with the MTO as part of the pre-consultation process. The MTO will also be circulated notice of the application and will have an opportunity to review and provide comment.

4.8.62 *Planning for land uses in the vicinity of airports as identified on Schedule 5.5.1, rail facilities and marine facilities shall be undertaken so that:*

- a) *Their long-term operation and economic role is protected; and*
- b) *Airports, rail facilities and marine facilities and sensitive land uses are appropriately designed, buffered and/or separated from each other, in accordance with 3.3.6, 3.3.21, 3.3.22 and 3.3.24.*

A former rail corridor traverses through the Subject Lands and is located west of the proposed extraction limit. An active rail corridor is located east of the Subject Lands. The proposed quarry will not impact these rail corridors. As such, the long-term operation and economic role of the rail facility will be protected.

In summary, an Official Plan amendment to the County OP is not required and the proposed Brechin Quarry conforms to the County of Simcoe Official Plan.

4.5 Township of Ramara Official Plan (2003)

The application for the proposed quarry is required to conform to the Township of Ramara Official Plan (Township OP). The site is designated "Rural" and "Agriculture" in the Township OP and all new and expanded mineral aggregate operations require an amendment to the Official Plan. See **Figure 12**.

A Township of Ramara Official Plan amendment (Township OPA) has been submitted to re-designate the proposed quarry lands from 'Rural' and 'Agriculture' to 'Mineral Aggregate Extraction Area' and 'Mineral Aggregate Extraction Area special policy', on Schedule A of the Official Plan. **See Appendix B** for a draft of the proposed Official Plan Amendment.

Section 2.0 of the Township Official Plan provides a summary for the basis of the plan and the characteristics of the Township. The Aggregate Industry in the Township is summarized as follows:

2.2 Economy

Ramara's economy can generally be characterized as 'Rural'. It is focused on the strengths of the primary industries of agriculture and aggregate production, and the local tourism industry.

The proposed Brechin quarry is situated on lands designated "Rural" and "Agriculture" with the purpose of the site being to focus on aggregate production.

2.2.2 Aggregate Industry

There are currently eight licensed quarries on 670 hectares and eleven licensed sand and gravel pits on 300 hectares within the Township of Ramara. This equates to a total of 970 hectares of licensed aggregate operations and a total annual extraction limit of 4.9 million tonnes. More than 90% of the extraction limit is devoted to the quarries. The primary trucking routes used by most quarries and pits in the Township are County Road 169, Highway 12, County Road 47 and County Road 44.

The proposed Brechin Quarry will add 151.4ha to the licenced quarries and an additional 2 million tonnes to the total annual extraction limit within the Township. The quarry will also use Highway 12 as its haul route to haul the high quality aggregate to market.

Section 3.3.10 of the Township OP outlines the goals and objectives for aggregate within the Township:

3.3.10 Goal

To identify significant mineral aggregate resources capable of extraction and support the production of aggregate materials as part of the economic development of the Township.

Objectives

- 1. Identified high potential mineral aggregate resource areas shall be sufficiently separated from settlements, residential areas, natural heritage areas, and other sensitive uses in order to avoid land use conflicts and impacts.*
- 2. Ensure adequate and safe access and haul routes associated with mineral aggregate resource operations.*
- 3. Haul routes within and through the Township shall be established and maintained in conjunction with other road authorities and the aggregate industry.*
- 4. Ensure that the Township's interests are considered in the evaluation of new and expanding mineral aggregate operations.*
- 5. Licenced mineral aggregate operations and future expansions and mineral aggregate resource areas shall be protected by appropriate setbacks from the impact of incompatible land uses.*

Section 5.2.2 of the Township OP includes policies related to the protection of "Core Area and Corridors" and the "Supportive and Complimentary Areas and Corridors". In the Township OP, the proposed quarry is located outside of the "Core Area and Corridors" and the "Supportive and Complimentary Areas and Corridors" area which make up the Township's natural heritage framework. See **Figure 14**.

Section 5.3 of the Township Official Plan identifies Natural Resources Policies with Section 5.3.3. addressing Agricultural Resources, Section 5.3.4 addressing Mineral Aggregate Resources and Section 5.3.5 address Water Resources.

5.3.3.6 Prime Agricultural Areas may be considered for non-agriculturally-related activities under the following circumstances:

- c. Mineral aggregate resource extraction according to the Provincial Policy Statement and the policies of this Plan.*

A portion of the Subject Lands is designated Agriculture within the Township OP. An Agricultural Impact Assessment has been completed for the Subject Lands which concluded the lands designated Agricultural are not considered prime agricultural land. The application is to permit the extraction of mineral aggregate resources which is a permitted use. Section 4.1 of this report addresses how the application is consistent with the Provincial Policy Statement.

5.3.4.2 Mineral Aggregate Resource Areas (MARAS) have a high potential for extraction due to the high quality of the mineral aggregate resource.

5.3.4.12 In considering the establishment, operation and expansion of mineral aggregate resource extraction, the Township will take responsibility to make available as much of the resource as is realistically possible to supply resource needs as close to markets as possible.

The proposed Brechin Quarry is located within the Township's High Potential Mineral Aggregate Resource Area (see Figure 15) and on-site testing of the aggregate has occurred to confirm the site contains high quality mineral aggregate resources. This application makes approximately 69 million tonnes of aggregate available that is close to market.

5.3.5.3 In consideration of proposed water taking and use in sensitive groundwater recharge and discharge areas, the Township will rely on hydrogeological and hydrological studies and wellhead protection studies prepared by proponents and government agencies.

The Subject Lands are located outside of identified Wellhead Protection Area and Surface Water Intake protection Zones, but are located within a Highly Vulnerable Aquifer (see Figure 9) and partially within a Significant Groundwater Recharge Area (see Figure 10). A Water Resources Report has been completed which confirms that the proposed quarry will not negatively impact the aquifer or recharge function of the area.

Section 5.6 of the Township Official Plan identifies Cultural Resources Policies.

5.6.1.1 The Township will ensure that proposals for development and/or site alteration shall have regard for the conservation of significant archaeological resources, built heritage resources and cultural heritage landscapes.

5.6.1.2 The Township may require the preparation and submission of archaeological assessments when considering proposals for development and/or site alteration.

A Cultural Heritage Screening Report has been completed which concludes that no significant built heritage or significant cultural heritage landscapes are identified on or surrounding the proposed quarry. As such, no impacts to any cultural heritage resources are anticipated.

A Stage 1-2 Archaeological assessment has been completed for the site which found two sites that contain Cultural Heritage Value or Interest that were not fully documented through the assessment. As a result, the proposed Brechin Quarry site plans include notes to ensure these sites and surrounding protective buffers will be conserved until a Stage 3 assessment is completed for these specific areas. The Stage 1-2 Archaeological assessment concluded that the balance of the study area outside of the two noted site areas and surrounding protective buffer do not contain archaeological resources.

Section 6.0 of the Township Official Plan addresses policies relating to Public and Private Infrastructure, with Section 6.6 addressing transportation policies.

6.6.1 The Roads Plan, shown as Schedule "B" in this Plan, supports the Township's settlement and land use pattern. Roads are classified by jurisdiction and function, as follows:

- a. Provincial highways - arterials*
- b. County roads – arterials*
- c. Township roads - collectors*
- d. Township roads - local streets*

Township Roads that are Seasonal Roads are designated with a symbol on Schedule "B".

Township roads intersections that may require further study by the Township and improvements are not identified on the Roads Plan.

6.6.2 Provincial Highways are designed for interregional transportation and have capacity for large daily volumes of traffic. Access to and from adjacent lands are restricted and are controlled by provincial government regulations.

6.6.4 Township Roads are designed for intra-Township transportation and to provide access to and from adjacent lands and to connect to the provincial and county road network. Access is controlled by this Plan, Township control access bylaws and the use of 0.3 metre reserves.

6.6.5 Where feasible, access to new and changing development areas shall be from Township Roads rather than from provincial highways and county roads.

6.6.6 The Township shall identify and designate, by bylaw, Township Roads as haul routes associated with licenced pits and quarries that are located within the Township according to guidelines and criteria that may be adopted for the design, operation and maintenance of these routes.

6.6.13 The Township shall require road entrance permits for new or altered entrances to Township roads for safety, drainage, and efficiency purposes.

6.6.14 Where necessary, any proposal for development and redevelopment of land and for all applications for new or expanded pits and quarries, shall be considered subject to a Traffic Impact Study and/or a Road Engineering Study, by the proponent, to address road and intersection capacity, safe access, design, road widening and turning lane requirement, surface drainage, and where appropriate, noise impact and attenuation.

The proposed quarry is located along Concession 2 which is classified as a Township Road – local street, Highway 12 which is classified as a Provincial Highway - arterial, and Concession 2 which is classified as a Township Road – Seasonal Road. See Figure 13.

The quarry proposes to ship a maximum of 2,000,000 tonnes per year using Provincial Highway 12 as the haul route. The application proposes to construct an entrance/exit on Concession 2 with no new entrance/exits are proposed to be constructed directly onto Highway 12 or Concession 1. Truck traffic would follow Concession 2 to access Highway 12 at the existing intersection. The necessary upgrades to Concession 2 and entrance permits will require an agreement with the Township.

Highway 12 is an existing haul route for other licenced mineral aggregate operations and has a planned function to accommodate truck traffic and larger volumes of traffic to connect areas within and outside of the County.

The operating hours for extraction at the quarry will be Monday to Friday 7am to 6pm and Saturdays 7am to 12pm. Processing, loading and shipping would be permitted during those hours in addition to starting at 5:30am Monday to Friday. The site would not operate on Sundays or statutory holidays.

A traffic impact study was prepared by TYLin that confirms the traffic generated by the quarry can be accommodated by existing roads and intersections subject to the recommended upgrades and entrance permit.

Section 9.11 of the Township Official Plan provides the policies for the 'Mineral Aggregate Extraction Area' designation.

9.11.3.1 New or expanded mineral aggregate operations shall be located in an area designated as Mineral Aggregate Extraction Area by amendment to this Plan.

An Official Plan Amendment application has been submitted to re-designate the proposed quarry lands from 'Rural' and 'Agriculture' to 'Mineral Aggregate Extraction Area' and 'Mineral Aggregate Extraction Area special policy'. See Appendix B for a draft of the proposed Official Plan Amendment.

The lands proposed to be designated 'Mineral Aggregate Extraction special policy' are the western portion of the site in which extraction is not proposed to occur. These lands will be used for ecological mitigation and monitoring. Section 9.11.11 of the Township Official Plan would be amended to add the following new special policy:

"9.11.11.X – Notwithstanding Section 9.11.2 on lands designated Mineral Aggregate Extraction, located at Part Lot 13, Concession 1, no extraction or accessory and ancillary uses are permitted. These lands are to be used for ecological enhancements and environmental mitigation and monitoring."

9.11.3.2 Any application to amend this Plan shall be considered by the Township subject to the objectives and policies of this plan and in particular Section 5.3.4.

The objectives and policies of the Township Official Plan and in particular Section 5.3.4 have been considered.

9.11.3.3 Any application that proposes extraction below the established groundwater table shall require hydrogeological studies of the impact on water quality and quantity and be subject to public consultation.

A hydrogeological study has been completed which confirms that no negative impacts are expected to the groundwater quality and quantity. See Section 3.1.5 of this report for additional details.

9.11.5.1 In consideration of any application to amend this Plan and/or the Zoning Bylaw, to permit aggregate extraction, the Township and the County shall require the applicant to provide the following:

- a. the submission of a study by the applicant indicating potential haul road transportation impacts from the proposed extraction operation on the Township and County road systems and on local, county, district and regional roads in adjacent municipalities;*

The quarry proposes to ship a maximum of 2 million tonnes of aggregate per year utilizing an entrance/exit on Concession 2 with the haul route traveling along Highway 12. The majority of truck traffic is expected to travel east on Concession 2 and south on Highway 12. As noted above, Highway 12 is a Provincial Highway and an existing haul route for other licence mineral aggregate operations. Highway 12 has a planned function to accommodate truck traffic and larger volumes of traffic to connect areas within and outside of the County.

A traffic impact study was prepared by TYLin to confirm if the traffic generated by the quarry can be accommodated by existing roads and intersections subject to the recommended upgrades and entrance permit.

- b. if required, the submission of an Environmental Impact Statement according to Section 5.2.4 of this Plan.*

A Natural Environment Report has been completed as part of the application. The report was prepared in accordance with Section 5.2.4 of the Township OP. See Section 3.1.4 of this report for additional details on the Natural Environment Report.

- c. demonstration that the proposed mineral aggregate extraction and rehabilitation are consistent with the policies of the County of Simcoe Official Plan and this Plan;*

This section of the report provides a review of the Township OP policies and Section 4.4 of this report provides a review of the County OP policies.

- d. the submission of all reports required by the Province according to the Aggregate Resources Act;*

As part of this application, all reports required under the Aggregate Resources Act have been submitted.

- e. consideration of the use of the proposed operation compatible with existing and planned sensitive land uses in the area, the staging of extraction and rehabilitation within the proposed licenced area, the entering into a registered development agreement with the Township and such other relevant matters as the Township deems necessary such as:
 - i. that the applicant in cooperation with the Township , the County, and adjacent local, district and regional municipalities, will establish all haul routes for truck traffic;*
 - ii. that if a public highway is to be used as a haul route, the appropriate road authority or authorities may require, in a suitable agreement, that any road improvements; the timing of road works, and the responsibilities for road maintenance during and after road construction are undertaken all at the expense of the operator of the pit or quarry;*
 - iii. that the operator shall operate and maintain any private haul routes that are external to the licenced area according to truck volumes and compatibility with land uses, in accordance with a suitable agreement;*
 - iv. any improvements to the Township's surface water drainage system at the applicant's expense.**

Based on the recommendations of the Traffic Impact Study, it is understood that the portion of Concession Road 2 that will be used by aggregate trucks to travel between the future quarry access and Highway 12 will likely require structural upgrades in order to accommodate truck traffic without undue deterioration of the road surface. As a result, the TIS recommends that consultation with the Township occur to perform a review of the existing load capacity (geotechnical assessment) of Concession Road 2 and determine what

upgrades would be required to accommodate quarry truck traffic to and from Highway 12 via Concession Road 2. Any required improvements to Concession 2 will be subject to an agreement with the Township. Following approval of the quarry, the Licensee will be required to pay a levy to the Township for every tonne of aggregate shipped from the site to assist with maintaining this portion of the haul route.

- f. the Township will recommend licence conditions and/or notes on the site plan through the approvals process under the Aggregate Resources Act, where necessary:*
- i. to ensure adequate buffers and/or screening along Township right-of-ways, or adjacent to any existing or proposed residences or as determined through the approval of required studies, adjacent to sensitive land uses to the satisfaction of the Township;*
 - ii. that no new excavation or processing will take place until all required buffers and/or screenings have been constructed;*
 - iii. that no water from washing or screening operations will be directly discharged into any watercourse;*
 - iv. that no new excavation or processing will take place until all required fencing and/or security measures have been put in place;*
 - v. that any off-site discharge of surface and/or groundwater satisfies the requirement of provincial statutes, regulations and standards and that the applicant can obtain the necessary approvals; and*
 - vi. that the operator agrees to ensure off-site monitoring of private water supplies to meet quality and quantity standards and requirements and that appropriate mitigation measures are included in agreements with landowners.*

The Aggregate Resources Act site plans have been prepared to ensure:

- the site is fenced;**
- sensitive land uses are protected;**
- required buffer and setbacks are implemented; and**
- washing, off-site discharge and groundwater and surface water monitoring will take place in accordance with MECP permit conditions to ensure water resources and surrounding wells are protected.**

9.11.6.1 The Township shall monitor all licenced mineral aggregate operations and may provide comments to the provincial ministry responsible for licencing and may review the annual compliance report required by provincial regulation.

9.11.6.2 *The Township may determine whether the operator of the licenced operation complies with any required off-site mitigation measures specified as conditions of the aggregate licence and/or as notes on the approved site plan.*

9.11.6.3 *The Township shall be satisfied that off-site traffic control, road improvements and/or surface drainage measures as agreed to in the registered agreement have been satisfied by the operator.*

If the proposed quarry is approved, an annual compliance report for the quarry would be provided to the Township in accordance with the requirements of the Aggregate Resources Act.

9.11.8.1 *When considering an amendment to the Township's Zoning Bylaw that would enable the establishment or expansion of a mineral aggregate operation, the Township will recommend to the Province conditions to be included in the aggregate licence or notations on the site plan to ensure proper rehabilitation of the lands. Proper rehabilitation means:*

- a. *where the lands from which the extraction will occur are designated as "Agriculture" on Schedule A of this Plan, rehabilitation shall require the restoration of the lands to the previous agricultural capability of the lands. On these "Agriculture" lands, complete agricultural rehabilitation is not required if:*
 - i. *there is a substantial quantity of mineral aggregates below the water table warranting extraction; or*
 - ii. *the depth of planned extraction in a quarry makes restoration of pre-extraction agricultural capability unfeasible; and*
 - iii. *other alternatives have been considered by the applicant and found unsuitable; and*
 - iv. *agricultural rehabilitation in remaining areas will be maximized; and*
 - v. *it has been demonstrated that such rehabilitation would negatively impact groundwater resources.*
- b. *where the lands from which the extraction will occur, including extraction below the established groundwater table, are within any designation other than "Agriculture" designation on Schedule A of this Plan, rehabilitation shall be compatible with the intended or sequential land use in terms of grading, post extraction elevations and vegetation cover and shall be compatible with existing and proposed land uses on lands adjacent to and in the vicinity of the subject lands.*

9.11.8.2 *The Township encourages progressive rehabilitation where by a sequence of extraction and consequent rehabilitation would take place. Such a sequence shall*

minimize the area affected at any one time by requiring rehabilitation in a progressive and phased manner as extraction on portions of the site is completed.

A Zoning By-law Amendment (ZBA) application has been submitted as part of the application package to permit the mineral aggregate operation. See Appendix C for a copy of the draft ZBA.

A portion of the Subject Lands is designated Agriculture in the Township OP. An Agricultural Impact Assessment has been completed for the Subject Lands which concluded the lands designated Agriculture are not considered prime agricultural land. Refer to Section 3.1.2 of this report for additional details on the Agricultural Impact Assessment.

Detailed on-site rock quality and quantity testing confirms that the site contains approximately 69 million tonnes of high quality aggregate resource with the majority of that resource being located below the water table. As a result, rehabilitation back to an agricultural condition is not required.

Rehabilitation of the site will be progressive with rehabilitation commencing during the life of the operation in areas that have been fully extracted. Final rehabilitation has been designed to be compatible with the surrounding land uses. A Natural Restoration Plan will also be implemented within the setbacks and the western portion of the Subject Lands.

In summary, the proposed Brechin Quarry conforms to the Township of Ramara Official Plan.

4.6 Township of Ramara Zoning By-Law

The proposed quarry is currently zoned 'Agricultural (AG)' and 'Rural (RU)' in the Township of Ramara Zoning By-law 2005-85. See **Figure 16**. To conform with the Township of Ramara Official Plan a Zoning By-law amendment is required to rezone the proposed quarry from 'Agricultural (AG)' and 'Rural (RU)' to 'Mineral Aggregate Extraction (MAE)' and 'Mineral Aggregate Extraction Exception XX (MAE-XX)'. A copy of the draft Zoning By-law Amendment is enclosed in **Appendix C**.

The lands zoned 'Mineral Aggregate Extraction (MAE)' are the lands in which extraction is proposed to occur. The following uses would be permitted in accordance with the Township's Zoning By-law:

19. (1) Permitted Uses

Within any Mineral Aggregate Extraction (MAE) Zone, no person shall use any lot or erect, alter or use any building or structure for any purpose, except one or more of the following MAE Zone uses:

- *Agricultural use*
- *Licensed Pit*
- *Licensed Quarry*
- *Driveways in conjunction with the operation of a Licensed Pit or Licensed Quarry*
- *Uses accessory to Licensed Pit or Licensed Quarry:*
 - *crushing*
 - *screening*
 - *washing*
 - *stockpiling*
 - *blending*
 - *storage*
 - *weigh scales*
 - *packing*
 - *on-site office facility*
 - *repair and maintenance*
- *Uses ancillary to Licensed Pit or Licensed Quarry:*
 - *asphalt plant*
 - *concrete plant*
 - *aggregate recycling plant*
 - *aggregate transfer station*

The lands zoned 'Mineral Aggregate Extraction Exception XX (MAE-XX)' are the western portion of the site in which extraction is not proposed to occur. These lands will be used for ecological enhancements, mitigation and monitoring. Section 19. (3) of the Township Zoning By-law would be amended to add the following new special exception:

"MAE-XX – Notwithstanding subsection (1), no extraction, uses accessory to Licensed Quarry; or uses ancillary to Licensed Quarry are permitted to occur within the MAE-XX zone. Within the MAE-XX zone only, ecological enhancements, mitigation and monitoring shall be permitted.

The 'Mineral Aggregate Extraction (MAE)' and 'Mineral Aggregate Extraction Exception XX (MAE-XX)' zones conform with the Township of Ramara OP Mineral Aggregate Extraction Area designation.

5.0 AGGREGATE RESOURCES ACT SUMMARY STATEMENT

LCP Quarry Limited (LCP) is applying for a Class A Licence under the Aggregate Resources Act (ARA) for a new quarry that proposes to extract below the water table. The Subject Lands are located in the Township of Ramara, County of Simcoe and is legally described as being located on Part of Lots 11, 12 and 13, Concession 1 in the former geographic Township of Mara. The area proposed to be licenced under the ARA has a licence area of 151.4ha and proposes to extract an area of 91.5ha. The Subject Lands contain a large quantity of crushed stone and limestone resources. Please see **Figures 1 and 2** for an overview of the land holdings.

The final quarry floor for the proposed quarry will slope from approximately 207.6 masl in the northeast to approximately 202.6 masl in the southwest. Once extraction of aggregate material is complete, the Subject Lands will be rehabilitated by allowing the quarry excavation area to flood forming a quarry lake with shoreline wetland features and natural environment features within some of the setbacks.

An existing ARA licenced quarry operated by Lafarge Canada Inc. (Lafarge) is located to the northeast of the Subject Lands. This quarry is known as the Lafarge Brechin Quarry and has ARA Licence #3582. An existing ARA licenced quarry operated by James Dick Construction Limited (James Dick) is located to the south of the Subject Lands. This quarry is known as the Mara Limestone Aggregate Limited Quarry and is also referred to as the James Dick Gamebridge Quarry and has ARA Licence #3717. Please see **Figure 3**.

Aggregate extracted from the site will be processed on-site within Phase 1 and shipped from the entrance/exit on Concession 2. Trucks will use Concession 2 and Highway 12 as the haul route. A maximum annual shipping limit of 2,000,000 tonnes is proposed.

