

PLANNING JUSTIFICATION REPORT & AGGREGATE RESOURCES ACT SUMMARY STATEMENT

MILTON QUARRY EAST EXTENSION

Part of Lots 11 & 12, Concession 1 (Geographic
Township of Esquesing), Town of Halton Hills
Regional Municipality of Halton

Date:

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Prepared for:

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1.0 EXECUTIVE SUMMARY

Dufferin Aggregates, a division of CRH Canada Group Inc. (Dufferin), operates the Milton Quarry located on Part of Lots 8 to 14, Concession 7, Town of Milton (former geographic Township of Nassagaweya), Halton Region and Part of Lots 8 to 10, 13 and 14, Concession 1, Town of Halton Hills (former geographic Township of Esquesing), Halton Region.

Dufferin's Milton Quarry is their flagship operation and is one of the most significant suppliers of high quality crushed stone to the Greater Toronto Area (GTA). The Milton Quarry contains the highest quality aggregate in Southern Ontario and is a resource of provincial significance. The Milton Quarry has been in operation since 1962 and consists of two (2) licences under the Aggregate Resources Act. Aggregate reserves at the Milton Quarry operation will be depleted by 2024 based on current extraction levels.

Dufferin is applying for an extension to the existing Milton Quarry, referred to herein as the proposed Milton Quarry East Extension (MQEE). The proposed extension is located at Part Lots 11 and 12, Concession 1, Town of Halton Hills (former geographic Township of Esquesing), Halton Region.

The proposed licence area is 30.2 hectares, with a proposed extraction area of 15.9 hectares. Adjacent to the proposed MQEE, the application includes the removal of the extraction setback in the East Cell (Part Lot 13, Concession 1, Town of Halton Hills) to allow for an integrated operational and rehabilitation plan. The extension represents a 4% increase to the overall extraction area of the Milton Quarry operation.

To permit the proposed MQEE the following applications have been submitted concurrently for agency and public review: Aggregate Resources Act Licence for "Class A" Quarry, Niagara Escarpment Plan Amendment (NEPA), Niagara Escarpment Development Permit, Region of Halton Official Plan Amendment, and Town of Halton Hills Official Plan Amendment.

The proposal is designed to address the requirements of the Aggregate Resources Act, Provincial Standards; be consistent with the Provincial Policy Statement; and conform to the Niagara Escarpment Plan, Growth Plan for the Greater Golden Horseshoe, Greenbelt Plan, Region of Halton Official Plan and Town of Halton Hills Official Plan.

This Planning Justification Report and Aggregate Resources Summary Statement has been prepared to address the above noted documents and the following is a summary:

1. The site is located where planning policy anticipates new aggregate operations to occur. The existing land use designation for the site has an objective to provide for new mineral aggregate operations.
2. The site has a long standing history of being recognized as an important mineral aggregate resource area dating back to 1974. The site is currently mapped as an identified mineral aggregate resource area and is protected for potential future use.
3. The site contains 15 million tonnes of the highest quality aggregate resource in Southern Ontario and the resource becomes increasingly valuable from a public interest perspective when it is located in proximity to major population centres with specialized infrastructure and construction requirements.
4. All areas of the province are required to ensure that “as much of the mineral aggregate resources as is realistically possible shall be made available as close to market as possible”. The policy basis for this requirement is that close to market sources, such as the proposed MQEE, ensure that the environmental, social and economic impacts associated with aggregate hauling are reduced.
5. Aggregate extraction is an existing and longstanding use in the area and infrastructure is in place to support the continuation of the operation. The existing Milton Quarry and Milton Quarry Extension will be used to process aggregate, the existing entrance / exit onto Dublin Line will remain unchanged and the existing haul route will continue to be used. No improvements are required to the entrance / exit or the surrounding road network.
6. There are no residential or other sensitive land uses located within 1 kilometre of the proposed MQEE. The operation has been designed to meet provincial limits for blasting, noise and air quality.
7. There are no residential or agricultural wells within 1 kilometre of the proposed MQEE and the existing groundwater mitigation, monitoring and private well program will continue to be implemented to ensure surrounding wells are protected.
8. The site is not located within a wellhead protection area.
9. The site is not in agricultural use, is not located within a Prime Agricultural Area and there are no agricultural operations within 1 kilometre of the site.
10. There are no cultural heritage resources within the proposed MQEE.
11. The proposed MQEE is well separated from public roads, residential uses, agricultural operations, and public lands. Visual screening is not required due to the separation distance, the surrounding forested landscape and topography in the area.
12. The proposed MQEE is located outside of the Provincial Natural Heritage System.
13. The proposed extraction area and the location of the water management system is predominately open field and results in the removal of 4.5 hectares of a key natural heritage feature. The removal of the key natural heritage feature is permitted

subject to providing an overall ecological benefit and compliance with the Endangered Species Act.

14. The proposed MQEE application includes an Ecological Enhancement Plan that will be implemented immediately on 10.6 hectares of open field area that is located outside of the proposed extraction area. In the medium to long-term, the rehabilitation plan will result in the creation of 15.9 hectares of lake, wetlands, islands, and forested areas, which are considered key natural heritage features and key hydrologic features.
15. Overall, the application results in the removal of 4.5 hectares of a key natural heritage feature and the proposed Ecological Enhancement Plan and Rehabilitation Plan results in the establishment of 26.4 hectares of key natural heritage features and key hydrologic features. The overall net gain is a 21.9 hectares enhancement to the Natural Heritage System.
16. The proposed MQEE will be integrated into the existing state of the art water management system and Adaptive Management Plan that has been in operation at the existing quarry since 2007. This mitigation, monitoring and reporting program has demonstrated to the agencies that adjacent key natural and key hydrologic features are being protected and in some cases enhanced.
17. The proposed MQEE will represent a net financial benefit to the Province, Region of Halton and the Town of Halton Hills. For example, the Town will receive approximately \$708,400 more per year compared to the current revenue that the subject site generates for the Town.
18. The estimated province-wide economic impact from the MQEE producing 5.5 million tonnes per annum and operating for 3 years is \$583 million in direct economic activity that contributes a total of approximately \$303 million to Gross Domestic Product (GDP). This also represents an estimated 1,814 full-time equivalent jobs (person years of employment), including 693 directly that would create \$122.3 million in labour income and a total of \$31.4 million in taxes for all levels of government.
19. Dufferin has already entered into agreements with Conservation Halton for the long-term conveyance of the adjacent lands and for the long-term operation of the water management system at no cost to the public. Dufferin proposes to amend these agreements to add the MQEE lands. The MQEE lands are contiguous with the land already being conveyed to Conservation Halton and the integrated rehabilitated landform will be suitable for conservation, water management and recreation.

Overall, the proposed MQEE application represents good planning, wise resource management and has been sited and designed to:

- Address the requirements of the Aggregate Resources Act Provincial Standards;
- Be consistent with the Provincial Policy Statement; and
- Conform to the Niagara Escarpment Plan, Growth Plan for the Greater Golden Horseshoe, Greenbelt Plan, Region of Halton Official Plan and Town of Halton Hills Official Plan.

2.0 DUFFERIN AGGREGATES AND THE MILTON QUARRY

Dufferin Aggregates, a division of CRH Canada Group Inc. (Dufferin), is a leading supplier of aggregates for the construction industry in Ontario.

Dufferin operates more than twenty (20) sites across Ontario, including quarries, gravel pits and distribution yards, which supply crushed stone, sand and gravel, as well as recycled concrete and asphalt to a variety of commercial, industrial, residential and civil engineering sectors.

Dufferin owns and operates the Milton Quarry located on Part of Lots 8 to 14, Concession 7, Town of Milton (former geographic Township of Nassagaweya), Halton Region and Part of Lots 8 to 10, 13 and 14, Concession 1, Town of Halton Hills (former geographic Township of Esquesing), Halton Region. **See Figure 1.**

Dufferin's Milton Quarry is their flagship operation and is one of the most significant suppliers of high quality crushed stone to the GTA. The Milton Quarry has been in operation since 1962 and consists of two (2) licences under the Aggregate Resources Act. The original Milton Quarry (Licence #5481) has a licenced area of 467.67 hectares, with an approved extraction area of 381.5 hectare. In 2007, the Milton Quarry was extended north by 84.5 hectares (Licence #608621), with an extraction area of 70.6 hectares. The original Milton Quarry only has a small amount aggregate remaining under the existing processing plant and the Milton Quarry Extension (2007) will be depleted by 2024. **See Figure 2.**

The Milton Quarry is an established source of high quality crushed stone aggregate produced from the Amabel Dolostone.¹ It is a provincially significant aggregate resource that is suitable for the production of a wide range of construction products including crushed stone, concrete aggregate and building stone. It is well suited for the production of road building and construction aggregate, and for high performance concrete.²

¹ Historically, the Amabel was considered to include two bedrock units, the overlying Eramosa Member (which is not present in the Study Area but has been reported to the north by AECOM and AquaResource, 2014) and the underlying "Unsubdivided Amabel". However, more recently (Armstrong and Carter, 2010) the Eramosa Member is included with the overlying Guelph Formation (also not present in the Study Area). Therefore, what was formerly referred to as the "Unsubdivided Amabel" is now simply referred to as the Amabel.

More recently, the Ontario Geological Survey (OGS) has made proposed revisions the Silurian age stratigraphic nomenclature (Brunton and Brintnell, 2011, Cramer et al. 2011). The Unsubdivided Amabel has been replaced by the Rochester Formation (thin to absent in the Study Area), the thick Gasport Formation, and the thinner overlying Goat Island Formation (generally absent in the Milton Quarry area, but may exist to the north). The Reynales has been replaced by several thin units including the Merriton, Rockway, and Irondequoit Formations.

² Golder Associates Ltd. & D.J. Rowell. Aggregate Resources Inventory of the Regional Municipality of Halton, Ontario Geological Survey Aggregate Resources Inventory Paper 164. 1996. pg. 75.

This dolostone provides the strongest and most durable aggregate material in Southern Ontario. It has been used in high performance concrete applications such as Highway 407 concrete pavement, bridges, runway construction at Pearson International Airport and the Toronto subway.

The Milton Quarry is located within the GTA and represents one of the closest to market sources of high quality crushed stone within the province's highest demand area for aggregate resources. The Milton Quarry is readily accessible to regional and provincial roads that service the GTA market and the main entrance for the quarry is only 4.5 kilometres from Highway 401.

The Milton Quarry is permitted to ship an unlimited amount of aggregate per year and is permitted to operate during daytime and nighttime hours subject to operational restrictions to ensure compliance with provincial noise guidelines.

The Milton Quarry includes a state-of-the-art water management system and Adaptive Management Plan (AMP) that has been operating at the Milton Quarry and Milton Quarry Extension since 2007. The water mitigation system has effectively maintained groundwater levels around the perimeter of the Milton Quarry Extension protecting surrounding water resources, including water dependent ecological features. All approval agencies are familiar with the AMP, and the hydrologic and natural environment data collection and assessment that is provided through annual reports and the online data sharing system (WebDT) allows agencies direct access to hydrogeological data at any time. The AMP also requires a comprehensive 5-year review to make any adjustments necessary to ensure that the groundwater is maintained to an acceptable level, thereby protecting the ecological features dependent upon it. The AMP was approved by the agencies and through annual reporting has demonstrated that the proposed mitigation system has protected and in some cases enhanced surrounding natural heritage features and key hydrologic features.

As part of the existing Milton Quarry operation:

- Dufferin has entered into an agreement with Conservation Halton for the future conveyance of 391 hectares of land for future conservation, water management and recreational uses;
- Dufferin has entered into an agreement with Conservation Halton to ensure that the long-term operation of the water management system will be managed by Conservation Halton at Dufferin's expense. The rehabilitated landform will also create the opportunity for increased reservoir capacity should Conservation Halton require this water for low flow augmentation for the downstream Sixteen Mile Creek system to protect the stream and fish habitat during drought conditions; and
- Dufferin has entered into a legal agreement with the Region of Halton and Conservation Halton for the implementation the AMP. This plan is a proactive and comprehensive monitoring and mitigation program, which relies on ongoing verification and validation. The plan adapts to actual conditions and ensures appropriate performance of the mitigation measures, which in turn, protects the surrounding natural environment and water resources.

3.0 PROPOSED MILTON QUARRY EAST EXTENSION

Dufferin is seeking an extension to the existing Milton Quarry to ensure that it can continue to supply high quality crushed stone within the Region of Halton and the broader GTA market.

The proposed MQEE is located at Part Lots 11 and 12, Concession 1, Town of Halton Hills (former geographic Township of Esquesing), Halton Region. The proposed licence area is 30.2 hectares, with a proposed extraction area of 15.9 hectares. Adjacent to the proposed MQEE, the application includes the removal of the extraction setback in the East Cell of the existing Milton Quarry Extension to allow for an integrated operational and rehabilitation plan located at Part Lot 13, Concession 1, Town of Halton Hills. **See Figure 3.**

The proposed MQEE contains 15 million tonnes of the same high quality aggregate resource extracted at the existing Milton Quarry. The MQEE is proposed to have an unlimited tonnage limit and hours of operation consistent with the existing Milton Quarry operation.

The proposed extraction area for the MQEE includes vacant lands that are predominately open fields and two small woodland areas. The area outside of the extraction area, located within the proposed licenced area, includes predominately open fields, a wetland and a woodland. These lands will be used for environmental protection, the water management system, access routes and areas of ecological enhancement.

Extraction of the MQEE is proposed to proceed south from the existing Milton Quarry Extension, East Cell. The proposed MQEE has been designed to occur in two phases. **See Figure 4.**

In Phase 1, extraction will proceed in a southerly direction to a maximum extraction depth of 302.5 masl. In Phase 2, extraction will proceed in an easterly direction to a maximum extraction depth of 302.5 masl.

Within the proposed MQEE, there will be no processing. All aggregate extracted from the proposed MQEE will be transported to the existing processing plant in the main quarry for processing or shipping using existing internal haul routes to the existing entrance/exit on Dublin Line. This extraction scenario assumes 5.5 million tonnes of aggregate is shipped each year, consistent with current production levels.

If the main processing plant in the main quarry is decommissioned when extraction commences at the proposed MQEE, aggregate extracted from the extension will be transported to the Milton Quarry Extension, East Cell for processing and shipping using existing internal haul routes to the existing entrance/exit on Dublin Line. This extraction scenario assumes 2 million tonnes of aggregate is shipped each year, based on the reduced production capacity of a smaller plant that would be located within the East Cell.

Dufferin currently utilizes a portable processing plant to recycle concrete and asphalt at the existing Milton Quarry and blends this material with aggregate resources to conserve mineral aggregate resources. This use is proposed to continue at the existing quarry in conjunction with the proposed extension under both scenarios.

As part of the proposed application, Dufferin proposes to utilize accessory and associated uses located in the Milton Quarry and Milton Quarry Extension in conjunction with the proposed MQEE. In addition to the use of the water management system, processing areas, aggregate recycling area, internal haul routes and the entrance/exit referenced in this section, other uses such as the office, maintenance buildings, facilities for washing and truck washing facility are proposed to be used.

These uses would be directly associated with extraction from an integrated mineral aggregate operation. They are designed to be temporary and not be utilized and removed after extraction has ceased. These uses are located in a manner that does not affect the final rehabilitation or enhancement of the site in accordance with the approved plans.

To application includes a proposed Ecological Enhancement Plan and Rehabilitation Plan. **See Figure 5.**

The proposed MQEE Ecological Enhancement Plan includes short-term enhancements on 10.55 hectares of land that will not be extracted. The Ecological Enhancement Plan includes tree planting, woodland restoration, habitat enhancement, and enhancement of wetland hydrology for Wetlands U1 and W36.

The 15.9 hectare MQEE extraction area will be rehabilitated to include 7.7 hectares of deep lake, 5.1 hectares of forested areas, 2.7 hectares of shoreline wetlands, 0.4 hectares of islands, 203 metres of shoreline shoals, and 673 metres of cliff faces.

The MQEE is proposed to be integrated into the state-of-the-art water management system and AMP that is already in place and has been operating at the Milton Quarry and Milton Quarry Extension since 2007 to protect surrounding water resources including water dependent ecological features. The water management system for the MQEE will be a straightforward addition to the existing system using the same proven techniques for mitigation.

As part of the application, Dufferin also proposes to amend the following agreements to include the MQEE lands:

- Dufferin agreement with Conservation Halton for the future conveyance of land;

- Dufferin agreement with Conservation Halton for the long-term operation of the water management system; and
- Dufferin agreement with the Region of Halton and Conservation Halton for the implementation of the AMP to protect the surrounding natural environment and water resources.

4.0 REQUIRED LAND USE APPLICATIONS

The Niagara Escarpment Plan, Region of Halton Official Plan and Town of Halton Hills Official Plan all require amendments to permit any new mineral aggregate operation. These plans do not pre-designate land for new mineral aggregate operations. Instead, the Plans include policies and objectives indicating where new aggregate operations are encouraged to locate and policies to evaluate the application to ensure social and environmental impacts are minimized.

The proposed MQEE is located within a land use designation that has an objective to provide for new mineral aggregate operations in the Niagara Escarpment Plan, Region of Halton Official Plan and Town of Halton Hills Official Plan.

To permit the MQEE there are several applications required for both the MQEE and the existing Milton Quarry operation. The following is a summary of the applications required to facilitate the proposed MQEE:

- Aggregate Resources Act “Class A” Licence for the MQEE;
- Niagara Escarpment Plan Amendment to designate the MQEE and Milton Quarry Extension setback to Mineral Resource Extraction Area. The Niagara Escarpment Plan Amendment also includes a site specific policy for the existing Milton Quarry and Milton Quarry Extension to allow the existing operation to be used for processing material from the MQEE;
- Niagara Escarpment Development Permit pursuant to the Niagara Escarpment Planning and Development Act. All lands owned or controlled by Dufferin have been included in the Development Permit application to ensure that any aspect of operation related to the MQEE is addressed;
- Region of Halton Official Plan Amendment to designate the MQEE and Milton Quarry Extension setback to Mineral Resource Extraction Area; and
- Town of Halton Hills Official Plan Amendment to designate the MQEE and Milton Quarry Extension setback to Mineral Resource Extraction Area.

The proposed land use schedules, policy amendments and conditions for the proposed Niagara Escarpment Development Permit and Aggregate Resource Act Licence have been provided in the Application Booklet, filed under separate cover.

In addition to these land use approvals, Dufferin will also require the following approvals:

- Ministry of Northern Development, Mines, Natural Resources and Forestry Aggregate Resources Act site plan amendment for the existing Milton Quarry and Milton Quarry Extension to integrate the operations. This amendment will be filed in 2022 and incorporate any technical recommendations from the MQEE reports that relate to the existing quarry operation (e.g. noise report);
- Ministry of the Environment, Conservation and Parks permit under the Endangered Species Act; and
- Amendment to the Ministry of the Environment, Conservation and Parks Environmental Compliance Approval(s) and Permit to Take Water to incorporate the MQEE.

5.0 LIST OF TECHNICAL REPORTS

The proposed MQEE has been designed and informed by several technical reports, determined to be required through the pre-consultation process. The controls and mitigation measures specified by the reports form the basis for the operational and rehabilitation design of the quarry and the planning analysis. The recommendations of the technical reports are included on the Aggregate Resources Act Site Plan to ensure the MQEE is designed to minimize social and environmental impacts on surrounding land uses.

The technical reports have been prepared in accordance with the pre-consultation held with the Niagara Escarpment Commission, the Region of Halton, the Town of Halton Hills, the Town of Milton and Conservation Halton. A copy of the pre-consultation record has been included in the Application Booklet filed under separate cover.

1. Milton Quarry East Extension Noise Impact Study, Aercoustics Engineering Ltd., December 7, 2021;
2. Milton Quarry East Extension Agricultural Impact Assessment, DBH Soil Services Inc., November 4, 2021;
3. Dufferin Milton Quarry East Extension Air Quality Assessment, RWDI, November 16, 2021;
4. Stage 1 and 2 Archaeological Assessment Milton Quarry East Extension, Golder Associates Ltd., April 30, 2021;
5. Stage 3 Archaeological Stage 3 Archaeological Assessment Location 2 (AjGx-306), Milton Quarry East Extension, Golder Associates Ltd., April 30, 2021;
6. Blast Impact Analysis Milton Quarry East Extension, Explotech, November 25, 2021;
7. Cultural Heritage Impact Assessment Report Milton Quarry East Extension, MHBC, December 2021;
8. Milton Quarry East Extension Fiscal Impact Study, Altus Group Economic Consulting, November 15, 2021;
9. Geology and Water Resources Assessment Report Dufferin Aggregates Milton Quarry East Extension, GHD, December 2021;

10. Addendum to Updated Adaptive Environmental Management and Protection Plan (AMP) Milton Quarry East Extension, GHD and Goodban Ecological Consulting Inc. (GEC), December 2021;
11. Level 1 And 2 Natural Environment Technical Report (NETR) and Environmental Impact Assessment (EIA) Dufferin Aggregates Milton Quarry East Extension, Goodban Ecological Consulting Inc. (GEC), December 2021;
12. Ecological Enhancement Plan (EEP) & Rehabilitation Plan Report, Dufferin Aggregates Milton Quarry East Extension, Goodban Ecological Consulting Inc. (GEC), December 2021;
13. Traffic Impact Study/ Haul Route Assessment Dufferin Aggregates Milton Quarry East Extension, The Municipal Infrastructure Group Ltd. (TMIG), October 2021;
14. Visual Impact Assessment, Proposed Milton Quarry East Extension, MHBC, November 2021;
15. Progressive and Final Rehabilitation and Monitoring Study, Dufferin Aggregates Milton Quarry East Extension, MHBC, December 2021;
16. Public Consultation Strategy, Dufferin Aggregates Milton Quarry East Extension, MHBC, December 2021; and
17. Aggregate Resources Act Site Plan, Milton Quarry East Extension, MHBC, December 2021.

6.0 PLANNING AND LAND USE CONSIDERATIONS

The proposed MQEE is located within areas governed by the following land use plans:

- Provincial Policy Statement
- Niagara Escarpment Plan
- Growth Plan for Greater Golden Horseshoe
- Region of Halton Official Plan
- Town of Halton Hills Official Plan

The proposed MQEE is required to be consistent with the Provincial Policy Statement and conform to the Niagara Escarpment Plan, Growth Plan for Greater Golden Horseshoe, Region of Halton Official Plan and Town of Halton Hills Official Plan.

Based on a review of these planning documents, the following is a summary of the items that must be considered as part of the application:

- Existing Land Use Designations
- Justification for the Amendment
 - Locational Attributes
 - Significance of the Aggregate Resource
 - Greater Toronto Area: Close to Market
 - Land Use Vision: Rehabilitation and After Use
 - Existing Rehabilitation at the Milton Quarry
- Purpose and Objectives of the Niagara Escarpment Plan
- Surrounding Sensitive Land Uses
- Natural Heritage System and Rehabilitation
- Agricultural
- Transportation
- Cultural Heritage
- Scenic and Visual
- Escarpment Brow, Steep Slopes and Natural Hazards
- Recreation and Bruce Trail
- Cumulative Impacts
- Financial

The following subsections provide an overview of the applicable policy requirements from the various plans and how the proposed application has been located and / or designed to be consistent with, or conform to, the applicable Provincial, Regional and Local land use plans.

For additional planning and land use consideration please see the following Appendices:

- Appendix 1 - Aggregate Resources Act Summary Statement
- Appendix 2 - Niagara Escarpment Plan Policy Review
- Appendix 3 - Provincial Policy Statement Policy Review
- Appendix 4 - Growth Plan for the Greater Golden Horseshoe Policy Review
- Appendix 5 - Greenbelt Plan Review
- Appendix 6 - Region of Halton Official Plan Policy Review
- Appendix 7 - Town of Halton Hills Official Plan Policy Review

6.1 Existing Land Designations

The proposed MQEE is located on lands that either permit or have an objective to provide for new mineral aggregate operations.

The Provincial Policy Statement (PPS) defines the proposed licenced area as Rural Lands, and mineral aggregate operations are a permitted use. The site is located outside of the Provincial Natural Heritage System and the Provincial Agricultural System.

Within the Niagara Escarpment Plan and the Town of Halton Hills Official Plan, the proposed licenced area is designated Escarpment Rural Area. One of the land use objectives for this designation is to provide for new mineral aggregate operations, subject to an amendment to the respective plans. **See Figures 6 and 7.**

Within the Region of Halton Official Plan, the proposed licenced area is designated Agricultural Area and Natural Heritage System. One of the land use objectives for the area designated Agricultural Area is to provide for new mineral aggregate operations subject to an amendment to the Plan. The area proposed for extraction is predominately designated Agricultural Area. In the northwest corner of the proposed extraction area there is a small area designated Natural Heritage System. Based on site specific ecological investigations, this area does not meet the designation criteria for the Natural Heritage System. The lands located within the proposed licence area, outside of the extraction area are designated Agricultural Area and Natural Heritage System. These lands will be used for the water management system and enhanced for ecological / conservation purposes. **See Figure 8.**

6.2 Justification for the Amendment

The Niagara Escarpment Planning and Development Act (NEPDA) requires that amendments to the Niagara Escarpment Plan be justified. Justification is defined as “the rationale for the amendment, and includes reasons, arguments or evidence in support of the change to the Plan proposed to the amendment”. Justification for the proposed MQEE includes the site’s locational attributes, significance of the aggregate resource, proximity to market, land use vision (rehabilitation / ecological enhancement plan / after use) and the success of existing rehabilitation at the Milton Quarry.

6.2.1 Locational Attributes

The application is an extension of an established quarry operation. The proposed MQEE represents a 4% increase over the current licence area. There are no existing or planned settlement areas in the immediate vicinity, and the closest adjacent residence is over 1.1 kilometre away. **See Figure 9.** The location of the MQEE lands, combined with the forested buffer properties (owned by the applicant), provides good separation and screening from residences and major public roads.

Infrastructure, including a state of the art water management system, is in place to support the continuation of the operation. The existing quarry will be used to process aggregate from the extension, and the existing external haul route to Highway 401, via Dublin Line will continue to be used. The proximity of this resource to Highway 401 (4.5 kilometres) is a locational attribute.

These locational attributes make the proposed MQEE a good location from the perspective of serving GTA infrastructure and growth requirements.

6.2.2 Significance of the Aggregate Resource

There are two basic aggregate resources: sand and gravel extracted from pits, and crushed stone produced from quarries. Some aggregate products can be produced from either pits or quarries, others have specification requirements which limit the type of resource that can be utilized.

The Milton Quarry is an established source of high quality crushed stone aggregate produced from the Amabel Dolostone. Fifteen million tonnes of the same high quality aggregate has been estimated for the proposed MQEE area based on the on-site drilling program.