The complete Aggregate Resources Act licence application for the proposed Brechin Quarry consists of the following:

5.1 Site Plans

The site plans provide details of existing features, the operational plan, progressive and final rehabilitation, and cross-sections of existing conditions and final rehabilitation of the site. The site plans are included in the application package and includes all of the recommendations from the various technical reports.

5.2 Part 1.0 - Summary Statement

The following sections are structured to provide information on the study and technical report requirements required by the Aggregate Resources Act Provincial Standards for an Aggregate Resources Act Summary Statement for the proposed Brechin Quarry.

5.2.1 Standard 1.1 - Agricultural Classification of the Proposed Site

The lands within the proposed extraction limit are predominantly vacant, fallow lands not in agricultural production. Remaining lands within the proposed licence area consist of natural features consisting of forested areas and streams. There are no agricultural buildings or structures located on-site. The surrounding lands are characterized by large parcels of land which are actively cash cropped, as well as wooded areas, pasture lands, livestock farms, and mineral aggregate operations.

The County of Simcoe and Township of Ramara Official Plans designate the northern parcel of the site as "Agriculture" and identify it as a prime agricultural area. See **Figures 6 and 12**. Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) Canadian Land Inventory soils mapping identifies that the site and surrounding area contains Class 1, 3 and 6 agricultural soils (see Figure 2 of the AIA).

The County and Township Official Plans designate the southern parcels of the portion located within the proposed extraction limit as "Rural". See **Figures 6 and 12**. These parcels are not located within a prime agricultural area.

An Agricultural Impact Assessment (AIA) was completed by MHBC and concluded the lands designated Agriculture are not considered prime agricultural land. While Aggregate extraction is permitted on prime agricultural land within prime agricultural areas in accordance with the PPS, Growth Plan, County of Simcoe Official Plan and Township of Ramara Official Plan, since the lands are not considered prime agricultural land, agricultural rehabilitation is not required in accordance with PPS Policy 2.5.4.1.

Rehabilitation to an agricultural condition is not required for this site and is not contemplated as part of the final rehabilitation plan. The site will be rehabilitated to a lake with shoreline wetland habitat and terrestrial and wetland habitat created throughout the site.

5.2.2 Standard 1.2 - Planning and Land Use Considerations

To permit the proposed quarry, a Township of Ramara Official Plan Amendment and Zoning By-law Amendment are required before an Aggregate Resources Act licence can be issued.

The proposed Brechin Quarry is consistent with the Provincial Policy Statement (PPS) and conforms to the Growth Plan, Lake Simcoe Protection Plan, County of Simcoe Official Plan and the Township of Ramara Official Plan for the following reasons:

- Aggregate extraction is an established use in the area and the site is identified for potential future extraction in the County of Simcoe and Township of Ramara Official Plans;
- The County of Simcoe and Township of Ramara Official Plans identify the Subject Lands as being within a High Potential Mineral Aggregate Resource Area (HPMARA);
- The site contains approximately 69 million tonnes of close to market high quality aggregate. The availability of aggregates close to market is important for economic, social and environmental reasons;
- The proposed extraction area is predominately fallow, underutilized land. The proposed extraction area contains areas of threatened and endangered species habitat, significant wildlife habitat, non significant woodlands, non significant wetlands, and fish habitat. Extraction within these features will occur in accordance with Provincial and Federal requirements;
- The proposed rehabilitation plan and ecological enhancement plan includes an overall increase in natural cover on the properties and a net gain of natural systems within the study area;
- Adjacent key natural heritage features and key hydrologic features will not be negatively impacted by the proposed quarry and will be maintained in the long-term based on the proposed rehabilitation plan;
- No significant built heritage or significant cultural heritage landscapes are identified on or surrounding the proposed quarry;
- With the exception of two archaeological sites, the balance of the subject lands do not contain archaeological resources. The two sites that contain cultural heritage value or interest will be conserved until a Stage 3 assessment is completed for these specific areas. One of the sites is located within the extraction limit while the other is located outside of the extraction limit;
- The proposed quarry has been designed to minimize social impacts on surrounding sensitive receptors (noise, dust, blasting, water resources [i.e. wells] and traffic); and
- The proposed quarry has been designed to minimize impacts on surrounding agricultural uses and operations.

See Sections 2.0, 3.0, and 4.0 of this report for additional information.

5.2.3 Standard 1.3 - Source Protection

The proposed Brechin Quarry is identified by the County of Simcoe as:

- Being outside of identified Wellhead Protection Area and Surface Water Intake protection Zones (County Official Plan Schedule 5.2.4);

- Being located within a Highly Vulnerable Aquifer (County Official Plan Schedule 5.2.5). See **Figure 9**; and
- Being partially within a Significant Groundwater Recharge Area (County Official Plan Schedule 5.2.6). See **Figure 10**.

The Hydrogeological and Hydrological Report completed by Azimuth Environmental Consultants Inc. considers the impacts to water supplies of the potential quarry from a Source Water Protection perspective. The report confirms that the closest municipal water supplies are the South Ramara Water Treatment Plant (WTP) and the Brechin & Lagoon City WTP situated about 2.2 km southwest and 4.7 km northwest of the proposed quarry, respectively. Both of these WTPs rely on surface water with lake intakes located along the eastern shoreline of Lake Simcoe. Based on the County's mapping, the proposed quarry does not fall within WHPA boundary (Q1/Q2). The nearest Municipal ground water supply services the Bayshore Village Subdivision and is located about 10 km north of the proposed quarry.

The proposed quarry will extract below the established water table, will require dewatering activities during the life of the operation and will be rehabilitated back to a lake once extraction is complete. The province of Ontario has identified 21 prescribed drinking water threats under the *Clean Water Act* and it is also noted that aggregate extraction is not one of those 21 prescribed drinking water threats. The Hydrogeological and Hydrological Report completed an extensive conceptual site model, and ground and surface water monitoring programs to determine the impacts of the proposed quarry on the surrounding water resources. The report concluded that the proposed quarry will have a minimal and negligible impact to the surrounding ground water and surface water regimes.

To confirm that the proposed Brechin Quarry is not impacting water resources, a detailed groundwater monitoring program will be conducted during extraction of the site. The detailed groundwater monitoring program shall commence a minimum of four months prior to the beginning of extraction to confirm baseline conditions and includes:

- nine groundwater monitoring wells will be monitored on a quarterly basis to measure groundwater levels and download information collected from the dataloggers. Dataloggers installed in these wells would be configured to record daily water levels. Two of these wells may be removed as part of the quarry extraction as they are both located within the Phase 2 limit of extraction;
- contacting all neighbours within 500m of the proposed quarry to request permission to monitor water levels within the private wells and as part of a one-time program to collect water quality samples to establish baseline conditions; and
- monitoring of private wells (where permission to do so is granted) will be completed semi-annually to measure groundwater levels in the spring and summer to reflect seasonal highs and lows.

Furthermore, the development of a Spills Contingency Plan is required to address any potential spills from equipment on-site.

5.2.4 Standard 1.4 - Quality and Quantity of Aggregate On-Site

The proposed Brechin Quarry is mapped as a High Potential Mineral Aggregate Resource Area (HPMARA) in the County of Simcoe Official Plan and the Township of Ramara Official Plan. See **Figures 7 and 15**.

On-site geological testing has been completed on the proposed Brechin Quarry lands which confirms the site contains several geological formations that yield high quality aggregate products that can be used for a wide variety of aggregate products, including most road building and construction projects, and potentially concrete production.

The proposed quarry contains approximately 69 million tonnes of high quality aggregate resources.

5.2.5 Standard 1.5 - Main Haulage Routes and Proposed Truck Traffic

A Traffic Impact Study was completed by TYLin International Canada Inc. (TYLin) to:

- address transportation impacts, including the site access and site traffic volumes generated by the quarry;
- assess the potential impacts to the road network.; and
- recommend potential improvements to the road network to accommodate the projected traffic generated by the quarry.

The Brechin Quarry is proposed to operate from 7am to 6pm, Monday to Friday, and 7am to 12pm on Saturdays. Processing and shipping is permitted to commence at 5:30am Monday to Friday. The site proposes an annual tonnage limit of 2,000,000 tonnes to be shipped from the operation. The site proposes to construct the entrance/exit on Concession 2, approximately 450m west of Highway 12. The proposed haul route would travel east on Concession 2 for 450m with the majority of truck traffic expected to travel south on Highway 12 towards the GTA. No other new entrances are proposed as part of this application. Concession 2 is identified by the Township as a local municipal road while Highway 12 is identified as a provincial highway which has a planned function to accommodate truck traffic and larger volumes of traffic. See **Figure 13**.

The Traffic Impact Study assessed the road capacity, intersection operations, including a queueing analysis, a signal warrant analysis and sight lines under existing conditions and future conditions. The study concluded that:

- The proposed access location on Concession 2 approximately 450m west of Highway 12 satisfies and exceeds MTO and TAC minimum intersection spacing requirements;

- The proposed quarry is estimated to generate 56 outbound and 37 inbound truck trips during the weekday a.m. peak hour and 37 inbound and 37 outbound truck trips during the weekday p.m. and Saturday mid-day peak hours;
- The existing intersection of Highway 12 and Concession Road 2 operates well under existing conditions. The existing intersection is expected to continue to operate well under future background conditions, and can readily accommodate the additional traffic volumes associated with the proposed quarry. No improvements are required to address the intersection operations;
- The introduction of site traffic to the study area road network is expected to have a minor impact on future operations based on the differences between the future total and future background capacity results for each future horizon year. No improvements are required to address the road capacity;
- A queueing analysis of the existing intersection confirms that queue lengths at the intersection of Highway 12 at Concession Road 2 under existing and future conditions are minimal and are able to be accommodated by the existing available storage length for each movement during the weekday a.m., p.m., and Saturday mid-day peak hours. No improvements are required to address road lane queueing capacity;
- The quarry has been designed to accommodate queueing truck traffic on site by siting the scale and scale house approximately 100m in the site from Concession 2. A review of the aggregate truck queueing internal to the proposed Quarry confirmed the 100 metre distance between the scale house and Concession 2 would be adequate to accommodate internal queueing, and a spillback of the internal queue onto Concession Road 2 would not be anticipated during the study peak hours;
- A traffic signal warrant analysis was conducted for the existing intersection of Highway 12 and Concession Road 2 in accordance with the requirements of Ontario Traffic Manual Book 12. The analysis concludes that a traffic signal is not warranted for any future horizon year (2025, 2030, and 2035) under future background or future total traffic conditions;
- The portion of Concession Road 2 that will be used by aggregate trucks to travel between the future quarry access and Highway 12 will likely require structural upgrades in order to accommodate truck traffic without undue deterioration of the road surface. It is recommended that consultation with the Township occur to perform a review of the existing load capacity (geotechnical assessment) of Concession Road 2 and determine what upgrades would be required to accommodate quarry truck traffic to and from Highway 12 via Concession Road 2;
- The existing flare (paved shoulder) on Highway 12 for southbound right-turning traffic should also be reviewed for its capacity to accommodate aggregate trucks. The possibility of extending the length of the existing taper/portion of paved shoulder should also be reviewed; and
- It is estimated that only two aggregate trucks will make the southbound right turn during the study peak hours, as minimal aggregate is expected to ship to/from the

north. Given the relatively low volume of aggregate trucks predicted to complete the turn, it is recommended to upgrade the existing southbound right-turn taper to accommodate aggregate traffic instead of constructing an exclusive right-turn lane.

The Traffic Impact Study provides the following recommendations for inclusion on the ARA Site Plans:

- Prior to shipping, the Licensee shall enter into an agreement with MTO to upgrade the southbound right-turn taper from Highway 12 to Concession Road 2.
- Prior to shipping, the Licensee shall enter into an agreement with the Township of Ramara to upgrade Concession Road 2 from the entrance/exit to Highway 12.
- The scale house shall be located 100 m inside of the site to accommodate queuing of trucks on-site.

5.2.6 Standard 1.6 - Progressive and Final Rehabilitation

The proposed Brechin Quarry has been designed with a phasing plan that is integrated with the surrounding lands to minimize disturbance. The quarry has been designed to be extracted in two phases (Phase A and Phase B). Each phase contains two sub-phases (Phase A1 and A2, and Phase B1 and B2). Phase A is located in the northern portion of the Subject Lands while Phase B is the remaining southern portion of the Subject Lands. Quarry operations will commence in Phase A of the proposed lands with extraction of that phase proceeding in south and westerly directions. Phase B will also be extracted in south and westerly directions. The operational plan schematic of the proposed quarry is included as **Figure 4**.

Rehabilitation of the quarry includes the creation of a quarry lake, wetland and terrestrial habitat. The Rehabilitation Plan schematic for the proposed Brechin Quarry is included as **Figure 5** and includes the creation of the following features as part of the final landform:

- a 87.7ha quarry lake with a final lake elevation of 232 masl;
- 0.6ha of shoreline wetland around the edge of the lake;
- 4.7ha of wetland habitat creation within the setbacks along the northern portion of the site (illustrated as Areas D1, D2, F, G, and H);
- 5.4ha of terrestrial habitat creation within the setbacks along the northern and southeast portions of the site (illustrated as Areas A and B);
- 4.1ha of terrestrial habitat that will be created within the western most parcel in the licence boundary (illustrated as Areas C); and
- 5.2ha of wetland habitat that will be created within the western most parcel in the licence boundary (illustrated as Area E).

Creation of the woodland features within the setbacks along the northern and southeast portions of the site (illustrated as Areas A and B in **Figure 5**) will occur immediately after the acoustical berms are constructed in the setback.

Creation of wetland features within the setbacks along the northern portion of the site (illustrated as Areas D1, D2, F, G, and H in **Figure 5**) will occur so that water can passively drain within the setbacks towards the existing off-site tributaries. These features are required to be created once the sump is operational and the water mitigation system is installed during Phase A.

The wetland and woodland habitat creation that is proposed on the western property (illustrated as Areas C and E in **Figure 5**) will be created prior to extraction commencing in Phase B.

The sidesloping of the quarry faces will be completed once final extraction limits and depths are met. The sidesloping will be progressive throughout the life of the operation and the flooding of the quarry to create the lake will occur once extraction at the site is complete.

See the Aggregate Resources Act Site Plans for additional details regarding the operational and rehabilitation design.

5.3 Part 2.0 - Technical Reports

The following study requirements for the Class A licence are fulfilled by this application. Each report includes the qualifications and experience of the individual(s) that have prepared the report.

- 2.1 "*Maximum Predicted Water Table Report, Proposed Brechin Quarry, Township of Ramara, County of Simcoe*", Azimuth Environmental Consulting, Inc., December 2023.
- 2.2 "*Natural Environment Report, Brechin Quarry, Township of Ramara*", Azimuth Environmental Consulting, Inc., December 2023.
- 2.3 "*Cultural Heritage Screening Report, Proposed Brechin Quarry, 1646 Highway 12, Part of Lots 11, 12 and 13, Concession 1 (Geographic Township of Mara) Township of Ramara, County of Simcoe*", MHBC, December 2023.

 "*Stage 1-2 Archaeological Property Assessment, Carden Quarry, Part of Lots 11, 12 & 13, Concession 1 (Geographic Township of Mara, County of Ontario), Township of Ramara, County of Simcoe*", AMICK Consultants Limited, February 05, 2024.
- 2.4 "*Agricultural Impact Assessment, Brechin Quarry, LCP Quarry Limited*", MHBC, December 2023.

- 2.5 *"Level 1 and 2 Hydrogeological and Hydrological Assessment, Proposed Brechin Quarry, Township of Ramara, County of Simcoe"*, Azimuth Environmental Consulting, Inc., December 2023.
- 2.6 *"Blast Impact Analysis, Brechin Quarry, Part of Lots 11, 12 and 13, Concession 1 (former geographic Township of Mara), Township of Ramara, County of Simcoe"*, Explotech, December 2023.
- 2.7 *"Noise Impact Assessment, LCP Quarry Limited Brechin Quarry, Township of Ramara, County of Simcoe, Ontario"*, HGC Engineering, December 2023.

5.3.1 Other Technical Reports Submitted

- *"Traffic Impact Study, Brechin Quarry, LCP Quarry Limited"*, TY Lin, December 2023.

6.0 CONCLUSIONS

For the reasons summarized in this report the proposed Brechin Quarry represents the wise use and management of rural resources, is in the public interest and the proposed Brechin Quarry application:

- Is consistent with the Provincial Policy Statement;
- Conforms to the Growth Plan;
- Conforms to the Lake Simcoe Protection Plan;
- Conforms to the County of Simcoe Official Plan; and
- Conforms to the Township of Ramara Official Plan.

Respectfully Submitted,
MHBC

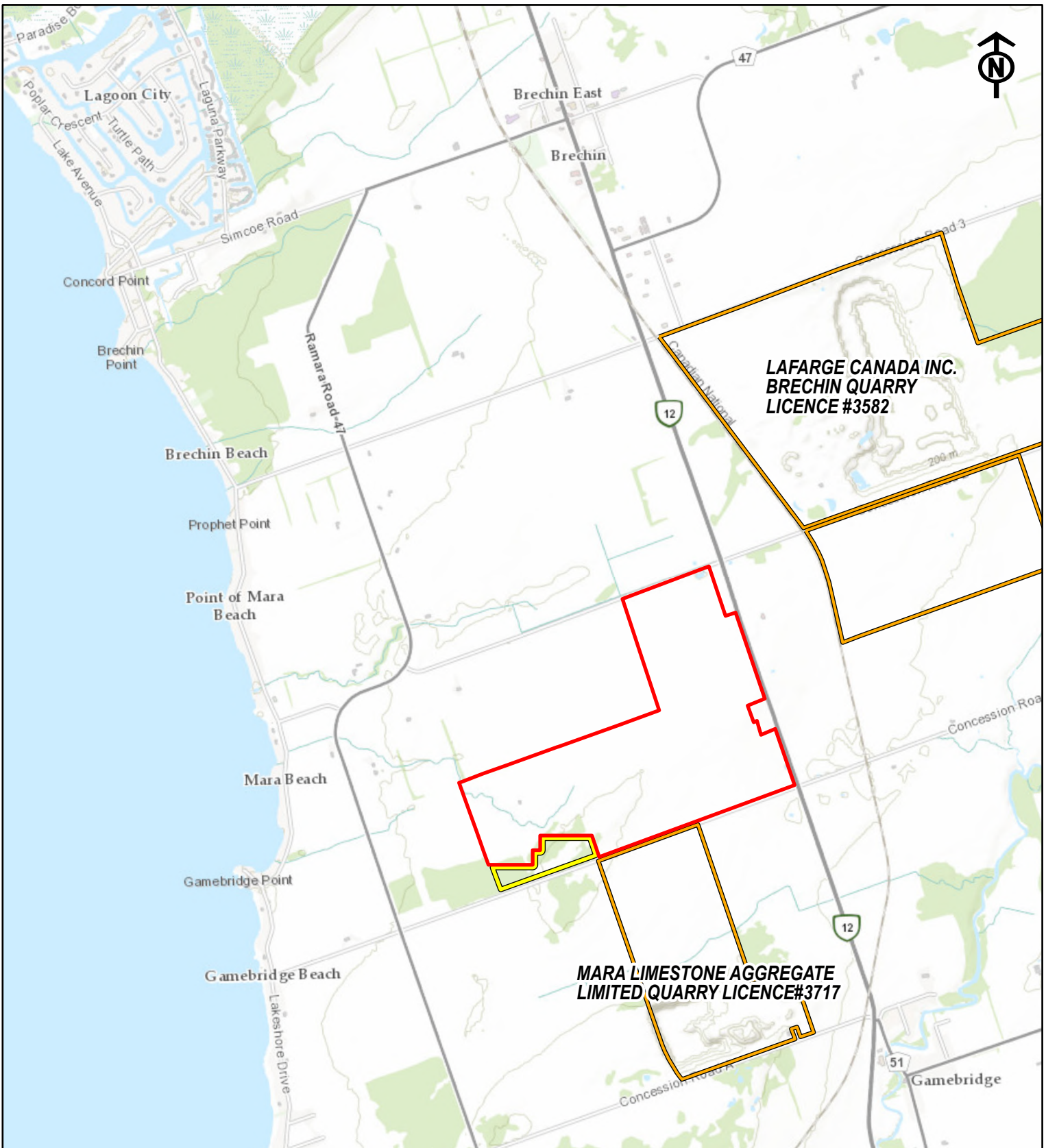


Brian Zeman, BES, MCIP RPP
President



James Newlands, HBCComm, MSc, MCIP, RPP
Associate

Figures



**FIGURE 1
SITE LOCATION**

Proposed Brechin Quarry
Part of Lots 11,12&13, Con. 1
Township of Ramara
County of Simcoe

LEGEND

- Subject Lands and Proposed Licence Boundary
- Additional Lands Owned by Applicant
- Other ARA Licences

DATE	December 2023
SOURCES	ESRI Land Information Ontario

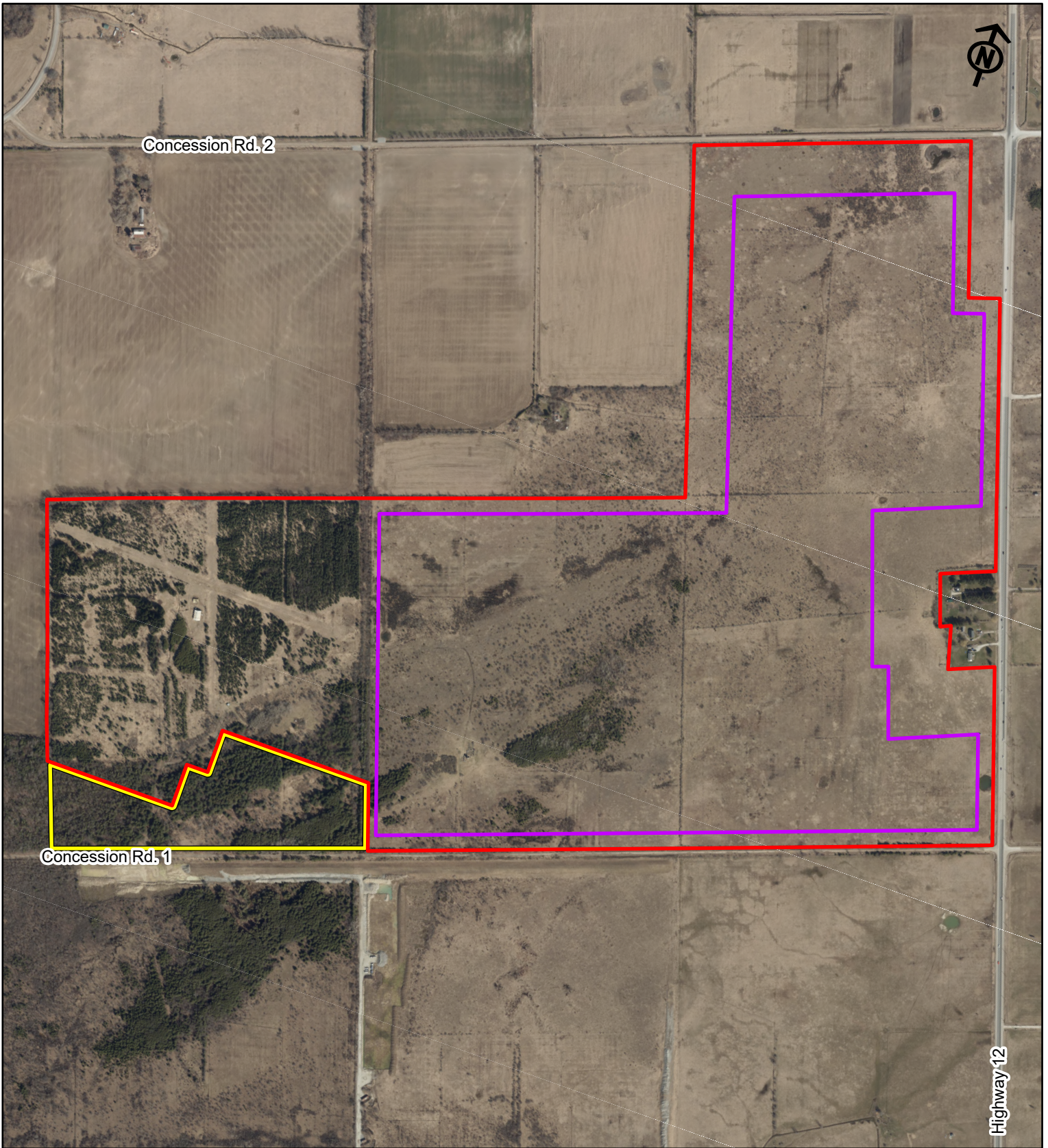


FIGURE 2
AERIAL CONTEXT

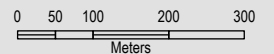
Proposed Brechin Quarry
Part of Lots 11,12&13, Con. 1
Township of Ramara
County of Simcoe

LEGEND

- Subject Lands and Proposed Licence Boundary
- Proposed Limit of Extraction
- Additional Lands Owned by Applicant

DATE December 2023

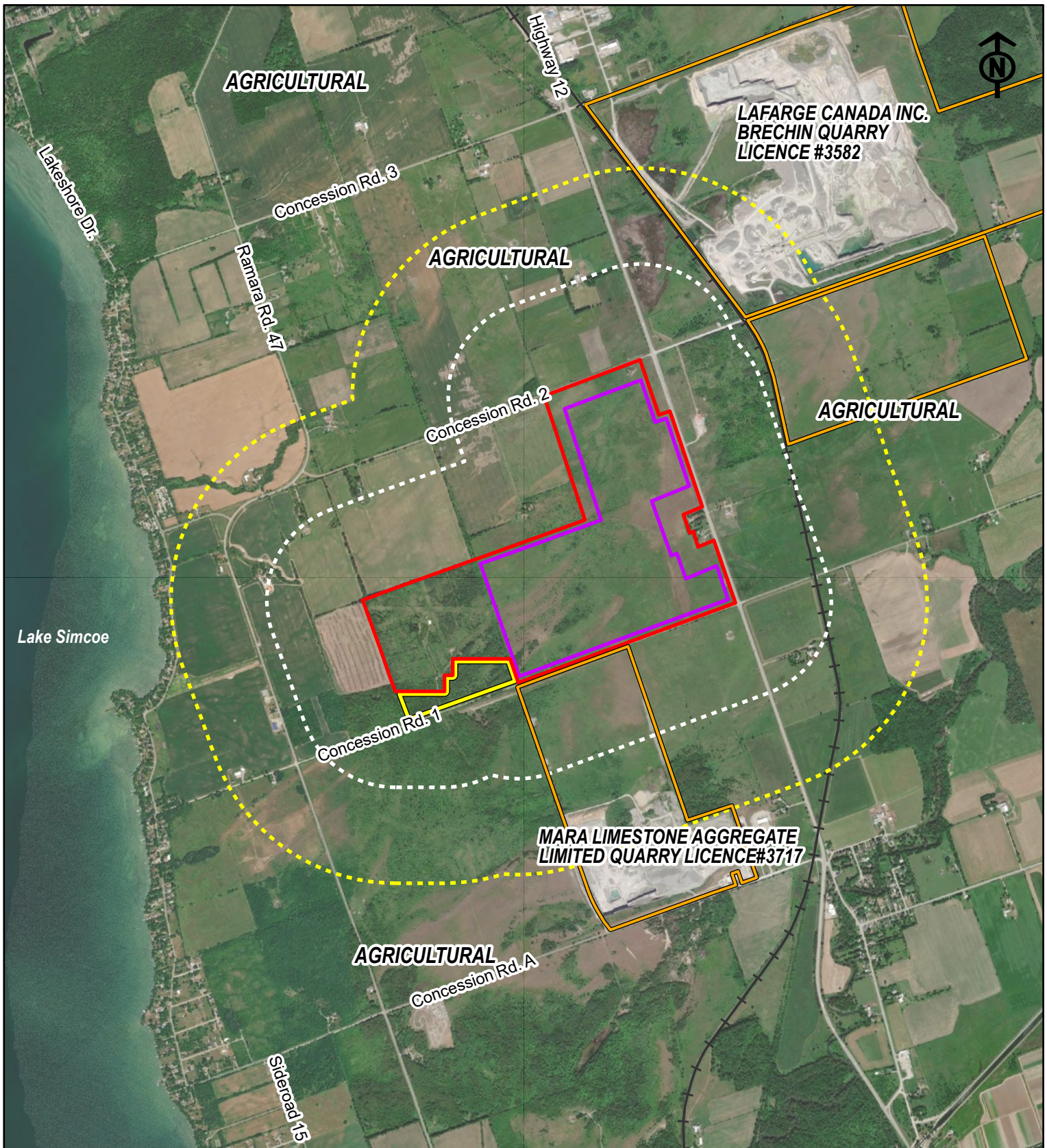
SOURCES
2022 Ortho Photography County of Simcoe GIS



12135B - Planning Report Figures



PLANNING
URBAN DESIGN
& LANDSCAPE
ARCHITECTURE



**FIGURE 3
SURROUNDING USES**

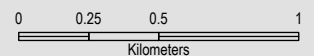
Proposed Brechin Quarry
Part of Lots 11,12&13, Con. 1
Township of Ramara
County of Simcoe

LEGEND

- Subject Lands and Proposed Licence Boundary
- Proposed Limit of Extraction
- Additional Lands Owned by Applicant
- Other ARA Licences
- 500m Offset
- 1km Offset
- Railway

DATE December 2023

SOURCES County of Simcoe GIS
Land Information Ontario



12135B - Planning Report Figures

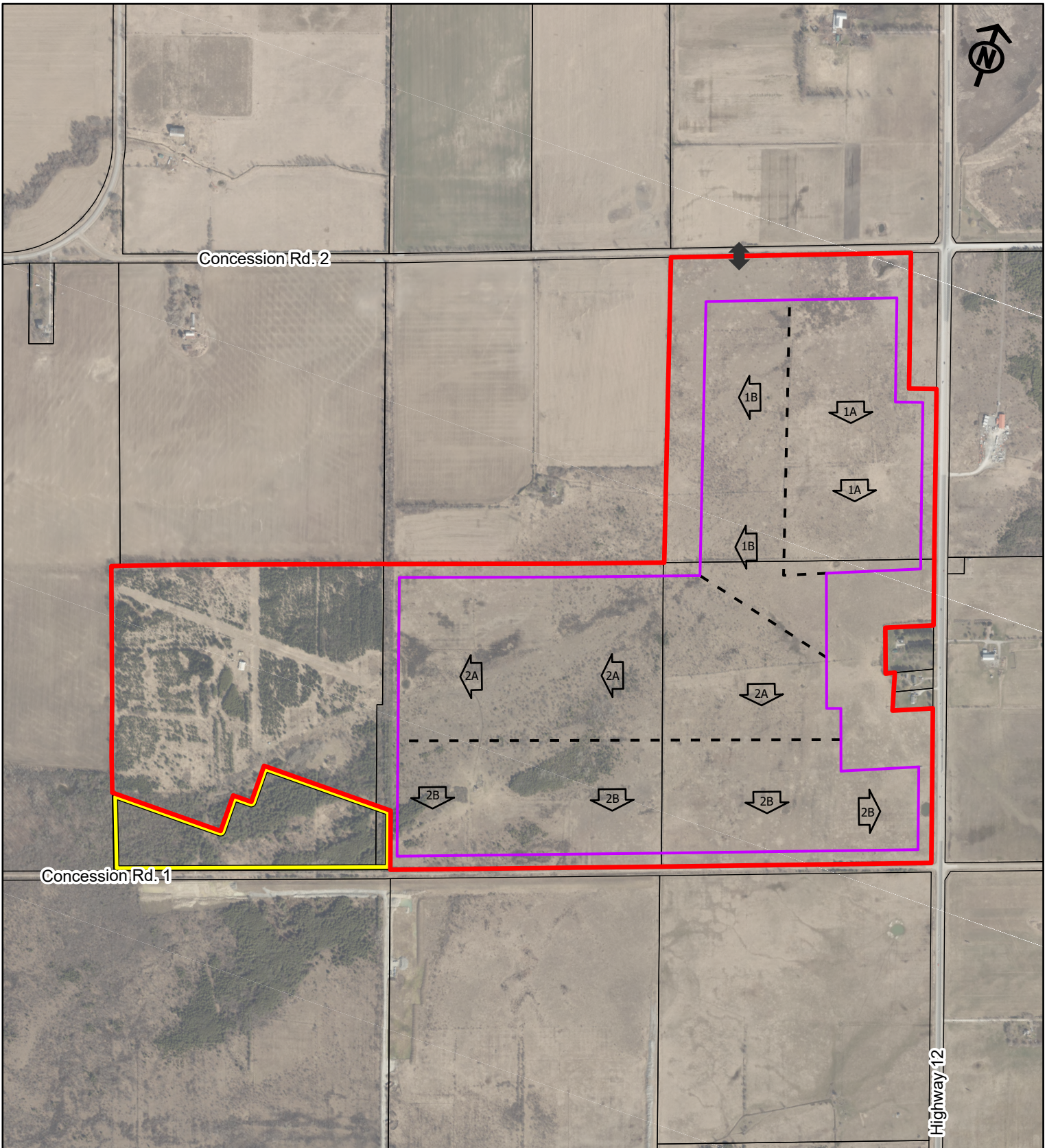


FIGURE 4
BRECHIN QUARRY SIMPLIFIED
OPERATION SCHEMATIC

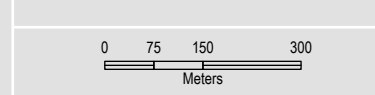
Proposed Brechin Quarry
 Part of Lots 11&12, Concession 1
 Township of Ramara
 County of Simcoe

LEGEND

- Subject Lands and Proposed Licence Boundary
- Proposed Limit of Extraction
- Additional Lands Owned by Applicant
- Phasing Area
- Proposed Entrance / Exit

DATE December 2023

SOURCES
 2022 Ortho Photography County of Simcoe GIS



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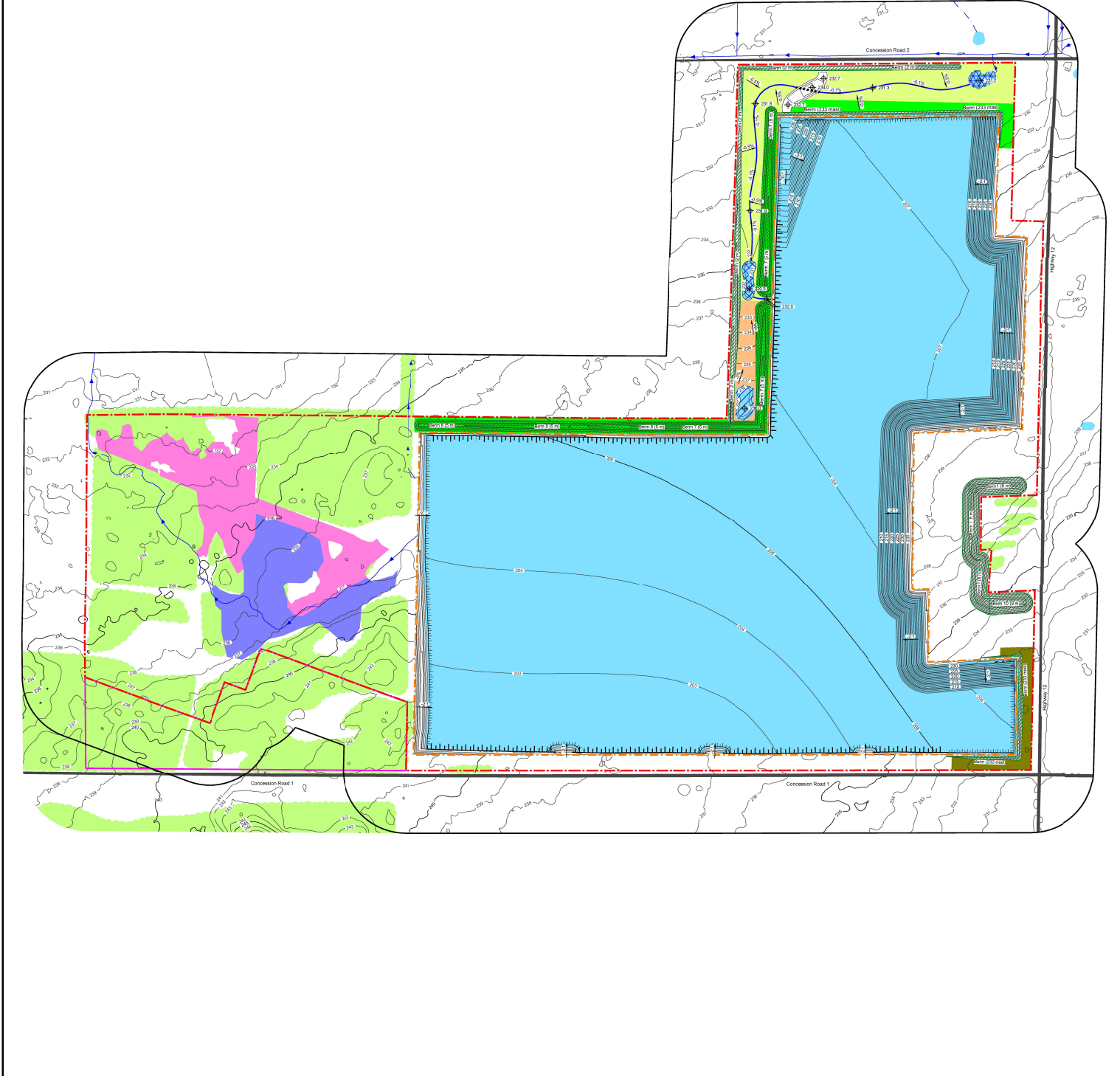


FIGURE 5
REHABILITATION
SCHEMATIC

Proposed Brechin Quarry
Part of Lots 11&12, Concession 1
Township of Ramara
County of Simcoe

LEGEND

- | | | | |
|--|---|--|---|
| Licence Boundary | 120m Offset From Licence Boundary | Restoration Areas | Area E
Wetland Edge Planting Zone (Creek / Wetland Rehabilitation) |
| Limit of Extraction | Berm
Permanent | Area A
Upland Planting Zone | Area F
Permanently Flooded Zone |
| Contours with Elevation
Water Above and Below (MADL) | Proposed Final Slope
(Horizontal - Vertical) | Area B
Upland Planting Zone | Area G
Permanently Flooded Zone |
| Watercourse
Permanent
(Direction of flow indicated by arrows) | Proposed Final Grade | Area C
Upland Planting Zone (Woodland Rehabilitation - Linkage) | Area H
Permanently Flooded Zone |
| Watercourse
Intermittent
(Direction of flow indicated by arrows) | Water Feature | Area D1
Wetland Edge Planting Zone (During Operations and Closure) | |
| Extraction Face
Above Water | Wooded Area | Area D2
Wetland Edge Planting Zone (During Operations - Upland After Closure) | |
| Extraction Face
Below Water | | | |

DATE	December 2023
SOURCES	12135B - Site Plan - 4 of 5 - Rehabilitation Plan
	n/a
	12135B - Planning Report Figures
PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE	

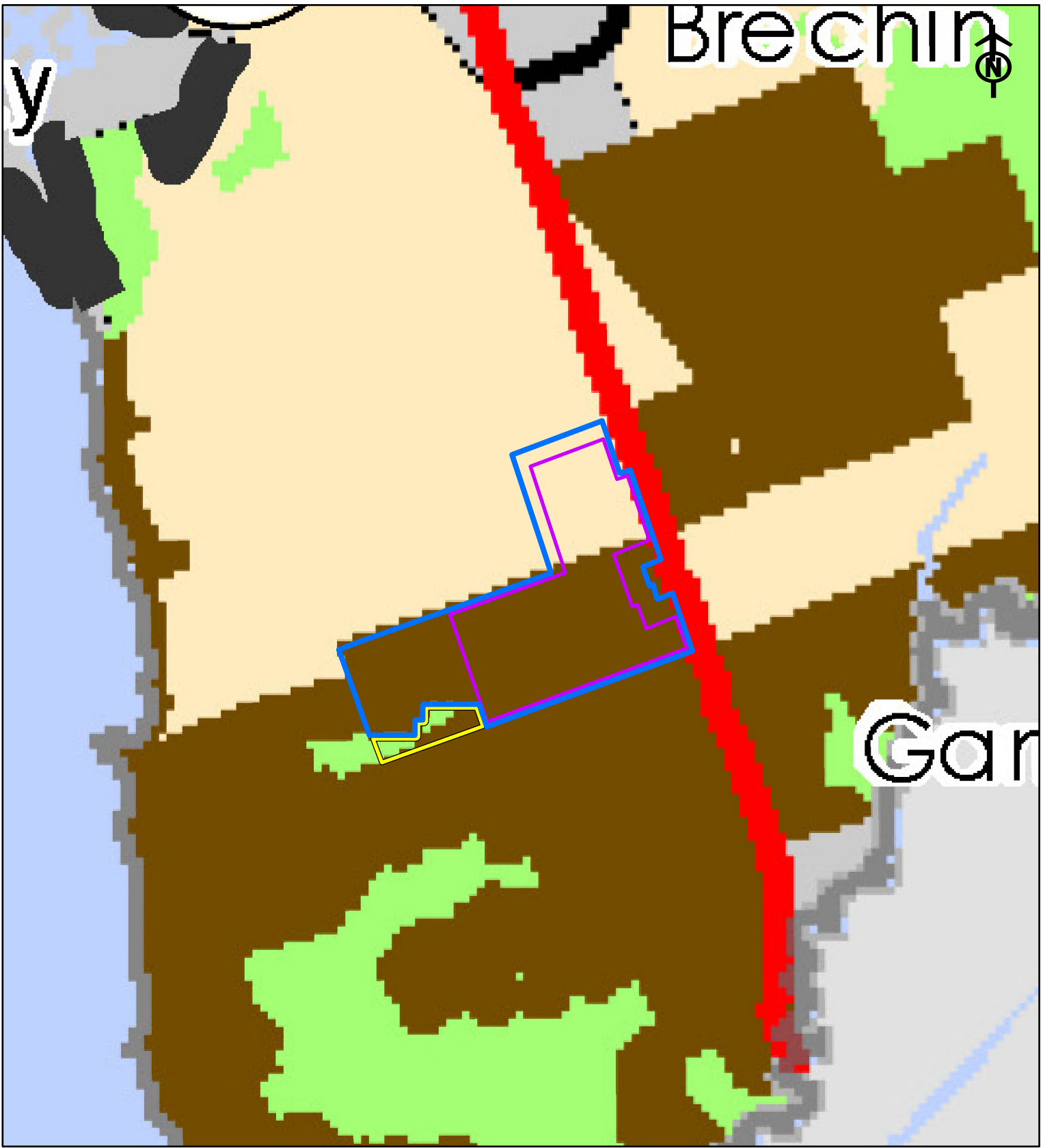


FIGURE 6
COUNTY LAND USE DESIGNATIONS

County of Simcoe
 Official Plan Schedule 5.1
Proposed Brechin Quarry
 Part of Lots 11,12&13, Con. 1
 Township of Ramara
 County of Simcoe

LEGEND

- Subject Lands and Proposed Licence Boundary
- Proposed Limit of Extraction
- Additional Lands Owned by Applicant
- Greenlands
- Agricultural
- Rural
- Settlements
- Provincial Highway

DATE	December 2023
SOURCES	County of Simcoe
12135B - Planning Report Figures	
PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE	