The proposed extension area has a long standing history of being recognized as an important mineral aggregate resource:

- 1974, Mineral Aggregate Study, Central Ontario Planning Region (Proctor and Redfern);
- 1980 Niagara Escarpment Planning Area, High Priority Mineral Resource Protection Area (MNR);
- 1996, Aggregate Resources Inventory of the Regional Municipality of Halton, Southern Ontario, Paper 164 (MNDM);
- 2009, Aggregate Resources Inventory of the Regional Municipality of Halton, Southern Ontario, Paper 184 (MNDM);
- 2006, Region of Halton Official Plan; and
- 2018 Office Consolidation of the Region of Halton Official Plan. **See Figure 10.**

The durable, erosion-resistant Amabel dolostone found at the existing quarry and proposed extension is a thickly bedded dolostone, deposited about 400 million years ago. It is a provincially significant aggregate resource that is suitable for the production of a wide range construction products including crushed stone, concrete aggregate and

building stone. It is well suited for the production of road building and construction aggregate, and for high performance concrete.³

This aggregate, from a quality point of view, is one of the most consistent sources of high quality aggregate products in Ontario.⁴ It is these physical properties that makes the Amabel dolostone such a high quality aggregate resource. The resource becomes increasingly valuable from a public interest perspective when it is located in proximity to major population concentrations with high order specialized infrastructure and construction requirements (i.e. International Airport, 400 Series Highways, etc.).

As discussed in the following sections, the significance of an aggregate deposit is also attributable to its location relative to the GTA market. The Amabel dolostone in this area represents one of the closest to market crushed stone sources within the province's highest demand area for aggregate. The Milton Quarry is readily accessible to major regional and provincial highway connections and arterial freeways that service the GTA market. The main entrance of the quarry is only 4.5 kilometres from Highway 401.

6.2.3 Greater Toronto Area: Close to Market

Mineral aggregate resources are a matter of provincial interest as set out in the 2020 Provincial Policy Statement and are considered to be essential building blocks of the Provincial economy. Approximately 60% of all aggregate produced in Ontario is consumed by the public sector and is used to build highways, local roads, water and sanitary services, schools, hospitals and other public infrastructure.

Aggregates are a non-renewable natural resource found at fixed locations. Not all municipalities in Ontario have a plentiful supply of aggregates. Given the importance to our everyday lives and the economy, provincial policy sets out that aggregates are to be protected for future use.

The value and significance of any aggregate deposit depends on its quantity, quality, and proximity to market. Mineral aggregates are characterized by their high bulk and low unit value. Transportation is often more than 60% of the delivered price of aggregates. More trucks travelling longer distances increases the cost of construction projects, consumes more fossil fuels and releases increased exhaust emissions into the atmosphere. To minimize the delivered cost per tonne of aggregate and to reduce the social/environmental impact of truck haulage, provincial policy requires the resource to be accessed as close to market as possible.

The 2020 Provincial Policy Statement requires:

“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.”

³ Golder Associates Ltd. & D.J. Rowell. Aggregate Resources Inventory of the Regional Municipality of Halton, Ontario Geological Survey Aggregate Resources Inventory Paper 164. 1996. pg. 75.

⁴ Dufferin Aggregates Milton Quarry Extension Geologic Study, Jagger Hims Limited, May 2000

Ensuring a close to market supply of aggregate has been a cornerstone of provincial policy for the past four decades. Close to market sources, such as the proposed extension area ensures that the environmental, social and economic impacts associated with aggregate hauling are reduced.

The proposed MQEE is located within the GTA which is the highest demand area for aggregates in Ontario, consuming approximately one third of Ontario's total aggregate production. On average, the GTA consumes approximately 65 million tonnes per year.

Historically, the Region of Halton has produced an average of 12 million tonnes per year between 1988 and 2006. However, Halton Region aggregate production has declined from nearly 16 million tonnes in 2001 to an average of 6.4 million tonnes between 2013 and 2019, with only 5.6 million tonnes being produced in 2019.⁵

The depletion of close to market supplies, the difficulty of establishing new operations, the need for additional aggregate reserves in the GTA, and the economic, environmental and social impacts of importing aggregate further from market has been well documented.

This situation is particularly acute as it applies to crushed stone in the western half of the GTA. GTA West production of high quality crushed stone has historically been supplied by five (5) quarries, which have produced large quantities of high quality aggregate for the GTA market. Two (2) of these sites have closed, and the three (3) remaining crushed stone quarries (Milton Quarry, Acton Quarry and Burlington Quarry) have been in production for several decades. The licences for these sites were issued in the 1970's, and replacement reserves have been limited to a previous extension of Dufferin Aggregates Milton Quarry and an extension of the Acton Quarry. Even with these extensions, there is a limited supply of licenced crushed stone remaining based on projected demand. **See Figure 11.**

Minimizing travel distances and maximizing the use of existing infrastructure is a planning principle that is applicable to many aspects of land use planning, including mineral aggregate operations. On average, the GTA consumes on 65 million tonnes of aggregate per year, which represents approximately 3.7 million truck trips per year to accommodate its aggregate needs (35 tonne trucks / two way travel).

Past and current studies completed on behalf of the Province of Ontario have all confirmed there are significant economic, social and environmental impacts of transporting aggregate from areas further from market. Previous publications from the Ministry of Natural Resources and Forestry noted:

- Extracting aggregate resources close to where they are being utilized can also be considered the most environmentally sensitive alternative. Trucking resources long distances increases greenhouse gas emissions, which is one of the top environmental concerns in the world today.
- The cost of transportation is estimated to be approximately 60% of the total cost of aggregate. Therefore, the economic value of an aggregate deposit is based not

⁵ TOARC Annual Production Reports

only on the quantity and quality of the deposit, but also how close the deposit is to its final destination.

- Ontario has also benefited socially from accessible aggregate resources, thereby providing affordable infrastructure and housing costs.
- The wise management of aggregate resources and balancing of resource interests will ensure a continued close to market supply.⁶

6.2.4 Land Use Vision: Rehabilitation and After Use

The landscape of Southern Ontario has changed over the years with the conversion of land to residential and other urban type uses, division of larger tracts of land into smaller parcels, and the fragmentation of forest and agricultural lands. Overall, these land use changes have made it increasingly difficult to find large tracts of land to provide for recreational and tourism opportunities.

Dufferin's Milton Quarry is located adjacent to a highly populated area that is projected to experience significant population growth. The current population of the GTA is 6.8 million and it is expected to grow to 10.4 million over the next 30 years. The projected increase in population will create additional demand for recreational and tourism uses.

Adjacent to the Milton Quarry is 1,100 hectares of publicly owned land, which is presently used for passive recreation and resource management. This area, coupled with Dufferin's land holdings, provides an exciting opportunity for future recreational, tourism, conservation, educational and water management after uses.

Dufferin has already entered into an agreement with Conservation Halton for the future conveyance of 391 hectares of land including portions of the existing Milton Quarry, the Milton Quarry Extension and other lands owned by Dufferin. This includes lands associated with the water management system, rehabilitated portions of the existing quarry and existing environmental areas. **See Figure 12.**

The proposed MQEE is contiguous with the lands currently to be conveyed to Conservation Halton, and Dufferin is proposing to include the MQEE lands as part of this conveyance.

The proposed rehabilitation plan for the MQEE includes a cold water lake system connected with the lake in the East Cell of the Milton Quarry Extension. The rehabilitation landform also includes wetlands, varied shorelines, cliffs and terrestrial linkages to the adjacent Area of Natural and Scientific Interest and Environmentally Sensitive Area. The lands adjacent to the extraction area are proposed for ecological enhancements to expand adjacent natural features. Following rehabilitation, the site will become an aquatic resource with vegetated linkages to the surrounding forested area that could provide value to future generations for educational, recreational and conservation uses. **See Figure 5.**

The objectives for final rehabilitation, the ecological enhancement plan and after use of the MQEE lands are to:

⁶ <http://www.mnr.gov.on.ca/MNR/aggregates/resources.html>

- Create a naturalized, ecologically productive landscape;
- Enhance existing abandoned agricultural areas to expand adjacent natural heritage features;
- Promote biodiversity;
- Promote features and functions that are compatible with the surrounding landscape; and
- Create a recreational, environmental and water management asset within the Niagara Escarpment Plan Area that are proposed to be conveyed to Conservation Halton.

Following extraction and the completion of rehabilitation, the lands will be managed in a manner complementary to the objectives for the Niagara Escarpment Parks and Open Space System, which are:

- “To protect unique ecological and historical areas;
- To provide adequate opportunities for outdoor education and recreation;
- To provide for adequate public access to the Niagara Escarpment;
- To complete a public system of major parks and open space through additional land acquisition and park and open space planning;
- To secure a route for the Bruce Trail;
- To maintain and enhance the natural environment of the Niagara Escarpment;
- To support tourism by providing opportunities on public land for discovery and enjoyment by Ontario’s residents and visitors; and
- To provide a common understanding and appreciation of the Niagara Escarpment.”

6.2.5 Existing Rehabilitation at the Milton Quarry

Dufferin has demonstrated at its Milton Quarry that aggregate extraction is an interim use and that rehabilitation contributes to the overall purpose and objectives of the Niagara Escarpment Plan.

In 2007, 159 hectares of the rehabilitated quarry was redesignated from Mineral Resource Extraction Area to Escarpment Natural Area and Escarpment Protection Area, which are the two highest environmental designations in the Niagara Escarpment Plan. **See Figure 6.**

Dufferin monitors rehabilitation results in the existing quarry to measure the success of their ongoing rehabilitation program. Information is continuously collected in order to better inform future rehabilitation work. Overall, these programs provide sound baseline documentation to allow rehabilitation success to be measured and findings to be applied to benefit future rehabilitation efforts.

To date, over 150,000 trees have been planted as part of the rehabilitation plan at the Milton Quarry. Additionally, monitoring of the rehabilitated area has confirmed 340 species of vascular plants, 155 species of birds, including at least 61 species of

breeding birds, 6 species of breeding amphibians, 34 species of butterflies, 30 species of dragonflies and damselflies, and other wildlife in the rehabilitated portions of the quarry.

The ecological restoration and enhancement plan for the proposed MQEE will complement the existing rehabilitation plans for the approved operations and the adjacent natural features.

It is anticipated that following rehabilitation of the existing quarry and the proposed MQEE, other areas of the operation will also qualify for redesignation to Escarpment Natural Area and Escarpment Protection Area based on the ecological attributes of these areas.

6.3 Purpose and Objectives of the Niagara Escarpment Plan

Any amendment to the Niagara Escarpment Plan must demonstrate that the proposed amendment does not adversely affect, and is consistent with, the purpose and objectives of the Niagara Escarpment Plan.

The purpose of this Plan is to provide for the maintenance of the Niagara Escarpment and land in its vicinity substantially as a continuous natural environment, and to ensure only such development occurs as is compatible with that natural environment.

The objectives of the Niagara Escarpment Plan are:

- “to protect unique ecological and historic areas;
- to maintain and enhance the quality and character of natural streams and water supplies;
- to provide adequate opportunities for outdoor recreation;
- to maintain and enhance the open landscape character of the Niagara Escarpment in so far as possible by such means as compatible farming or forestry and by preserving the natural scenery;
- to ensure that all new development is compatible with the purpose of the Plan;
- to provide for adequate public access to the Niagara Escarpment; and
- to support municipalities within the Niagara Escarpment Plan Area in their exercise of the planning functions conferred upon them by the Planning Act.”

The application has considered the purpose and objectives of the Niagara Escarpment Plan. It is concluded that the Escarpment Rural Designation objective of providing for the designation of new Mineral Resource Extraction Areas can be appropriately fulfilled by the proposed MQEE in a manner which is consistent with and does not adversely affect the purpose and objectives of the Niagara Escarpment Plan. Over the long-term, the proposed rehabilitation of the MQEE will contribute to the achievement of the purpose and objectives of the Niagara Escarpment Plan in a way which benefits both the public and the environment.

The proposed MQEE provides for the maintenance of the Niagara Escarpment and land in its vicinity substantially as a continuous natural environment, and to ensure only such development occurs as is compatible with that natural environment.

The site is not located within the Provincial Natural System and located to the east of the proposed MQEE is an extensive area designated Escarpment Natural Area and Escarpment Protection Area that provides for a continuous natural environment. **See Figures 6 and 13.**

In addition, as demonstrated through the rehabilitation at the existing Milton Quarry, as areas continue to be rehabilitated these lands contribute to restoring the continuous natural environment.

The other part of the purpose of the Niagara Escarpment Plan is to ensure that only development occurs as is compatible with the natural environment. The proposed extraction area does not include any environmental features that are prohibited from extraction based on the policies of the Niagara Escarpment Plan and the adjacent lands will be enhanced to have increased compatibility with the natural environment.

The MQEE is proposed to be integrated within the existing AMP and water management system for the existing quarry which was approved by the agencies and through annual reporting has demonstrated that the mitigation system protects and enhances the natural environment.

The application is consistent with, and does not adversely affect, the objectives of the Niagara Escarpment Plan since:

- Unique ecological areas are protected and enhanced;
- There are no historic areas;
- The quality and character of natural streams and water supplies are maintained and enhanced;
- Conveyance of land to Conservation Halton provides adequate opportunities for outdoor recreation and public access to the Niagara Escarpment;
- The application is well separated and screened from surrounding land uses and public lands;
- The rehabilitation plan enhances the open landscape character of the Niagara Escarpment;
- The purpose of the Niagara Escarpment Plan will be met; and
- The protection and availability of mineral aggregate resources is a planning function conferred to municipalities by the Planning Act.

6.4 Surrounding Sensitive Land Uses

The Aggregate Resources Act requires consideration of sensitive land uses within 500 metres of the proposed MQEE. The various land use plans require that mineral aggregate operations and sensitive land uses shall be planned and developed to avoid, or if avoidance is not possible, minimize and mitigate, any potential adverse effects in accordance with provincial guidelines, standards and procedures.

The Provincial Policy Statement (PPS) defines sensitive land uses as the following: “means buildings, amenity areas, or outdoor spaces where routine or normal activities occurring at reasonably expected times would experience one or more adverse effects from contaminant discharges generated by a nearby major facility. Sensitive land uses may be a part of the natural or built environment. Examples may include, but are not limited to: residences, day care centres, and educational and health facilities.”

Overall, the proposed MQEE location is ideal from the perspective of avoiding surrounding sensitive land uses. There are no sensitive land uses within 500 metres of the proposed MQEE, with the closest sensitive land use separated by over 1.1 kilometres. **See Figure 9.** The predominant land uses within 500 metre of the proposed MQEE are existing quarry operations and large tracts of forested land. **See Figure 2.** The proposed MQEE will use the existing internal haul routes, the existing entrance /exit onto Dublin Line and the existing external haul route. Utilizing the existing haul route was considered the preferred alternative to establishing a new haul north on Townline to 15th Sideroad.

Impact assessments related to air quality, blasting, and noise were completed and concluded that with the implementation of the recommended mitigation and monitoring requirements, the proposed MQEE can be operated in accordance with provincial guidelines, standards and procedures at surrounding sensitive land uses. These assessments evaluated impacts from the proposed MQEE, as well as the uses within the existing Milton Quarry and Milton Quarry Extension that will be used in conjunction with the MQEE, such as hauling, processing, handling, and shipping.

All of the technical recommendations from the following reports have been included on the Aggregate Resources Act Site Plans to ensure that the MQEE has been designed to minimize impacts on surrounding sensitive land uses:

- Dufferin Milton Quarry East Extension Air Quality Assessment, RWDI, November 16, 2021;
- Blast Impact Analysis Milton Quarry East Extension, Explotech, November 25, 2021; and
- Milton Quarry East Extension Noise Impact Study, Aercoustics Engineering Ltd., December 7, 2021.

A water resource assessment was also completed to ensure that the proposed MQEE will not adversely impact groundwater required for residential, agricultural and municipal purposes. The following report concludes that the proposed MQEE is not within a

municipal wellhead protection area and that there are no private residential or agricultural wells within the potential area of groundwater impacts:

- Geology and Water Resources Assessment Report Dufferin Aggregates Milton Quarry East Extension, GHD, December 2021.

See Figures 9 and 14.

Monitoring of groundwater resources, including private wells on lands related to the existing Milton Quarry and Milton Quarry Extension will continue and the groundwater program will be expanded as outlined in the following report to incorporate the MQEE:

- Addendum to Updated Adaptive Environmental Management and Protection Plan (AMP) Milton Quarry East Extension, GHD and Goodban Ecological Consulting Inc., December 2021.

Overall, the proposed MQEE has been designed in accordance with provincial guidelines, standards and procedures to minimize impacts on surrounding land uses, and municipal and private wells will not be impacted.

6.5 Natural Heritage System and Rehabilitation

The proposed MQEE extraction area is characterized by open fields with two small woodlands. **See Figure 2.** The site is located outside of the Provincial Natural Heritage System. **See Figure 13.** In the northwest corner of the proposed extraction area there is a small area designated as part of the Regional Natural Heritage System. However, based on site specific ecological investigations, this area does not meet the designation criteria for the Natural Heritage System. **See Figure 8.** The lands to the east and south of the proposed MQEE are predominately forested lands and contain several key natural heritage features and key hydrologic features. These lands also form part of the Provincial and Regional Natural System. **See Figures 8 and 13.**

The Provincial, Regional and Local plans include specific policies related to mineral aggregate operations, key natural heritage features and key hydrologic features. The following are considered key natural heritage features and key hydrologic features based on these plans:

Key Natural Heritage Features:

- Wetlands;
- Habitat of endangered species and threatened species;
- Fish habitat;
- Life Science Areas of Natural and Scientific Interest;
- Earth Science Areas of Natural and Scientific Interest;
- Significant valleylands;
- Significant woodlands;
- Significant wildlife habitat; and

- Habitat of special concern species in Escarpment Natural and Escarpment Protection Areas.

Key Hydrologic Features:

- Permanent and intermittent streams;
- Lakes (and their littoral zones);
- Seepage areas and springs; and
- Wetlands.

Based on a review of applicable land use policies, the Niagara Escarpment Plan includes the most restrictive policies related to the protection of key natural heritage features and key hydrologic features. The Niagara Escarpment Plan does not permit aggregate extraction within the following features:

- Significant woodlands, that are not young plantation or early successional habitat (as defined by the Ministry of Natural Resources and Forestry);
- Wetlands;
- Permanent and intermittent streams;
- Lakes (and their littoral zones); and
- Seepage areas and springs.

Aggregate extraction is permitted within other features subject to confirmation of no negative impact, compliance with the Endangered Species Act and Fisheries Act, and potential ecological enhancements. The following technical reports were completed addressing natural heritage features and key hydrologic features:

- Geology and Water Resources Assessment Report Dufferin Aggregates Milton Quarry East Extension, GHD, December 2021;
- Addendum to Updated Adaptive Environmental Management and Protection Plan (AMP) Milton Quarry East Extension, GHD and Goodban Ecological Consulting Inc. (GEC), December 2021;
- Level 1 And 2 Natural Environment Technical Report (NETR) and Environmental Impact Assessment (EIA) Dufferin Aggregates Milton Quarry East Extension, Goodban Ecological Consulting Inc. (GEC), December 2021; and
- Ecological Enhancement Plan (EEP) & Rehabilitation Plan Report, Dufferin Aggregates Milton Quarry East Extension, Goodban Ecological Consulting (GEC), December 2021.

Based on the conclusions of the above noted technical reports, the proposed extraction area does not contain any key natural heritage features or key hydrologic features, with the exception of habitat for an endangered species. In total, the proposed MQEE results in the removal of 4.5 hectares of lands characterized as Jefferson Salamander and Unisexual Ambystoma migration and dispersal habitat that is almost entirely within the open field areas.

In accordance with the Niagara Escarpment Plan and other land use plans, mineral aggregate operations are permitted within the habitat of endangered species and threatened species, subject to compliance with the Endangered Species Act.

The proposed MQEE has been designed to provide an overall benefit for Jefferson Salamander to comply with the requirements of the Endangered Species Act. Prior to site preparation commencing within the regulated habitat for the species, a permit would be required from the Ministry of Environment, Conservation and Parks. In support of the permit application, a 10.55 hectare Ecological Enhancement Plan is proposed to improve Jefferson Salamander terrestrial and breeding habitat. **See Figure 5.** The Ecological Enhancement Plan focuses on restoring open field areas to a natural woodland condition, which is the preferred habitat for Jefferson Salamander, and enhancing the ecological conditions and the water regime for the existing breeding pools within Wetlands U1 and the upper portion of W36. The AMP includes measures to enhance the water regime at these breeding pools to ensure there is enough water to allow for successful amphibian breeding and reproduction. Currently these pools do not contain enough water for successful amphibian breeding and reproduction.

On lands adjacent to the proposed MQEE extraction area, the following key natural features and key hydrologic are present:

- Wetlands;
- Habitat of endangered species and threatened species;
- Life Science Areas of Natural and Scientific Interest;
- Significant woodlands;
- Significant wildlife habitat;
- Indirect fish habitat;
- Habitat of special concern species in Escarpment Natural and Escarpment Protection Areas;
- Permanent and intermittent streams; and
- Seepage areas and springs.

The natural environment and water resources technical reports include a series of recommendations that have been included on the Aggregate Resources Act Site Plans, including the requirement to operate in accordance with the AMP. These recommendations are to protect adjacent features from negative impacts and enhance and expand the natural heritage system.

The proposed MQEE is proposed to be integrated into the state-of-the-art water management system and AMP that has been operating at the Milton Quarry and Milton Quarry Extension since 2007. The water mitigation system has effectively maintained groundwater levels around the perimeter of the Milton Quarry Extension, protecting and in some cases enhancing surrounding water resources including water dependent ecological features. More details of the water management system are found in Sections 2 and 3 above.

The water management system includes the installation of feeder lines into portions of the adjacent significant woodlands. The feeder line routes were selected by GEC to avoid better quality trees, areas of dolostone outcropping, rich woodland ground flora, etc. The area that will be temporarily disturbed to install the feeder lines includes 0.194 hectares and will be promptly restored. In this area there will also be up to ten (10)

recharge wells installed. This is consistent with the approach approved by the agencies for both Dufferin's existing Milton Quarry and Acton Quarry.

To mitigate for any potential impacts to key natural and hydrologic features, the application includes a proposed Ecological Enhancement Plan and Rehabilitation Plan. **See Figure 5.**

The proposed MQEE Ecological Enhancement Plan includes the following short-term enhancements on 10.55 hectares of land that will not be extracted:

- Tree planting – Reforestation: 10.271 hectares of land will be reforested.
- Woodland Restoration: Patches of existing woody vegetation will be managed, enhanced and interplanted with suitable native woody species.
- Habitat Enhancement: Approximately 215 rock piles and 215 woody debris piles/features will be installed within enhanced areas.
- Wetland U1 Habitat Enhancements: Wetland U1 and the surrounding habitat will be enhanced through vegetation management, plantings, installation of habitat features, and addition of egg attachment sites.
- Enhancement of Wetland Hydrology (Wetlands U1 and W36): The water management system mitigation measures will be used to enhance wetland hydrology in Wetland U1 and the upper portion of Wetland W36.
- Disturbed Area Restoration: A 0.062 hectares formerly excavated area will be restored and several potential snake hibernacula will be created.

The 15.9 hectare MQEE extraction area will be rehabilitated to include the following features, utilizing native species that will complementary to surrounding landscape:

- 7.7 hectares of deep lake that will be integrated with the Milton Quarry Extension, East Cell rehabilitated lake. The lake will incorporate aquatic features such as varied shorelines with shallow nearshore habitats and shoals to provide spawning and foraging habitat for fish and other wildlife. The deep water areas will also provide habitat for a variety of top predator and game species that utilize deeper water habitats.
- 5.1 hectares of forested areas will be created with forest types that are targeted to be complementary and reflective of the surrounding landscape. The forested area will improve connectivity between the surrounding woodland areas and aquatic features.
- 2.7 hectares of shoreline wetlands will be inter-connected with terrestrial and aquatic habitats. The shoreline wetlands will have water depths ranging from areas that are seasonally inundated to permanently inundated areas up to 2.0 metres deep in some locations.
- 0.4 hectares of islands will be created and planted with suitable shoreline and tallgrass prairie species and include patches of boulders and cobbles. Each island

will include ten (10) logs and/or stumps/root wads and at least three (3) turtle nesting sites.

- 203 metres of shoreline shoals will be created that rise up to within 1-2 metres of the lake surface, with various exposures. The shoals will be comprised of boulder and cobble material. The addition of patches of cobble/smaller rock, logs and root masses shall also be included.
- 673 metres of cliff faces will be created Woody vegetation will become established along the cliff rims and on the cliffs themselves. The cliffs will provide habitat for a variety of nest bird species and they are complementary to the Escarpment landscape.

The existing Milton Quarry and Milton Quarry Extension rehabilitation plan requires the long-term operation of the water management system to manage lake levels within the rehabilitated quarries. In addition, the water management system will be used to provide diffuse discharge to some wetlands adjacent to the Milton Quarry Extension and potentially some recharge wells to maintain groundwater levels to the east. Dufferin has entered into agreements with Conservation Halton for the future conveyance of this system and for the management of the system by Conservation Halton at Dufferin's expense. The landform and water management system is considered a public asset. It creates increased reservoir capacity should Conservation Halton require this water for low flow augmentation for the downstream Sixteen Mile Creek system to protect the stream and fish habitat during drought conditions. The reservoir function also provides flood management capacity for the downstream system.

The Niagara Escarpment Plan promotes below water quarries to be rehabilitated to avoid the need for long-term water management after rehabilitation is complete. Long-term management may be considered where it can be demonstrated that such actions would support other public water management needs.

The existing Milton Quarry water management system supports public water management needs and the proposed MQEE will be connected to this system. The water management system for the MQEE has also been designed to provide diffuse discharge to two of the surrounding wetlands to enhance the water regime and ecological conditions. The extension of the water management system to include the MQEE and add two additional diffuse discharge locations is a straightforward and minor addition to the existing system.

As part of the application, Dufferin proposes to amend the existing agreements to add the MQEE to lands to be conveyed and managed by Conservation Halton at Dufferin's expense.

The MQEE rehabilitation plan requires the importation of soil to create the proposed landform. The Niagara Escarpment Plan includes the following Development Criteria related to the use of off-site material to complete rehabilitation:

- Progressive rehabilitation may include the use of off-site material, where on-site material is not available. Off-site material shall only be used where required to stabilize and revegetate disturbed areas. The use of off-site material shall be

minimal and shall not be used for any major regrading toward a planned after-use with the deposition of off-site material.

- The use of off-site material for progressive rehabilitation shall meet the applicable provisions of Part 2.13 (Scenic Resources and Landform Conservation) of this Plan and such material shall also meet the relevant standards of the Ministry of Environment, Conservation and Parks, the Ministry of Natural Resources and Forestry and the municipality where it has approved such standards.
- The use of off-site material shall not be permitted unless it is determined through appropriate environmental, technical and planning studies that doing so will achieve greater long-term ecological and land use compatibility (e.g., the importation of topsoil to improve site capability for agriculture, forestry or habitat diversity) and the implementing authority is satisfied that the use of off-site material does not constitute a commercial fill or landfill operation.

The proposed design of the rehabilitation plan is based on environmental, water and planning assessment to design a site that will achieve greater long-term ecological and land use compatibility. Utilizing off-site material allows the rehabilitation plan to be designed to include a greater diversity of features including larger wetlands, islands, and forested areas. The improvements to the final rehabilitated landform also present greater opportunity to link the MQEE to adjacent natural heritage features. Not only does the proposed landform provide greater ecological diversity, it also improves land use compatibility by providing an opportunity to create additional public trails to enhance the Bruce Trail system and connect areas that will be in long-term public ownership.

The existing approved rehabilitated landform for Dufferin's Milton Quarry and Milton Quarry Extension permit the importation of off-site soils for rehabilitation of the site. Dufferin has experience in importing excess soil, has an established protocol, is in close proximity to urban areas, has an existing/established haul route, scales, internal haul routes, equipment needed to manage excess soil, and groundwater monitoring network.

In summary, the proposed MQEE has been designed to protect and enhance key natural heritage features and key hydrologic features in accordance with the policy requirements of the various land use plans. Taking into consideration the Ecological Enhancement Plan (EEP) and Rehabilitation Plan, the application will result in an overall enhancement and expansion to the adjacent Natural Heritage System.

6.6 Agricultural

The proposed MQEE location is ideal from the perspective of agricultural resources and surrounding agricultural operations. The proposed MQEE is not located within a Prime Agricultural Area and the closest agricultural operations is over a kilometer away from the site. **See Figures 15 and 16.**

The applicable land use plans permit mineral aggregate operations within prime agricultural areas. The proposed MQEE is not located within a prime agricultural area and agricultural rehabilitation is not required.

The land use plans also require that mineral aggregate operations be designed to minimize impacts on surrounding agricultural operations. The closest agricultural operation is over a kilometer away from the site and the MQEE will not impact agricultural operations or their water supply.

Agricultural Impact Assessments are only required for mineral aggregate operations that are located within Prime Agricultural Areas. During pre-consultation, the agencies requested an Agricultural Impact Assessment be completed.

DBH Soil Services Inc. completed an Agricultural Impact Assessment for the proposed MQEE. The Study Area consisted of the proposed MQEE lands, which are comprised of large areas of open field, with the remaining area in woodland. The Secondary Study Area consisted of 1 kilometre from the proposed MQEE lands and comprised of a mix of land uses including rural uses, woodlands, existing quarry lands/quarry ponds, escarpment lands, and golf courses. The study concluded that:

- There are no municipal or Provincial Specialty Crop Lands within the Study Area lands and Secondary Study Area.
- There are no active agricultural operations in the Study Area and Secondary Study Area.
- There is no capital investment related to buildings (agricultural or other) in the Study Area and Secondary Study Area.
- There will be no loss of any agricultural facilities as a result of the proposed MQEE.
- There is no investment in artificial tile drainage or irrigation in the Study Area and Secondary Study Area.
- There is no investment in landforming for agricultural purposes in the Study Area and Secondary Study Area.
- There are no agricultural services within the Study Area and Secondary Study Area.

In summary, the proposed MQEE is not located within a Prime Agricultural Area, will not impact surrounding agricultural operations and agricultural rehabilitation is not required.

6.7 Transportation

The existing Milton Quarry and Milton Quarry Extension has no tonnage limit. The proposed MQEE will not increase shipping levels from the existing Milton Quarry and the extension proposes to utilize the existing entrance / exit on Dublin Line and the existing haul route. **See Figure 17.**

The land use plans encourage the use of existing aggregate haul routes, including regional and provincial highways. Haul routes that provide access to regional and provincial highways should include the route of least impact on surrounding land uses and should be designed to safely accommodate truck traffic.

The Municipal Infrastructure Group (TMIG) completed a Traffic Impact Study and Haul Route Assessment for the proposed MQEE. The assessment completed a conservative review of traffic operations under existing and future conditions by applying the highest recorded trip generation for the Milton Quarry derived from the 2020 haulage records (which included limestone haulage, recycling haulage and soil importation haulage for rehabilitation). The assessment concluded that:

- Existing quarry operations can be accommodated by the boundary road network without modifications to the existing intersection configuration and signal timing plans.
- Future conditions indicate that the planned Tremaine Road interchange intersections are projected to operate below capacity with acceptable level-of-service and no improvements are required. The operations of the roundabout intersection of Dublin Line / Tremaine Road are deemed acceptable, with no projected queueing concerns at the intersections.
- The overall boundary road network is projected to accommodate the quarry trip generation without requiring roadway improvements under future conditions.
- The use of the existing haul route via Dublin Line is the preferred haul route compared to using Townline Road as an alternate route. A review of haul routes via other transport modes (i.e. shipping and rail) was not completed as these options are not available for this site.
- The review of the site access intersection shows that no changes to the intersection configuration are required under existing or future conditions.

In conclusion, the proposed MQEE can be accommodated at the existing entrance / exit and the existing haul route can continue to be used without the need for any road improvements. The site's proximity to the market area, regional road network and Highway 401 (4.5 kilometres) are locational attributes, which will minimize impacts associated with truck travel.

6.8 Cultural Heritage

Cultural heritage resources include built heritage resources, cultural heritage landscapes and archeological resources. Planning policies require that significant cultural heritage resources be conserved.

MHBC completed a Cultural Heritage Impact Assessment for the proposed MQEE. The subject lands are not designated or listed under the Ontario Heritage Act. The MQEE lands are vacant and based on the assessment the site does not have any built or cultural heritage value. As a result, the proposed MQEE will not result in any direct or indirect impacts on built heritage resources and cultural heritage landscapes.

Golder Associates completed a Stage 1 and 2 Archaeological Assessment and a Stage 3 Archaeological Assessment for the MQEE. The Stage 1-2 Archaeological Assessment completed resulted in the identification one location (AjGx-306) that was

determined to have further cultural heritage value or interest. This location was further assessed through a Stage 3 Archaeological Assessment, which concluded that no further cultural heritage value or interest exists as 80% of the time span of occupation of the site does not date to before 1870.

Both Archaeological Assessments have been reviewed by the Ministry of Heritage, Sport, Tourism, and Culture Industries and entered into the Ontario Public Register of Archaeological Reports. See **Appendix 8**.

In summary, the MQEE does not contain any cultural heritage value and therefore significant cultural heritage resources will be conserved.

6.9 Scenic and Visual

The land use plans require the proposed MQEE to demonstrate how the Escarpment's scenic resources and open landscape character will be maintained, and where possible enhanced, during and after extraction. The Niagara Escarpment Plan defines scenic resources and open landscape character as follows:

- “Scenic resources: The general appearance of a place or landscape, or the features of a landscape, taking into consideration the visual condition, scenic quality, which vary by location and are dependent on features such as geology, vegetation, landforms, and human developments. The heritage attributes of protected heritage properties may also include or be, in themselves, scenic resources.”
- “Open landscape character: The system of rural features, both natural and human-made, that makes up the rural environment, including forests, slopes, streams, valleylands, hedgerows, agricultural fields, agricultural buildings and other features of similar character and scale”

These land use plans also have an objective to provide for new mineral aggregate operations in this location, and it is recognized that there will be changes to the character of the site. The site will be transformed from an open field to an aggregate operation, and then to a lake, wetland, cliff, and forested area following rehabilitation.

MHBC completed a Cultural Heritage Impact Assessment and Visual Impact Assessment for the proposed MQEE. The Cultural Heritage Impact Assessment confirmed that the proposed MQEE is not a protected heritage property and does not represent a cultural heritage landscape.

The Visual Impact Assessment evaluated the open landscape character and scenic resources of the proposed MQEE and surrounding lands. The proposed extraction area is only 15.9 hectares and is directly adjacent to the existing quarry. The subject site is isolated from public roadways, and rural residential and agricultural properties. Due to the separation distance, the dense forested lands surrounding the site, and the rising topography, the proposed MQEE cannot be seen from public roadways, or rural residential and agricultural properties. **See Figure 9.**

The Bruce Trail is located approximately 1 kilometre away from the proposed MQEE and is obstructed by existing topography and vegetation, with no potential views into the proposed MQEE. **See Figure 12.**

The Hilton Falls Side Trail includes sections of the trail on lands owned by Dufferin. The Hilton Falls Side Trail follows the unopened road allowance to the east of the proposed MQEE. The Side Trail is located approximately 530 metres from the proposed extraction area of the MQEE. Based on the separation distance and topography, the MQEE extraction area is not visible from the Side Trail. In proximity to this trail, there are informal side trails on Dufferin's lands that are used for the mitigation and monitoring of the existing quarry. There are minor views into the MQEE lands from some of these locations. However, these views are from lands owned by Dufferin, are minor in nature and are not part of the formal trail system. **See Figure 12.**

From an open landscape character and scenic resources perspective the site is isolated from views from public lands and through maintaining the surrounding forested areas, the open landscape character and scenic resources of the area will be maintained. Additional screening in the form of berms or tree screens are not required to screen the site from public viewpoints. In the long-term, the Ecological Enhancement Plan and Rehabilitation Plan, with the potential for public access, will enhance the open landscape character and scenic values of the site.

In summary, the proposed MQEE will not adversely affect significant views or change the open natural landscape character of the area, and the rehabilitation plan will create a visually appealing landscape that has the potential to be used for public access to view the enhanced scenic resources and open landscape character of the site.

6.10 Escarpment Brow, Steep Slopes and Natural Hazards

The land use plans require consideration of the Escarpment brow, steep slopes and natural hazards.

The proposed MQEE lands are not considered steep slopes and the site is approximately 1 kilometre from the Escarpment brow and therefore exceeds the 200 metre setback that is required. GHD completed a Geology and Water Resources Assessment Report. This report included a natural hazard assessment which confirmed the site does not contain any natural hazards.

6.11 Recreation and Bruce Trail

The land use plans require that the proposed MQEE minimize negative impacts on parks, open space and the existing and optimum routes of the Bruce Trail. The Niagara Escarpment Plan also promotes opportunities for public access to the Niagara Escarpment for outdoor recreation.

The proposed MQEE will not impact existing public parks, open space and the existing route of the Bruce Trail. In the long-term, the rehabilitated landform and after use

potential provides opportunities for public access to the Niagara Escarpment for outdoor recreation and the ability to create an optimum route for the Bruce Trail and / or side trails. **See Figure 12.**

Dufferin has already entered into an agreement with Conservation Halton for the future conveyance of 391 hectares of land including, portions of the existing Milton Quarry, the Milton Quarry Extension and other lands owned by Dufferin. This includes lands associated with the water management system, rehabilitated areas and existing environmental areas that provide adequate opportunities for outdoor recreation and optimum routes for the Bruce Trail and / or side trails. **See Figure 12.**

The proposed MQEE is contiguous with the lands that are currently to be conveyed to Conservation Halton and Dufferin proposes to include the MQEE lands as part of this future conveyance. Following extraction and the completion of rehabilitation, the conveyed lands will be managed in a manner complementary to the objectives for the Niagara Escarpment Parks and Open Space System, which include:

- “To protect unique ecological and historical areas;
- To provide adequate opportunities for outdoor education and recreation;
- To provide for adequate public access to the Niagara Escarpment;
- To complete a public system of major parks and open space through additional land acquisition and park and open space planning;
- To secure a route for the Bruce Trail;
- To maintain and enhance the natural environment of the Niagara Escarpment;
- To support tourism by providing opportunities on public land for discovery and enjoyment by Ontario’s residents and visitors; and
- To provide a common understanding and appreciation of the Niagara Escarpment.”

6.12 Cumulative Impacts

The land use plans require that the Escarpment environment be protected, restored, and where possible enhanced for the long-term having regard to single, multiple or successive development that have occurred or are likely to occur. The Escarpment environment is defined in the Niagara Escarpment Plan as “the physical and natural heritage features, cultural heritage resources and scenic resources associated with the Escarpment environment.”

Aggregate extraction commenced at Dufferin’s Milton Quarry in 1962 and consists of two (2) licences under the Aggregate Resources Act. The original Milton Quarry (Licence #5481) has a licenced area of 467.67 hectares, with an approved extraction area of 381.5 hectare. In 2007, the Milton Quarry was extended north by 84.5 hectares, with an extraction area of 70.6 hectares. **See Figure 2.**

Extraction at the existing quarry has resulted in changes to physical and natural heritage features, cultural heritage resources and scenic resources associated with the Escarpment environment. These changes to the Escarpment environment are permitted to occur in accordance with the Aggregate Resources Act Site Plans for the

quarry. During operations, these changes represent an interim condition and the site is required to be rehabilitated in accordance with the requirements of the Aggregate Resources Act Site Plans.

Dufferin has demonstrated at its Milton Quarry that aggregate extraction is an interim use and that rehabilitation contributes to Escarpment environment. In 2007, 159 hectares of the rehabilitated Milton Quarry was redesignated from Mineral Resource Extraction Area to Escarpment Natural Area and Escarpment Protection Area in the Niagara Escarpment Plan. **See Figure 6.**

In the long-term, the Escarpment environment will be restored and enhanced at the existing Milton Quarry and Milton Quarry Extension based on the on-going rehabilitation of the site and the agreements that Dufferin has entered into for:

- The future conveyance of 391 hectares of land to Conservation Halton for conservation, water management and recreational uses; and
- The long-term operation of the water management system by Conservation Halton at Dufferin's expense. The water management system creates the opportunity to protect surrounding features and for increased reservoir capacity should Conservation Halton require this water for low flow augmentation for the downstream Sixteen Mile Creek system to protect the stream and fish habitat during drought conditions. This system provides Conservation Halton the ability to manage water, which is becoming increasingly important as a result of climate change.

The proposed MQEE does not result in additional cumulative impacts to the Escarpment environment and will result in a long-term benefit to the Escarpment environment taking into account the proposed Ecological Enhancement Plan, Rehabilitation Plan and the conveyance of land to Conservation Halton. The proposed MQEE will result in:

- The Natural Heritage System being expanded and enhanced;
- Two wetlands being integrated into the water management system to enhance the water regime and ecological conditions;
- No impacts on cultural heritage resources;
- No impact on scenic and visual resources;
- No impact on agricultural resources; and
- Public access potentially being provided to the site providing opportunities for conservation, education, and recreation.

The land use plans require consideration of climate change when assessing the proposed MQEE. The proposed MQEE is located close to market which reduces greenhouse gas emissions. See Section 6.2.3 of this report. Furthermore, the final landform and water management system allows the conservation authority to manage water to the benefit of the public and the natural environment. This system provides Conservation Halton the ability to manage water, which is becoming increasingly important as a result of climate change.

6.13 Financial

The Region of Halton Official Plan requires a Financial Impact Assessment to ensure the proposed MQEE does not result in a public financial liability.

Altus Group Economic Consulting prepared an assessment of the net change to the municipal revenue that would occur should the MQEE be approved. The report relied upon the traffic report which confirmed no road improvements are required and assumed Dufferin is responsible for the costs of the monitoring and mitigation system. As part of the MQEE application, Dufferin proposes to add the MQEE site to the lands that are to be conveyed to Conservation Halton and to update the existing agreement with Conservation Halton to ensure no long-term financial liability to public authorities for the operation of the water management system. The Financial Impact Assessment concluded that:

- The Town of Halton Hills would receive an additional \$10,620 in property tax revenues per year, or a 109% increase from \$9,700 per year to approximately \$20,320.
- Assuming 5.5 million tonnes of annual extraction, the proposed MQEE would generate \$1,144,000 in aggregate levy fee revenues per year. Of this amount, \$697,840 is distributed to the Town of Halton Hills, \$171,600 to Halton Region, \$34,320 for the Aggregate Resources Trust, and \$240,240 to the Crown.
- The site is estimated to generate an additional \$1,380 in annual operating costs for the Town, from the provision of municipal services to the proposed quarry.
- Combined, the increased annual property tax revenues, and the aggregate fees generated, minus the increase in annual operating the cost the Town will receive approximately \$708,400 more per year compared to the current revenue that the subject site generates for the Town.
- The estimated province-wide economic impact from the MQEE producing 5.5 million tonnes per annum and operating for 3 years is:
 - a) \$583 million in direct economic activity that contributes a total of \$303 million to GDP.
 - b) 1,814 full-time equivalent jobs (person years of employment), including 693 directly that would create \$122.3 million in labour income and a total of \$31.4 million in taxes for all levels of government.

In summary, the proposed MQEE will result in a net financial benefit to Provincial, Regional and Local governments and the operation will result in significant province wide economic benefits.

7.0 CONCLUSIONS

For the reasons outlined in this report, the proposed MQEE represents good planning, wise resource management, and:

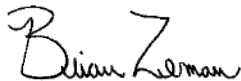
- Conforms to the Niagara Escarpment Plan;
- Is consistent with the Provincial Policy Statement;
- Conforms the Growth Plan for the Greater Golden Horseshoe;
- Conforms to the Greenbelt Plan;
- Conforms to the Region of Halton Official Plan;
- Conforms to the Town of Halton Hills Official Plan; and
- Addresses the requirements of the Aggregate Resources Act Provincial Standards.

When all of these policies are considered, it is concluded that the proposed MQEE is in the public interest. Overall, the application would result in the removal of 4.5 hectares of endangered species habitat, which would be subject to an overall benefit permit under the Endangered Species Act to achieve the following land use considerations:

- Make available 15 million tonnes of the highest quality aggregate resource in Southern Ontario from a site that is protected for its aggregate potential. Close to market sources, such as the proposed MQEE, ensure that the environmental, social and economic impacts associated with aggregate hauling are reduced.
- Aggregate extraction is an existing and long standing use in the area and infrastructure in place to support the continuation of the operation. The proposed MQEE is well separated from public roads, residential uses, agricultural operations, and public lands. There are no residential, agricultural or other sensitive land uses located within 1 kilometre of the proposed MQEE. The operation has been designed to meet provincial limits for blasting, noise and air quality.
- The site is not within a Prime Agricultural Area or in agricultural use.
- There are no cultural heritage resources within the proposed MQEE.
- The proposed MQEE is located outside of the Provincial Natural Heritage System. The Ecological Enhancement Plan and Rehabilitation Plan will result in a 21.9 hectare increase of key natural heritage and key hydrologic features adjacent to the existing Provincial Natural Heritage System.
- The proposed MQEE can be easily integrated into the existing state of the art water management system and AMP that has been in operation at the existing quarry since 2007. The system has demonstrated to the agencies that adjacent key natural and key hydrologic features are protected, and in some cases, enhanced.

- The Town will receive approximately \$708,400 in additional taxes and levies per year compared to the current revenue that the subject site generates for the Town.
- Province-wide, the proposed MQEE represents approximately \$583 million in direct economic activity that will contribute a total of \$303 million to GDP. This represents approximately 1,814 full-time equivalent jobs (person years of employment), including 693 directly that would create \$122.3 million in labour income and a total of \$31.4 million in taxes for all levels of government.
- The lands will form a long-term public asset. Dufferin has already entered into agreements with Conservation Halton for the long-term conveyance of 391 hectares of land and for the long-term operation of the water management system at no cost to the public. Dufferin proposes to amend these agreements to add the MQEE lands, since the rehabilitated landform is adjacent and suitable for conservation, water management, recreation and provides opportunities for public access to the Escarpment.

Respectfully Submitted,
MHBC



Brian Zeman, BES, MCIP RPP
President



Ellen Ferris, BSc., MSc., MCIP, RPP
Planner

Figures

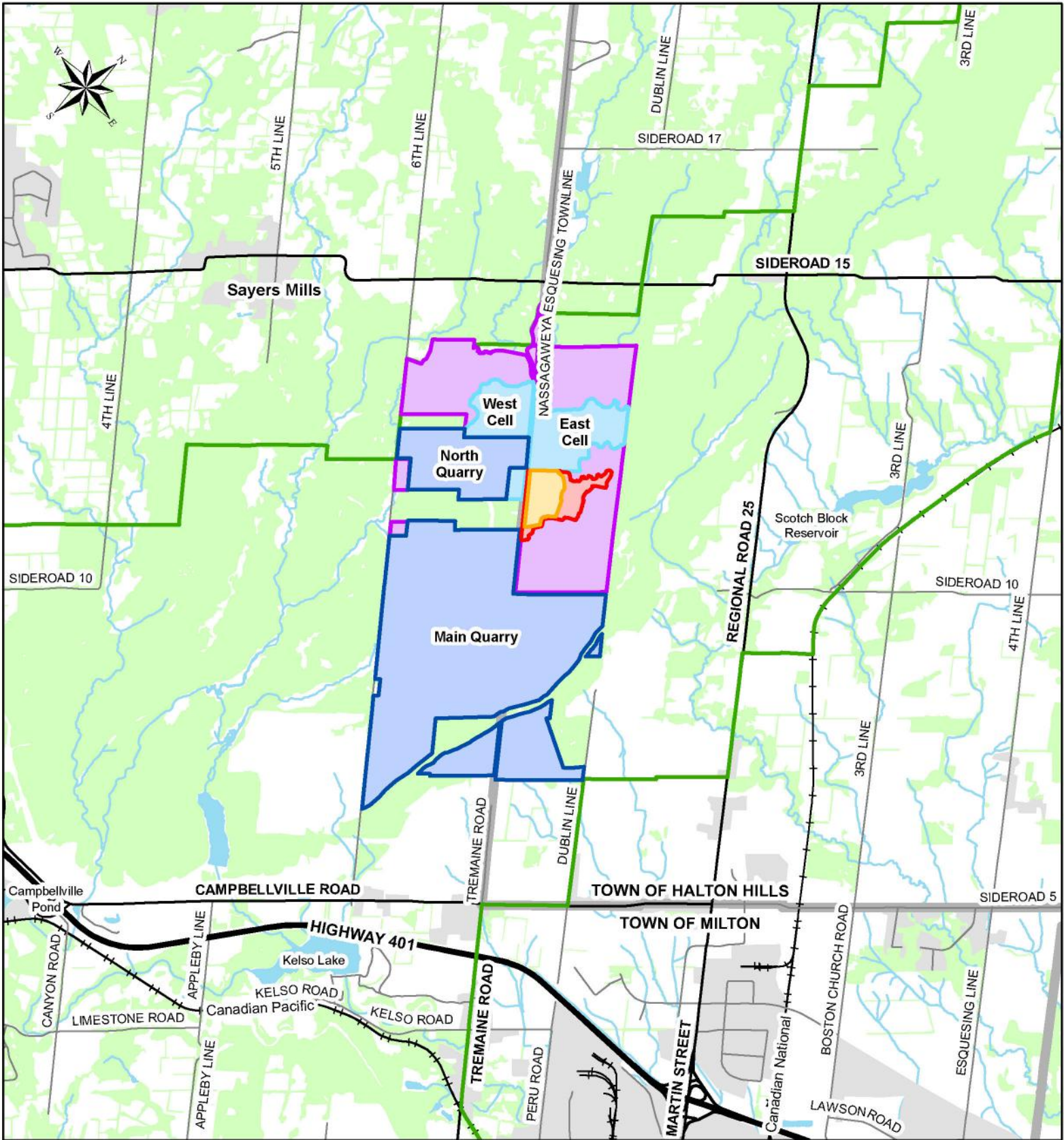


Figure # 1
Location

Milton Quarry East Extension
Part of Lots 11 and 12, Concession 1
(Geographic Township of Esquesing)
Town of Halton Hills
Regional Municipality of Halton

Legend

- Proposed Milton Quarry East Extension - Licence Boundary
- Proposed Milton Quarry East Extension - Limit of Extraction
- Milton Quarry (1962)
- Milton Quarry Extension (2007)
- Other Lands Owned by Dufferin
- Niagara Escarpment Plan Boundary
- Built up Area

DATE December 2021

SOURCES
Land Information Ontario
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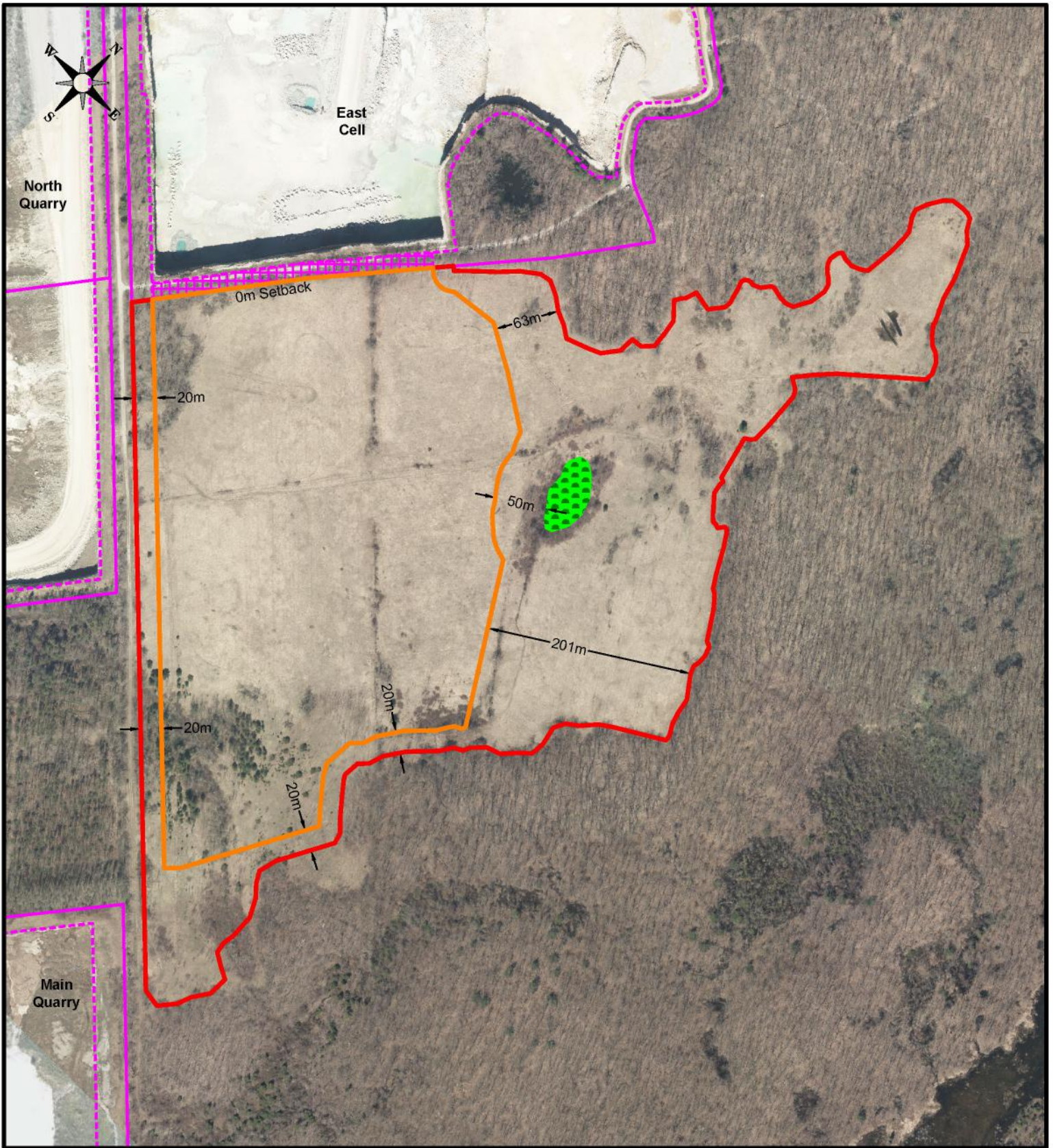