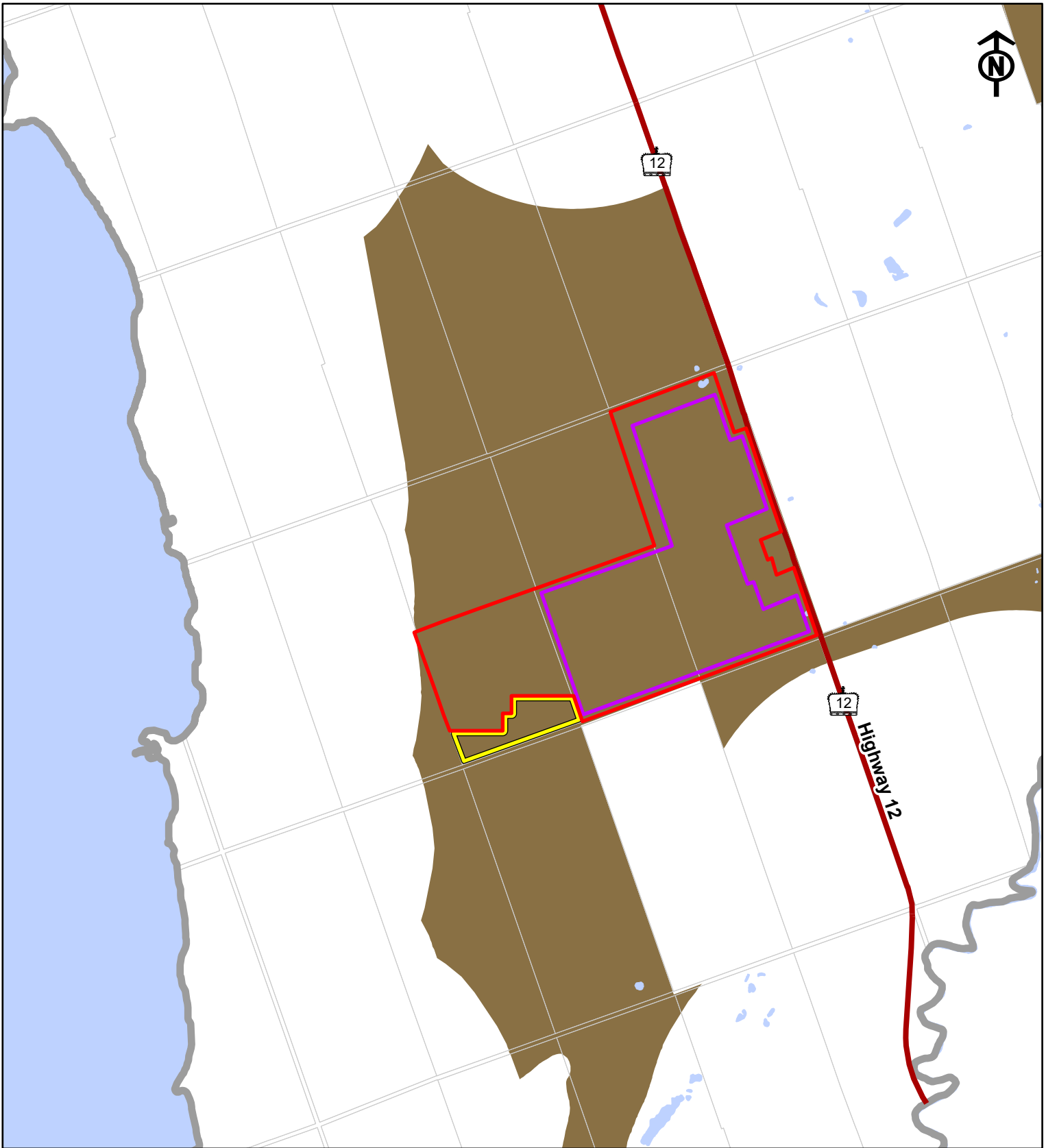


FIGURE 7
HIGH POTENTIAL MINERAL
AGGRGATE RESOURCES

County of Simcoe
 Official Plan Schedule 5.2.1

Proposed Brechin Quarry

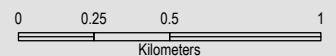
Part of Lots 11,12&13, Con. 1
 Township of Ramara
 County of Simcoe

LEGEND

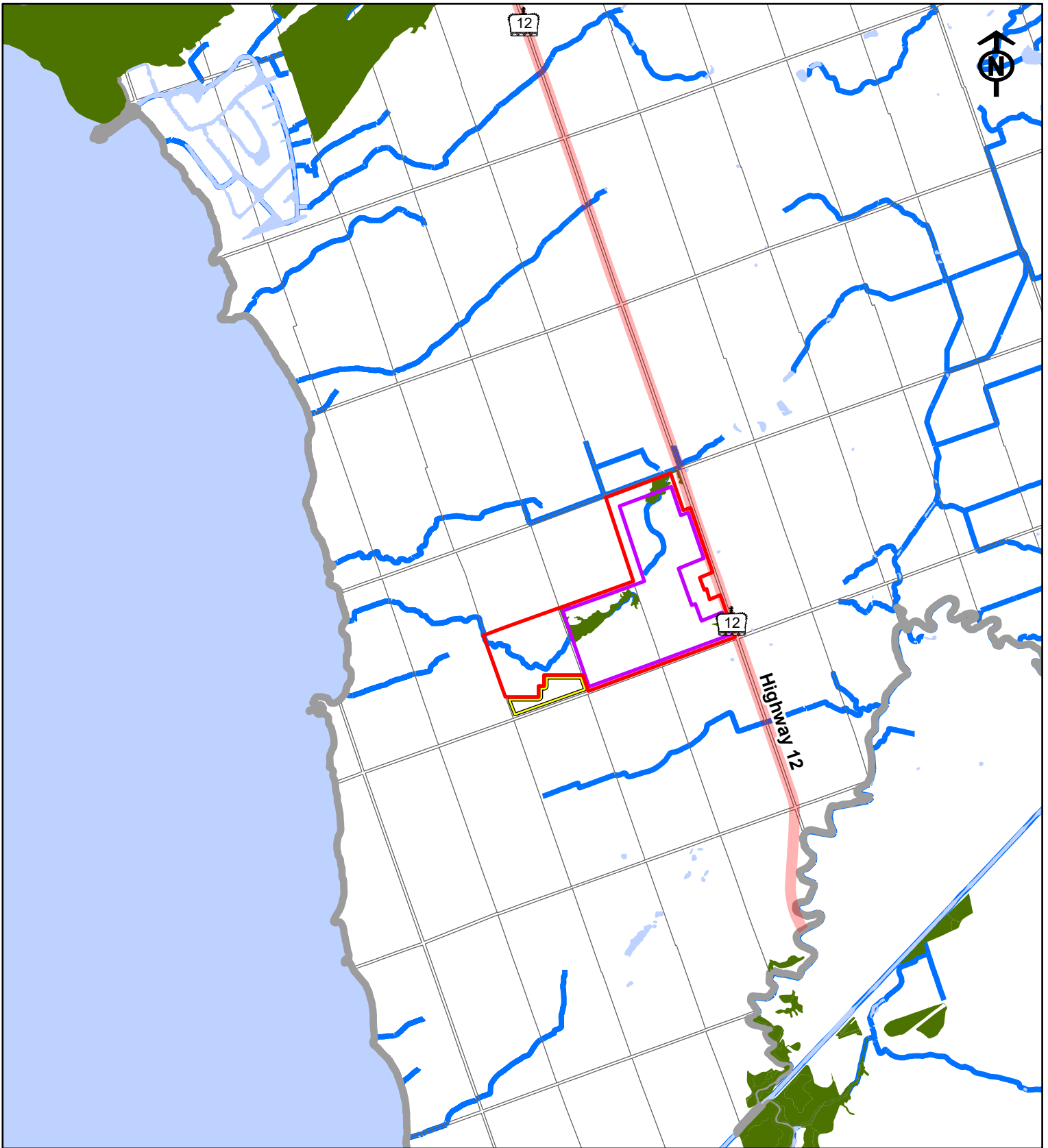
- Subject Lands and Proposed Licence Boundary
- Proposed Limit of Extraction
- Additional Lands Owned by Applicant
- Bedrock Aggregate Resources

DATE December 2023

SOURCES County of Simcoe GIS



12135B - Planning Report Figures



**FIGURE 8
STREAMS AND
EVALUATED WETLANDS**

County of Simcoe
Official Plan Schedule 5.2.2

Proposed Brechin Quarry

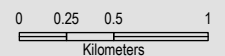
Part of Lots 11,12&13, Con. 1
Township of Ramara
County of Simcoe

LEGEND

- Subject Lands and Proposed Licence Boundary
- Proposed Limit of Extraction
- Additional Lands Owned by Applicant
- Provincially Significant Wetland
- Watercourse

DATE December 2023

SOURCES County of Simcoe GIS



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& LANDSCAPE
ARCHITECTURE

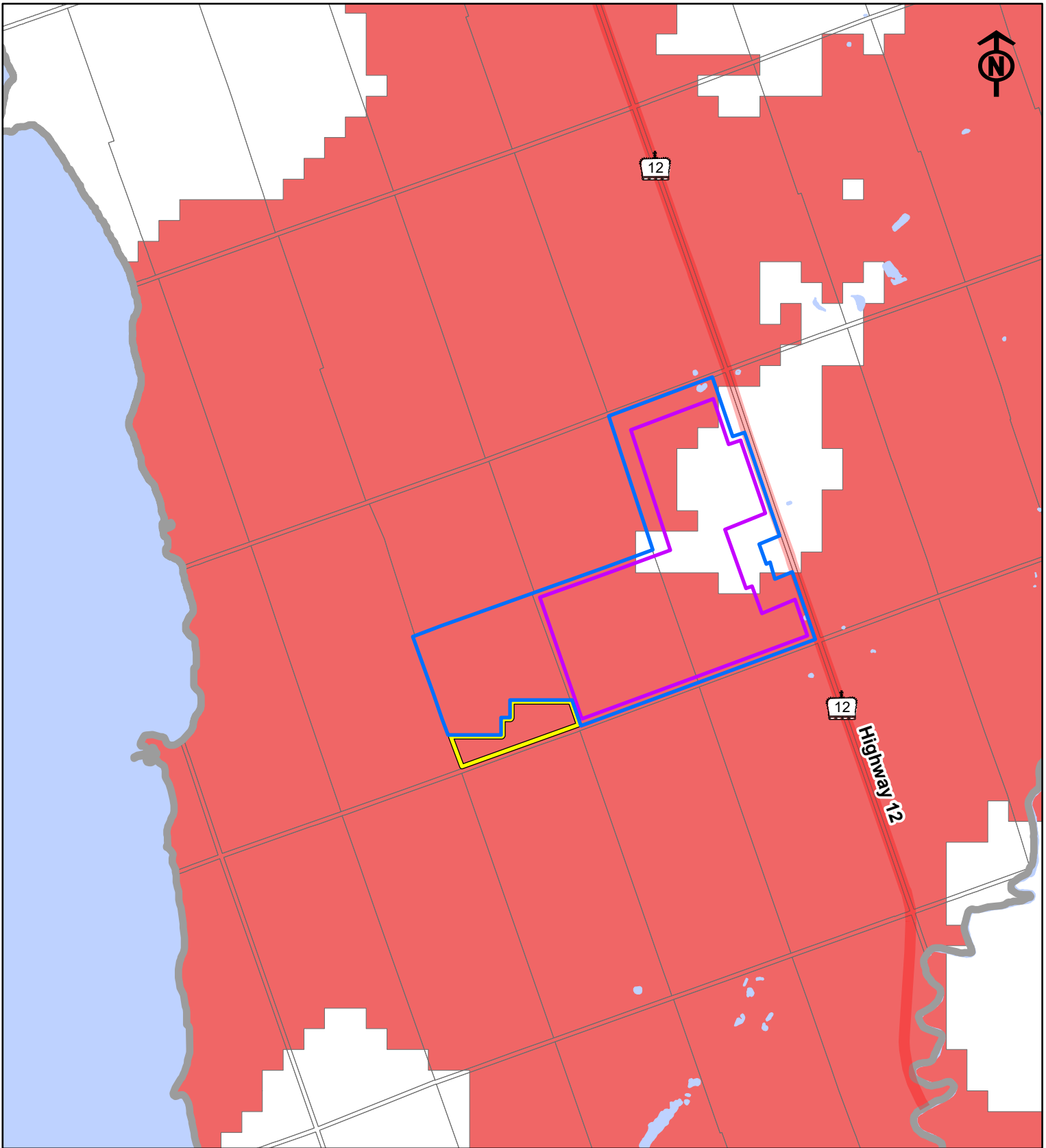






FIGURE 9
HIGHLY VULNERABLE
AQUIFERS

County of Simcoe
 Official Plan Schedule 5.2.5

Proposed Brechin Quarry

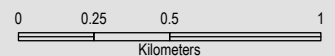
Part of Lots 11,12&13, Con. 1
 Township of Ramara
 County of Simcoe

LEGEND

-  Subject Lands and Proposed Licence Boundary
-  Proposed Limit of Extraction
-  Additional Lands Owned by Applicant
-  Highly Vulnerable Aquifers

DATE December 2023

SOURCES County of Simcoe GIS



12135B - Planning Report Figures



PLANNING
 URBAN DESIGN
 & LANDSCAPE
 ARCHITECTURE

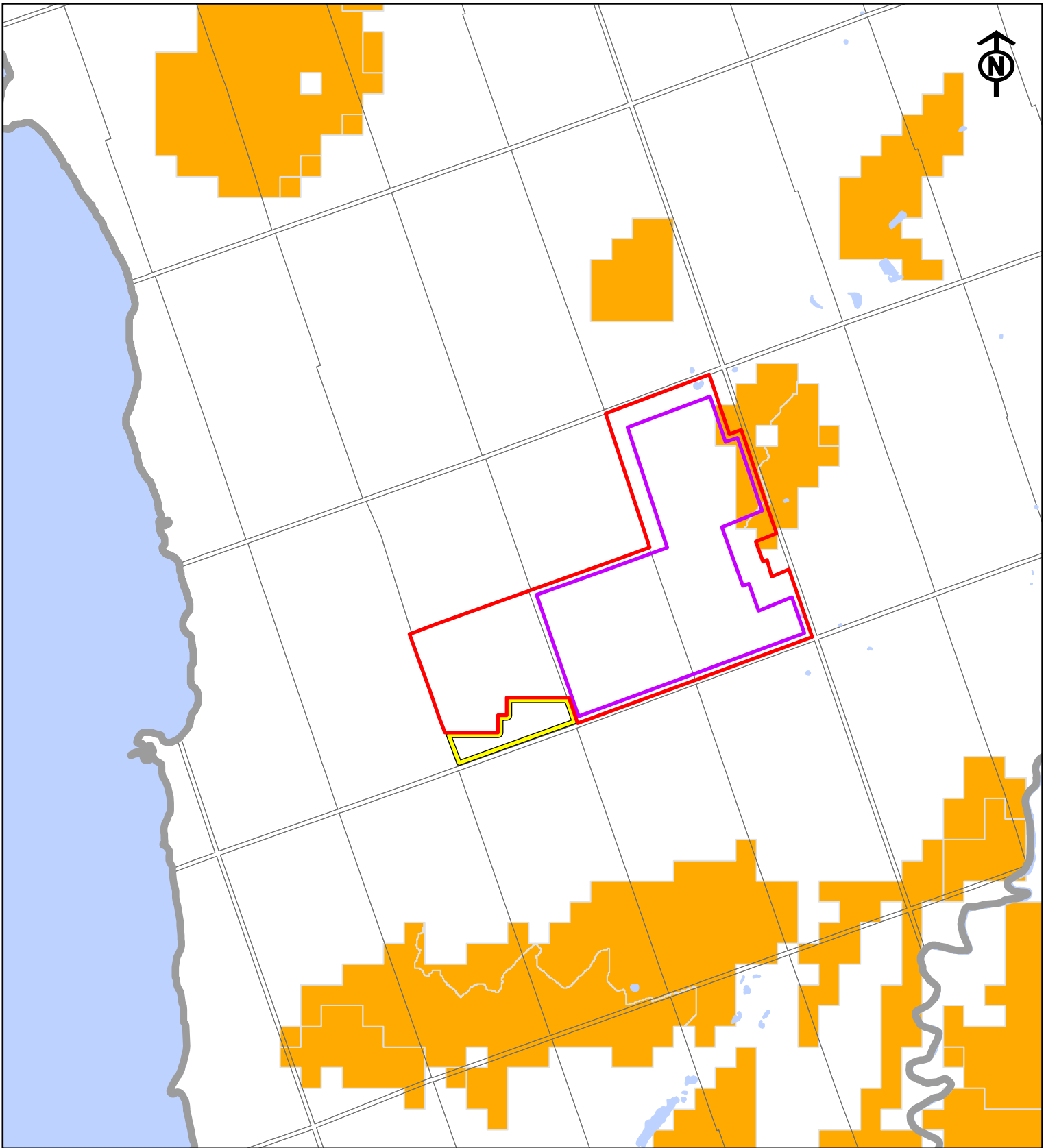


FIGURE 10
SIGNIFICANT GROUNDWATER RECHARGE AREAS

County of Simcoe
 Official Plan Schedule 5.2.6

Proposed Brechin Quarry

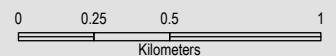
Part of Lots 11,12&13, Con. 1
 Township of Ramara
 County of Simcoe

LEGEND

- Subject Lands and Proposed Licence Boundary
- Proposed Limit of Extraction
- Additional Lands Owned by Applicant
- Significant Groundwater Recharge Areas

DATE December 2023

SOURCES County of Simcoe GIS



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PLANNING
 URBAN DESIGN
 & LANDSCAPE
 ARCHITECTURE

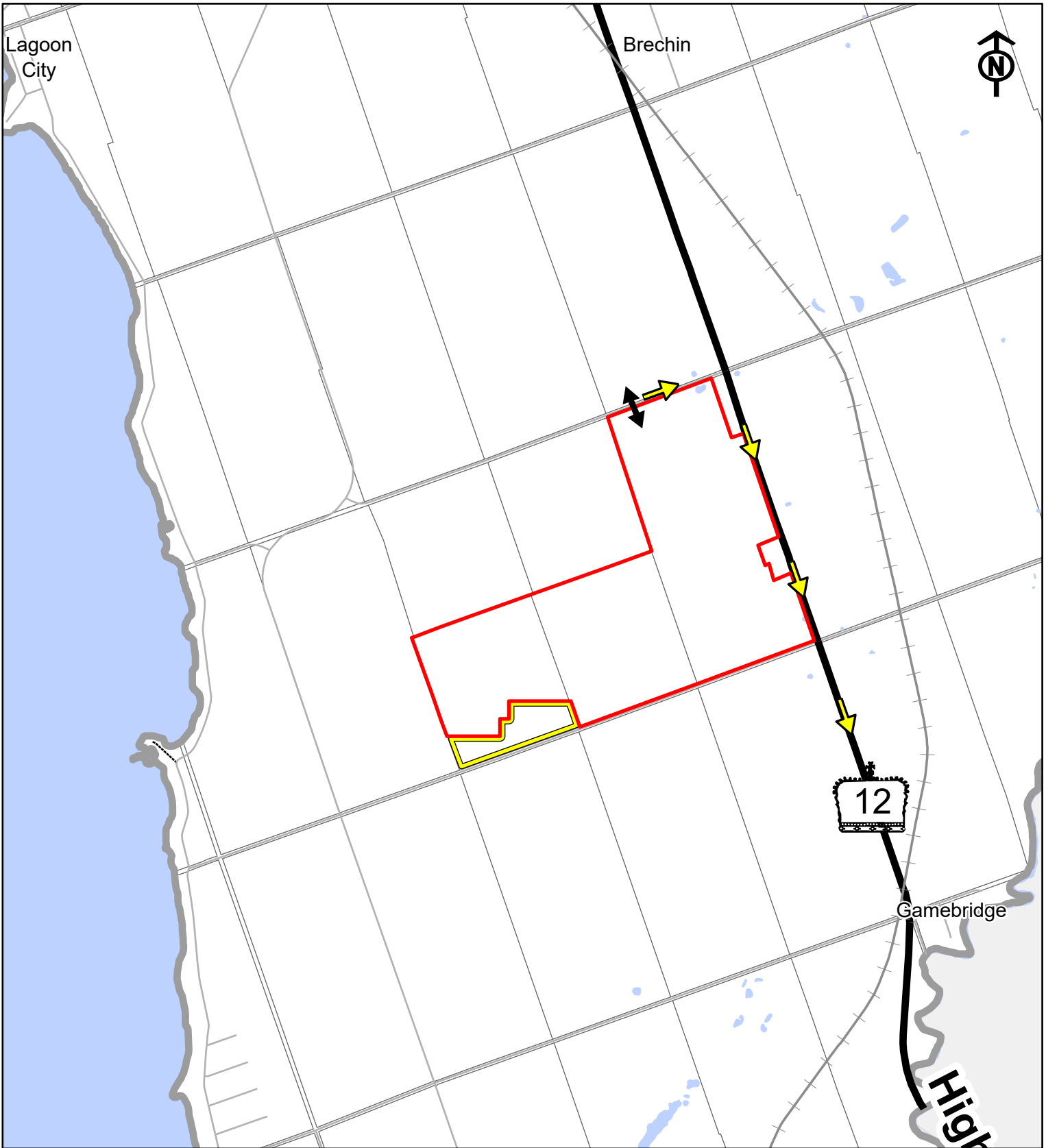


FIGURE 11
COUNTY TRANSPORTATION SYSTEM

County of Simcoe
 Official Plan Schedule 5.5.1

Proposed Brechin Quarry

Part of Lots 11,12&13, Con. 1
 Township of Ramara
 County of Simcoe

LEGEND

- Subject Lands and Proposed Licence Boundary
- Additional Lands Owned by Applicant
- Proposed Entrance / Exit
- Proposed Primary Haul Route
- Provincial Highway
- Local Roads

DATE	December 2023
SOURCES	County of Simcoe GIS
12135B - Planning Report Figures	
PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE	

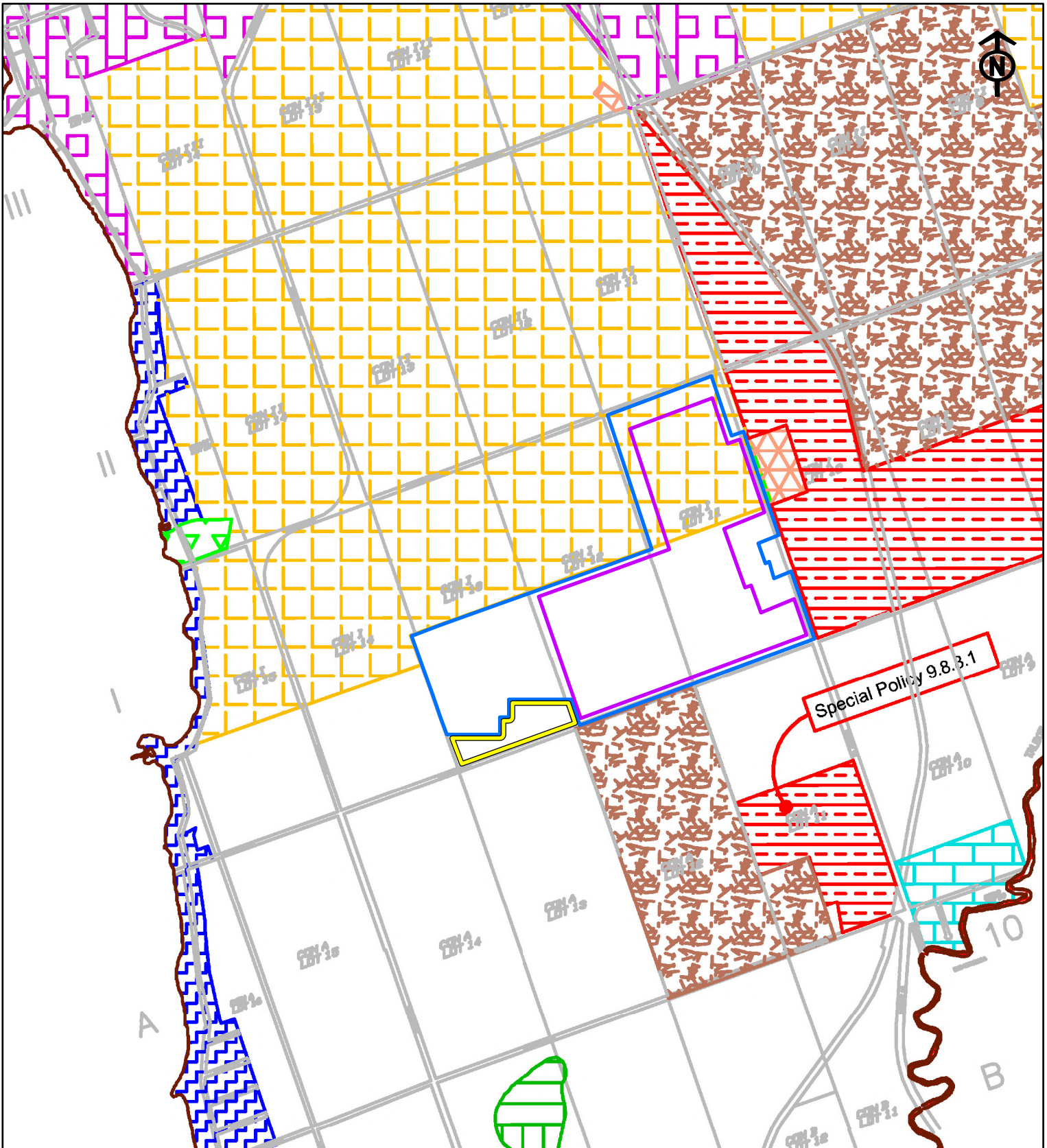


FIGURE 12
TOWNSHIP LAND USE

Township of Ramara
Official Plan Schedule A
Proposed Brechin Quarry
Part of Lots 11,12&13, Con. 1
Township of Ramara
County of Simcoe

LEGEND

- Subject Lands and Proposed Licence Boundary
- Proposed Limit of Extraction
- Additional Lands Owned by Applicant
- Natural Area Protection
- Agriculture
- Rural
- Village
- Hamlet
- Shoreline Residential
- Industrial
- Destination Commercial
- Highway Commercial
- Mineral Aggregate Extraction Area

DATE	December 2023
SOURCES	Township of Ramara
12135B - Planning Report Figures	
PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE	

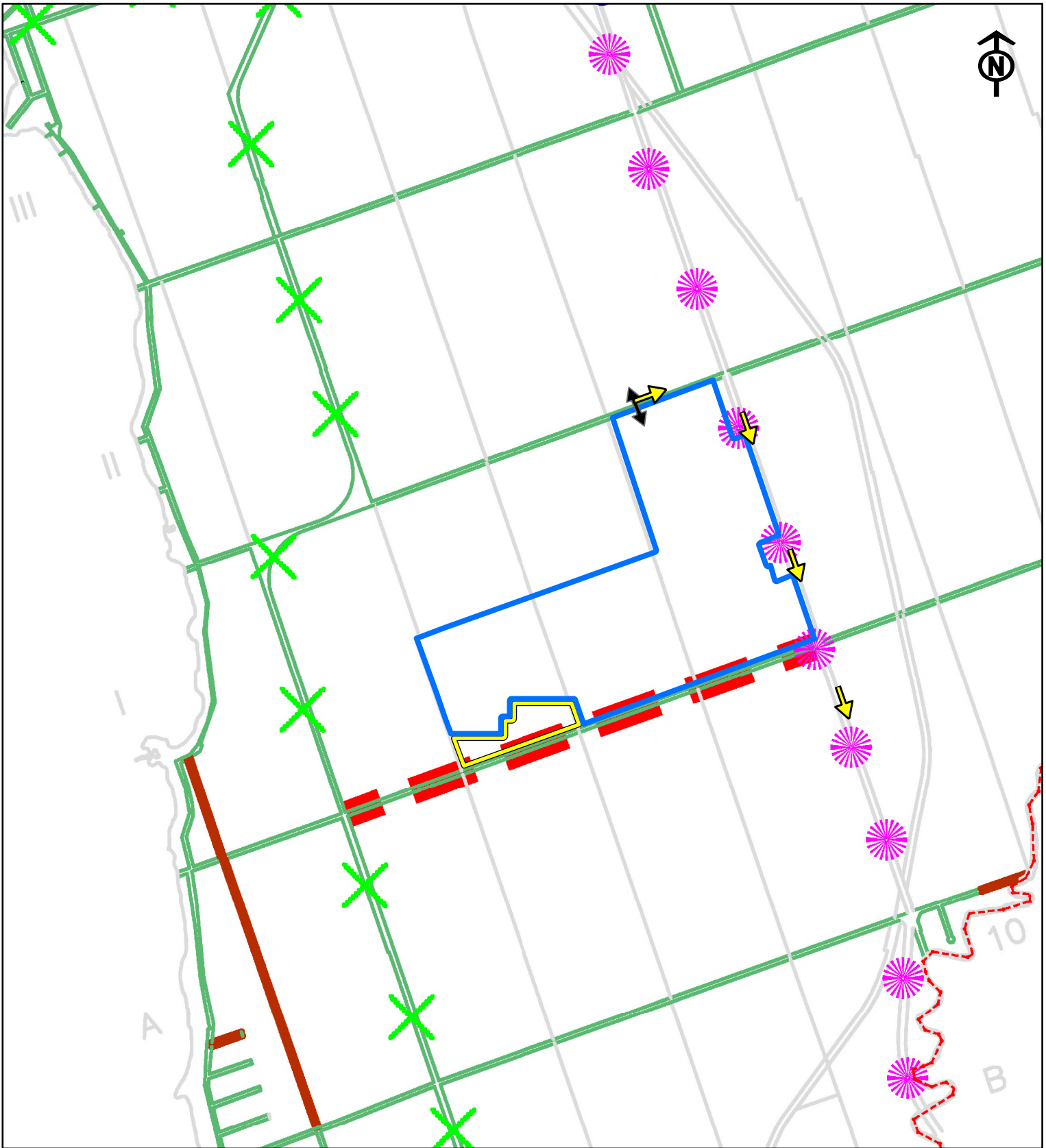


FIGURE 13
TOWNSHIP ROADS PLAN

Township of Ramara
Official Plan Schedule B
Proposed Brechin Quarry
Part of Lots 11,12&13, Con. 1
Township of Ramara
County of Simcoe

LEGEND

- Subject Lands and Proposed Licence Boundary
- Additional Lands Owned by Applicant
- Proposed Entrance / Exit
- Proposed Primary Haul Route
- Provincial Highways
- Collectors : Township Roads
- Local Streets : Township Roads
- Seasonal Roads: No Winter Maintenance
- Unopened Road Allowance

DATE	December 2023
SOURCES	Township of Ramara

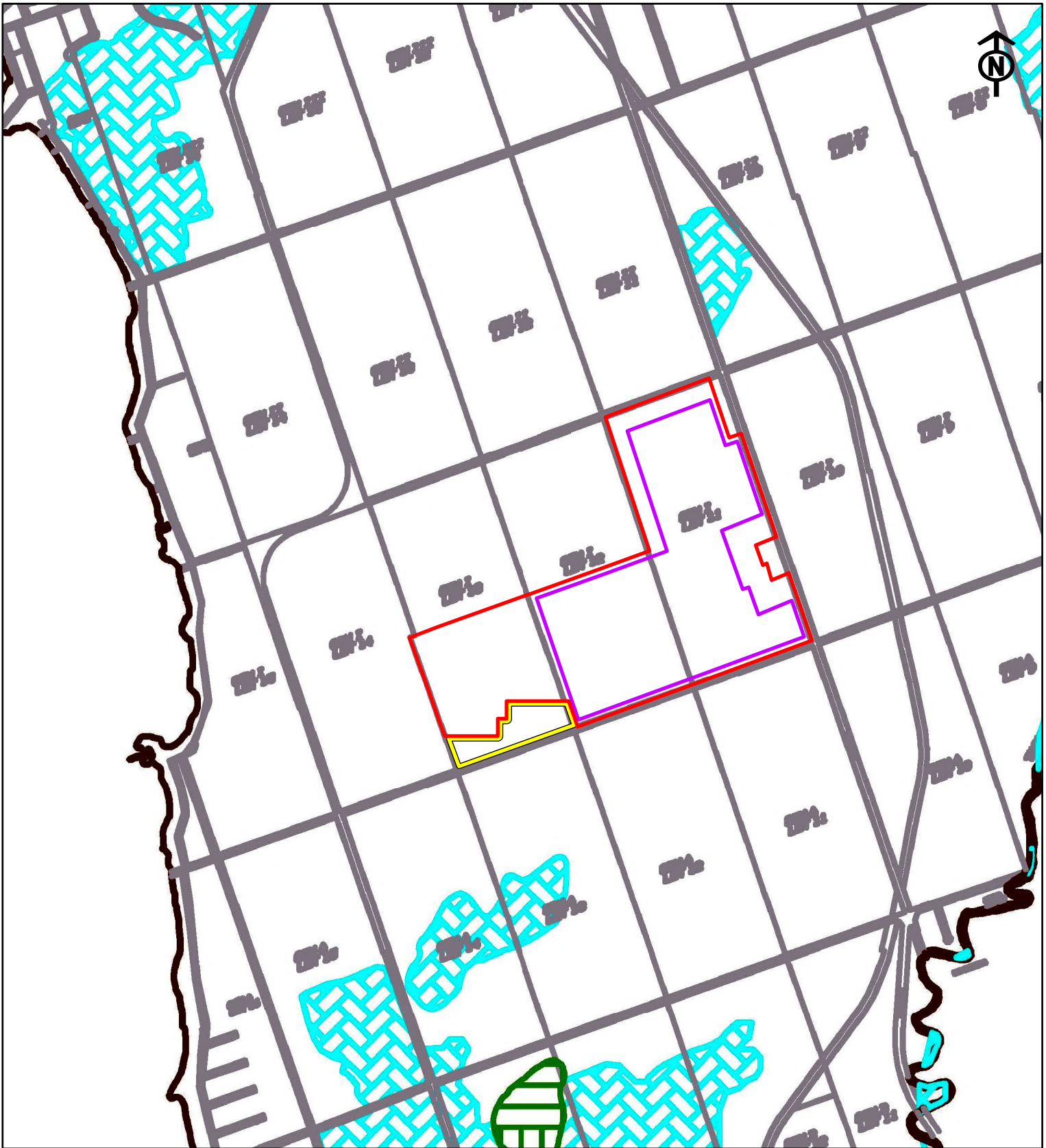


FIGURE 14
NATURAL AREA
FRAMEWORK
 Township of Ramara
 Official Plan Schedule C
Proposed Brechin Quarry
 Part of Lots 11,12&13, Con. 1
 Township of Ramara
 County of Simcoe

- LEGEND**
- Subject Lands and Proposed Licence Boundary
 - Proposed Limit of Extraction
 - Additional Lands Owned by Applicant
 - Core Areas and Corridors
 - Supportive and Complimentary Areas and Corridors

DATE	December 2023
SOURCES	Township of Ramara
12135B - Planning Report Figures	

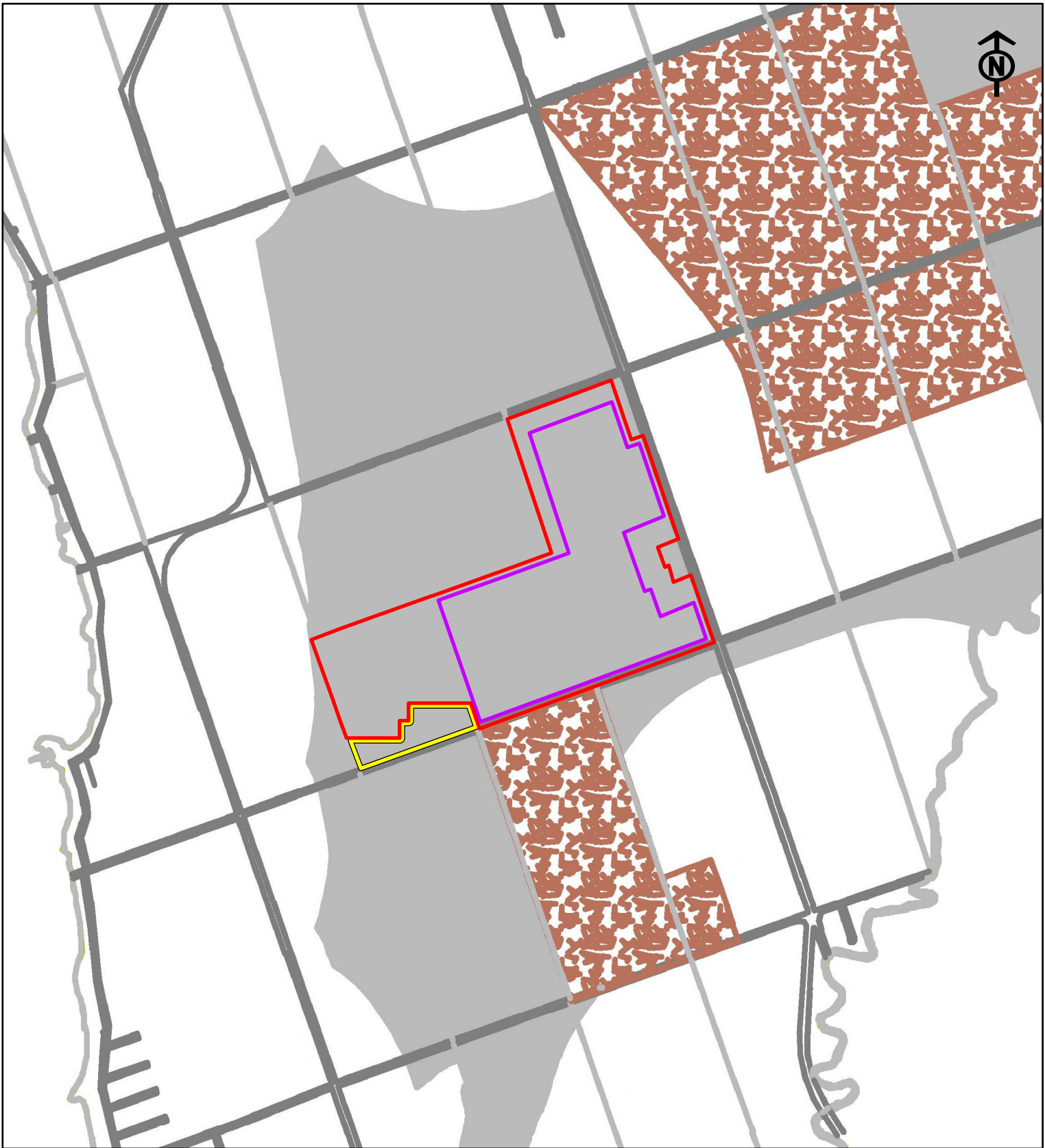


FIGURE 15
HIGH POTENTIAL MINERAL
AGGRGATE RESOURCES

Township of Ramara
 Official Plan Schedule D

Proposed Brechin Quarry

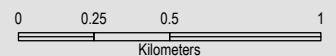
Part of Lots 11,12&13, Con. 1
 Township of Ramara
 County of Simcoe

LEGEND

- Subject Lands and Proposed Licence Boundary
- Proposed Limit of Extraction
- Additional Lands Owned by Applicant
- Mineral Aggregate Extraction Area
- High Potential Mineral Aggregate Resource Areas

DATE December 2023

SOURCES Township of Ramara



12135B - Planning Report Figures

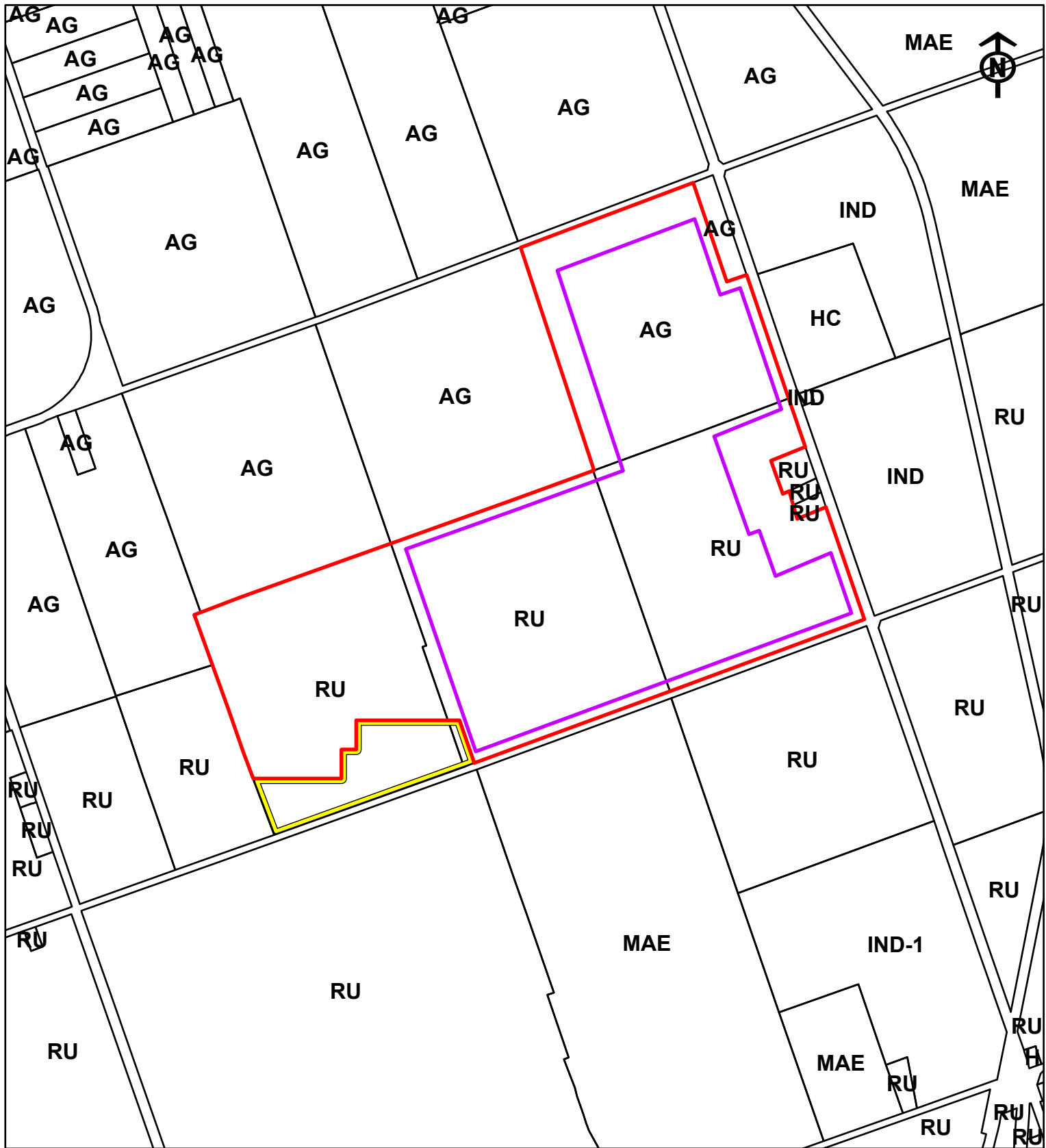


FIGURE 16
TOWNSHIP ZONING

Township of Ramara
Zoning By-Law 2005.85
Proposed Brechin Quarry
Part of Lots 11,12&13, Con. 1
Township of Ramara
County of Simcoe

LEGEND

- Subject Lands and Proposed Licence Boundary
- Proposed Limit of Extraction
- Additional Lands Owned by Applicant
- Zone Boundary

DATE	December 2023
SOURCES	Township of Ramara

12135B - Planning Report Figures



PLANNING
URBAN DESIGN
& LANDSCAPE
ARCHITECTURE

Appendix **A**

TOWNSHIP OF RAMARA
PRE-APPLICATION CONSULTATION REQUEST

The following request made to the Township of Ramara by an owner and/or agent for a preliminary meeting with Township staff and/or consultants is intended to assist prospective applicants in making a complete application under the *Planning Act*.

OWNER

Name: Lagoon City Limited Partnership (c/o Scott Kirby)

Address: 145 Adelaide Street West, Suite 500, Toronto ON, M5H 4E5

Phone: 416 723 4300 Fax: _____ Email: skirby@syphonygolf.com

APPLICANT (If other than Owner)

Name: Symphony Golf Ltd. % Scott Kirby

Address: 548 Line 1 Rd. Niagara-on-the-Lake, Ont. L0S 1J0

Phone: 416 723 4300 Fax: _____ Email: skirby@symphonygolf.com

PROPERTY

Municipal Address 1506 & 1646 Highway 12, and 2440 & 2530 Concession Road 1

Lot, Concession, Plan No. Lots 11, Part Lots 12 & 13, Concession 1

Assessment Roll No. 43480100 - 0901100, 0900700, 1032300, 1032400

Lot Area Approximately 163 hectares

Existing Use of Property Agricultural

BRIEF DESCRIPTION OF PROPOSAL

(Indicate possible number of dwellings and/or floor area for non-residential uses)


The applicant is proposing to establish a quarry on the subject lands. The lands are identified as being entirely within the Township's High Mineral Aggregate Resource Areas. The lands are currently designated and zoned Rural and Agricultural in the Township Official Plan and and Zoning By-law. It is understood an Official Plan Amendment and Zoning By-law Amendment would be required to facilitate development of an aggregate operation on the site.

Please see attached cover letter for additional details.

ADDITIONAL INFORMATION AVAILABLE FOR MEETING BY APPLICANT

In addition to requiring Planning Act applications, the applicant will be concurrently applying to the Ministry of Natural Resources and Forestry for a licence under the Aggregate Resources Act. The applicant has informed Mayor Clarke and Councillor Hetherington of the proposal. Drilling has commenced on-site to determine site geology.

I confirm that any advice will be given based on the information provided by the applicant and is based on the current planning policies and regulations and advice is not intended to prejudice Township Council's consideration of any subsequent planning application. I agree that the Township's fee for pre-application consultation will be paid prior to the scheduled meeting.

Signed:  Date: 11/01/19
 Owner Applicant

Date Received: _____

Level of Proposed Development:

Small Medium Large Complex Unknown

Amount of Fee: _____ Fee Paid Date Fee Paid: _____

Planning Administrator: _____

Meeting Date: _____ Date Record of Meeting Sent: _____

Additional Notes:

November 8th, 2019

Deb McCabe
Planning Supervisor/Zoning Administrator
Township of Ramara
2297 Highway 12, PO Box 130
Brechin, ON L0K 1B0

Dear Ms. McCabe:

**RE: Pre-Consultation Meeting Request – Lagoon City Partnership Lands Potential Quarry
Lot 11 and Part Lots 12 & 13, Concession 1, Former Geographic Township of Mara,
Township of Ramara, County of Simcoe
OUR FILE 12135B**

On behalf of Lagoon City Limited Partnership, we are requesting a pre-consultation meeting with the Township of Ramara to discuss the potential for a below water quarry located on lands owned by Lagoon City Limited Partnership within the Township.

The subject lands are located at Lot 11 and Part Lots 12 & 13, Concession 1, Former Geographic Township of Mara, Township of Ramara, County of Simcoe. The subject lands include the following properties municipally known as:

- 1506 Highway 12;
- 1646 Highway 12;
- 1710 Highway 12;
- 2440 Concession Road 1; and,
- 2530 Concession Road 1.