Figure # 3
Proposed Limit of Extraction

Milton Quarry East Extension
 Part of Lots 11 and 12, Concession 1
 (Geographic Township of Esquesing)
 Town of Halton Hills
 Regional Municipality of Halton

Legend

-  Proposed Milton Quarry East Extension - Licence Boundary
-  Proposed Milton Quarry East Extension - Limit of Extraction
-  Existing Licence Boundaries
-  Existing Limits of Extraction
-  East Cell Setback Removal
-  Existing Wetland U1

Date December 2021

Sources
 Milton Quarry East Extension Operational Plan
 prepared by MHBC dated December 2021

Scale - 1:5000
 Meters

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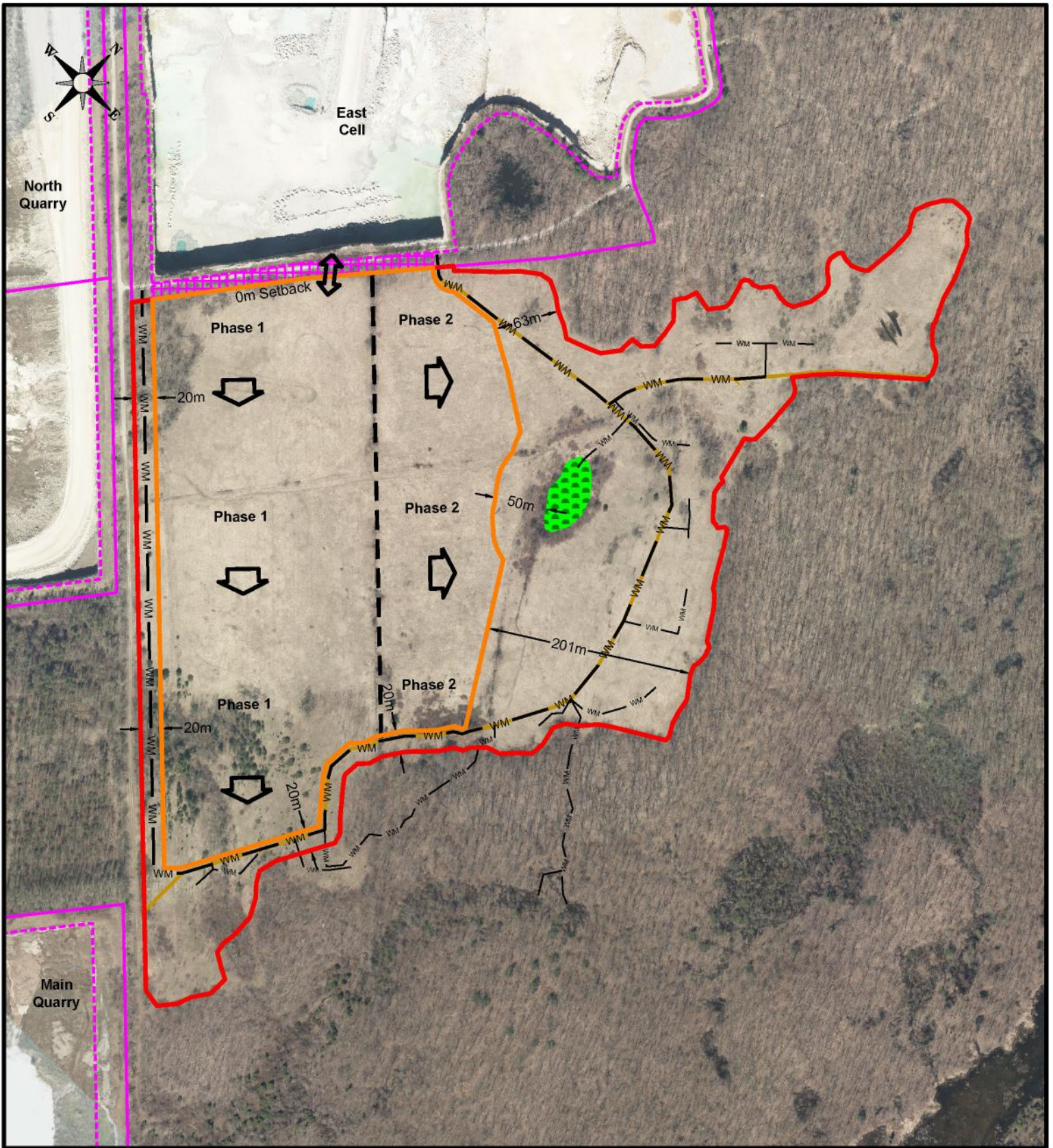


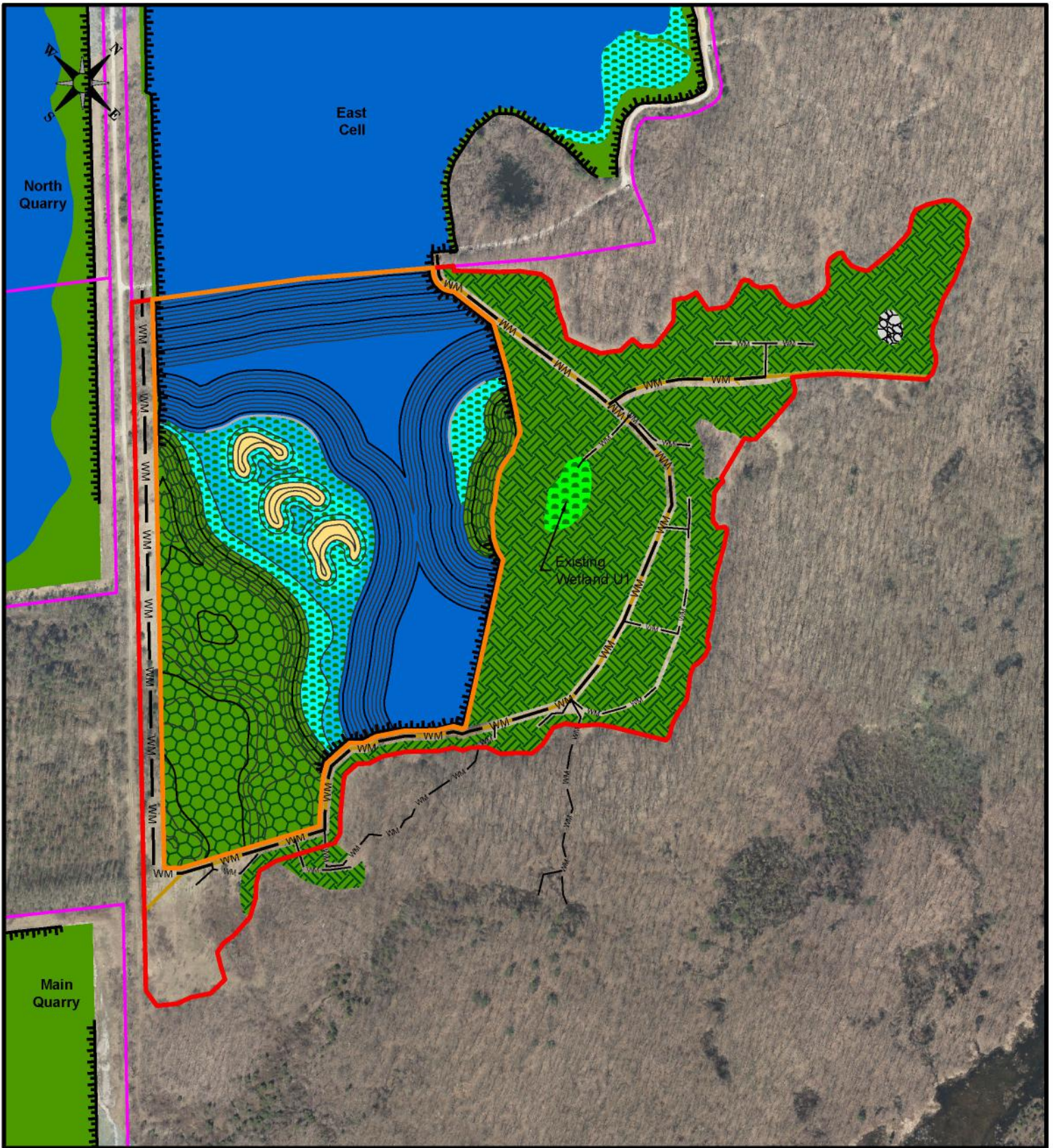
Figure # 4
Operations Schematic

Milton Quarry East Extension
Part of Lots 11 and 12, Concession 1
(Geographic Township of Esquesing)
Town of Halton Hills
Regional Municipality of Halton

Legend

- Proposed Milton Quarry East Extension - Licence Boundary
- Proposed Milton Quarry East Extension - Limit of Extraction
- Existing Licence Boundaries
- Existing Limits of Extraction
- East Cell Setback Removal
- Main Watermain / Service Access
- Feeder Line
- Site Entrance
- Phase Direction
- Phase Boundary
- Existing Wetland U1

Date	December 2021
Sources	Milton Quarry East Extension Operational Plan prepared by MHBC dated December 2021
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PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE	



**Figure # 5
Rehabilitation and
Ecological Enhancement
Plan Schematic**

Milton Quarry East Extension
Part of Lots 11 and 12, Concession 1
(Geographic Township of Esquesing)
Town of Halton Hills
Regional Municipality of Halton

Legend

- Proposed Milton Quarry East Extension - Licence Boundary
- Proposed Milton Quarry East Extension - Limit of Extraction
- Main Watermain / Service Access
- Feeder Line
- Rocky Shoal
- Shallow / Deep Wetland
- Deep Lake
- Islands
- Forested Area: Within Extraction Limit
- Forested Area: Outside Extraction Limit
- Snake Hibernaculum
- Cliff Face

Date	December 2021
Sources	Milton Quarry East Extension Rehabilitation Plan prepared by MHBC dated December 2021
Scale - 1:5000	
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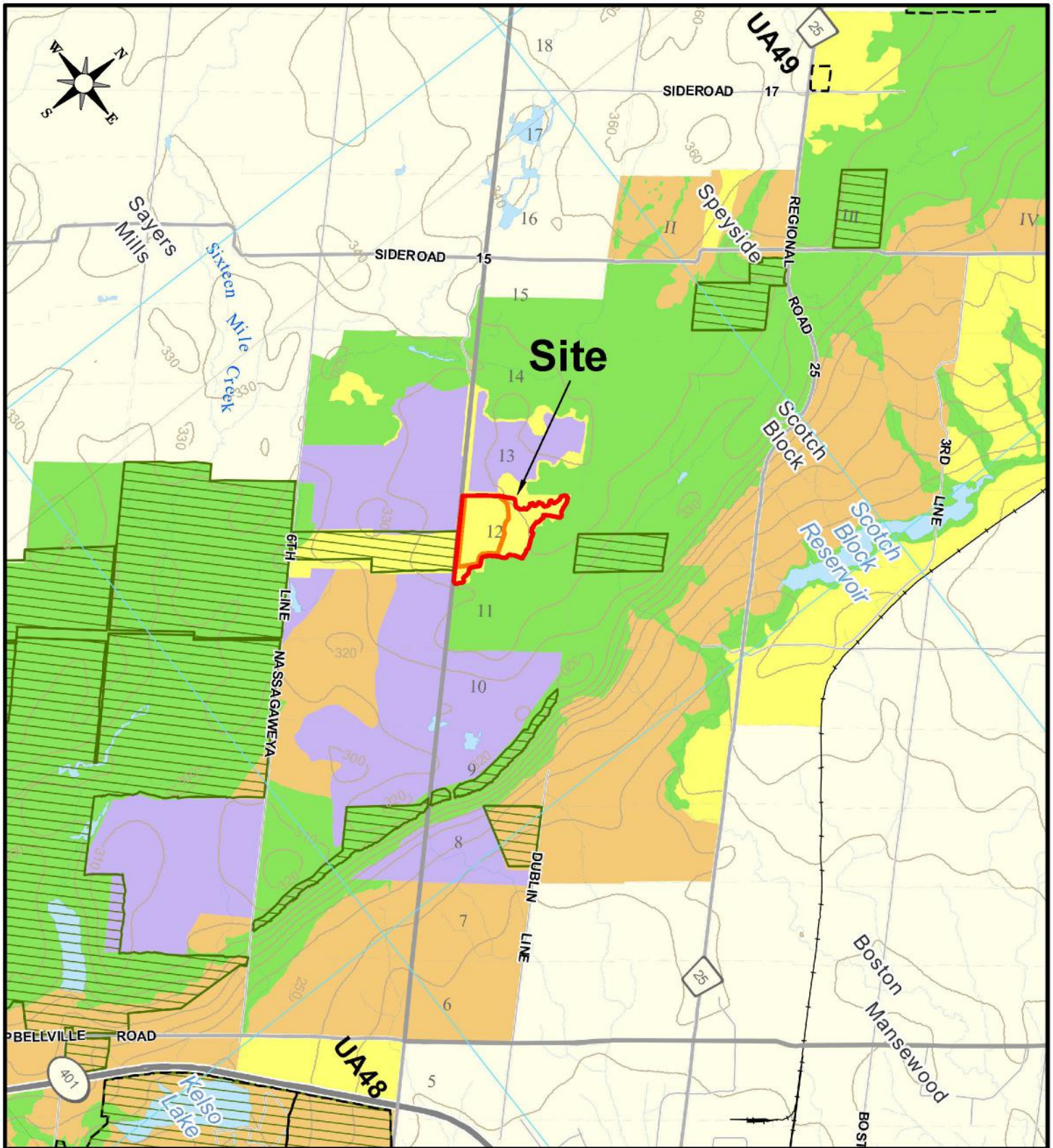


Figure # 6
Niagara Escarpment Plan
Land Use Schedule


Milton Quarry East Extension
 Part of Lots 11 and 12, Concession 1
 (Geographic Township of Esquesing)
 Town of Halton Hills
 Regional Municipality of Halton

Legend

- Proposed Milton Quarry East Extension - Licence Boundary
- Proposed Milton Quarry East Extension - Limit of Extraction
- Niagara Escarpment Parks and Open Space System
- Amendments to the Niagara Escarpment Plan
- Escarpment Natural Area
- Escarpment Protection Area
- Escarpment Rural Area
- Mineral Resource Extraction Area

Date December 2021

Sources
 Niagara Escarpment Plan - Map 3 - Regional Municipality of Halton - Plan Designations, dated June 1, 2017

Scale 1:40,000


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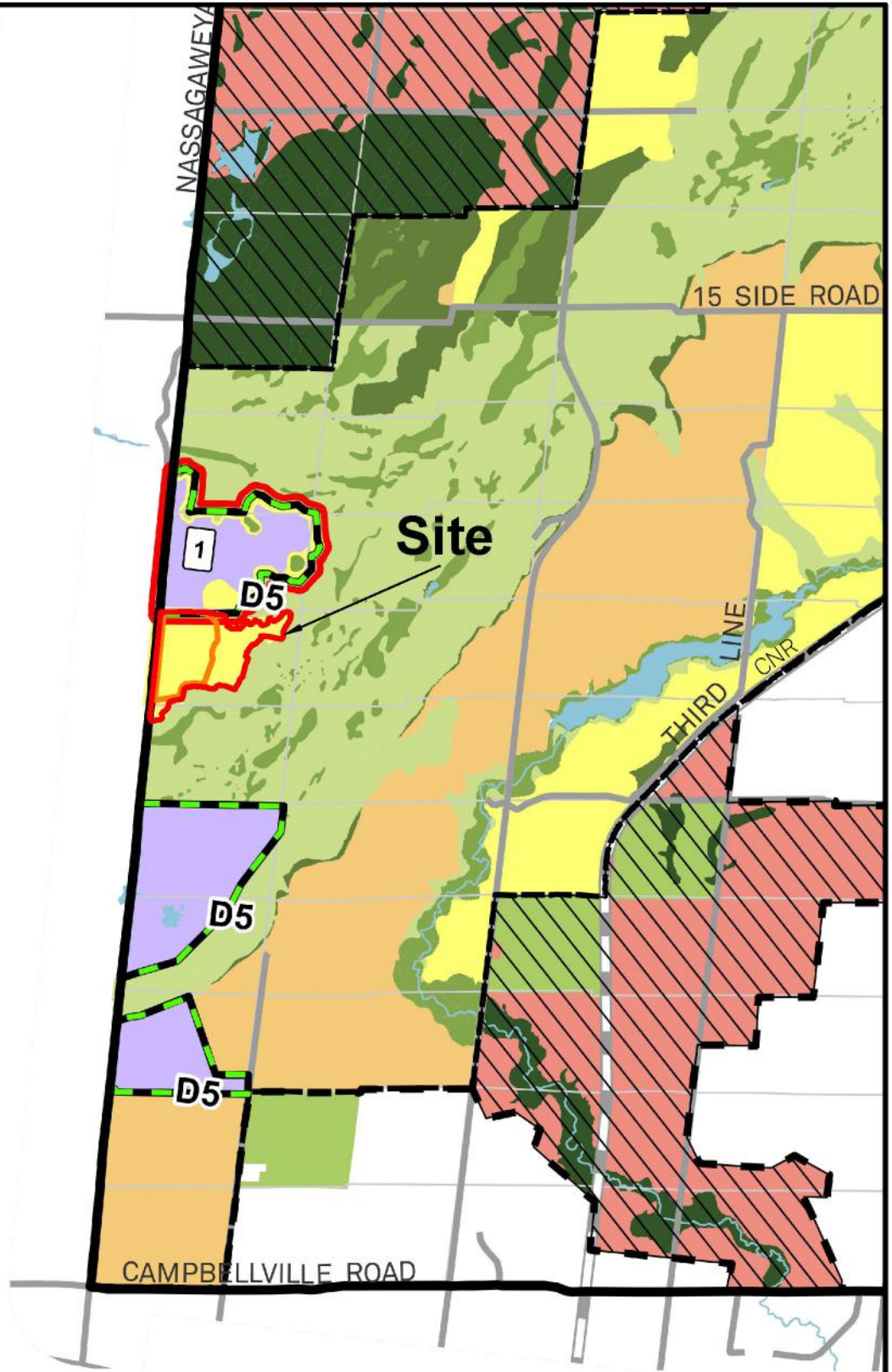


Figure # 7
Town of Halton Hills
Land Use Schedule

Milton Quarry East Extension
 Part of Lots 11 and 12, Concession 1
 (Geographic Township of Esquesing)
 Town of Halton Hills
 Regional Municipality of Halton

Legend

- Proposed Milton Quarry East Extension - Licence Boundary
- Proposed Milton Quarry East Extension - Limit of Extraction
- Natural Heritage System Overlay
- Special Policy Area/Defferal
- Greenbelt Greenlands Area
- Greenlands A & Greenlands B
- Escarpment Natural/Protection Area
- Protected Countryside Area
- Escarpment Rural Area
- Mineral Resource Area
- Private Open Space Area

Date December 2021

Sources
 Town of Halton Hills Official Plan - Schedule A2
 Greenbelt Plan, consolidated May 1, 2019

Scale 1:40,000

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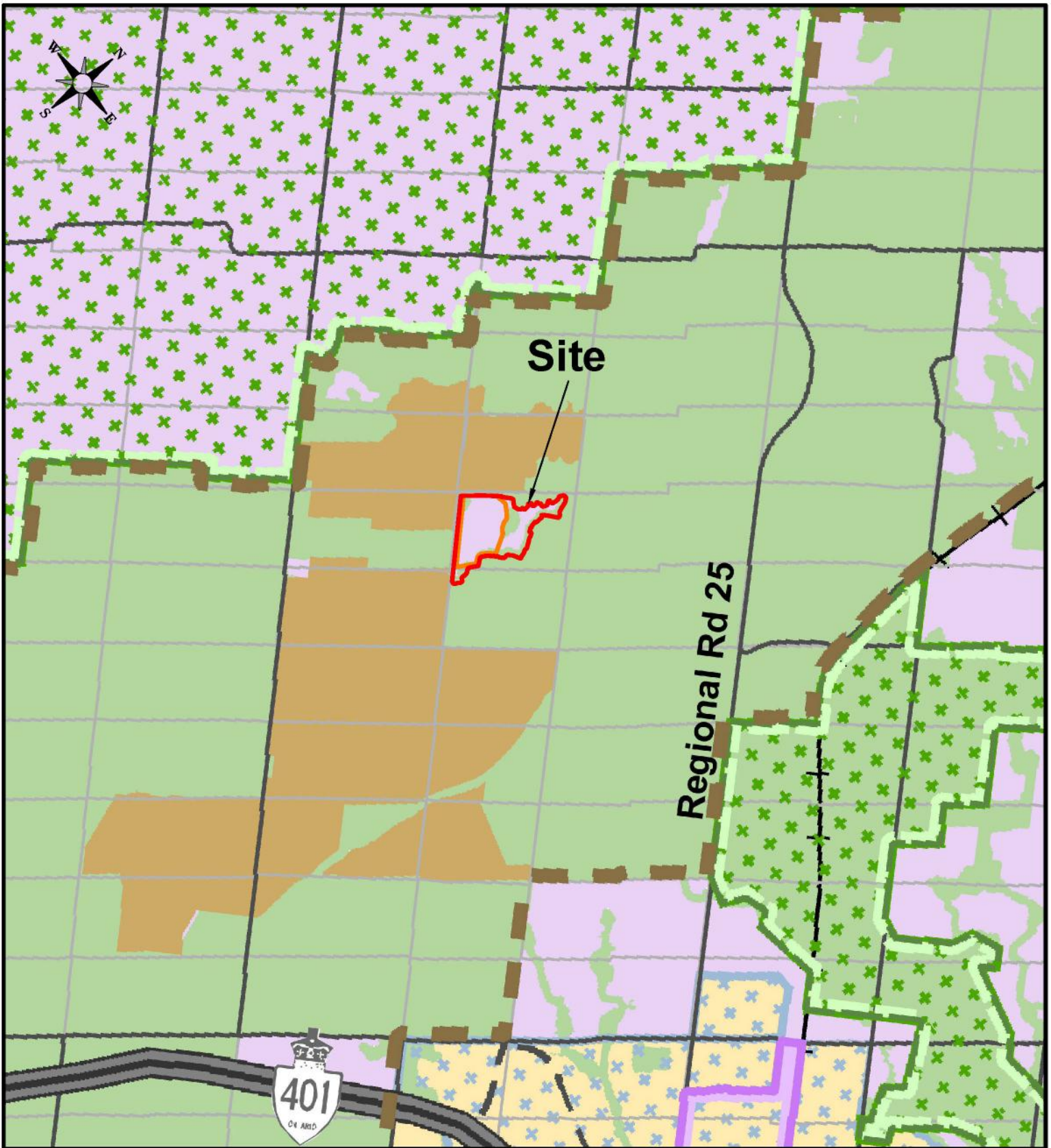


Figure # 8
Region of Halton
Land Use Schedule

Milton Quarry East Extension
 Part of Lots 11 and 12, Concession 1
 (Geographic Township of Esquesing)
 Town of Halton Hills
 Regional Municipality of Halton

Legend

- Proposed Milton Quarry East Extension - Licence Boundary
- Proposed Milton Quarry East Extension - Limit of Extraction
- Niagara Escarpment Plan
- Built Boundary
- Protected Countryside Boundary
- Employment Area
- Greenbelt Natural Heritage System
- Regional Natural Heritage System
- Agricultural Area
- Mineral Resource Extraction Area
- Urban Area

Date: December 2021

Sources:
 Halton Region Official Plan - Map 1 - Regional Structure, dated June 19, 2018

Scale: 1:40,000

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MHBC PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE

Figure # 9
Surrounding Sensitive Land Uses

Milton Quarry East Extension

Part of Lots 11 and 12, Concession 1
(former Geographic Township of Esquesing)
Town of Halton Hills
Regional Municipality of Halton

Legend

- Proposed Milton Quarry East Extension - Licence Boundary
- Proposed Milton Quarry East Extension - Limit of Extraction
- Milton Quarry (1962) - Licence Boundary
- Milton Quarry (1962) - Limit of Extraction
- Milton Quarry Extension (2007) - Licence Boundary
- Milton Quarry Extension (2007) - Limit of Extraction
- Land Owned by Dufferin
- 500m Offset from Proposed Milton Quarry East Extension (white)
- Existing Parcel Fabric
- Receptor's Nearest Distance to Limit of Extraction
Existing Milton Quarries
- Receptor's Nearest Distance to Limit of Extraction
Milton Quarry East Extension

#	Nearby Receptor Address	Nearest Distance to Limit of Extraction for Existing Milton Quarries	Nearest Distance to Limit of Extraction for Milton Quarry East Extension
R1	10272 Regional Road 25	1,163 m	1,624 m
R2	10270 Regional Road 25	1,371 m	1,763 m
R3	10162 Regional Road 25	1,052 m	1,620 m
R4	9689 Dublin Line	409 m	1,599 m
R5	9640 Dublin Line	390 m	1,809 m
R6	9606 Dublin Line	447 m	1,897 m
R7	9346 Dublin Line	998 m	2,641 m
R8	9315 Tremaine Road	810 m	2,706 m
R9	9519 Sixth Line Nassagaweya	45 m	2,103 m
R10	10314 Sixth Line Nassagaweya	212 m	1,364 m
R11	10350 Sixth Line Nassagaweya	293 m	1,452 m
R12	10388 Sixth Line Nassagaweya	295 m	1,475 m
R13	10401 Sixth Line Nassagaweya	90 m	1,274 m
R14	10449 Sixth Line Nassagaweya	214 m	1,297 m
R15	10499 Sixth Line Nassagaweya	324 m	1,146 m
R16	10589 Sixth Line Nassagaweya	691 m	1,575 m
R17	10580 Nassagaweya Esquesing Townline	306 m	1,246 m
R18	10664 Nassagaweya Esquesing Townline	666 m	1,516 m
R19	10670 Nassagaweya Esquesing Townline	723 m	1,574 m
R20	10649 Nassagaweya Esquesing Townline	559 m	1,401 m
R21	6190 15 Side Road	902 m	1,699 m
R22	6452 15 Side Road	1,022 m	1,736 m
R23	6390 15 Side Road	1,105 m	1,809 m
R24	6419 15 Side Road	1,216 m	1,929 m

Date: December 2021

Sources: Microsoft Corporation Bing Imagery, date unknown
Licence boundaries and limits of extraction are from existing/proposed site plans
Parcel fabric from Municipal Property Assessment Corporation - Last updated prior to 2010

Scale - 1:20,000 ±

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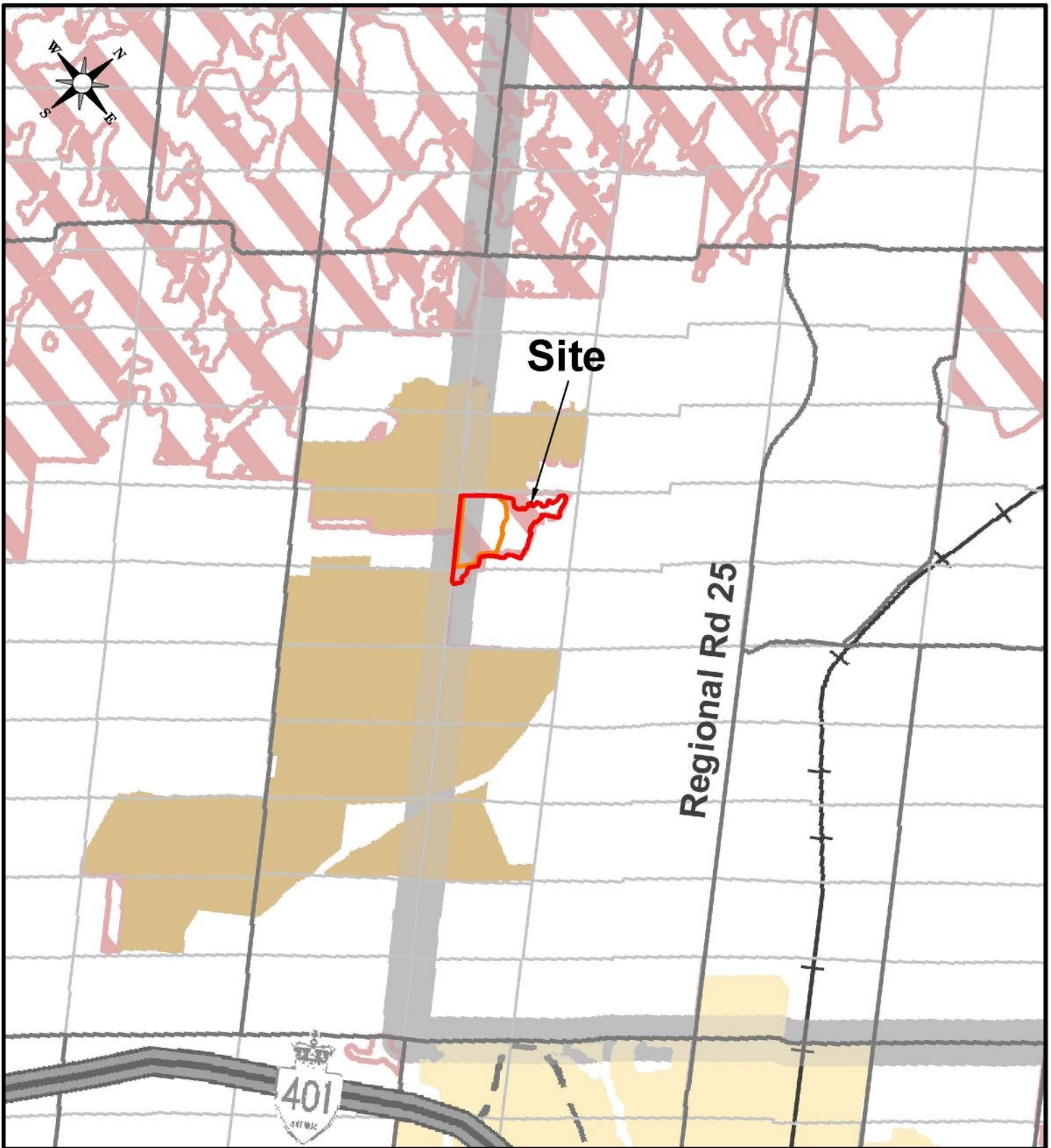


Figure # 10
Identified Mineral Resource Area
 Region of Halton


Milton Quarry East Extension
 Part of Lots 11 and 12, Concession 1
 (Geographic Township of Esquesing)
 Town of Halton Hills
 Regional Municipality of Halton

Legend

- Proposed Milton Quarry East Extension - Licence Boundary
- Proposed Milton Quarry East Extension - Limit of Extraction
- Mineral Resource Extraction Area
- Identified Mineral Resource Area
- Urban Area

Date December 2021

Sources
 Halton Region Official Plan - Map 1F - Identified Mineral Resource Area, dated June 19, 2018

Scale 1:40,000


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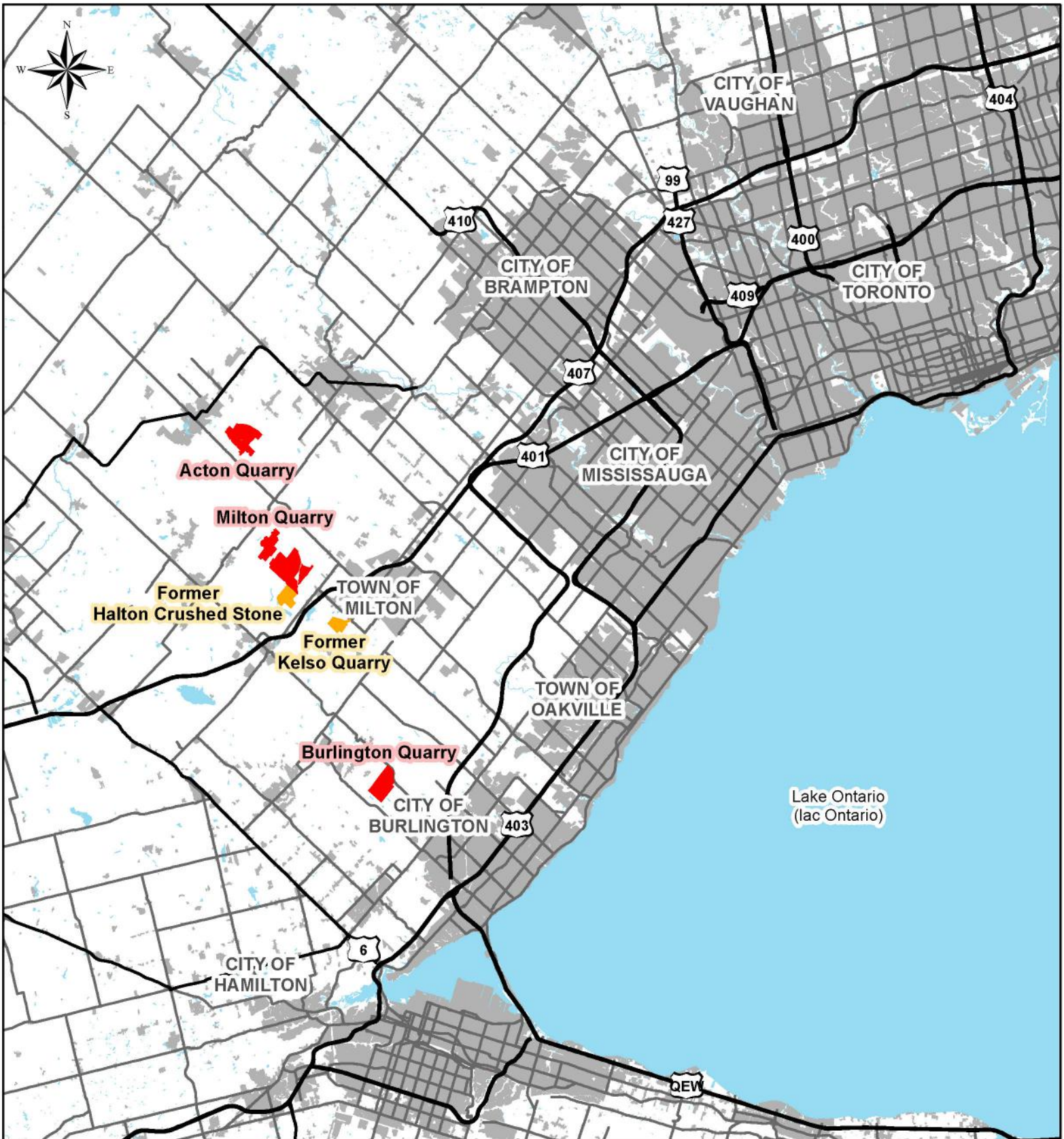
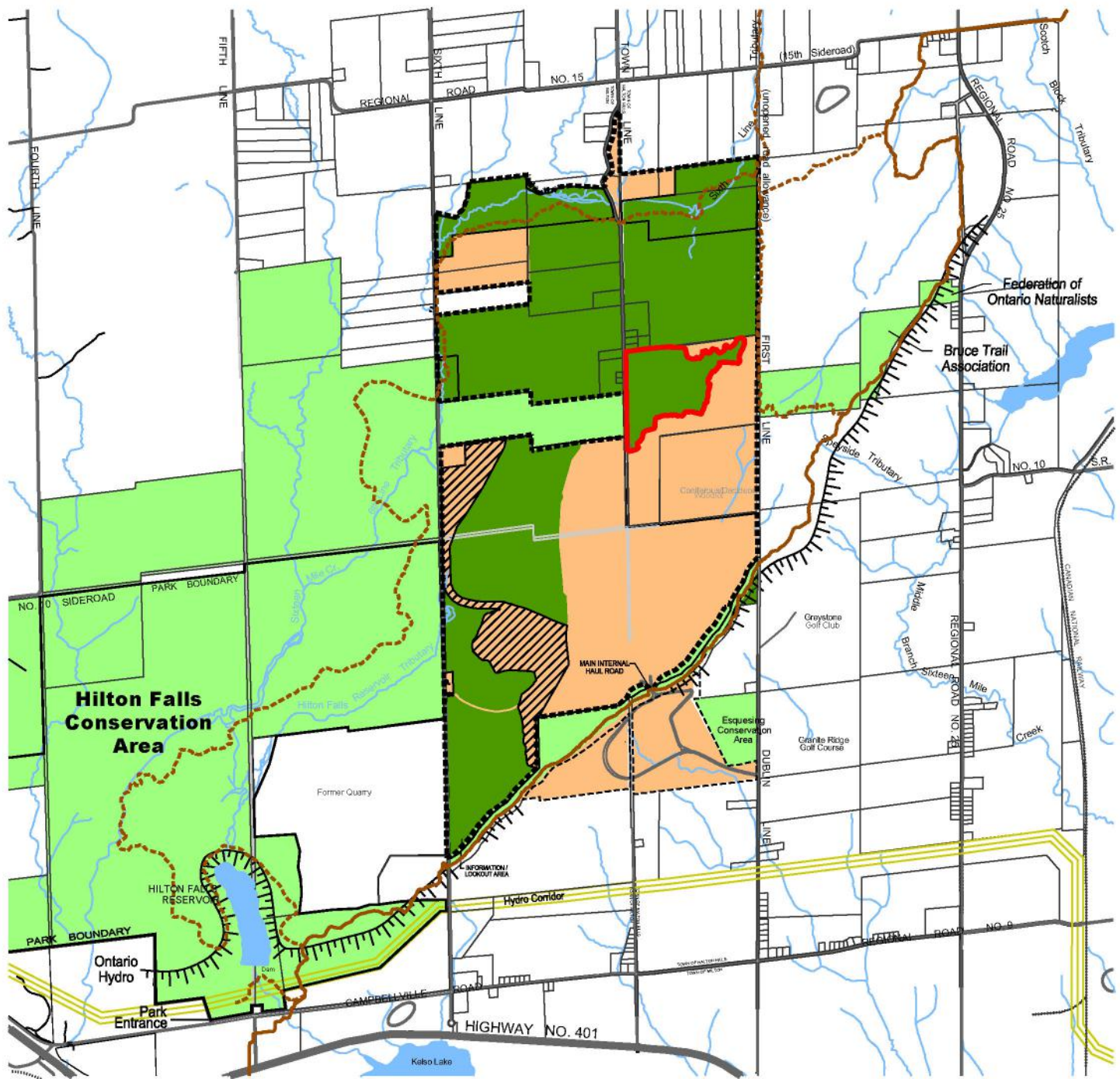


Figure # 11
**Greater Toronto Area
 West Quarries**

Milton Quarry East Extension
 Part of Lots 11 and 12, Concession 1
 (Geographic Township of Esquesing)
 Town of Halton Hills
 Regional Municipality of Halton

DATE	December 2021
SOURCES	Land Information Ontario Contains information licensed under the Open Government Licence - Ontario
<small>N:\BNA\9510\Drawings - Milton Quarry\East Extension\Drawings - Must be in NAD 27\Filing\Report Figures and Schedules\GIS - UTM NAD27\9510.J - Figure 11 - Greater Toronto Area - West Quarries.mxd</small>	
PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE	



**Figure # 12
Future Public
and Private Lands**

Milton Quarry East Extension
Part Lots 11 and 12, Concession 1
(Geographic Township of Esqueping)
Town of Halton Hills
Regional Municipality of Halton

Legend

-  Proposed Milton Quarry East Extension - Licence Boundary
-  Bruce Trail
-  Hilton Falls Side Trail
-  Public Lands (±1,100 ha)
-  Future Public Lands (±421 ha) *
-  Private Lands (±324 ha)
-  Future Ownership/Use Determined by Master Plan (±50 ha)

Note: Calculations based on MPAC parcel fabric

* Future public lands includes 391 hectares already being conveyed to Conservation Halton and the additional 30 hectares associated with the MQEE proposed to be added to these lands.

Date	December 2021
Sources	Land Information Ontario Contains information licensed under the Open Government License - Ontario
Scale	1:40,000
	
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 PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE	

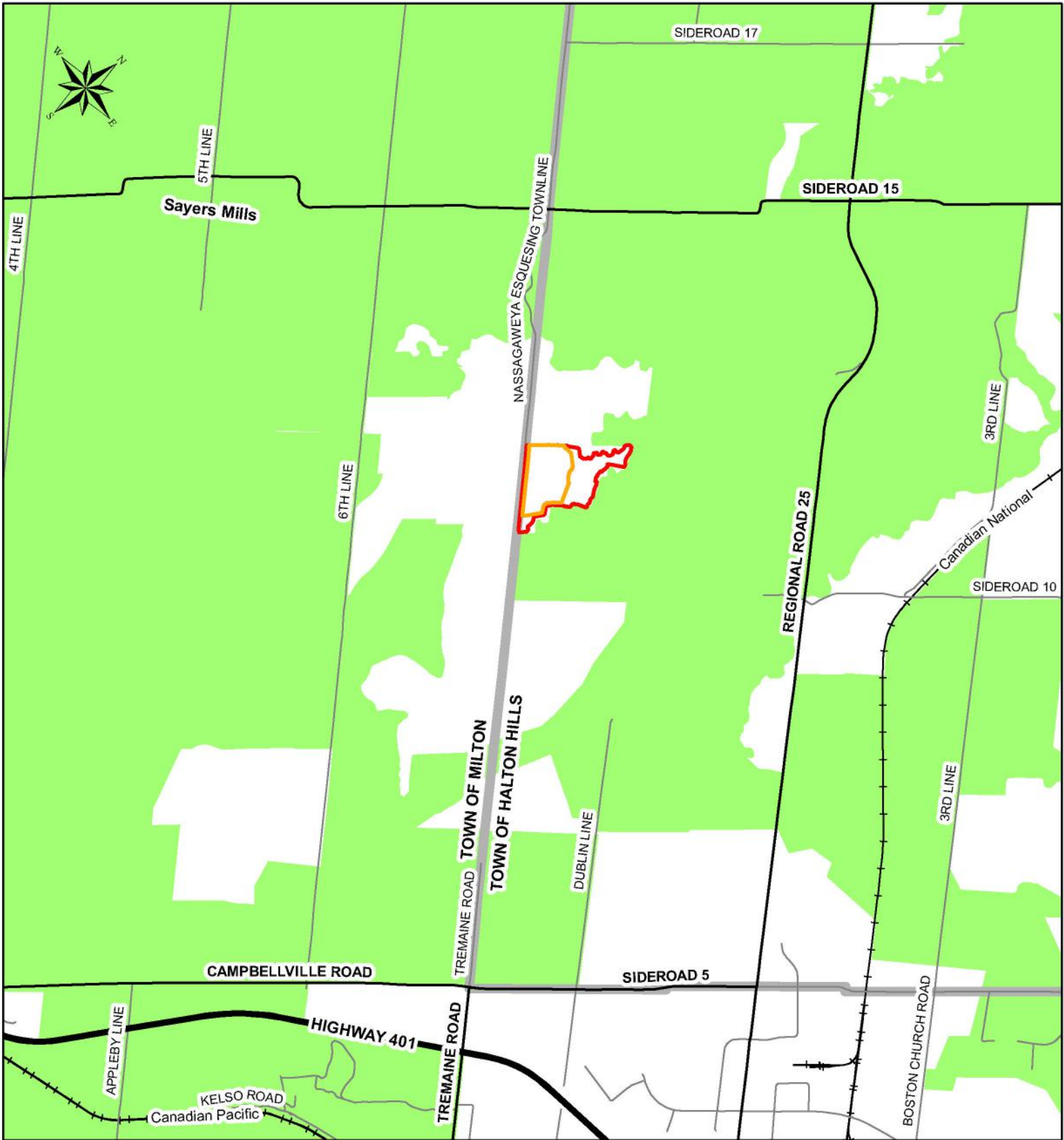


Figure # 13

Provincial Natural Heritage System

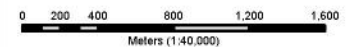
Milton Quarry East Extension
 Part of Lots 11 and 12, Concession 1
 (Geographic Township of Esquesing)
 Town of Halton Hills
 Regional Municipality of Halton

Legend

- Proposed Milton Quarry East Extension - Licence Boundary
- Proposed Milton Quarry East Extension - Limit of Extraction
- Provincial Natural Heritage System

DATE December 2021

SOURCES
 Land Information Ontario
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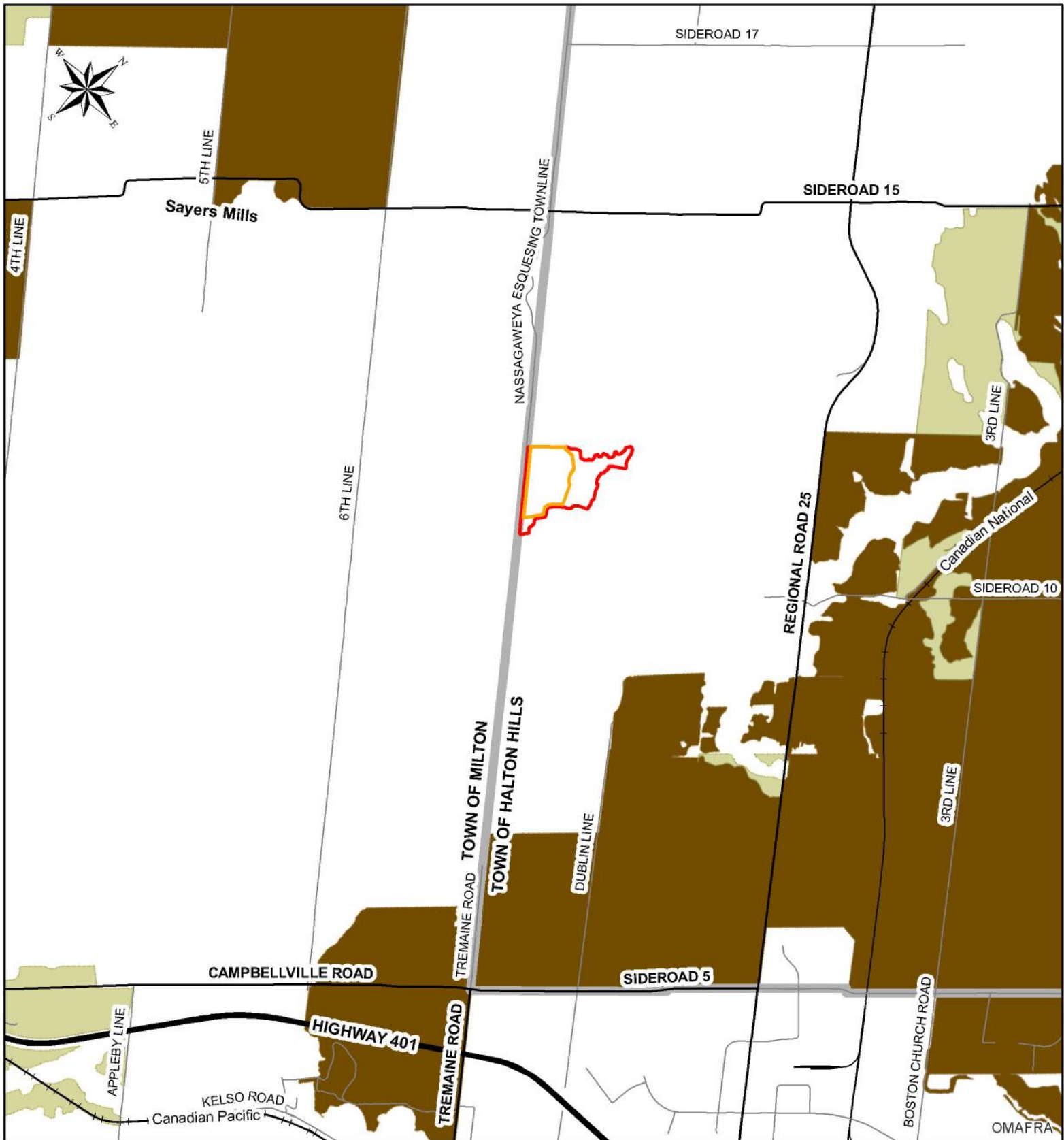






Figure # 15
Provincial
Agricultural System

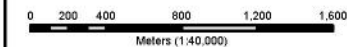
Milton Quarry East Extension
 Part of Lots 11 and 12, Concession 1
 (Geographic Township of Esquesing)
 Town of Halton Hills
 Regional Municipality of Halton

Legend

-  Proposed Milton Quarry East Extension - Licence Boundary
-  Proposed Milton Quarry East Extension - Limit of Extraction
-  Prime Agricultural Area
-  Candidate Area

DATE December 2021

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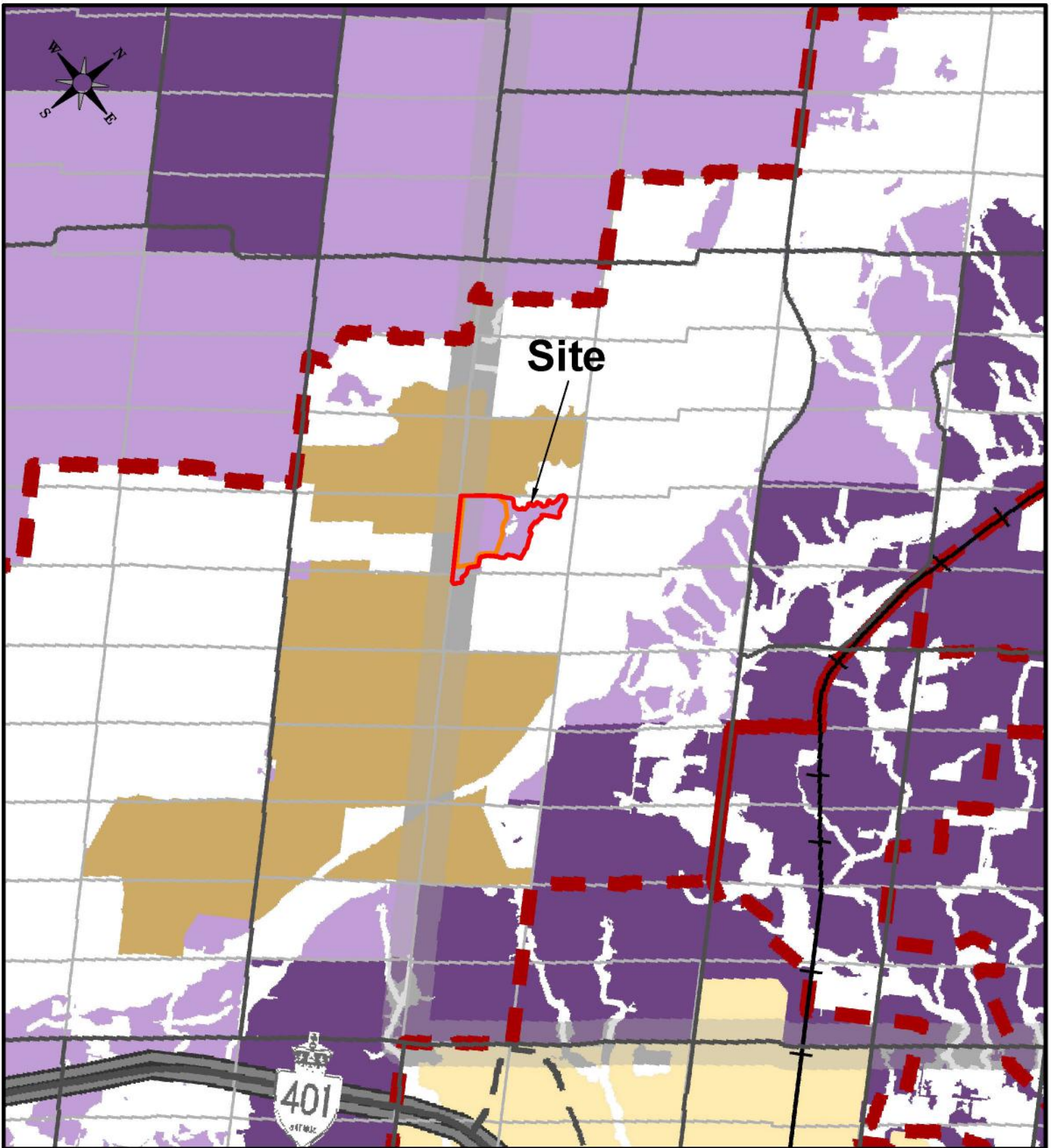


Figure # 16
Region of Halton Prime
Agricultural Areas

Milton Quarry East Extension


Part of Lots 11 and 12, Concession 1
 (Geographic Township of Esquesing)
 Town of Halton Hills
 Regional Municipality of Halton

Legend

-  Proposed Milton Quarry East Extension - Licence Boundary
-  Proposed Milton Quarry East Extension - Limit of Extraction
-  Niagara Escarpment Plan
-  Greenbelt Plan
-  Prime Agricultural Areas
-  Agricultural System Outside Prime Agricultural Areas
-  Mineral Resource Extraction Area
-  Urban Area