As shown in **Figure 1**, the above five properties are comprised of 163.1 hectares of rural and agricultural lands and are proposed to be included within the licenced area. The preliminary extraction area under consideration is 86.8 hectares and is subject to the findings and recommendations of the required technical studies.

The entrance / exit for the quarry could potentially be located on Concession Road 2, west of Highway 12. This intersection is a fully designed intersection with turning and acceleration lanes and is currently used by the Lafarge Brechin Quarry. Highway 12 is an established aggregate haul route and is designed to carry high volumes of traffic and truck traffic. The exact location of a proposed entrance / exit will be determined based on the findings and recommendations of the technical studies.

The Township of Ramara Official Plan designates the potential extraction area as 'Agricultural' and 'Rural' and identifies that the subject lands are located entirely within the Township's High Mineral Aggregate Resource Areas. The Township Zoning By-law zones the potential extraction areas as "Agriculture (AG)" and 'Rural (RU)'.

Based on a review of the Township Official Plan and Zoning By-law, it is our understanding that amendments to both documents will be required to permit aggregate operations on these lands.

Based on a review of the County of Simcoe, we understand an amendment to the County of Simcoe Official Plan will not be required however the County of Simcoe is the approval authority for the local Official Plan amendment.

As part of our review and investigation process, it is our understanding that the following technical studies will be required as part of the complete application:

- Natural Environment Study;
- Water Resources (Hydrogeological and Hydrologic) Study;
- Noise Impact Study;
- Blasting Impact Study;
- Traffic Impact Study;
- Archaeological Study;
- Agricultural Impact Study and,
- Planning Justification Report.

In addition to the Planning Act applications, Lagoon City Limited Partnership will also be submitting an Aggregate Resources Act licence application to the Ministry of Natural Resources and Forestry.

Our natural environment and water resources teams will be arranging a site visit with the MNRF, MECP, and LSCRA to discuss the technical details and requirements of the natural environment and water resources studies. Please advise if the Township would like to be included at this meeting.

Enclosed with this letter is a cheque in the amount of \$4,515.00 to cover the pre-consultation fee. It is understood this fee consists of a \$515 administration fee and a \$4000 deposit.

We look forward to meeting with the Township to confirm the application requirements. Please let us know your availability for the meeting.

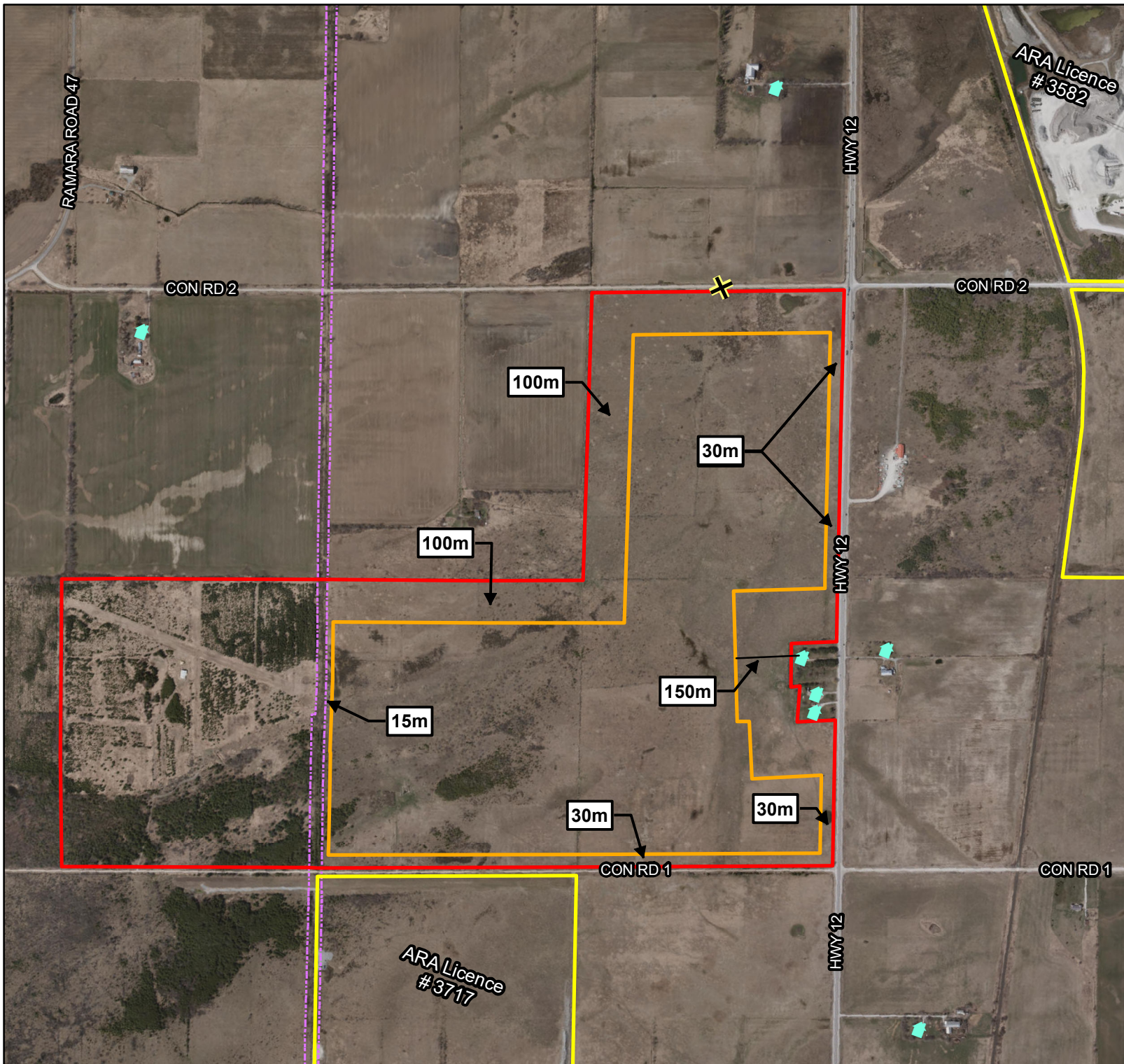
Yours truly,

MHBC



Brian Zeman, BES, MCIP, RPP
President

cc. *Scott Kirby, Lagoon City Limited Partnership*
Moreen Miller, Brandy Creek Consulting
James Newlands, MHBC



**FIGURE 1
Aerial Context**

LCP Lands - Potential Quarry
 Lot 11, Concession 1 &
 Part Lot 12 & 13, Concession 1
 Geographic Township of Mara
 Township of Ramara
 County of Simcoe

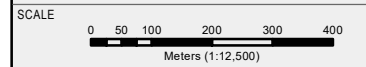
Legend

- Potential Licensed Boundary
- Preliminary Extraction Limit Subject to Technical Studies
- Other Licenced Aggregate Sites
- Abandoned Former Railway
- Offsite Dwelling
- Potential Entrance/Exit

	Area
Potential Licensed Boundary	163.1 ha
Preliminary Extraction Limit	86.8 ha

DATE
OCTOBER 15, 2019

SOURCES
 Contains information licensed under the Open Government Licence - Ontario
 Service Layer Credits:



Document Path: N:\Brian\12135B Kirby - Proposed Quarry Ramara\Drawings\MHBC Figures\GIS\Figure 1 - Aerial Context.mxd



MEETING

TUESDAY NOVEMBER 26, 2019 @ 11:00 a.m.

PRESENT: Deb McCabe, Planning Supervisor/Zoning Administrator
Kent Randall, Planning Consultant
Tim Collingwood, Engineering Consultant

Scott Kirby, Lagoon City Partnership
Brian Zeman, BES, MCIP, RPP
MHBC Planning
James Newlands, HBComm., MSc.
MHBC Planning

1506 HIGHWAY 12
1646 HIGHWAY 12
1710 HIGHWAY 12
2440 CONCESSION ROAD 1
2530 CONCESSION ROAD 1

NOTES FROM MEETING

Lot 11 and Part of Lots 12 and 13, Concession 1, Mara

Ramara Official Plan – designation – Rural and Agriculture

Ramara Zoning Bylaw #2005.85 – RU and AG

Proposal

- Below water table quarry

Overview

James Newlands, MHBC

- 6 separate parcels in ownership
- Total area is 163.1 hectares
- Very early stages of discussion in preparation of moving forward
- Preliminary extraction area is to be 86.8 hectares subject to the outcome of technical studies

- Proposed quarry is within an area of mixed aggregate operations
- High Potential Mineral Aggregate Resource Area (HPMARA) as identified in Township of Ramara Official Plan
- The northerly portion of the development site is currently designated as Agriculture, with a small area identified as an unevaluated wetland
- Currently an active rail line on the east side of the properties
- No mapped Natural Heritage features identified within the proposed licensed area
- Azimuth and Golder and Associates have been retained for water resources and environmental work
- Two small creeks run through the properties which hold water during spring run off
- Properties have frontage on Highway 12 which is a designated haul route
- Will utilize the same intersection as LaFarge quarry, being Concession Road 2 and Highway 12

Brian Zeman, MHBC

- Incorporated a generic 150 m setback from the proposed licensed area to the existing homes on the east side of the proposal
- Owner and team have already engaged with Mayor Clarke and Councillor Heatherington
- Water monitoring has been undertaken by Mike Jones of Azimuth Environmental and has reached out to neighbouring parcels
- Drilling program is complete
- Has been determined that the property has the same geological features as James Dick quarry and LaFarge quarry
- Quarry operations will potentially have a depth of approximately 15 m through the upper bed to the lower bed of rock
- Site works to be undertaken in 2020 including plowing for archeological study and an agricultural impact assessment, as the northerly parcel is identified as prime agricultural land
- Will require a full year of data with intent of submitting applications to the Township and the ARA in June or July 2021
- Breeding bird survey time frame to be avoided during the data collection
- A portion of the properties are regulated by the LSRCA however, once licenced, there regulated area will no longer be applicable
- Owner is prepared to acquire the three existing residential parcels on Highway 12 if necessary

Kent Randall, EcoVue

- Agreed with Mr. Zeman's interpretation of the Township of Ramara's Official Plan and Zoning Bylaw
- Will require an Official Plan Amendment and Zoning Bylaw Amendment which can be concurrent to the ARA application

Tim Collingwood, Tatham & Assoc.

- Contact should be made with MTO as they will be the commenting and approval authority for the traffic study
- Upgrades to the intersection of Concession Road 2 and Highway 12 may be required by MTO
- Concession Road 2 will need to be upgraded to a four season road from the proposed entrance to the quarry properties

Studies Required

Natural Environment Study

Water Resources (Hydrogeological and Hydrologic) Study

Noise Impact Study

Blasting Impact Study

Traffic Impact Study

Archaeological Study

Agricultural Impact Study

Planning Justification Report

Next Steps

Kent Randall to determine how to avoid the Planning Act's requirement of a 2 year moratorium on Official Plan Amendments when a new Official Plan has been adopted - Ramara's new OP proposed to be adopted in 2020

MHBC to advise the Township on progress during process

From: James Newlands
Sent: December 6, 2019 3:42 PM
To: Deb McCabe
Cc: Kent Randall; 'Tim Collingwood'; Brian Zeman; skirby@symphonygolf.com
Subject: RE: Notes - Meeting November 26, 2019

Hi Deb,

Thank you for providing us with a copy of your notes from the proposed Brechin quarry pre-consultation meeting on November 26th.

We reviewed the notes and wanted to provide a couple points of clarification for your consideration.

- 1) In the overview section, the notes state there are “**6** separate parcels in ownership”.

Just to clarify, there are **5** separate parcels in ownership that are included in the investigative work for a potential quarry.

- 2) The notes state that “Azimuth and Golder have been retained for water resources and environmental work”.

Azimuth and Golder have been retained for the water resources work.
Azimuth and Riverstone have been retained for the natural environment work.

- 3) The notes also state the “quarry operations will potentially have a depth of approximately **15 metres**”.

Our initial investigative work indicates the quarry will potentially have a depth of approximately **50 metres** which is consistent with other aggregate operations in the area.

Thank you for taking the time to meet with us at this preliminary stage and we look forward to working with the Township on this project.

Have a great weekend,

JAMES NEWLANDS HBComm., MSc. | Planner

MHBC Planning, Urban Design & Landscape Architecture

113 Collier Street | Barrie | ON | L4M 1H2 | T 705 728 0045 x 234 | F 705 728 2010
| jnewlands@mhbcplan.com

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To:	<p>Deb McCabe – Township of Ramara Sarah Karabin – Township of Ramara Leo Grellette – Township of Ramara Tim Collingwood – Tatham Engineering Darryl Tighe – D.M. Wills Associates Limited Amanda Dougherty – D.M. Wills Associates Limited Julie Nolan – County of Simcoe Melinda Bessey – LSRCA Dave Ruggle – LSRCA Caroline Hawson – LSRCA</p>
C.c	<p>Scott Kirby – Lagoon City Limited Partnership Ling Mark – MECP Tim Krsul – MECP Paul Heeney – MECP Jennifer Mackey – MECP Carolyn Switzer – MECP Madhu Malhotra – MECP</p>
From:	<p>Brian Zeman – MHBC James Newlands – MHBC</p>
Date:	<p>August 23, 2021</p>
File:	<p>12135B</p>
Subject:	<p>Potential Brechin Quarry – LSPP Policy Issues</p>

Further to our meeting on July 08, 2021 with the Township, County and LSRCA, this memorandum has been prepared to provide the agencies with further context on the Lake Simcoe Protection Plan (LSPP) as it relates to the potential Brechin Quarry site.

The LSPP came into effect on June 2, 2009 and at that time was consistent with the policies of the 2005 Provincial Policy Statement (PPS). The 2005 Provincial Policy Statement included a policy that prohibited development and site alteration within “*significant habitat of endangered species and threatened species*” (2005 PPS policy 2.1.3). This policy is reflected in LSPP policy 6.42-DP.(b) which states:

- “6.42-DP** No new *mineral aggregate operations* and no wayside pits and quarries, or any ancillary or accessory use thereto shall be permitted in the following key natural heritage features and key hydrologic features:
- a. *significant wetlands*;
 - b. *significant* habitat of *endangered species* and *threatened species*; and
 - c. *significant woodlands* unless the woodland is occupied by young plantation or early
 - d. successional habitat (as defined by the MNR).”

The LSPP defines significant to mean:

- “b. In regard to the habitat of endangered species and, threatened species, means the habitat, as approved by the Ontario Ministry of Natural Resources, that is necessary for the maintenance, survival, and/or the recovery of naturally occurring or reintroduced populations of endangered species or, threatened species, and where those areas of occurrence are occupied or habitually occupied by the species during all or any part(s) of its life cycle;”

The 2014 PPS, was updated to read *“Development and site alteration shall not be permitted in habitat of endangered species and threatened species, except in accordance with provincial and federal requirements.”* (2014 PPS policy 2.1.7)

The PPS was again revised and updated in 2020 but maintained the same policy direction of the 2014 PPS. The 2020 PPS policy 2.1.7 continues to read *“Development and site alteration shall not be permitted in habitat of endangered species and threatened species, except in accordance with provincial and federal requirements.”*

The LSPP has not been updated since it came into effect in 2009 and is no longer consistent with the PPS. Specifically, the LSPP is not consistent with current provincial direction for species at risk and planning policy no longer makes reference to “significant” habitat of endangered and threatened species.

Due to the definition of habitat and the number of endangered and threatened species identified in southern Ontario, the practical reality is all potential mineral aggregate sites contain habitat for an endangered or threatened species and the species most commonly encountered on larger rural sites include bobolink, eastern meadowlark, bats, barn swallows and butternut.

As per our discussions with MECP, the County of Simcoe, LSRCA and Township of Ramara, the potential Brechin quarry site is no different. Based on the site specific fieldwork that has been completed by Azimuth Environmental, **Attachment 1** identifies the mapped habitat for Bobolink and Eastern Meadowlark (which are both bird species that are listed as a threatened species under the ESA) on the potential Brechin Quarry site.

The applicant commenced pre-consultation with the agencies in 2019 and since that time have been completing the field work for the technical reports for the proposed quarry application. With the exception of the identified habitat, the subject site is a perfect candidate to consider for a quarry site based on the provincial, county and local policies. The potential extraction area being investigated is:

- Mapped as a High Potential Mineral Aggregate Resource Area in both the County of Simcoe and the Township of Ramara Official Plan;
- Located outside of the Provincial Natural Heritage System;
- Located outside of the County Natural Heritage System;
- Located outside of the Township Natural Heritage System;

- Based on shallow depth and quality of the soils on-site, row crop agricultural uses cannot be supported on the site;
- Directly adjacent to existing aggregate operations;
- Limited sensitive uses within 500 metres. Most of these properties are located on a provincial highway (Highway 12);
- No cultural heritage resources identified on the site; and
- Directly accessed from Highway 12 which is an existing approved haul route and provincial highway.

It is my opinion that in light of the current provincial direction related to species at risk and the fact that the LSPP utilizes old language from the 2005 PPS, it is reasonable from a planning perspective to interpret the LSPP to prohibit development within habitat for endangered or threatened species except in accordance with provincial and federal requirements. This interpretation does not automatically permit the habitat to be removed and it still remains at the discretion of MECP who are the regulatory authority for species at risk.

In this site specific circumstance, the habitat is not the highest quality habitat and there are significant opportunities to compensate for the removal of this habitat and provide a greater benefit to the species and the overall Provincial, County and Township Natural Heritage Systems. **Attachment 1** provides an example of a potential approach our Client could take to compensate for the loss of habitat at the potential Brechin Quarry site.

Another basis for this interpretation is the other provincial plans do not include a blanket prohibition for mineral aggregate operations within habitat of endangered and threatened species.

- Growth Plan and Greenbelt Plan - the prohibition only applies to new operations (e.g. not expansions) located within the provincial Natural Heritage System (NHS). Mineral aggregate extraction is permitted within habitat of endangered and threatened species subject to provincial and federal requirements for new operations located outside of the NHS and expansions within the NHS.
- Niagara Escarpment Plan - mineral aggregate operations can only be considered in the Escarpment Rural Area Designation and the policies of this designation allow for extraction within habitat of endangered and threatened species subject to provincial and federal requirements.
- Oak Ridges Moraine Conservation Plan - mineral aggregate operations within the Linkage Areas Designation are not permitted within habitat of endangered and threatened species, however the Countryside Areas Designation polices allow for extraction within habitat of endangered and threatened species subject to provincial and federal requirements

If the LSPP is interpreted to prohibit new and expanded aggregate operations in all endangered or threatened species, with the factual knowledge that all sites contain habitat, essentially a large portion of the Township's identified High Potential Mineral Aggregate Resource Areas that are located within the Lake Simcoe Protection Plan would be sterilized. See **Attachment 2**.

Another interesting aspect of the LSPP is that it defines key natural features as "wetlands, significant woodlands, significant valleylands and natural areas abutting Lake Simcoe" (6.21-DP) and key hydrologic features as "wetlands, permanent and intermittent streams, and lakes other than Lake Simcoe" (6.22-DP). These are the key features the LSPP has identified as important for the overall ecological health of the Lake

Simcoe watershed and habitat of endangered and threatened species are not considered key natural features.

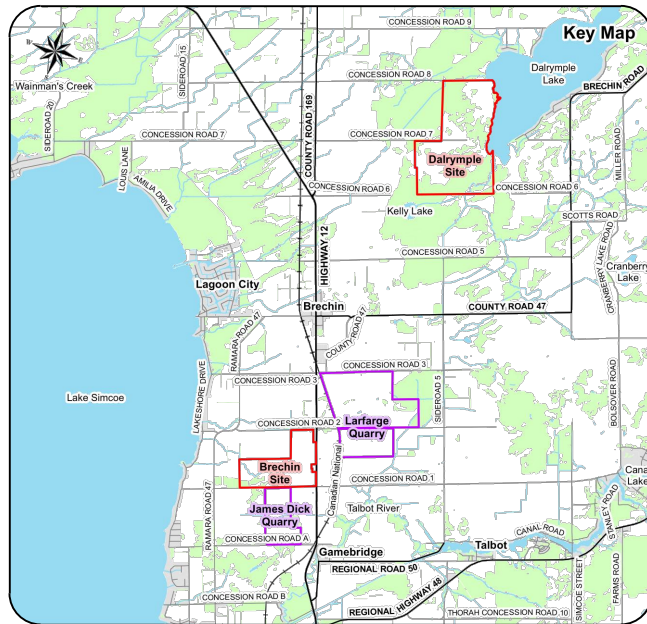
As discussed during our call, our client is seeking clarification from the Township and County on their interpretation of LSPP policy 6.42-DP. We had previously consulted with MECP but based on Appendix A of the LSPP, MECP has advised that this policy relates to Planning Act decisions and it is the approval authority's responsibility to implement and interpret policy 6.42-DP. To date the Client has spent significant resources on the application and is seeking clarification from the approval authorities since this issue goes to the feasibility of the application.

We look forward to a follow up meeting with the agencies to discuss. In the interim please do not hesitate to contact me at 705-627-9004 if you have any questions.

Attachment **1**

Potential Habitat Compensation Bobolink / Eastern Meadowlark

Brechin Quarry
Part of Lots 11, 12 & 13, Concession 1
(former geographic Township of Mara)
Township of Ramara
County of Simcoe



Example of Compensation Proposal Dalrymple Site

Key Site Facts

1. Site is located within the Provincial, County and Local Natural Heritage Systems.
2. A portion of the property could be improved for Bobolink and Eastern Meadowlark habitat.
3. Large grasslands of moderate quality exist in the southwest portion of the property.
4. Core grassland restoration area provides opportunity to increase/improve habitat.
5. Two adjacent areas include degraded grassland and/or shrublands that represent opportunities for grassland expansion.
6. For every hectare of habitat removed from the Brechin site, more than one hectare can be improved/created for habitat improvement opportunities on other more appropriate environmental sites.
7. Proposed restoration/maintenance program could include:
 - Tree, shrub, and vine clearance.
 - Removal of fencelines (if present).
 - Ploughing and re-seeding unsuitable breeding bird habitat (e.g. Smooth Brome aggregations).
 - Annual site mowing and other maintenance (outside of active season).
 - Five (5) year post-restoration monitoring, maintenance, and adaptive management program.
 - Monitoring program to include 3x dawn breeding bird surveys in accordance with provincial protocols.
 - Commitment to manage the habitat for a minimum of 20 years.