Date December 2021

Sources
 Halton Region Official Plan - Map 1E - Agricultural System and Settlement Areas, dated June 19, 2018

Scale 1:40,000

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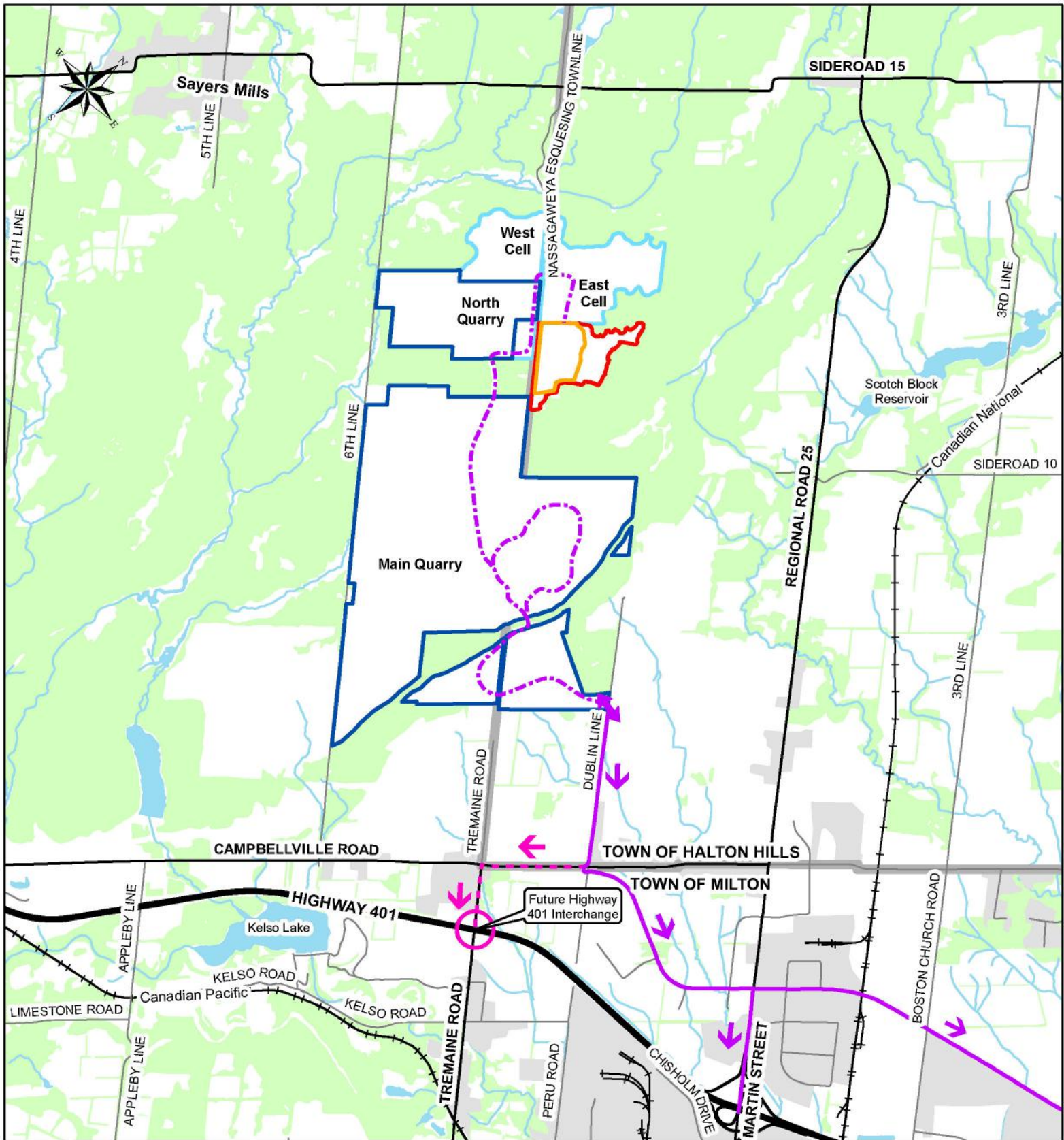


Figure # 17
Haul Route

Milton Quarry East Extension
 Part of Lots 11 and 12, Concession 1
 (Geographic Township of Esquesing)
 Town of Halton Hills
 Regional Municipality of Halton

Legend

- Proposed Milton Quarry East Extension - Licence Boundary
- Proposed Milton Quarry East Extension - Limit of Extraction
- Milton Quarry (1962)
- Milton Quarry Extension (2007)
- ↔ Entrance / Exit
- - - Haul Route - Internal
- Existing Main Haul Route - External
- - - Future Addition to Main Haul Route - External

DATE December 2021

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Appendices

Appendix 1

Appendix 1

Aggregate Resources Act Summary Statement

Dufferin Aggregates, a division of CRH Canada Group Inc. (Dufferin), is applying for a Class A licence under the Aggregate Resources Act to extend the Milton Quarry on lands located at Part of Lot 12, Concession 1 (former Geographic Township of Esquesing), Town of Halton Hills, Region of Halton. The proposed Milton Quarry East Extension (MQEE) licence area is 30.2 hectares, with a proposed extraction area of 15.9 hectares.

A site plan amendment will also be required to the existing Milton Quarry (Licence # 5481) and the Milton Quarry Extension (Licence # 608621) to integrate the proposed MQEE operation. The site plan amendment will be submitted in 2022 so the application can be reviewed concurrently with the proposed MQEE application. The amendment will incorporate any technical recommendations from the MQEE reports that relate to the existing quarry operation (e.g. noise report).

The following sections are structured to provide information required by the Aggregate Resources Act Provincial Standards for an Aggregate Resources Act Summary Statement for a Class A Licence.

1.1 The agricultural classification of the proposed site, using the Canada Land Inventory classes. For any lands being returned to agriculture use as part of rehabilitation, the proposed rehabilitation techniques must be identified.

The agricultural classification for the site is predominately Class 3 and a small portion is Class 7. The subject site is not in agricultural use. The site is not located within a Prime Agricultural Area and rehabilitation back to agricultural is not required.

1.2. Applicable planning and land use considerations that are relevant on or adjacent to where the proposed site will be located, such as provincial or Crown land plans/policies and municipal planning documents.

Prior to the issuance of an Aggregate Resources Act Licence for the proposed MQEE a Niagara Escarpment Plan Amendment, Region of Halton Official Plan Amendment, and Town of Halton Hills Official Plan Amendment and a Niagara Escarpment Development Permit is required.

These applications have been filed concurrently with the Aggregate Resources Act Licence to permit the proposed MQEE. See Application Booklet filed under separate cover for a copy of the applications submitted, including the Aggregate Resources Act application.

For additional planning and land use consideration please see Section 6.0 of this report and the following Appendices:

- **Appendix 2 - Niagara Escarpment Plan Policy Review**

- **Appendix 3 -Provincial Policy Statement Policy Review**
- **Appendix 4 - Growth Plan for the Greater Golden Horseshoe Policy Review**
- **Appendix 5 - Greenbelt Plan Review**
- **Appendix 6 - Region of Halton Official Plan Policy Review**
- **Appendix 7 - Town of Halton Hills Official Plan Policy Review**

1.3. If the proposed site is in a source protection area under the Clean Water Act, identify activities proposed at the site that are drinking water threats set out in applicable source protection plans, and provide details of how relevant source water protection policies will be followed and associated mitigation measures that will be implemented.

As noted in Section 10.3.4 of the Geology and Water Resources Assessment Report prepared by GHD, the Milton Quarry and proposed MQEE are located outside of all Wellhead Protection Areas. However, a broad area above the Niagara Escarpment, including the proposed MQEE lands, are identified as being an area of Significant Groundwater Recharge.

The existing water management system is proposed to be extended as part of the MQEE. As part of this system, recharge wells are used to maintain the groundwater levels beyond the extraction limit to protect or enhance the water resources features. Maintaining groundwater levels through this system ensures that the natural or desired flow of groundwater occurs beyond the extraction area to support water resources in the potential area of influence from quarry dewatering. The overall groundwater recharge will be maintained or enhanced in the significant groundwater recharge area as part of the proposed MQEE.

The aquifer in the vicinity of the Milton Quarry is designated as a Highly Vulnerable Aquifer and is characterized by shallow fractured bedrock and relatively thin overburden. The proposed MQEE will not change the vulnerability classification of the aquifer in the area. Dufferin has an environmental management plan to manage their lands which includes measures to suitably address any unintended release of pollutants.

1.4. The quality and quantity of aggregate on site

This subject site contains 15 million tonnes of the highest quality aggregate in Southern Ontario. See Section 6.2.2 of this report for additional information.

1.5. The main haulage routes and proposed truck traffic to and from the site as well as, applicable entrance permits

The proposed MQEE will use the existing / entrance exit onto Dublin Line and existing haul route for the Milton Quarry and no entrance permits are required. A traffic impact assessment was completed and no road improvements are required. See Figure 17 for a map illustrating the location of the existing entrance / exit and haul route.

1.6. The progressive and final rehabilitation and the suitability of the proposed rehabilitation having regard to adjacent lands.

The progressive and final rehabilitation of the 15.9 hectare MQEE extraction area will be rehabilitated the site to include the following features, utilizing native species that will be complementary to the surrounding landscape:

- 7.7 hectares of deep lake that will be integrated with the Milton Quarry Extension, East Cell rehabilitated lake. The lake will incorporate aquatic features such as varied shorelines with shallow nearshore habitats and shoals to provide spawning and foraging habitat for fish and other wildlife. The deep water areas will also provide habitat for a variety of top predator and game species that utilize deeper water habitats.
- 5.1 hectares of forested areas will be created with forest types that are targeted to be complementary and reflective of the surrounding landscape. The forested area will improve connectivity between the surrounding woodland areas and aquatic features.
- 2.7 hectares of shoreline wetlands will be inter-connected with terrestrial and aquatic habitats. The shoreline wetlands will have water depths ranging from areas that are seasonally inundated to permanently inundated areas up to 2.0 metres deep in some locations.
- 0.4 hectares islands will be created and planted with suitable shoreline and tallgrass prairie species and include patches of boulders and cobbles. The islands will include 10 logs and/or stumps/root wads and 9 turtle nesting sites.
- 203 metres of shoreline shoals will be created that rise up to within 1-2 metres of the lake surface, with various exposures. The shoals will be comprised of boulder and cobble material. The addition of patches of cobble/smaller rock, logs and root masses shall also be included.
- 673 metres of cliff faces will be created, as is the case elsewhere at the Milton and Acton Quarries woody vegetation establishes along the cliff rims and on the cliffs themselves that provide habitat for a variety of species, including nesting birds.

The proposed MQEE extension application includes an Ecological Enhancement Plan on 10.55 hectares of land that will not be extracted:

- Tree planting – Reforestation: 10.271 hectares of land will be reforested.
- Woodland Restoration: Patches of existing woody vegetation will be managed, enhanced and interplanted with suitable native woody species.
- Habitat Enhancement: Approximately 215 rock piles and 215 woody debris piles/features will be installed within enhanced areas.
- Wetland U1 Habitat Enhancements: Wetland U1 and the surrounding habitat will be enhanced through vegetation management, plantings, installation of habitat features, and addition of egg attachment sites.

- **Enhancement of Wetland Hydrology (Wetlands U1 and W36):** The water management system mitigation measures will be used to enhance wetland hydrology in Wetland U1 and the upper portion of Wetland W36.
- **Disturbed Area Restoration:** A 0.062 hectares formerly excavated area will be restored and several potential snake hibernacula will be created.

Appendix 2

Appendix 2

Niagara Escarpment Plan (2017)

The existing Milton Quarry, Milton Quarry Extension and the proposed MQEE are located within the Niagara Escarpment Plan area. The Niagara Escarpment Plan is a provincial plan which governs land uses within the Niagara Escarpment Plan Area. The legislative authority for the Plan is the Niagara Escarpment Planning and Development Act. The Niagara Escarpment Plan serves as a framework of objectives and policies to strike a balance between development, preservation and the enjoyment of this important resource.

To permit the proposed MQEE the following approvals are required in accordance with the Niagara Escarpment Plan.

- Niagara Escarpment Plan Amendment to designate the MQEE and Milton Quarry Extension setback to Mineral Resource Extraction Area. The Niagara Escarpment Plan Amendment also includes a site specific policy for the existing Milton Quarry and Milton Quarry Extension to allow the existing operation to be used for processing; and
- Niagara Escarpment Development Permit pursuant to the Niagara Escarpment Planning and Development Act. All lands owned or controlled by Dufferin have been included in the Development Permit application to ensure that any aspect related to the MQEE is addressed.

These applications are required to conform to the Niagara Escarpment Plan.

The purpose of the Niagara Escarpment Plan *“is to provide for the maintenance of the Niagara Escarpment and land in its vicinity substantially as a continuous natural environment, and to ensure only such development occurs as is compatible with that natural environment.”*

The objectives of the Niagara Escarpment Plan are:

1. *to protect unique ecologic and historic areas;*
2. *to maintain and enhance the quality and character of natural streams and water supplies;*
3. *to provide adequate for outdoor recreation;*
4. *to maintain and enhance the open landscape character of the Niagara Escarpment in so far as possible, by such means as compatible farming or forestry and by preserving the natural scenery;*
5. *to ensure that all new development is compatible with the purpose of the Plan;*
6. *to provide for adequate public access to the Niagara Escarpment; and*
7. *to support municipalities within the Niagara Escarpment Plan Area in their exercise of the planning functions conferred up them by the Planning Act.*

Part 1 of the Niagara Escarpment Plan contains Land Use Policies. Section 1.2.1 of the Niagara Escarpment Plan outlines the provisions that apply to applications to amend the Niagara Escarpment Plan:

- *Planning policies and land use designations may be changed as long as the Purpose and Objectives of the Niagara Escarpment Planning and Development Act and the Niagara Escarpment Plan are met. The Purpose Statement and Objectives in the Introduction of the Plan shall not be changed outside of the context of a full review of this Plan.*
- *Sections 6.1(2.1) and 10(6) of the Niagara Escarpment Planning and Development Act require that amendments to the Niagara Escarpment Plan be justified. The justification for a proposed amendment to the Niagara Escarpment Plan means the rationale for the amendment, as well as reasons, arguments or evidence in support of the change to this Plan proposed through the amendment.*
- *It must be demonstrated that the proposed amendment and the expected impacts resulting from the proposed amendment do not adversely affect the purpose and objectives of the Niagara Escarpment Planning and Development Act. The proposed amendment must be consistent with the purpose and objectives of the Niagara Escarpment Planning and Development Act and the Niagara Escarpment Plan and shall be consistent with other relevant Provincial policies.*
- *Development Criteria set out in Part 2 of the Niagara Escarpment Plan will be considered in the assessment of any amendment to the Niagara Escarpment Plan.*

The proposed amendment does not adversely affect, and is consistent with, the purpose and objectives of the Niagara Escarpment Planning and Development Act. See Section 6.3 of this report.

The justification for the amendment is found in Section 6.2 of this report.

The Development Criteria set out in Part 2 of the Niagara Escarpment have been considered in the proposed amendment. See below and Section 6.0 of this report.

Section 1.2.2 of the Niagara Escarpment Plan has additional provisions that apply to all amendments for new Mineral Resource Extraction Areas within the Niagara Escarpment Plan Area:

1. *Mineral aggregate operations within a new Mineral Extraction Area producing more than 20,000 tonnes annually may be considered on lands within the Escarpment Rural Area land use designation through an amendment to the Niagara Escarpment Plan. Such an amendment will be to effect the change from Escarpment Rural Area to Mineral Resource Extraction Area.*

The subject site is currently designated Escarpment Rural Area and is proposed to be designated Mineral Resource Extraction Area.

2. *In considering applications for amendments to the Niagara Escarpment Plan to re-designate Escarpment Rural Area to Mineral Resource Extraction Area designation, the 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.*

Noted. This policy was included in the 2017 Niagara Escarpment Plan to ensure consistency with the Provincial Policy Statement and to confirm that locations outside of the Niagara Escarpment Plan did not need to be considered as an alternative to extraction within the Niagara Escarpment Plan area.

3. *In evaluating applications for amendments to the Niagara Escarpment Plan to re-designate Escarpment Rural Area to Mineral Resource Extraction Area, the following matters, in addition to all other relevant policies of this Plan, will be considered:*
 - a) *protection of the Escarpment environment;*
 - b) *opportunities for achieving the objectives of the Niagara Escarpment Planning and Development Act through the final rehabilitation of the site;*
 - c) *the protection of prime agricultural areas, the capability of the land for agricultural uses, and its potential for rehabilitation for agricultural uses; and*
 - d) *opportunities to include rehabilitated lands in the Niagara Escarpment Parks and Open Space System.*

These considerations are addressed in Sections 6.2.4, 6.2.5, 6.3, 6.5, 6.11 and 6.12 of this report.

4. *Amendment applications must be accompanied by:*
 - a) *information on the location of the site in relation to the Escarpment and to the Escarpment Rural, Protection and Natural Area designations;*

See Figure 6 for the location of the site in relation to the Niagara Escarpment and to the Escarpment Rural, Protection and Natural Area designations.

- a) *information to support the requirements of this Plan, along with information submitted to meet the requirements of the Aggregate Resources Act, including site plans and reports submitted under that Act; and*

See Section 5.0 of this report for the list of reports submitted to meet the requirements of the Niagara Escarpment Plan and Aggregate Resources Act as determined through pre-consultation process with the agencies. See Application Booklet filed under separate cover for a copy of the pre-consultation record.

- c) *information on the ultimate use of the site in conformity with the applicable land use designations.*

See Section 6.2.4 and 6.5 of this report.

Part 1, Section 1.5.1 of the Niagara Escarpment Plan includes the following Objectives for the Escarpment Rural Area:

1. *To maintain the scenic resources of lands in the vicinity of the Escarpment and the open landscape character of the Escarpment.*
2. *To conserve cultural heritage resources, including features of interest to First Nation and Métis communities.*
3. *To encourage forest management and recreation.*
4. *To provide for compatible rural land uses.*
5. *To encourage agriculture, and protect agricultural lands and prime agricultural areas.*
6. *To provide a buffer for ecologically sensitive areas of the Escarpment.*
7. *To provide for the consideration of new Mineral Resource Extraction Areas which can be accommodated by an amendment to this Plan.*

One of the objectives of the Escarpment Rural Area is to provide for the consideration of new Mineral Resource Extraction Areas which can be accommodated by an amendment to this Plan. The proposed MQEE includes a plan amendment to designate the subject site from Escarpment Rural Area to Mineral Resource Extraction Area. See Application Booklet filed under separate cover for a copy of the proposed amendment. The other objectives are addressed in Sections 6.4, 6.5, 6.6, 6.8 and 6.9 of this report.

Part of the existing Milton Quarry and Milton Quarry Extension are designated Mineral Resource Extraction Area. The MQEE is proposed to be designed Mineral Resource Extraction Area, Part 1 Section 1.9.1 of the Niagara Escarpment Plan includes the following Objectives for the Mineral Resource Extraction Area:

1. *To designate Mineral Resource Extraction Areas where licensed mineral aggregate operations are permitted.*
2. *To minimize the impact of mineral aggregate operations on the Escarpment environment.*
3. *To encourage progressive rehabilitation of mineral aggregate operations.*
4. *To encourage rehabilitated mineral aggregate operations to be restored to a state that is of equal or greater ecological or agricultural value than the original characteristics of the site.*
5. *To ensure that, after a licence is surrendered, the land is re-designated to a land use designation that is compatible with the rehabilitation of the site, the designation criteria of adjacent lands, the surrounding Escarpment environment and existing land uses in the area.*
6. *To encourage, where possible, the integration of rehabilitated lands into the Niagara Escarpment Parks and Open Space System.*

These objectives are addressed in Sections 6.2.4, 6.2.5, 6.5, 6.11 and 6.12 of this report.

Part 1, Section 1.9.3 of the Niagara Escarpment Plan includes the permitted uses for the Mineral Resource Extraction Area. Permitted uses # 4 and 10 include:

4. *Mineral aggregate operations licensed pursuant to the Aggregate Resources Act but not including associated facilities unless they are permitted as an accessory use.*
10. *Accessory uses normally associated with the mineral aggregate operation, such as temporary offices serving the subject site, signage, crushing and washing facilities, or facilities for recycling and re-processing of mineral aggregate resources. Asphalt plants, concrete plants, brick manufacturing plants and other similar manufacturing uses shall not be permitted.*

The proposed MQEE proposes to utilize existing accessory uses within the Milton Quarry and Milton Quarry Extension. The Niagara Escarpment Commission requires an amendment to the policies of the Niagara Escarpment Plan to permit the existing quarry to be used in conjunction with the proposed extension. See Application Booklet filed under separate cover for a copy of the proposed amendment. See Section 3.0 of this report.

The following is an analysis of the relevant development criteria related to the proposed applications.

2.2 General Development Criteria

2.2.1 The Escarpment environment shall be protected, restored and where possible enhanced for the long term having regard to single, multiple or successive development that have occurred or are likely to occur.

2.2.2 The site shall not be prone to natural hazards, and the development will not impact the control of these natural hazards including flooding hazards, erosion hazards, or other water-related hazards and hazard events associated with unstable soil or unstable bedrock.

2.2.8 Development permitted should be designed and located in such a manner as to provide for or protect access to the Niagara Escarpment, including the Bruce Trail corridor.

See Sections 6.2.4, 6.10, 6.11 and 6.12 of this report.

2.3 Existing Uses

2.3.1 An existing use may change to a similar use, or a more compatible use only if it can be sufficiently demonstrated that the objectives of the applicable designation of the Plan are met.

The existing Milton Quarry and Milton Quarry Extension are considered existing uses, and the proposal is to use accessory uses within the existing quarry in conjunction with the proposed MQEE. A Niagara Escarpment Plan amendment has been submitted to allow for the continued use of these existing uses.

2.5 Development Affecting Steep Slopes and Ravines

The objective is to ensure that development affecting steep slopes (e.g., Escarpment slopes, rock faces, talus slopes) and ravines is compatible with the Escarpment environment and does not result in unsafe conditions.

The application does not involve steep slopes and ravines. See Section 6.10 of this report.

2.6 Development Affecting Water Resources

2.6.1 The following are key hydrologic features within the meaning of this Plan:

- *permanent and intermittent streams;*
- *lakes (and their littoral zones);*
- *seepage areas and springs; and*
- *wetlands.*

2.6.3 If, in the opinion of the implementing authority, a proposal for development within 120 metres of a key hydrologic feature has the potential to result in a negative impact on the feature and/or its functions, a hydrologic evaluation will be required that:

- a) *demonstrates that the development, including any alteration of the natural grade or drainage, will protect:*
 - i. *the key hydrologic feature or the hydrologic functions of that feature,*
 - ii. *the quality and quantity of groundwater and surface water*
 - iii. *natural streams or drainage patterns; and*
 - iv. *the overall water budget for the watershed, including existing and planned municipal drinking water systems.*
- b) *identifies planning, design and construction practices that will minimize erosion, sedimentation and the introduction of nutrients or pollutants and protect, and where possible, enhance or restore the health, diversity and size of the key hydrologic feature, including:*
 - i. *natural features should be preserved;*
 - ii. *temporary vegetation and/or mulching should be used to protect critical areas exposed during development;*
 - iii. *topsoil should not be removed from the site, but rather, should be stored and redistributed as a suitable base for seeding and planting;*
 - iv. *sediment control devices should be installed to remove sediment from run-off due to changed soil surface conditions during and after construction; and*
 - v. *construction in or across a watercourse or wetland should be appropriately timed to minimize impacts on fish and wildlife habitat.*
- c) *determines the minimum vegetation protection zone required to protect and where possible enhance the key hydrologic feature and its functions.*

2.6.4 A vegetation protection zone shall:

- a) *be of sufficient width to protect the key hydrologic feature and its functions from the impacts of the proposed change and associated activities that may occur before, during, and after construction, and where possible, restore or enhance the feature and/or its function; and*
- b) *be established to achieve, and be maintained as natural self-sustaining vegetation.*

2.6.7 *Where permitted, the construction and expansion of ponds shall be designed and located to avoid Escarpment slopes, key hydrologic features and key natural heritage features, and ponds shall be designed to be offline.*

2.6.9 *Development shall protect the quality and quantity of groundwater and surface water.*

2.6.10 *Changes to the natural drainage should be avoided.*

2.6.11 *Water taking must be accessory to the principal use except in the case of municipal water supply facilities. Increasing the capacity of existing water taking as a principal use shall not be permitted except for municipal water supply facilities.*

See Section 6.5 of this report.

1.7 Development Affecting Natural Heritage

1.7.1.1.1 *The following are key natural heritage features within the meaning of this Plan:*

- *Wetlands*
- *Habitat of endangered species and threatened species*
- *Fish habitat*
- *Life Science Areas of Natural and Scientific Interest*
- *Earth Science Areas of Natural and Scientific Interest*
- *Significant valleylands*
- *Significant woodlands*
- *Significant wildlife habitat*
- *Habitat of special concern species in Escarpment Natural and Escarpment Protection areas*

2.7.2 *Development is not permitted in key natural heritage features with the exception of the following, which may be permitted subject to compliance with all other relevant policies of this Plan:....*

The exceptions that following Development Criteria 2.7.2 do not list mineral aggregate operations, however Section 2.9.1 states:

Notwithstanding Part 2.7.2 and subject to compliance with all other relevant policies of this Plan, mineral aggregate operations, wayside pits and quarries, and any accessory use and accessory facility thereto, may be permitted in key

natural heritage features and any vegetation protection zone associated therewith, except for:

- a) *wetlands;*
- b) *significant woodlands, that are not young plantation or early successional habitat (as defined by the Ministry of Natural Resources and Forestry).*

2.7.3 The diversity and connectivity between key natural heritage features and key hydrologic features shall be maintained, and where possible, enhanced for the movement of native plants and animals across the landscape.

2.7.5 Where policies or standards of other public bodies or levels of government exceed the policies related to key natural heritage features or key hydrologic features in this Plan, such as may occur with habitat of endangered species and threatened species under the Endangered Species Act, 2007; with natural hazards where section 28 regulations of the Conservation Authorities Act apply; or with fisheries under the Federal Fisheries Act, the most restrictive provision or standard applies.

2.7.6 If in the opinion of the implementing authority, a proposal for development within 120 metres of a key natural heritage feature has the potential to result in a negative impact on the feature and/or its functions, or on the connectivity between key natural heritage features and key hydrologic features, a natural heritage evaluation will be required that:

- a) *demonstrates that the development, including any alteration of the natural grade or drainage, will protect the key natural heritage feature or the related functions of that feature;*
- b) *identifies planning, design and construction practices that will minimize erosion, sedimentation and the introduction of nutrients or pollutants and protect and, where possible, enhance or restore the health, diversity and size of the key natural heritage feature;*
- c) *determines the minimum vegetation protection zone required to protect and where possible enhance the key natural heritage feature and its functions; and*
- d) *demonstrates that the connectivity between key natural heritage features and key hydrologic features located within 240 metres of each other will be maintained and where possible enhanced for the movement of native plants and animals across the landscape.*

Except with respect to a key natural heritage feature that is solely the habitat of endangered species or threatened species or threatened species, which is subject to part 2.7.8 below.

2.7.7 For the purposes of 2.7.6, a vegetation protection zone shall:

- a) *be of sufficient width to protect and where possible enhance the key natural heritage feature and its functions from the impacts of the proposed change and associated activities that may occur before, during, and after, construction;*

- b) *be established to achieve, and be maintained as, natural self-sustaining vegetation;*

2.7.8 Development within the habitat of endangered species and threatened species:

- b) *located within Escarpment Rural Areas, Mineral Resource Extraction Areas, Urban Areas, Minor Urban Centres and Escarpment Recreation Areas, is not permitted unless it is in compliance with the Endangered Species Act, 2007.*

2.7.10 Any forest management activities shall include natural regeneration or rehabilitation through reforestation, using native tree species where necessary.

2.7.11 Forest management activities in an Area of Natural and Scientific Interest (Life Science) that is in public ownership or owned by an approved conservation organization may be permitted where it is necessary to maintain the values for which the area was acquired, for emergency access, where existing agreements are in effect or to implement uses permitted in approved Parks and Open Space Master/Management Plans that are not in conflict with the Niagara Escarpment Plan.

2.7.12 Development where permitted in woodlands should protect and where possible enhance the woodland and associated wildlife habitat. All development involving the cutting of trees requires approval from the implementing authority, subject to the following criteria:

- a) *cutting of trees and removal of vegetation shall be limited to the minimum necessary to accommodate the permitted use;*
- b) *using tree-cutting methods designed to minimize negative impacts on the natural environment, including surface drainage and groundwater;*
- c) *minimizing disruption to wildlife habitat in the area;*
- d) *retaining the diversity of native species;*
- e) *aiming over the long term to protect and where possible enhance the quality and biodiversity of the woodland;*
- f) *protecting trees and vegetation to be retained by acceptable means during construction; and*
- g) *maintaining existing tree cover or other stabilizing vegetation, on steep slopes in excess of 25 per cent (1:4 slope).*

See Section 6.5 of this report.

2.8 Agriculture

2.8.1 Prime agricultural areas shall be protected for long-term agricultural use.

2.8.4 New development adjacent to prime agricultural areas may only be permitted where the new development incorporates suitable methods to avoid, minimize and mitigate land use conflicts.

The proposed MQEE is not located within a Prime Agricultural Area. See Section 6.6 of this report.

2.9 Mineral Aggregate Resources

2.9.1 Notwithstanding Part 2.7.2 and subject to compliance with all other relevant policies of this Plan, mineral aggregate operations, wayside pits and quarries, and any accessory use and accessory facility thereto, may be permitted in key natural heritage features and any vegetation protection zone associated therewith, except for:

- a) wetlands;*
- b) significant woodlands, that are not young plantation or early successional habitat (as defined by the Ministry of Natural Resources and Forestry)*

2.9.2 Mineral aggregate operations and wayside pits and quarries, and accessory uses may be permitted in a key natural heritage feature or the vegetation protection zone associated therewith, which is solely the habitat of endangered species and threatened species and not any other key natural heritage feature, provided it is in compliance with the Endangered Species Act, 2007.

2.9.3 In addition to all other relevant policies of this Plan, proposals for mineral aggregate operations including wayside pits and quarries, accessory uses, accessory facilities and haul routes shall:

- a) demonstrate how key natural heritage features and functions will be protected and where possible enhanced during and after extraction;*
- b) demonstrate how cultural heritage resources will be conserved;*
- c) demonstrate how the Escarpment's scenic resources and open landscape character will be maintained and where possible enhanced during and after the extraction;*
- d) demonstrate how key hydrologic features will be protected and where possible enhanced during and after extraction, including the maintenance of the groundwater and surface water quantity and quality;*
- e) demonstrate how natural heritage features will be avoided and the connectivity between key natural heritage features and key hydrologic features will be maintained and where possible enhanced during and after the extraction of mineral aggregates;*
- f) in prime agricultural areas, undertake an Agricultural Impact Assessment to determine how to avoid, minimize and mitigate impacts on agricultural lands and operations;*
- g) minimize negative impacts of mineral aggregate operations and their accessory uses on surrounding land uses;*
- h) complete progressive and final rehabilitation of the licensed site to provide equal or greater ecological values, including utilizing native species, in order to accommodate subsequent land use designations compatible with the surrounding land uses;*

- i) *within the licensed area but outside of the area of extraction, protect the Escarpment environment during periods of extraction and rehabilitation; and*
- j) *minimize negative impacts of mineral aggregate operations and their accessory uses on parks, open space and the existing and optimum routes of the Bruce Trail.*

2.9.4 For quarries licensed prior to June 12, 1985, no extraction shall take place at any point nearer to the brow of the Escarpment than 90 metres measured horizontally. For new quarry operations approved after the date of approval of the revised Plan, no extraction shall take place at any point nearer to the brow of the Escarpment than 200 metres, measured horizontally, or any greater setback required by the implementing authority.

2.9.5 The mineral aggregate operation shall be screened while it is in progress and, where possible, prior to extraction in a manner compatible with the surrounding visual environment.

2.9.6 Screening shall incorporate the following:

- a) *overburden material in the form of a berm with varied heights and widths, supplemented with native tree, shrub and vegetative plantings;*
- b) *vegetative screen plantings are to be of compatible species and sizes to permit only very limited visual contact from the surrounding landscape;*
- c) *all plantings should be properly maintained to ensure continued survival and good growth rates; and*
- d) *where the existing forest is adequate to be considered as an effective screen along the perimeter of the site, no additional artificial berming or stockpiling of overburden materials will be permitted within the forested area being used as a natural screen.*

2.9.7 Progressive rehabilitation may include the use of off-site material, where on-site material is not available. Off-site material shall only be used where required to stabilize and revegetate disturbed areas. The use of off-site material shall be minimal and shall not be used for any major regarding toward a planned after-use with the deposition of off-site material.

2.9.8 The use of off-site material for progressive rehabilitation shall meet the applicable provisions of Part 2.13 (Scenic Resources and Landform Conservation) of this Plan and such material shall also meet the relevant standards of the Ministry of the Environment and Climate Change, the Ministry of Natural Resources and Forestry and the municipality where it has approved such standards.

2.9.9 The use of off-site material shall not be permitted unless it is determined through appropriate environmental, technical and planning studies that doing so will achieve greater long-term ecological and land use compatibility (e.g., the importation of topsoil to improve site capability for agriculture, forestry or habitat diversity) and the implementing authority is satisfied that the use of off-site material does not constitute a commercial fill or landfill operation.

2.9.10 All accessory uses to the Mineral Resource Extraction Area operation shall be discontinued and be required to vacate the property as soon as extraction ceases, including any on-site processed aggregate material.

2.9.11 Rehabilitation shall incorporate the following:

- a) natural heritage and hydrologic features and functions shall be restored or enhanced;*
- b) aquatic areas remaining after extraction shall be rehabilitated as representative of the natural ecosystem in that particular setting or ecodistrict, and the combined terrestrial and aquatic rehabilitation shall protect and where possible enhance the ecological value of the site;*
- c) excess topsoil and overburden are to be retained and stabilized for future rehabilitation;*
- d) all excavated pit and quarry walls are to be sloped and rehabilitated in accordance with best practices. On sites where a higher standard of rehabilitation is justified (e.g., to improve land use compatibility) or on sites where topsoil and/or land fill material is scarce, alternative approaches to slope standards may be applied. Sections of pit or quarry faces may be left exposed for aesthetic or educational purposes or to create habitat diversity in an approved rehabilitation plan;*
- e) vegetation, including seeding, crops, trees and shrubs, shall be planted as soon as possible as part of progressive rehabilitation of the pit or quarry;*
- f) rehabilitation of the site shall contribute to the open landscape character and be compatible with the surrounding scenic resources;*
- g) in prime agricultural areas, other than specialty crop areas, Mineral Resource Extraction Areas shall be rehabilitated to a condition in which substantially the same areas and same average soil capability for agriculture are restored;*
- h) in specialty crop areas, Mineral Resource Extraction Areas shall be returned or rehabilitated to a condition in which substantially the same areas and same average soil capability for agriculture are restored, the same range and productivity of specialty crops common in the area can be achieved, and, where applicable, the microclimate on which the site and surrounding area may be dependent for specialty crop production are maintained or restored;*
- i) in prime agricultural areas, where rehabilitation to the conditions set out in (g) and (h) above is not possible or feasible due to the depth of planned extraction or due to the presence of a substantial deposit of high quality mineral aggregate resources below the water table warranting extraction, agricultural rehabilitation in the remaining areas will be maximized as a first priority;*
- j) in areas with below-water table extraction, mineral aggregate operations requiring perpetual water management after rehabilitation is complete should be avoided but may be considered where it can be demonstrated that such actions would support other public water management needs; and*
- k) comprehensive rehabilitation shall be considered and encouraged where feasible.*

See Sections 2.0, 3.0 and 6.0 of this report.

2.10 Cultural Heritage

The proposed MQEE does not contain cultural heritage resources. See Section 6.8 of this report.

2.11 Recreation

The proposed MQEE does not impact existing recreational uses and provides opportunities for future recreation. See Sections 6.2.4 and 6.11 of this report.

1.12 Infrastructure

The existing entrance / exit on Dublin Line and existing haul route will be used. No road improvements are required.

2.13 Scenic Resources and Landform Conservation

2.13.1 Development shall ensure the protection of the scenic resources of the Escarpment.

2.13.2 Where a visual impact on the scenic resources is identified as a concern by the implementing authority, a visual impact assessment shall be required.

2.13.3 A visual impact assessment shall:

- a) establish a baseline for the existing conditions;*
- b) identify the proposed physical changes; and*
- c) assess the impact of the proposed change on the scenic resources of the Escarpment; and*
- d) propose measures to minimize any visual impacts.*

2.13.7 Except as provided for in Part 2.9 (Mineral Aggregate Resources), the construction of berms will only be permitted in cases where natural vegetation is insufficient to mitigate visually incompatible land uses, or where noise attenuation is required.

See Section 6.9 of this report.

Appendix 3

Appendix 3

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 MQEE 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 MQEE:

1.0 Building Strong Healthy Communities

Ontario is a vast province with urban, rural, and northern communities with diversity in population, economic activities, pace of growth, service levels and physical and natural conditions. Ontario's long-term prosperity, environmental health and social well-being depend on wisely managing change and promoting efficient land use and development patterns. Efficient land use and development patterns support sustainability by promoting strong, liveable, healthy and resilient communities, protecting the environment and public health and safety, and facilitating economic growth.

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;*

i) *preparing for the regional and local impacts of changing climate.*

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

- 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;*
- h) *conserving biodiversity and considering the ecological benefits provided by nature;”*

See Section 6.0 of this report.

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

- a) *the management or use of resources;*
- b) *resource-based recreational uses (including recreational dwellings);”*

1.1.5.3 *“Recreational, tourism and other economic opportunities should be promoted.”*

1.1.5.3 *“Development that is compatible with the rural landscape and can be sustained by rural service levels should be promoted.”*

See Section 6.2 of this report.

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.”*

See Section 6.7 of this report.

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

See Sections 6.2.2, 6.2.3, 6.2.4, 6.4 to 6.13 of this report.

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.”*

See Section 6.4 of this report.

1.5.1 *Healthy, active communities should be promoted by:*

- b) *planning and providing for a full range and equitable distribution of publicly-accessible built and natural settings for recreation, including facilities,*

parklands, public spaces, open space areas, trails and linkages, and, where practical, water-based resources;

See Sections 6.2.4 and 6.11 of this report.

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

See Section 6.7 of this report.

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;*
- h) providing opportunities for sustainable tourism development;*
- k) minimizing negative impacts from a changing climate and considering the ecological benefits provided by nature;”*

See Sections 6.2, 6.5, 6.12 and 6.13 of this report.

Section 2 of the PPS is entitled “Wise Use and Management of Resources.” The introduction to this section reads:

“Ontario’s long-term prosperity, environmental health, and social well-being depend on conserving biodiversity, protecting the health of the Great Lakes, and protecting natural heritage, water, agricultural, mineral and cultural heritage and archaeological resources for their economic, environmental and social benefits.”

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

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.”

2.1.3 “Natural heritage systems shall be identified in Ecoregions 6E & 7E, recognizing that natural heritage systems will vary in size and form in settlement areas, rural areas, and prime agricultural areas.”

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

- a) significant wetlands in Ecoregions 5E, 6E and 7E; and*
- b) significant coastal wetlands.”*

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

- a) significant wetlands in the Canadian Shield north of Ecoregions 5E, 6E and 7E;*
- b) significant woodlands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River);*

- c) *significant valleylands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River);*
- d) *significant wildlife habitat;*
- e) *significant areas of natural and scientific interest; and*
- f) *coastal wetlands in Ecoregions 5E, 6E and 7E that are not subject to policy 2.1.4(b)*

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

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

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.”

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.”

See Section 6.5 of this report.

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;”*
- b) *minimizing potential negative impacts, including cross-jurisdictional and cross-watershed impacts;”*
- c) *“evaluating and preparing for the impacts of a changing climate to water resource systems at the watershed level;”*
- 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;”*
- 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;”*
- f) *“implementing necessary restrictions on development and site alteration to:*
 1. *protect all municipal drinking water supplies and designated vulnerable areas; and”*

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

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

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.

See Sections 6.4, 6.5 and 6.12 of this report.

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. Speciality 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.”

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;”

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.”

See Section 6.6 of this report.

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.”

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.”

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

2.5.2.3 *“Mineral aggregate resource conservation shall be undertaken, including through the use of accessory aggregate recycling facilities within operations, wherever feasible.”*

2.5.2.4 *“Mineral aggregate operations shall be protected from development and activities that would preclude or hinder their expansion or continued use or which would be incompatible for reasons of public health, public safety or environmental impact. Existing mineral aggregate operations shall be permitted to continue without the need for official plan amendment, rezoning or development permit under the Planning Act. Where the Aggregate Resources Act applies, only processes under the Aggregate Resources Act shall address the depth of extraction of new or existing mineral aggregate operations. When a license for extraction or operation ceases to exist, policy 2.5.2.5 continues to apply.”*

2.5.2.5 *“In known deposits of mineral aggregate resources and on adjacent lands, development and activities which would preclude or hinder the establishment of new operations or access to the resources shall only be permitted if:*

- a) *resource use would not be feasible; or*
- b) *the proposed land use or development serves a greater long-term public interest; and*
- c) *issues of public health, public safety and environmental impact are addressed.”*

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.”*

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

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;*
- b) *in a specialty crop area, there is a substantial quantity of high quality mineral aggregate resources below the water table warranting extraction, and the depth of planned extraction 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.”*

See Sections 2.0 and 6.0 of this report.

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

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.”

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.”

See Section 6.8 of this report.

Section 3 of the PPS is entitled “Protecting Public Health and Safety.” The introduction to this section reads:

“Ontario’s long-term prosperity, environmental health and social well-being depend on reducing the potential for public cost or risk to Ontario’s residents from natural or human-made hazards.

Development shall be directed away from areas of natural or human-made hazards where there is an unacceptable risk to public health or safety or of property damage, and not create new or aggravate existing hazards.

Mitigating potential risk to public health or safety or of property damage from natural hazards, including the risks that may be associated with the impacts of a changing climate, will require the Province, planning authorities, and conservation authorities to work together.”

3.1.1 “Development shall generally be directed to areas outside of:

- a) *hazardous lands adjacent to the shorelines of the Great Lakes - St. Lawrence River System and large inland lakes which are impacted by flooding hazards, erosion hazards and/or dynamic beach hazards;*
- b) *hazardous lands adjacent to river, stream and small inland lake systems which are impacted by flooding hazards and/or erosion hazards; and*
- c) *hazardous sites.”*

3.1.2 *“Development and site alteration shall not be permitted within:*

- a) *the dynamic beach hazard;*
- b) *defined portions of the flooding hazard along connecting channels (the St. Marys, St. Clair, Detroit, Niagara and St. Lawrence Rivers);*
- c) *areas that would be rendered inaccessible to people and vehicles during times of flooding hazards, erosion hazards and/or dynamic beach hazards, unless it has been demonstrated that the site has safe access appropriate for the nature of the development and the natural hazard; and*
- d) *a floodway regardless of whether the area of inundation contains high points of land not subject to flooding.”*

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.”*

See Sections 6.10 and 6.12 of this report.

Appendix 4

Appendix 4

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

The proposed MQEE 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.

Section 4.1 of the Growth Plan provides the following context:

“The GGH contains a broad array of important hydrologic and natural heritage features and areas, a vibrant and diverse agricultural land base, irreplaceable cultural heritage resources, and valuable renewable and non-renewable resources. These lands, features and resources are essential for the long term quality of life, economic prosperity, environmental health, and ecological integrity of the region. They collectively provide essential ecosystem services, including water storage and filtration, cleaner air and habitats, and support pollinators, carbon storage, adaptation and resilience to climate change.”

Related to mineral aggregate resources, this section notes:

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

Section 1.2.3 of the Growth Plan includes a section titled “Relationship with Other Provincial Plans”. This section notes:

“Within the Greenbelt Area, policies of this Plan that address the same, similar, related, or overlapping matters as the Greenbelt Plan, the Oak Ridges Moraine Conservation Plan, or the Niagara Escarpment Plan do not apply within that part of the Greenbelt Area covered by the relevant plan except where the policies of this Plan, the Greenbelt Plan, the Oak Ridges Moraine Conservation Plan, or the Niagara Escarpment Plan provide otherwise.”

The proposed MQEE is located within the Greenbelt Area and is subject to the policies of the Niagara Escarpment Plan. As it relates to the proposed MQEE, the policies of the Niagara Escarpment Plan address the same, similar, related, or overlapping matters as the Growth Plan.

Appendix 5

Appendix 5

Greenbelt Plan (2017)

The proposed MQEE is located within the Greenbelt Area. The Greenbelt Area, as defined by Ontario Regulation 59/05, is governed by the Greenbelt Plan. It includes lands within the Niagara Escarpment Plan Area, the Oak Ridges Moraine Area, the Parkway Belt West Plan Area and lands designated as Protected Countryside and as Urban River Valley by the Greenbelt Plan.

The proposed MQEE is required to conform to the Greenbelt Plan. Section 2.2 of the Greenbelt Plan includes the following policy direction for lands within the Niagara Escarpment Plan Area:

The requirements of the NEP, established under the Niagara Escarpment Planning and Development Act, continue to apply and the Protected Countryside policies do not apply, with the exception of section 3.3.

Section 3.3 of the Greenbelt Plan includes the following related to parkland, open space and trails.

3.3 Parkland, Open Space and Trails

3.3.1 Description

A system of parklands, open spaces, water bodies and trails across the Greenbelt is necessary to provide opportunities for recreation, tourism and appreciation of cultural heritage and natural heritage. They serve as an important component of complete communities and provide important benefits to support environmental protection, improved air quality and climate change mitigation. This system currently supports a variety of passive and active uses as well as health, economic and other quality of life benefits within the Greenbelt.

A system of parklands, open spaces, water bodies and trails helps address the causes and impacts of climate change by capturing and storing carbon, recharging aquifers and protecting biodiversity and sensitive areas.

It should be recognized that parkland, open space and trails exist within surroundings of predominantly privately held lands. While private landowners may, and do, adopt a collaborative approach with groups such as hiking and snowmobile associations to allow public access across portions of their property, this is only with the consent of the landowner.

Maintaining and expanding the supply of publicly accessible parkland, open space and trails is encouraged through strategic planning activities that identify, plan for and protect these resources for current and future generations. The planning and activity associated with parkland, open space and trail uses should maximize the opportunity to co-operate with all landowners. This includes measures to prevent trespassing on farm properties to avoid risks to farm biosecurity and crop damage.

Throughout the Greenbelt, there is existing public parkland and open space, such as the Rouge National Urban Park, as well as existing major trails such as the Bruce Trail, the Trans Canada Trail, the Niagara Greenway and the Lake Ontario Waterfront Trail. This system of parks and trails provides significant economic benefits and opportunities for a multitude of uses and activities compatible with the Greenbelt's vision and goals. This system should serve as a base for future decisions on parkland and open space use and trail development.

3.3.2 Parkland, Open Space and Trail Policies

The Province should, in partnership with municipalities, conservation authorities, non-government organizations and other interested parties:

- 1. Encourage the development of a system of publicly accessible parkland, open space and trails where people can pursue the types of recreational activities envisaged by this Plan, and to support the connectivity of the Natural Heritage System and the achievement of complete communities in settlement areas across the Greenbelt.*
- 2. Encourage the development of a trail plan and a co-ordinated approach to trail planning and development in the Greenbelt to enhance key existing trail networks and to strategically direct more intensive activities away from sensitive landscapes.*
- 3. Promote good stewardship practices for public and private lands within the Greenbelt, including clear demarcation of where public access is permitted.*

3.3.3 Municipal Parkland, Open Space and Trail

Strategies

For all lands falling within the Protected Countryside, municipalities should:

- 1. Provide for a full range of publicly accessible, built and natural settings for recreation, including facilities, parklands, open space areas, trails and water-based activities.*
- 2. Develop and incorporate strategies (such as community-specific levels of provision) into official plans to guide the adequate provision of municipal recreation facilities, parklands, open space areas and trails.*
- 3. Include the following considerations in municipal parks plans and open space strategies:*
 - a) Providing for open space areas for current and future populations and promoting stewardship of open space areas;*
 - b) Providing facilities, parklands, open space areas and trails that particularly support an active, healthy community lifestyle;*
 - c) Identifying key areas or sites for the future development of major facilities that avoid sensitive landscapes;*

- d) *Identifying and targeting under-serviced areas for improved levels of protection;*
 - e) *Protecting the recreation and tourism values of waterfront areas as a high priority; and*
 - f) *Supporting urban agriculture and other local food initiatives.*
4. *Include the following considerations in municipal trail strategies:*
- a) *Preserving the continuous integrity of corridors (e.g. abandoned railway rights-of-way and utility corridors);*
 - b) *Planning trails on a cross-boundary basis to enhance interconnectivity where practical;*
 - c) *Incorporating the existing system of parklands and trails where practical;*
 - d) *Restricting trail uses that are inappropriate to the reasonable capacity of the site (notwithstanding the ability to continue existing trails/uses);*
 - e) *Providing for multi-use trail systems which establish a safe system for both motorized and non-motorized uses;*
 - f) *Protecting farmland and supporting and ensuring compatibility with agriculture; and*
 - g) *Ensuring the protection of the key natural heritage features and key hydrologic features and functions of the landscape.*

Federal parks, provincial parks and conservation authority lands are also important components in the development of parkland, open space and trail strategies. Ongoing management of these lands for publicly accessible recreation, in keeping with environmental management plans and strategies for such areas and the policies of this Plan, is important in providing access to this system. Where geographic-specific park or public land management plans exist, municipalities, agencies and other levels of government must consider such plans when making decisions on land use or infrastructure proposals.

See Sections 6.2.4, 6.11 and 6.12 of this report.

Appendix 6

Appendix 6

Region of Halton Official Plan (Office Consolidation 2018)

The Region of Halton Official Plan was approved under the provisions of the Planning Act. The Regional Plan governs land use within the Region of Halton. The Regional Plan requires planning decisions to be based on a proper balance of protecting the environment, enhancing the Region's economic competitiveness, and fostering a healthy and equitable society.

The Region of Halton Official Plan requires an amendment to the Official Plan to permit all new or expanded mineral aggregate operations. See Application Booklet filed under separate cover for a copy of the proposed Region of Halton Official Plan Amendment.

The proposed amendment is required to conform to the Region of Halton Official Plan. The following is a summary of the key sections of the Region of Halton Official Plan.

PART II HALTON'S PLANNING VISION

25. Regional Council supports the concept of "sustainable development", which meets the need of the present without compromising the ability of future generations to meet their own need. ("Our Common Future, The World Commission on Environment and Development, 1987") Planning decisions in Halton will be made based on a proper balance among the following factors: protecting the natural environment, preserving Prime Agricultural Areas, enhancing its economic competitiveness, and fostering a healthy, equitable society. Towards this end, Regional Council subscribes to the following principles of sustainability: that natural resources are not being over-used; that waste generated does not accumulate over time; that the natural environment is not being degraded; and that this and future generations' capacity to meet their physical, social and economic needs is not being compromised. The overall goal is to enhance the quality of life for all people of Halton, today and into the future.

26. Halton recognizes its strategic location within the Greater Toronto and Hamilton Area and the importance of population and employment growth to the social and economic life of its residents. Halton expects further urbanization and changes to its landscape within the planning period between now and 2031. In this regard, Halton will undertake the necessary steps to ensure that growth will be accommodated in a fashion that is orderly, manageable, yet sensitive to its natural environment, heritage and culture. To maintain Halton as a desirable and identifiable place for this and future generations, certain landscapes within Halton must be preserved permanently. This concept of "landscape permanence" represents Halton's fundamental value in land use planning and will guide its decisions and actions on proposed land use changes accordingly.

27. In Halton's vision, its future landscape will always consist of three principal categories of land uses in large measures:

(1) settlement areas with identifiable communities,

- (2) a rural countryside where agriculture is the preferred and predominant activity, and
- (3) a natural heritage system that is integrated within settlement areas and the rural countryside, to preserve and enhance the biological diversity and ecological functions of Halton.

The land uses in these categories are complementary to each other and will together move Halton towards the goal of sustainability. Each will always exist in large measures over time, both during and beyond the planning period.

29. The concept of landscape permanence will be reflected in the goals, objectives, and policies of this Plan. In pursuit of this concept, Regional Council will exercise its powers and authority, as permitted by legislation, and deploy its resources accordingly. Other government agencies, as well as individuals or corporations, making decisions affecting Halton's landscape are also encouraged to incorporate this concept.

30. Although the best means of preserving landscapes is by public ownership, the Region believes that this is impractical or unnecessary in most cases. Instead, the preservation should be a shared value among Halton's residents, land owners, business sector, development industry, agricultural community and government agencies. Regional Council therefore advocates the principle of "land stewardship"--that all land owners are entitled to reasonable use and enjoyment of their land but they are also stewards of the land and should give proper regard to the long term environmental interests in proposing any land use change to their land. Within the rural area the protection and use of rural resources including agriculture is supported as the predominant use in harmony with the natural environment. As well, within parts of the natural heritage system, agriculture supported as the predominant use in harmony with the natural environment. In its approach to making planning decisions, Council will refer to the concept of sustainable development and the principles of sustainability, i.e., seeking a balance among the environmental, economic and social interests.