Potential Compensation Approach

1. Bobolink/Eastern Meadowlark habitat increased
2. Allows for extraction on lands outside of the Provincial, County and Local Natural Heritage Systems (Brechin Site)
3. Significantly enhances the Provincial, County and Local Natural Heritage Systems (Dalrymple Site)

Brechin Site

Key Site Facts

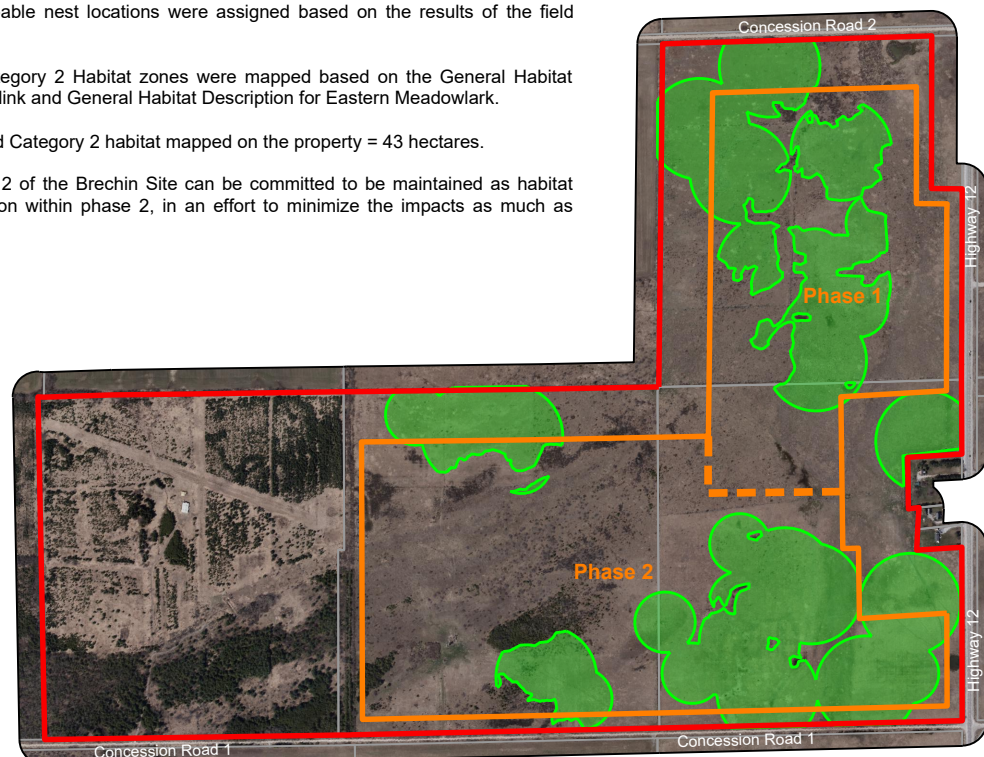
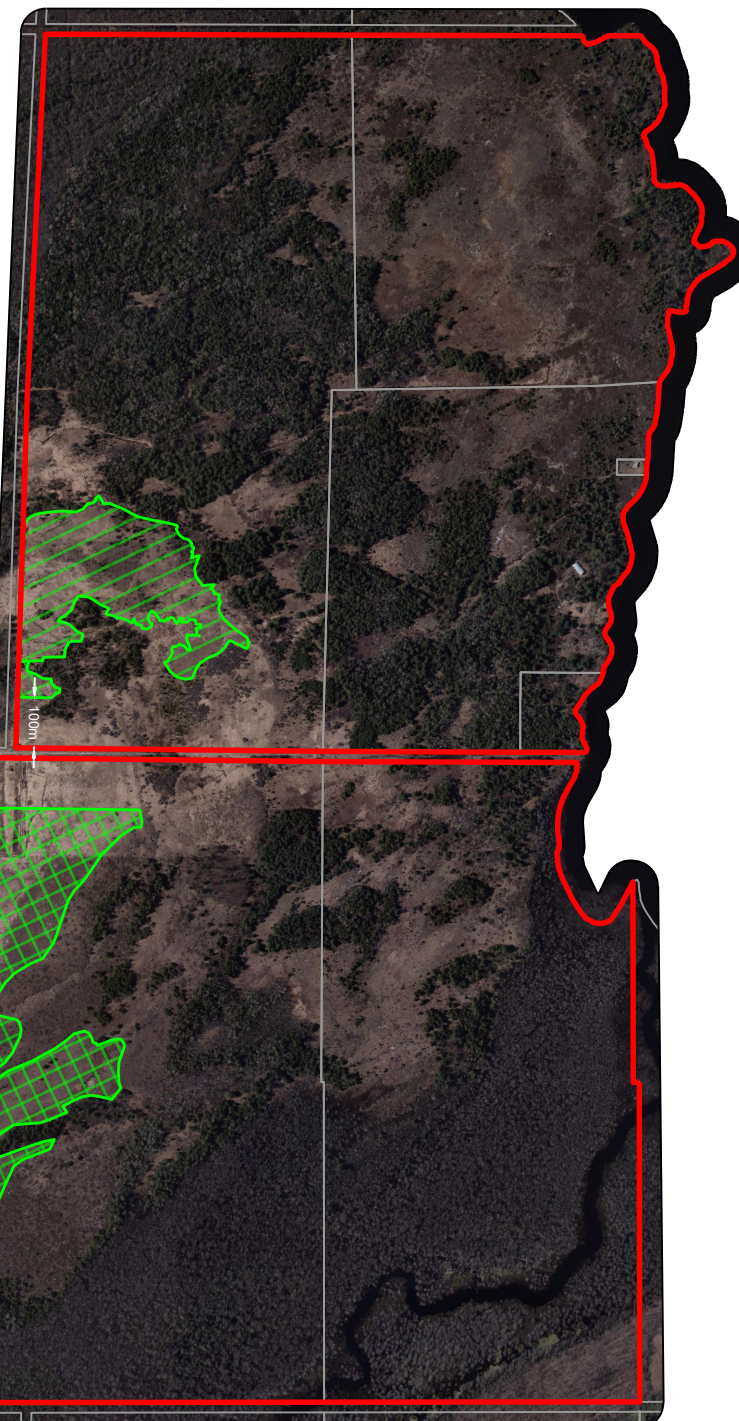
1. The Province protects this site for its aggregate potential and is located in an area where aggregate extraction is an existing use. The site is mapped as a High Potential Mineral Aggregate Resource Area in both the County and Township Official Plans.
2. The Site is located outside of the Provincial, County and local Natural Heritage Systems.
3. The site is an ideal location for aggregate extraction due to the site's proximity to the GTA market, direct access to a Provincial highway, adjacent to existing aggregate operations, and limited surrounding residents.

Key facts for Bobolink/Eastern Meadowlark Habitat

1. Bobolink and Eastern Meadowlark were observed within dry-moist meadows on the property.
2. Confirmed and probable nest locations were assigned based on the results of the field surveys.
3. Category 1 and Category 2 Habitat zones were mapped based on the General Habitat Description for Bobolink and General Habitat Description for Eastern Meadowlark.
4. Total Category 1 and Category 2 habitat mapped on the property = 43 hectares.
5. The lands in phase 2 of the Brechin Site can be committed to be maintained as habitat prior to any extraction within phase 2, in an effort to minimize the impacts as much as possible.

Legend

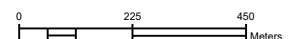
- Property Boundary
- Proposed Limit of Extraction
- Existing Bobolink / Eastern Meadowlark Habitat
- Core Grassland Improvement Area
- Habitat Expansion Opportunities
- Existing Parcel Fabric



Date: March 2021

Sources: 2016 aerial photography from County of Simcoe GIS
Azimuth Environmental - Symphony Golf - Bobolink / E. Meadowlark Compensation - Jan 2021
Azimuth Environmental - Carden Quarry - Bobolink / E. Meadowlark Nesting - Nov 2020

Scale - 1:15,000



N:\Brian\12135B Kirby - Proposed Quarry Ramara\Drawings\Bobolink and Meadowlark Habitat\CAD\12135B - Bobolink and Meadowlark Habitat.dwg

Attachment **2**

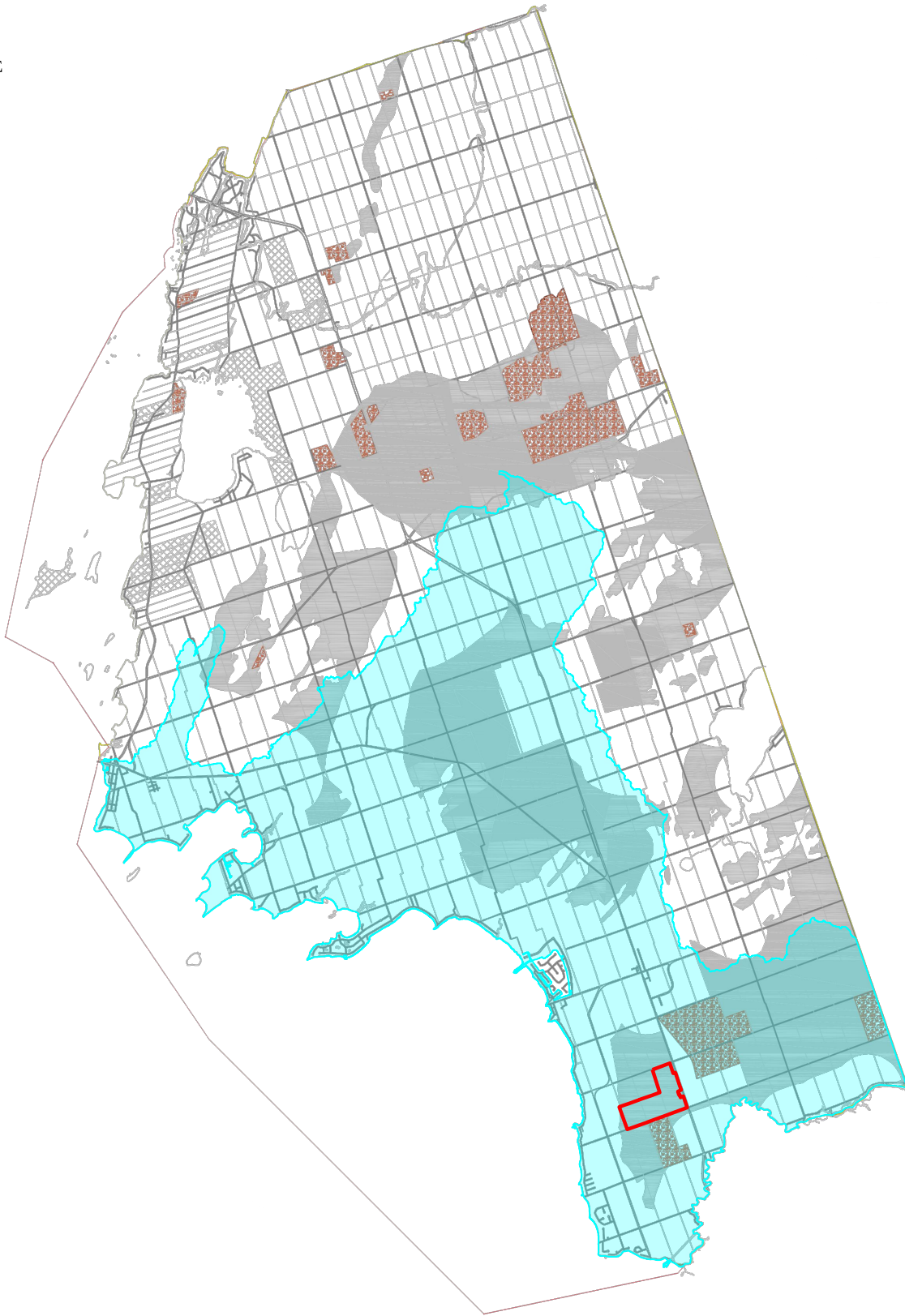
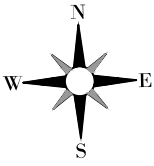


Figure # 1
Active ARA Licences
Within Lake Simcoe
Protection Plan Boundary

Brechin Quarry

Part of Lots 11, 12 & 13, Concession 1
 Geographic Township of Mara
 Township of Ramara
 County of Simcoe

Legend

- Subject Land
- Lake Simcoe Protection Plan Boundary Within Ramara
- High Potential Mineral Aggregate Resource Areas
- Mineral Aggregate Extraction Area
- Rama Reserve

Date	July 2021
Sources	Township of Ramara Official Plan - Schedule D High Potential Mineral Aggregate Resource Areas Dated December 22, 2006 Lake Simcoe Protection Act Watershed Boundary from Ontario GeoHub
Scale - 1:175,000	

N:\Briant\121358 Talisker - Proposed Brechin Quarry\Drawings\Lake Simcoe Protection Plan\CAD\121358 - Active ARA Licences Within Lake Simcoe Protection Plan Boundary.dwg



James Newlands

From: James Newlands
Sent: October-28-21 6:21 PM
To: Deb McCabe; Leo Grellette; Darryl Tighe; Amanda Dougherty; Tim Collingwood (tcollingwood@tathameng.com); Melinda Bessey; Dave Ruggle; Caroline Hawson; k.lillie@lcrca.on.ca; Julie.Nolan@simcoe.ca; Tuyten, Nicole (MECP); Snell, Shamus (MECP)
Cc: Brian Zeman; skirby@symphonygolf.com; Dan Stuart; Bev Wicks
Subject: Potential Brechin Quarry - LSPP Policies Discussion Follow Up
Attachments: MHBC Memo to agencies - LSPP policies - Aug 23, 2021.pdf

Good afternoon,

Thank you everyone for the meeting on September 22nd to discuss the attached memo. Based on the meeting, there was general acknowledgement that the LSPP is out of date and does not align with policies of the Provincial Policy Statement or the Endangered Species Act legislation.

Based on our meeting we understand that the Township, County, LSRCA and MECP agree with MHBC's interpretation of the LSPP policy as outlined in the attached memo.

Based on the information from MECP Species at Risk Branch provided during the meeting, it is understood that MECP's main objective is to ensure an overall benefit is provided for the habitat and that the agencies do not have any concerns with the applicant proceeding to file an application with MECP to remove the habitat and to provide an overall benefit to the species concurrently with the future Planning Act and Aggregate Resources Act applications for a potential quarry on the site. As a result, Azimuth is preparing the Information Gathering Form (IGF) and Avoidance Alternatives Form (AFF) and will submit these forms to MECP in November to commence the process for an overall benefit permit (C-PAF). With regards to the Planning Act and Aggregate Resources Act application please be advised it is the applicants intent to formally submit the applications in January 2022.

Thank you again for taking the time to meet with us and if you have any questions or comments, please do not hesitate to contact us.

Regards,

JAMES NEWLANDS HBComm, MSc, MCIP, RPP | Planner

I am currently working remotely and it is best to reach me at jnewlands@mhbcplan.com or 705-238-0540.

MHBC Planning, Urban Design & Landscape Architecture

113 Collier Street | Barrie | ON | L4M 1H2 | T 705 728 0045 x 234 | F 705 728 2010 | jnewlands@mhbcplan.com

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March 10, 2023

Walied Zekry
Chief Building Official/Director of Building and Planning

Township of Ramara
2297 Highway 12, PO Box 130
Brechin, ON L0K 1B0

Dear Mr. Zekry:

**RE: Project Update Meeting Request – Lagoon City Partnership – Potential Quarry
Lot 11 and Part Lots 12 & 13, Concession 1, Former Geographic Township of Mara,
Township of Ramara, County of Simcoe
OUR FILE 12135B**

MHBC is working with Lagoon City Limited Partnership on Aggregate Resources Act and Planning Act applications to permit a below water quarry located at Lot 11 and Part Lots 12 & 13, Concession 1, Former Geographic Township of Mara, Township of Ramara, County of Simcoe. The subject lands include the following properties municipally known as:

- o 1506 Highway 12;
- o 1646 Highway 12;
- o 1710 Highway 12;
- o 2440 Concession Road 1; and,
- o 2530 Concession Road 1.

Lagoon City Limited Partnership and MHBC have previously pre-consulted with the Township of Ramara in November of 2019 on this project. We are requesting an update meeting with the Township of Ramara to update the Township on the status of the project and timing for submission. Please see **Appendix A** for a copy of the 2019 pre-consultation record which includes a map of the site, the pre-consultation request form, cover letter and pre-consultation minutes.

Some key highlights of the application are as follows:

- The above five properties are comprised of 161.1 hectares of rural and agricultural lands that are proposed to be included within the licenced area. The preliminary extraction area under consideration is 85.8 hectares and is subject to the findings and recommendations of the required technical studies.
- The entrance / exit for the quarry is proposed to be located on Concession Road 2, west of Highway 12.

- The County of Simcoe Official Plan designates the potential extraction area as 'Agricultural' and 'Rural'.
- Further to our 2019 pre-consultation, the Township of Ramara Official Plan continues to designate the potential extraction area as 'Agricultural' and 'Rural' and identifies that the subject lands are located entirely within the Township's High Mineral Aggregate Resource Areas. The Township Zoning By-law zones the potential extraction areas as "Agriculture (AG)" and 'Rural (RU)'.

Based on a review of the Township Official Plan and Zoning By-law, and previous pre-consultation discussions with the Township it is our understanding that amendments to both documents will be required to permit aggregate operations on these lands.

Based on a review of the County of Simcoe policies, and previous pre-consultation discussions with the Township we understand an amendment to the County of Simcoe Official Plan will not be required.

As confirmed by the Township of Ramara, the following technical studies will be required as part of the complete application:

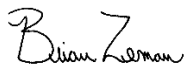
- Natural Environment Study;
- Water Resources (Hydrogeological and Hydrologic) Study;
- Noise Impact Study;
- Blasting Impact Study;
- Traffic Impact Study;
- Archaeological Study;
- Agricultural Impact Study; and,
- Planning Justification Report.

Further to the updates to the Aggregate Resources Act in 2021, in addition to the above noted reports a Cultural Heritage Evaluation Report is also required as part of the complete application.

We look forward to meeting with the Township to provide an update on the application. Please let us know your availability for the meeting.

Yours truly,

MHBC



Brian Zeman, BES, MCIP, RPP
President

cc. *Scott Kirby, Lagoon City Limited Partnership*
Moreen Miller, Brandy Creek Consulting
James Newlands, MHBC

Appendix **B**

**THE CORPORATION OF THE TOWNSHIP OF RAMARA
BYLAW NUMBER 2023.XX
A BYLAW TO ADOPT AMENDMENT NO. XX
TO THE OFFICIAL PLAN OF THE TOWNSHIP OF RAMARA**

WHEREAS Section 17(22) of the *Planning Act*, R.S.O. 1990, c. P.13, as amended, provides for the adoption of an amendment to an official plan;

AND WHEREAS in accordance with Section 17(15) and the Regulation 198/96, public meetings were held with respect to this amendment;

NOW THEREFORE, the Council of the Corporation of the Township of Ramara in accordance with the provisions of Section 17(22) of the *Planning Act*, enacts as follows:

1. **THAT** Schedule "A", of Official Plan of the Township of Ramara is hereby further amended by redesignating from "Agriculture" and "Rural" to "Mineral Aggregate Extraction Area" and "Mineral Aggregate Extraction Area special policy".
2. **THAT** Schedule "A", attached, does and shall form part of this Bylaw.
3. **THAT** this Bylaw shall come into force and take effect on the date of passing thereof and this amendment comes into effect as an official plan when approved, subject to the provisions of Section 17(22) of the *Planning Act*, as amended.

BYLAW READ A FIRST, SECOND AND THIRD TIME AND PASSED THIS ___ DAY OF _____, 20__.

Basil Clarke, Mayor

Jennifer Connor, Clerk

AMENDMENT NO. XX
TO THE
OFFICIAL PLAN OF
THE TOWNSHIP OF RAMARA

**AMENDMENT NO. XX TO THE OFFICIAL PLAN OF
TOWNSHIP OF RAMARA**

PART A – THE PREAMBLE

1. Purpose of the Amendment

The purpose of this Amendment is to change the land use designation shown on Schedule “A” attached, from “Agriculture” and “Rural” to “Mineral Aggregate Extraction Area” and “Mineral Aggregate Extraction Area special policy” to permit the licencing of a quarry on a portion of the lands and to permit ecological enhancements and monitoring throughout the life of the licenced quarry on the remaining portion of the lands.

2. Location

The Amendment is specific to the lands located in Part Lots 11, 12 & 13, Concession Road 1, Geographic Township of Rama, Township of Ramara, known as 1506 & 1646 Highway 12, and 2440 & 2530 Concession 1.

3. Basis of the Amendment

The Official Plan of the Township of Ramara currently designates the subject land as “Agriculture” and “Rural”. The applicant has made an application to amend the Official Plan to permit the licencing of the subject land as a quarry under the *Aggregate Resources* Act. There is a companion amendment to the Ramara Zoning Bylaw 2005.85. Only those lands that are proposed to be licenced are designated as “Mineral Aggregate Extraction Area” and “Mineral Aggregate Extraction Area special policy”. The area subject to this Amendment is 161.2 hectares (398.3 acres). The subject land has frontage along Concession 1, Concession 2 and Highway 12.

The lands proposed to be designated ‘Mineral Aggregate Extraction special policy’ are the western portion of the site in which extraction is not proposed to occur. These lands will be included in the licence boundary to be used for ecological enhancements, mitigation and monitoring throughout the life of the operation in accordance with the approved *Aggregate Resources Act* Site Plans.

PART B – THE AMENDMENT

All of the Amendment entitled PART B – THE AMENDMENT consisting of the attached text and the schedule constitute Amendment No. XX to the Official Plan of the Township of Ramara.

1. Schedule “A” entitled Land Use Plan is hereby amended by re-designating 161.2 hectares (398.3 acres) located in Part Lots 11, 12 & 13, Concession Road 1, Geographic Township of Rama, Township of Ramara as “Mineral Aggregate Extraction Area” and “Mineral Aggregate Extraction Area special policy” from the existing “Agriculture” and “Rural” designations, as shown on Schedule “A” attached hereto.
2. Section 9.11.11 of the Township Official Plan shall be amended to add a new special policy. The new subsection shall read:

“9.11.11.X – Notwithstanding Section 9.11.2 on lands designated Mineral Aggregate Extraction, located at Part Lot 13, Concession 1 no extraction or accessory and ancillary uses are permitted. These lands are to be used for ecological enhancements and environmental mitigation and monitoring.”
3. Amendment No. XX shall be implemented by means of a Zoning Bylaw Amendment enacted pursuant to the provisions of Section 34 of the *Planning Act*.
4. The provisions of the Official Plan of the Township of Ramara, as amended, shall apply in regard to the interpretation of this Amendment.

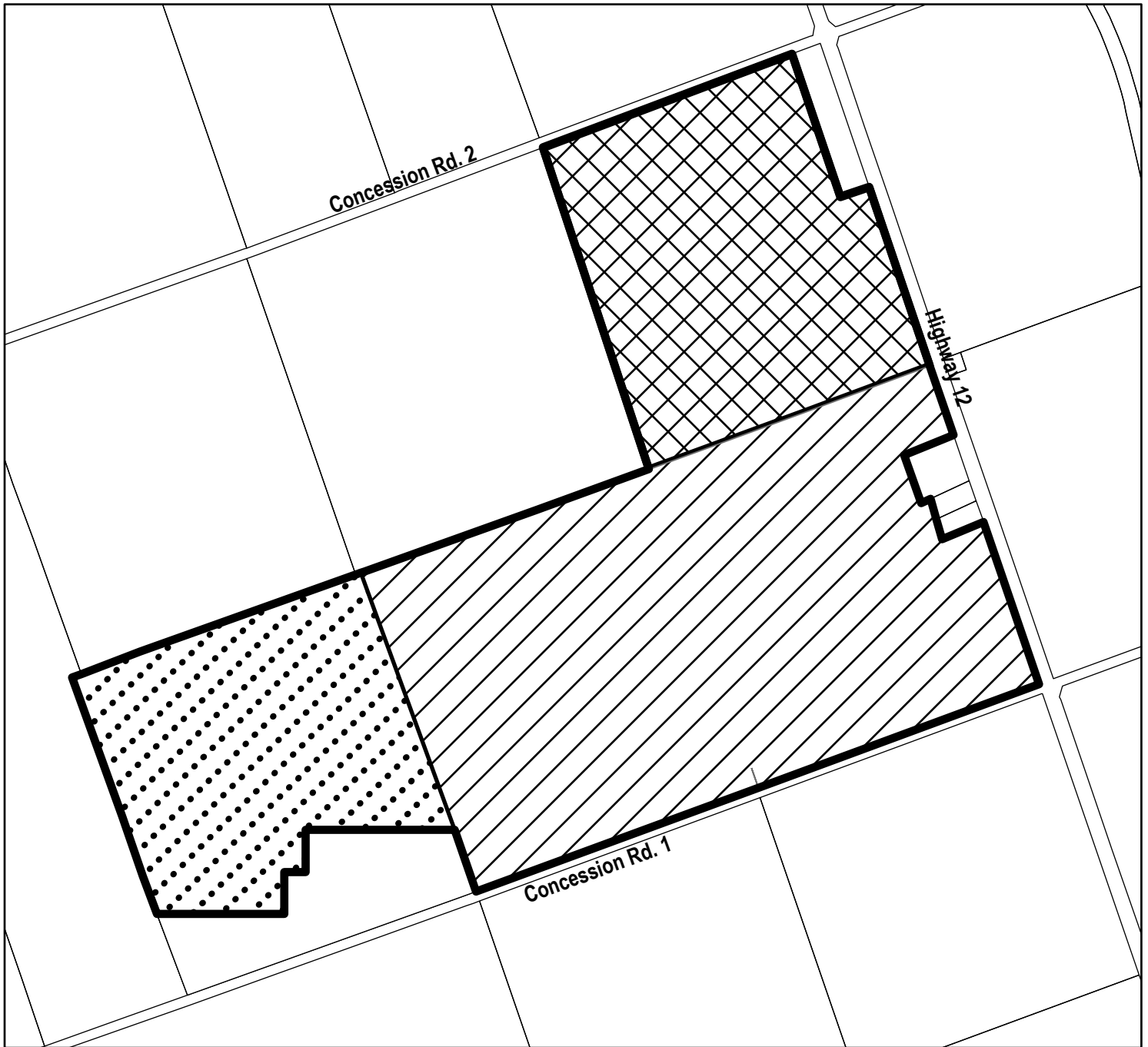
PART C – THE APPENDIX

The following appendices do not constitute part of Amendment No. XX, but are included as information supporting the Amendment.

1. Aggregate Resources Act Site Plans for the proposed Brechin Quarry, prepared by MHBC, dated December 2023;
2. Planning Justification Report for the proposed Brechin Quarry, prepared by MHBC, dated December 2023;
3. Level 1 and Level 2 Hydrogeological and Hydrological Report, prepared by Azimuth Environmental Consulting, dated December 2023;
4. Natural Environment Report, prepared by Azimuth Environmental Consulting, dated December 2023;
5. Traffic Impact Assessment, prepared by T. Y. LIN International Canada Inc. (TYLin), dated December 2023;
6. Noise Impact Assessment, prepared by HGC Engineering, dated December 2023;
7. Stage 1-2 Archaeological Assessment, prepared by Amick Consultants Ltd., dated October 16, 2023;
8. Ministry of Tourism, Culture and Sport Checklist for Built Heritage Resources and Cultural Heritage Landscapes Potential prepared by MHBC, dated December 2023;
9. Cultural Heritage Screening Report, prepared by MHBC, dated December 2023;
10. Blasting Impact Analysis, prepared by Explotech, dated December 2023; and
11. Agricultural Impact Study, prepared by MHBC, dated December 2023.

Official Plan Amendment No. _____ to Schedule A - Land Use

Part of Lots 11, 12 and 13, Concession 1
Township of Ramara
County of Simcoe



Lands to be Redesignated from Rural (RU) to Mineral Aggregate Extraction Area



Lands to be Redesignated from Agriculture (AG) to Mineral Aggregate Extraction Area



Lands to be Redesignated from Rural (RU) to Mineral Aggregate Extraction Special Policy Area

Appendix C

**THE CORPORATION OF THE TOWNSHIP OF RAMARA
BYLAW NUMBER 2023.XX
A BYLAW TO AMEND ZONING BYLAW NO 2005.85
(1506 & 1646 Highway 12, and 2440 & 2530 Concession 1)**

WHEREAS Section 34 of the *Planning Act*, R.S.O. 1990, c. P.13, as amended, provides for the enactment of zoning bylaws and amendments thereto;

AND WHEREAS the Council of the Corporation of the Township of Ramara deems it advisable to further amend Bylaw 2005.85 for the Township of Ramara as it relates to Part Lots 11, 12 & 13, Concession Road 1, Geographic Township of Mara, Township of Ramara, known as 1506 & 1646 Highway 12, and 2440 & 2530 Concession 1;

AND WHEREAS the provisions of this Bylaw conform to the Ramara Official Plan;

NOW THEREFORE, the Council of the Corporation of the Township of Ramara enacts as follows:

1. That Schedule "A", Maps O7, P6 and P7 of Zoning Bylaw 2005.85 is hereby further amended by rezoning from "Agriculture (AG)" and "Rural (RU)" to "Mineral Aggregate Extraction (MAE)" and "Mineral Aggregate Extraction Exception XX (MAE-XX)" of this Bylaw.
2. That Schedule "A", Maps O7, P6 and P7 attached, does and shall form part of this Bylaw.
3. That Section 19.(3) of Zoning By-law 2005.85 be amended to add the following new Exception:
"MAE-XX – Notwithstanding subsection (1), no extraction; uses accessory to Licenced Quarry; or uses ancillary to Licenced Quarry are permitted to occur within the MAE-XX zone. Within the MAE-XX Zone, only ecological enhancements, mitigation and monitoring shall be permitted."
4. That this Bylaw shall come into force and take effect on the date of passing thereto, subject to the provisions of Section 34 of the *Planning Act*, as amended.

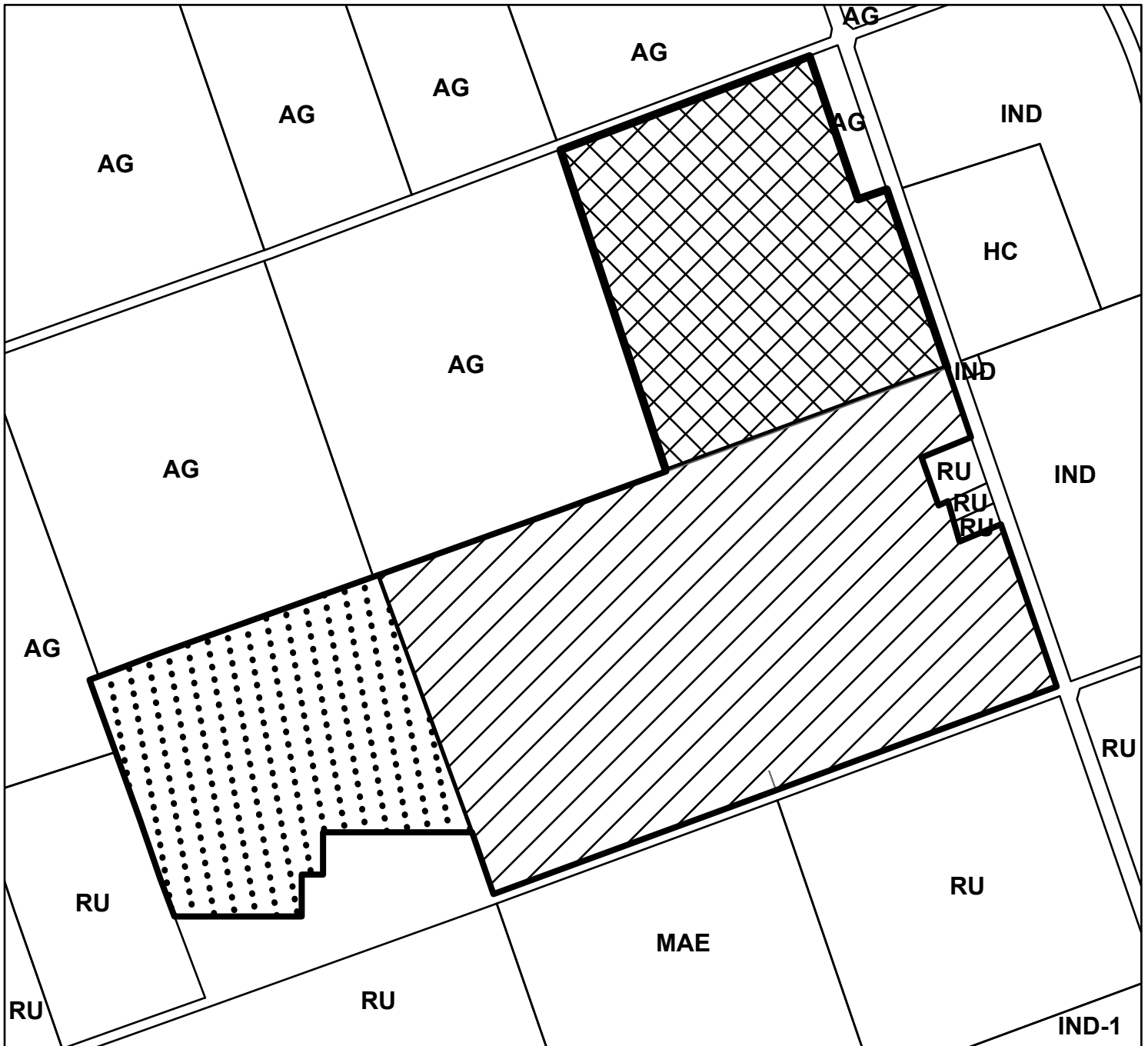
BYLAW READ A FIRST, SECOND AND THIRD TIME AND PASSED THIS ___ DAY OF _____, 20__.




Basil Clarke, Mayor

Jennifer Connor, Clerk

Schedule 'A1'

Part of Lots 11, 12 and 13, Concession 1
Township of Ramara
County of Simcoe



-  Lands to be rezoned from Rural (RU) to Mineral Aggregate Extraction (MAE)
-  Lands to be rezoned from Agriculture (AG) to Mineral Aggregate Extraction (MAE)
-  Lands to be rezoned from Rural (RU) to Mineral Aggregate Extraction Exception XX (MAE-XX)

This is Schedule 'A1' to Zoning By-law 2005.85
Passed this ____ day of _____, 2023

Mayor

Clerk

Appendix D



CURRICULUM VITAE

Brian A. Zeman, BES, MCIP, RPP

Brian Zeman, President of MHBC, joined MHBC as a Planner in 1998 after graduating from the University of Waterloo with a Bachelors Degree in Urban and Regional Planning.

Mr. Zeman provides planning services for all aspects of the firm's activities including residential, commercial and industrial uses while specializing in aggregate resource planning. He has experience in aggregate site planning and licensing and processes relating to aggregate applications.

Mr. Zeman is a member of the Canadian Institute of Planners and Ontario Professional Planners Institute.

EDUCATION

1998
Bachelor of Environmental Studies,
Honours, Urban and Regional
Planning, University of Waterloo

PROFESSIONAL ACCREDITATIONS / ASSOCIATIONS

- Full Member, Canadian Institute of Planners
- Full Member, Ontario Professional Planners Institute
- Member, Ontario Expropriation Association
- Certified by the Province of Ontario to prepare Aggregate Resources Act Site Plans

PROFESSIONAL HISTORY

- 2014 - Present **President**, MacNaughton Hermsen Britton Clarkson Planning Limited
- 2010 - 2014 **Vice President and Partner**, MacNaughton Hermsen Britton Clarkson Planning Limited
- 2005 - 2009 **Partner**, MacNaughton Hermsen Britton Clarkson Planning Limited
- 2004 - 2005 **Associate**, MacNaughton Hermsen Britton Clarkson Planning Limited
- 2001 – 2004 **Senior Planner**, MacNaughton Hermsen Britton Clarkson Planning Limited
- 1998 - 2001 **Planner**, MacNaughton Hermsen Britton Clarkson Planning Limited

CONTACT

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F 705 728 2010
bzeman@mhbcplan.com
www.mhbcplan.com

CURRICULUM VITAE

Brian A. Zeman, BES, MCIP, RPP

PUBLICATIONS

- Co Author of the “State of the Aggregate Resource in Ontario Study Paper 2 – Future Aggregate Availability & Alternatives Analysis, Prepared for the Ministry of Natural Resources dated December 2009.

SELECTED PROJECT EXPERIENCE

- Research, preparation and co-ordination of reports / applications under the Planning Act, Niagara Escarpment Planning and Development Act, Oak Ridges Moraine Conservation Act, and the Aggregate Resources Act.
- Facilitate public meeting on major development applications.
- Project management for major development applications.
- Undertake aggregate Compliance Assessment Report inspections and preparation of reports.
- Planning evaluations and analysis for mineral aggregate development and resource management.
- Conduct notification and consultation procedures under the Aggregate Resources Act.
- Aggregate Resources Act site plan amendments.
- Planning evaluations for residential developments.
- Registration and planning of residential developments.
- Planning assessment for commercial, retail, office and industrial developments.
- Restoration planning for pits and quarries and preparation of recreational afteruse plans.
- Research and preparation of reports /evidence for hearings before the Ontario Municipal Board, Environmental Review Tribunal, Joint Board.
- Provide expert planning evidence before the Ontario Municipal Board, Environmental Review Tribunal and the Joint Board.

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CURRICULUM VITAE

Brian A. Zeman, BES, MCIP, RPP

SAMPLE PROJECT LIST

- Activa Group - Laurentian Subdivision, Kitchener
- Adventure Farm – Kirkwall Subdivision, Hamilton
- Aecon - Oliver Pit - Site Plan Amendment/Compliance Assessment Report
- Aggregate Producers Association of Ontario - Caledon Official Plan
- Aggregate Producers Association of Ontario - PPS Review
- Aggregate Producers Association of Ontario - Region of Halton Official Plan
- Blue Mountain Aggregates-Pit Deepening and Expansion
- Brampton Brick - Cheltenham Quarry Site Plan Amendment
- Brampton Brick - Niagara Escarpment Development Permit
- Cayuga Material & Construction - Property Investigation
- Cliff's Natural Resources – Chromite Aggregate Project
- Crisdawn Construction Inc. – Barrie Annexation Lands
- Dufferin Aggregates - Acton Quarry Afteruse Plan
- Dufferin Aggregates - Acton Quarry Expansion
- Dufferin Aggregates – City of Hamilton Official Plan
- Dufferin Aggregates - Milton Comprehensive Zoning By-law
- Dufferin Aggregates - Milton Quarry Afteruse Plan
- Dufferin Aggregates - Milton Quarry Extension
- Dufferin Aggregates - Property Investigations
- Dufferin Aggregates - Region of Halton Official Plan
- Dufferin Aggregates - Town of Halton Hills Official Plan
- Dufferin Aggregates – Town of Halton Hills Zoning By-law
- E.C. King Contracting - Sydenham Quarry Expansion Erie Sand & Gravel - Pelee Quarries
- Gies Construction - Old Chicopee Drive, Waterloo
- Hazad Construction - Conestoga Golf Course Subdivision Hallman Construction Limited - Consent for Church Site
- Home Depot - Barrie, Kitchener, Markham, Mississauga, Richmond Hill and Whitby
- J.C. Duff - Property Investigations
- Kulmatycky Rezoning/Plan of Subdivision/Area Study - Town of Paris
- Lafarge Canada – Brechin Quarry Site Plan Amendment
- Lafarge Canada – City of Hamilton Official Plan
- Lafarge Canada - Dundas Quarry Expansion
- Lafarge Canada - Lawford Pit
- Lafarge Canada – Limbeer Pit
- Lafarge Canada – Mosport Pit Site Plan Amendments
- Lafarge Canada - Oster Pit

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CURRICULUM VITAE

Brian A. Zeman, BES, MCIP, RPP

- Lafarge Canada - Property Investigations
- Lafarge Canada - Warren Merger Due Diligence
- Lafarge Canada-Wawa Site Plans
- Lincoln Village Subdivision - Phase 2 and 3, Waterloo
- Livingston Excavating - Simcoe Pit
- Nelson Aggregates Co., Burlington Quarry Extension
- Ontario Stone, Sand & Gravel Association – Region of Halton Aggregate Strategy
- Ontario Stone, Sand & Gravel Association - Region of Halton Official Plan
- Paris Land Development Limited - Subdivision
- Pitway Holdings - Brillinger Pit
- Pitway Holdings - Naylor/Forman Pit
- Pine Valley Homes - Ainsley Estates, Town of Wasaga Beach
- Pioneer Construction-Aggregate Resources Act Licensing-Thunder Bay
- Region of Durham - Homefounders Subdivision Riverbank Estates Inc. - Subdivision, Kitchener
- St. Marys Cement – Alternative Fuels
- St. Marys Cement - Bowmanville Quarry Deepening
- St. Marys Cement - Bowmanville Quarry Site Plan Amendment
- St. Marys Cement - Clarington Comprehensive Zoning By-law
- St. Marys Cement – Westside Marsh Project
- Steed & Evans - Contractor's Yard/Site Plan Amendment
- Tanem Developments - Bridge Street Subdivision University of Guelph - Canadian Tire
- University of Guelph - Commercial Centre University of Guelph - Office/Research Park
- YMCA – Redevelopment of Site, Barrie
- Zavarella Construction Ltd. - Consent/Rezoning/Plan of Subdivision/Area Study, Town of Paris

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CURRICULUM VITAE

James Newlands, HBComm., MSc., MCIP, RPP

EDUCATION

2017
Master of Science,
Rural Planning and Development
University of Guelph

2015
Bachelor of Commerce (Honours)
Business Administration,
Lakehead University

James Newlands is an Associate with MHBC and has worked for the firm since 2017. James provides planning research, evaluation and analysis for all aspects of the firm's activities and has experience in the preparation, coordination and project management of *Planning Act* applications and *Aggregate Resource Act* applications. James provides advice to Clients on a variety of land use planning issues

James received his Bachelor of Commerce (Honours) in Business Administration from Lakehead University in 2015 and his Masters of Science in Rural Planning and Development from the University of Guelph in 2017.

Prior to joining the firm, James worked at the Township of Ramara as a Planning Student where he was involved in a variety of tasks. Such tasks included coordinating various development application reviews, assisting with Committee of Adjustment applications, participating in Planning Act public meetings and open houses, supporting planning and building staff members in their day-to-day duties, providing quality customer service to members of the public, and assisting with Planning and Building related inquiries. This prior work experience along with his graduate research experience at the University of Guelph has provided him with a solid foundation focusing in rural land use planning.

James is a Registered Professional Planner and is a member of the Canadian Institute of Planners and Ontario Professional Planners Institute.

PROFESSIONAL ASSOCIATIONS / ACCREDITATIONS

- Full Member, Canadian Institute of Planners (CIP) and Ontario Professional Planners Institute (OPPI)
- Member, Ontario Expropriation Association
- Committee Member, Ontario Stone, Sand & Gravel Association (OSSGA) Ecology Committee
- Committee Member, Ontario Stone, Sand & Gravel Association (OSSGA) Land Use Committee

CONTACT

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jnewlands@mhbcplan.com
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CURRICULUM VITAE

James Newlands, HBComm., MSc., MCIP, RPP

PROFESSIONAL HISTORY

- Jan 2022 – Present **Associate**, MacNaughton Hermsen Britton Clarkson Planning Limited (MHBC), Barrie
- May 2017 – Jan 2022 **Planner**, MacNaughton Hermsen Britton Clarkson Planning Limited (MHBC), Barrie
- April 2016 – April 2017 **Planning Student**, Township of Ramara

SELECTED PROJECT EXPERIENCE

James' experience includes land use planning due diligence investigations, project management and coordination of development and aggregate projects, preparation of applications and reports for Official Plan Amendments, Zoning By-law Amendments, Plans of Subdivision, Site Plan Approvals, Consents, Minor Variances, Aggregate Resources Act new and expanding licence applications, and Aggregate Site Plan Amendments. James also provides advice to clients on a variety of land use planning issues.

- J.C. Rock – Crookston Quarry Licence Amendment
- CRH Canada Group Inc. – Flamboro Quarry Licence and Site Plan Amendment
- Nelson Aggregates Co. – Burlington Quarry Site Plan Amendment
- St. Marys CBM Aggregates – Flamborough property Severances and Minor Variance
- Fowler Construction – Childs Pit & Quarry Extension
- Fowler Construction – Fleming Quarry Extension
- Fowler Construction – Fleming Quarry Site Plan Amendment
- Fowler Construction – Sage Creek Lands - Zoning By-law Amendment and Consent
- Lafarge Canada Inc. – New Lowell property Severances and Zoning By-law Amendment
- Lafarge Canada Inc. – Greek Pit – Site Plan Amendment
- Lafarge Canada Inc. – Coldwater Quarry – Site Plan Amendment



CURRICULUM **VITAE**

James Newlands, HBComm., MSc., MCIP, RPP

- The Sarjeant Company Limited – Waverley Pit 1 and 2 – Site Plan Amendment
- The Sarjeant Company Limited – Oro Pit 3 – Site Plan Amendments
- Ramara Landscaping Quarry – Zoning By-law Amendment and ARA Licence
- Yonge GO Village Subdivision, Barrie – Draft Plan of Subdivision
- DiPoce Subdivision, Barrie – Zoning By-law Amendment and Draft Plan of Subdivision
- McNabb Subdivision, Collingwood – Draft Plan of Subdivision
- Northern Shield Developments – Affordable Housing Development, Orillia – Consent, Minor Variance and Site Plan Control
- 2924 Concession 7, Township of Adjala-Tosorontio – Zoning By-law Amendment and Consent
- 1109 Meadowview Road, City of Kawartha Lakes – Zoning By-law Amendment and Consent