32. Finally, Halton recognizes the importance of a sustainable and prosperous economy and the need for its businesses and employers to compete in a world economy. Towards this end, Halton will actively maintain, develop and expand its economic and assessment base through economic development strategies, timely provision of infrastructure, cost-effective delivery of services, strong fiscal management, proactive planning policies, and support for development opportunities that respond to the vision and policies of this Plan.

33. In summary, Halton will use the concept of sustainable development and principles of sustainability to guide its land use decisions and hence achieve its planning vision. Stated plainly, this vision is to preserve for this and future generations a landscape that is rich, diverse, balanced, productive and sustainable, and a society that is economically strong, equitable and caring. Specifically, such a vision will be delivered through the two main themes of land stewardship and healthy communities. Part III, Land Stewardship Policies, describes area-specific land use policies that apply to designated geographical areas of Halton to support the concept of landscape permanence. Part IV,

Healthy Communities Policies, contains general policies that apply to all land use decisions to be made in Halton.

See Section 6.0 of this report.

HALTON AND ITS SURROUNDING REGION

39. The Greater Toronto and Hamilton Area (GTHA), as currently defined, comprises the Cities of Toronto and Hamilton and the Regional Municipalities of Halton, Peel, York and Durham (see Figure 1). Extending this area to include the surrounding urban centres would encompass the Greater Golden Horseshoe region, the most populous and economically active part of Ontario. Some of these centres are the fastest growing areas within the Province. Halton is remarkably well situated within this conurbation of settlement.

See Section 6.2.3 of this report.

PART III LAND STEWARDSHIP POLICIES DEVELOPMENT CRITERIA

*57. Development is directed to environmentally suitable areas with the appropriate *land use designation in accordance with the goals, objectives and policies of this Plan.**

See Sections 6.1 and 6.5 of this report.

60. Where a lot is located in more than one land use designation, development, if permitted, should be located on that portion of the lot within the least restrictive designation.

See Section 6.1 of this report.

62. All development within the Niagara Escarpment Plan Area is subject to the provisions of the Niagara Escarpment Planning and Development Act and the Niagara Escarpment Plan, as well as applicable policies of this Plan, Local Official Plan, and Local Zoning Bylaws.

This report addresses the provisions of the Niagara Escarpment Plan, Region of Halton Official Plan and the Town of Halton Hills Official Plan. The Town of Halton Hills Zoning By-law does not apply to the subject site or existing quarry since the property is located within the Niagara Escarpment Development Control Area.

LAND USE DESIGNATIONS

Agricultural System and Agricultural Area

The subject lands are identified as being in the Agricultural System outside Prime Agricultural Areas in accordance with Map 1E from the Region of Halton's Official Plan.

91. The goal of the Agricultural System is to maintain a permanently secure, economically viable agricultural industry and to preserve the open-space character and landscape of Halton's non-urbanized areas.

92. *The Agricultural System, as shown on Map 1E, consists of two components: lands designated as Agricultural Area and those parts of the Region's Natural Heritage System outside the Key Features or where the only Key Feature is a significant earth science area of natural and scientific interest. While the second component is subject to the relevant goals, objectives, permitted uses and policies as parts of the Region's Natural Heritage System, agricultural operations are compatible uses and are promoted and supported within these areas as part of the Agricultural System.*

99. *The objectives of the Agricultural System are:*

(17) To provide for the designation of new Mineral Resource Extraction Areas which can be accommodated in accordance with goals, objectives and policies of, and by amendment to, this Plan and, where applicable, the Niagara Escarpment Plan and the Greenbelt Plan.

See Section 6.6 of this report.

Mineral Resource Extraction Areas

107. *The objectives of the Mineral Resource Extraction Areas are:*

- (1) To ensure as much of the mineral aggregate resources as is realistically possible shall be made available within the Region to supply mineral resource needs.*
- (2) To protect legally existing mineral aggregate operations from incompatible land uses.*
- (3) To ensure that mineral aggregate resource extraction occur in a manner that minimizes social, environmental and human health impacts. (3.1) To ensure that the functions and features of the Region's Natural Heritage System are maintained or, where possible, enhanced during and after the extraction operations.*
- (4) To provide policies and criteria for evaluating new licence applications for mineral aggregate operations.*
- (5) To ensure the progressive and final rehabilitation of mineral aggregate operations to the appropriate after use.*

109. *Subject to other policies of this Plan, applicable policies of the Greenbelt Plan and Niagara Escarpment Plan, applicable Local Official Plan policies and Zoning By-laws, and site plan and conditions of the licence under the Aggregate Resources Act, the following uses may be permitted:*

- (2) existing uses,*
- (3) mineral aggregate operations licensed pursuant to and in compliance with the Aggregate Resources Act.*
- (4) associated facilities to a mineral aggregate operation used in extraction, transport, beneficiation, processing or recycling of mineral aggregate resources and derived products such as asphalt and concrete, or the production of secondary related products, provided that such associated facilities are:*

- a) *[Section number not in use].*
- b) *directly associated with the extraction of mineral aggregate resources from an integrated mineral aggregate operation, which may consist of more than one Aggregate Resources Act License;*
- c) *designed to be temporary and not to be utilized after extraction has ceased; and*
- d) *located in a manner that does not affect the final rehabilitation or enhancement of the site in accordance with an approved rehabilitation and enhancement plan.*

See Sections 2.0 and 3.0 of this report.

110. It is the policy of the Region to:

(1) Require the Local Municipalities to adopt Zoning By-laws, where applicable, to permit the operation of legally existing mineral aggregate operations in accordance with the Aggregate Resources Act and protect them from new land uses incompatible with such operations for reasons of public health, public safety or environmental impact or which would preclude or hinder the expansion or continued use of such operations.

See Sections 2.0, 3.0 and 6.2.2 of this report.

(2) Require that all extraction and accessory operations be conducted in a manner which minimizes environmental impact in accordance with Provincial standards and requirements and Regional and Local Official Plan policies.

See Sections 6.4 and 6.5 of this report.

(3) Establish as a priority the protection of surface and ground water from the adverse impacts of extraction. Accordingly, the proponent of new or expanded mineral aggregate operations is required to carry out comprehensive studies and undertake recommended mitigation and/or remedial measures and on-going monitoring in accordance with Provincial requirements and policies of this Plan and in consultation with Conservation Authorities.

See Section 6.5 of this report.

(3.1) Develop and maintain, in consultation and partnership with public agencies, aggregate industry and citizen groups, an Aggregate Resources Reference Manual which serves as a guidance document for Halton, which contains, among other things:

- a) *data, information and results of credible research on the Greenbelt and Regional Natural Heritage Systems, and surface and ground water systems in Halton, especially as these relate to the cumulative impacts on those systems of extractive operations in Halton and neighbouring municipalities,*
- b) *best practices and protocols on mitigative and restorative measures to minimize the social, environmental and human health impacts of extractive operations for both the short and long terms, and*

- c) *information, studies and proposed plans required to assist in the review of an application for a licence under the Aggregate Resources Act and applications for Official Plan amendments under the Planning Act.*

The Halton Aggregate Resources Manual was used as a guidance document in preparation of the application.

(4) Encourage the applicant to consult, prior to the submission of an application for a new mineral aggregate operation or expansion to an existing operation, the Region, the Province, Conservation Authorities and other relevant agencies to identify the content of studies and information to be provided to support the application, to scope or focus study requirements where appropriate, and to determine a process and an agreement of evaluation and peer review.

See Application Booklet filed under separate cover for a copy of the pre-consultation record.

(5) Require that air, noise and blasting studies be undertaken in accordance with Provincial regulations and standards and recommendations be implemented to minimize impact on social and human health.

See Section 6.4 of this report.

(6) Consider mineral aggregate resource extraction as an interim use and require the rehabilitation of all such sites to form part of the Greenbelt or Regional Natural Heritage System or the Agricultural Area, with the proposed after-uses being in conformity with the applicable policies of that land use designation.

See Sections 6.2.5, and 6.5 of this report.

(6.1) Require the rehabilitation of mineral aggregate operations on prime agricultural lands, within Prime Agricultural Areas to be carried out so that substantially the same areas and same average soil quality for agriculture are restored.

On prime agricultural lands, complete agricultural rehabilitation is not required if:

- a) *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;*
- b) *Other alternative locations 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 to 7 soils, 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, and Canada Land Inventory Class 1, 2 and 3 lands; and*
- c) *Agricultural rehabilitation in remaining areas is maximized.*

See Section 6.6 of this report.

(7) Require an amendment to this Plan to designate any new Mineral Resource Extraction Areas, except for an 11.3 ha expansion of an existing sandstone quarry located on the east half of Lot 21, Concession V, former Township of Esquesing, in the Town of Halton Hills.

See Application Booklet filed under separate cover for a copy of the proposed Region of Halton Official Plan Amendment.

(7.1) In areas outside the Greenbelt Natural Heritage System, consider applications for new or expanded mineral aggregate operations by amendment to this Plan and/or the Niagara Escarpment Plan in appropriate land use designations other than the following areas:

- a) The Niagara Escarpment Plan Area except the Escarpment Rural Area,*
- b) Provincially Significant Wetlands,*
- c) Significant habitat of endangered species and threatened species as identified by the Province, except in accordance with the Endangered Species Act, 2007,*
- d) For quarries, areas within 200 m of the Escarpment Brow,*
- e) The Urban Area, Hamlets and Rural Clusters as identified by policies of this Plan, and*
- f) The North Aldershot Policy Area except in accordance with the time limited and area specific Minutes of Settlement dated June 1, 2013 and executed prior to the approval of this Plan.*

See Sections 6.1, 6.4, 6.5 and 6.10 of this report.

(7.2) In accordance with Section 118(3)d), apply the following systems based approach in the assessment of the impact of a new or expanded mineral aggregate operation on the Region's Natural Heritage System:

- a) Where the proposal has the potential to negatively affect Key Features of the Regional Natural Heritage System, as identified in Section 115.3(1), require the proponent to demonstrate through an EIA that the proposal will result in no negative impact on the Key Features or their ecological functions for which the area is identified.*
- b) In addition to Section 110(7.2)a), where the proposal has the potential to negatively affect the Regional Natural Heritage System, require the proponent to demonstrate through an EIA that the proposal will maintain, restore or where possible enhance the diversity and connectivity of natural heritage features in an area, and the long term ecological functions and biodiversity of natural heritage systems, recognizing linkages between and among natural heritage features and areas, surface water features and ground water features.*
- d) Where the proponent has satisfied the requirements of Sections 110(7.2)a) through 110(7.2)c) as applicable, require any application for a new or*

expanded mineral aggregate operation to consider a “net environmental gain” approach to the preservation and enhancement of the Greenbelt and/or Regional Natural Heritage System based on the following principles:

- A) *Outside Prime Agricultural Areas, or where agricultural rehabilitation is not required in accordance with Section 110(6.1), the site is to be rehabilitated to function as part of the Greenbelt and/or Regional Natural Heritage Systems.*
- B) *The Key Features and ecological functions of the Greenbelt and/or Regional Natural Heritage Systems will, where possible, be enhanced both in the short and long terms as a result of implementing the rehabilitation plan of the proposed extractive operation and/or an off-site enhancement plan. Such enhancements may include but not necessarily be limited to:*
 - [i] increase in the spatial extent of the Greenbelt and/or Regional Natural Heritage Systems,*
 - [ii] increase in biological and habitat diversity,*
 - [iii] enhancement of ecological system function,*
 - [iv] enhancement of wildlife habitat,*
 - [v] enhancement of natural succession,*
 - [vi] creation of new wetlands or woodlands, [vii] enhancement of riparian corridors,*
 - [viii] enhancement of groundwater recharge or discharge areas, and*
 - [ix] establishment or enhancement of linkages between significant natural heritage features and areas.*
- C) *Priorities for restorations or enhancements to the Greenbelt and/or Regional Natural Heritage Systems through post-extraction rehabilitation shall be based on the following in descending order of priority:*
 - [i] restoration to the original features and functions on the areas directly affected by the extractive operations,*
 - [ii] enhancements to the Greenbelt and/or Regional Natural Heritage Systems by adding features and functions on the balance of the site,*
 - [iii] enhancements to the Greenbelt and/or Regional Natural Heritage Systems by adding features and functions in areas immediately surrounding the site,*
 - [iv] enhancements to that part of the Greenbelt and/or Regional Natural Heritage Systems in the general vicinity of the site, and*
 - [v] enhancements to other parts of the Greenbelt and/or Regional Natural Heritage Systems in Halton.*
- D) *Restorations or enhancements shall proceed immediately after extraction in a timely fashion.*

- E) *Consideration should be given to the transfer of the ownership of any privately owned rehabilitated or enhanced lands to a public body.*
- F) *A detailed implementation plan of the proposed restorations and enhancements shall form part of the rehabilitation plan in the site plan or be included as a condition of the licence under the Aggregate Resources Act.*

See Section 6.5 of this report.

(7.6) Consider applications for an amendment to this Plan to designate a new or expanded Mineral Resource Extraction Area under the Planning Act to be complete on the basis of Sections 187(10).

The application requirements as confirmed through pre-consultation with the Region of Halton have been submitted with the proposed amendment. See Application Booklet filed under separate cover for a copy of the pre-consultation record.

(8) Evaluate each proposal to designate new or expanded Mineral Resource Extraction Areas based on its individual merits and consideration of all the following factors:

- a) *[Section number not in use.]*
- b) *[Section number not in use.]*
- c) *Adverse impacts on, and proposed measures to minimize or address such adverse impacts:*
 - [i] the Regional Natural Heritage System in accordance with Section 110(7.2),*
 - [ii] quality and quantity of surface and ground waters,*
 - [iii] adjacent sensitive land uses including their source of drinking water,*
 - [iv] any Cultural Heritage Resources,*
 - [v] transportation system,*
 - [vi] the surrounding agriculture and rural communities,*
 - [vii] visual character of the area,*
 - [viii] air quality, and*
 - [ix] the Greenbelt Natural Heritage System in accordance with Section 110(7.2)*
 - c.1) cumulative impacts of the proposal and other extractive operations in the general area,*
- d) *proposed rehabilitation plan and compatibility of the proposed after-use with the goals and objectives of this Plan, and*
- e) *risk of public financial liability during and after extraction where continuous active on-site management is required.*

(8.1) Support the progressive and final rehabilitation of extractive operations that:

- a) *takes place in a timely fashion;*
- b) *limits the amount of disturbed area on an on-going basis ;*
- c) *adopts prevailing best management practices; and*
- d) *conforms with the applicable policies of the Greenbelt Plan.*

(8.2) Discourage the use of adaptive management plans or similar measures that will require continuous or perpetual active on-site management post rehabilitation.

See Section 6.0 of this report.

(9) Ensure coordination among the Region, Local Municipalities, Ministry of Natural Resources, affected conservations authorities, Niagara Escarpment Commission and other agencies in the review and public consultation of proposals to designate new or expanded Mineral Resources Extraction Areas.

(9.1) Encourage the proponent of new or expanded Mineral Resource Extraction Areas to have regard to the Aggregate Resources Reference Manual for Halton under Section 110(3.1) of this Plan and to engage in pre-consultation with the Region and public agencies in accordance with Section 110(4).

See Application Booklet filed under separate cover for a copy of the pre-consultation record.

(11) Require the proponent of a new or expanded Mineral Resource Extraction Area to demonstrate to the satisfaction of the Region that the transportation of aggregate and related products associated with the proposed extractive operation can be adequately accommodated by the transportation system in Halton. Any improvements to the Regional and Local transportation infrastructure to accommodate the transportation of aggregate shall be at the expense of the proponent. If applicable, alternative routes and alternative modes for transporting the products shall be considered and evaluated.

See Section 6.7 of this report.

111. The objectives of the Region are:

- (1) To recognize existing mineral aggregate operations and protect them from activities that would preclude or hinder their continued use or expansion.*
- (2) To protect known mineral aggregate deposits and areas of high potential mineral aggregate resources, as shown on Map 1F, for potential future extraction.*

The Region recognizes that within the Niagara Escarpment Plan Area, these objectives are subject to the priorities set by the purpose, objectives and policies of the Niagara Escarpment Plan.

- (3) To support mineral aggregate resource conservation.*

See Sections 2.0, 3.0, 6.1, 6.2.1, 6.2.2, and 6.2.3 of this report.

112. It is the policy of the Region to:

- (1) Protect high potential mineral aggregate resource areas consisting of primary and secondary sand and gravel resource areas and selected bedrock/shale resource areas, except for those areas considered to be unsuitable for extraction based largely on Section 110(7.1) of this Plan, Provincial policies and Provincial Plans. The resource areas thus identified*

are generally shown on Map 1F using mapping supplied by the Ministry of Northern Development, Mines and Forestry or the Ministry of Natural Resources. Map 1F is not drawn to scale and the boundaries are only approximate. The identification of these mineral aggregate resource areas on Map 1F does not imply that extraction in these areas conforms to Provincial Plans or policies, nor does it imply support by the Region for any licence application under the Aggregate Resources Act in these areas or for any amendment to this Plan thereof.

See Sections 6.2.2 and 6.2.3 of this report.

Natural Heritage System

113. The Natural Heritage System consists of the Greenbelt Natural Heritage System and the Regional Natural Heritage System.

114. The goal of the Natural Heritage System is to increase the certainty that the biological diversity and ecological functions within Halton will be preserved and enhanced for future generations.

116.1 The boundaries of the Regional Natural Heritage System may be refined, with additions, deletions and/or boundary adjustments, through:

- a) a Sub-watershed Study accepted by the Region and undertaken in the context of an Area-Specific Plan;*
- b) an individual Environmental Impact Assessment accepted by the Region, as required by this Plan; or*
- c) similar studies based on terms of reference accepted by the Region.*

Once approved through an approval process under the Planning Act, these refinements are in effect on the date of such approval. The Region will maintain mapping showing such refinements and incorporate them as part of the Region's statutory review of its Official Plan.

118. It is the policy of the Region to:

(2) Apply a systems based approach to implementing the Regional Natural Heritage System by:

- a) Prohibiting development and site alteration within significant wetlands, significant coastal wetlands, significant habitat of endangered and threatened species and fish habitat except in accordance with Provincial and Federal legislation or regulations;*
- b) Not permitting the alteration of any components of the Regional Natural Heritage System unless it has been demonstrated that there will be no negative impacts on the natural features and areas or their ecological functions; in applying this policy, agricultural operations are considered as compatible and complementary uses in those parts of the Regional Natural Heritage System under the Agricultural System and are supported and promoted in accordance with policies of this Plan;*
- c) Refining the boundaries of the Regional Natural Heritage System in accordance with Section 116.1; and*

d) *Introducing such refinements at an early stage of the development or site alteration application process and in the broadest available context so that there is greater flexibility to enhance the ecological functions of all components of the system and hence improve the long-term sustainability of the system as a whole.*

(3) Require the proponent of any development or site alteration that meets the criteria set out in Section 118(3.1) to carry out an Environmental Impact Assessment (EIA), unless:

- a) *the proponent can demonstrate to the satisfaction of the Region that the proposal is minor in scale and/or nature and does not warrant an EIA,*
- b) *it is a use conforming to the Local Official Plan and permitted by Local Zoning By-laws;*
- c) *it is a use requiring only an amendment to the Local Zoning By-law and is exempt from this requirement by the Local Official Plan; or*
- d) *exempt or modified by specific policies of this Plan.*

The purpose of an EIA is to demonstrate that the proposed development or site alteration will result in no negative impacts to that portion of the Regional Natural Heritage System or unmapped Key Features affected by the development or site alteration by identifying components of the Regional Natural Heritage System as listed in Section 115.3 and their associated ecological functions and assessing the potential environmental impacts, requirements for impact avoidance and mitigation measures, and opportunities for enhancement. The EIA, shall, as a first step, identify Key Features on or near the subject site that are not mapped on Map 1G.

(3.1) Set the criteria for the requirement of an EIA for proposed developments and site alterations as follows:

- c) *all other developments or site alterations, including public works, that are located wholly or partially inside or within 120m of the Regional Natural Heritage System.*

(4) Require that the recommendations of an Environmental Impact Assessment, including the placement of lot lines and structures, carried out under Section 118(3) and endorsed by the Region be implemented through official plan amendments, zoning by-laws, site plan control, conditions of planning approval or regulations by the appropriate authority.

(7) Obtain, or encourage the Local Municipalities, Conservation Authorities and other public agencies to obtain, through the development approval process and as permitted by legislation, parts of the Regional Natural Heritage System.

(8) Promote the concept and functions of the Regional Natural Heritage System and encourage landowners and local residents to participate in its identification, protection, enhancement, and maintenance.

(9) Promote, in conjunction with other public agencies and through stewardship programs, the donation of privately owned lands in the Regional Natural Heritage System to public agencies or charitable organizations, or the transfer of the responsibilities for the protection of the ecological functions and features on

such lands to a public agency or charitable organization through a conservation easement agreement.

See Section 6.5 of this report.

CONSTRAINTS TO DEVELOPMENT

Municipal Wellhead Protection Zones

139.8 The purpose of the Municipal Wellhead Protection Zones, as shown on Map 1D is to assist in the implementation of Sections 145(2) through 145(4), policies designed to protect the source of municipal well water from contamination.

See Section 6.4 of this report.

Prime Agricultural Areas

139.9 The purpose of the Prime Agricultural Areas, as shown on Map 1E, is to assist in interpreting policies of this Plan and to assist the City of Burlington and the Towns of Milton and Halton Hills in developing detailed implementation policies for their respective Official Plans.

139.9.1 The Prime Agricultural Areas shown on Map 1E include lands in the Agricultural Area and Regional Natural Heritage System designations. Together these lands support and advance the goal to maintain a permanently secure, economically viable agricultural industry and to preserve the open space character and landscape of Halton's nonurbanized area.

139.9.2 It is the policy of the Region to:

(3) Outside the Greenbelt Plan Area, permit the removal of land from Prime Agricultural Areas only where the following have been demonstrated through appropriate studies to the satisfaction of the Region:

- a) necessity for such uses within the planning horizon for additional land to be designated to accommodate the proposed uses;*
- b) amount of land area needed for such uses;*
- c) reasons for the choice of location;*
- d) justification that there are no reasonable alternate locations of lower capability agricultural lands;*
- e) no negative impact to adjacent agricultural operations and the natural environment;*
- f) there are no reasonable alternatives that avoid Prime Agricultural Areas as shown on Map 1E, and*
- g) the land does not comprise a specialty crop area. Extraction of mineral aggregate resources is permitted in Prime Agricultural Areas in accordance with Section 110(6.1).*

See Section 6.6 of this report.

Identified Mineral Resource Areas

139.10 The purpose of the Identified Mineral Resource Areas, as shown on Map 1F, is to assist in the implementation of Sections 112(1) and 112(2), policies designed to protect high potential mineral aggregate resources areas from incompatible land uses.

See Section 6.2.2 of this report.

Key Features within the Greenbelt and Regional Natural Heritage Systems

139.11 The purpose of the Key Features within the Greenbelt and Regional Natural Heritage Systems, as identified in Sections 115.3(1) and 139.3.3, and shown on Map 1G, is to assist in the implementation of permitted use policies in the Regional Natural Heritage System and the requirement for Environmental Impact Assessments, as well as to assist the Local Municipalities in developing detailed implementation policies for the Key Features of the Greenbelt Natural Heritage System in accordance with policies of the Greenbelt Plan and this Plan.

See Section 6.5 of this report.

PART IV HEALTHY COMMUNITIES POLICIES

ENVIRONMENTAL QUALITY

Air and the Ambience

142. The objectives of the Region are:

(1) To reduce, in concert with the Federal Government, the Province, other municipalities, public interest groups and the private sector, the emissions of greenhouse gases.

(2) To improve air quality and to address the impact of climate change.

(4) To contribute to the overall improvement of air quality in Halton's airshed through facility management, land use planning, transportation management, roadway design, operation and maintenance, and other complementary programs.

(7) To promote tree planting in both rural and urban areas for the purposes of improving air quality, sequestering carbon dioxide and reducing energy use through shading and sheltering.

(8) To address the impact of air pollution, noise, vibration and light on land uses.

See Sections 6.2.3 and 6.4 of this report.

143. It is the policy of the Region to:

(10) Develop, in consultation with the Local Municipalities, the Province, Federal government and the railway agencies, Land Use Compatibility Guidelines to minimize the adverse effect of noise, vibration, odour and air pollution from industrial, transportation and utility sources on sensitive land uses, including the application of separation distance between these non-compatible uses.

See Section 6.4 of this report.

Water

144. *The objectives of the Region are:*

(3) To maintain, protect and enhance the quality and quantity of groundwater and surface water.

(4) To achieve integrated watershed management in Halton through partnership with all stakeholders within the watersheds.

(5) To support the protection of water quality and quantity in accordance with the objectives of Watershed Plans and Sub-watershed Studies, where they exist, or through best management practice, where such Plans/Studies do not exist.

(6) To maintain and enhance fish habitat in Halton.

(7) To promote efficient and sustainable use of water resources, including the practices for water conservation and sustaining water quality.

145. *It is the policy of the Region to:*

(5) Require that any development proposal that has the potential to release or discharge contaminants to affect the quality of groundwater be subject to a review by the Region to assess the risk of such uses to potentially contaminate the groundwater system in Halton. As a result of such an assessment, the proponent may be required to carry out a hydrogeological study to the satisfaction of the Region and implement its recommendations which may result in a prohibition or restriction of the proposed use, or an agreement to adopt best management practices as prescribed by the Region.

(10) Encourage the protection and enhancement of watercourses and headwaters areas as an integral component for maintaining natural hydrological processes within a watershed.

(12) Promote the regeneration of natural areas near watercourses.

(17) Consider the impact of development on fish habitat and ensure compliance with the Federal Fisheries Act.

(23) Restrict development and site alteration in or near sensitive surface and ground water features and require the proponent to carry out an Environmental Impact Assessment in accordance with policies of this Plan and, undertake where appropriate, hydrogeological and hydrological studies to protect, improve or restore such features.

See Section 6.5 of this report.

Land

146. *The objectives of the Region are:*

(1) To protect unique landforms such as the Niagara Escarpment permanently.

- (3) *To preserve certain landscapes as part of Halton's Cultural Heritage Resources.*
- (4) *To implement, in part, the environmental goals and objectives of this Plan through strategic land acquisitions;*
- (5) *To promote the concept of a Regional trail system by providing the needed connections, through acquisitions or easements, between local trails and/or interregional trails such as the Bruce Trail and the Waterfront Trail.*
- (6) *To protect significant tree-covered areas as a natural resource and promote the enhancement of woodland coverage in Halton.*
- (8) *To promote a linked system of woodlands in Halton where appropriate.*
- (12) *To protect and utilize mineral aggregate resources in accordance with Sections 107 through 112 of this Plan.*
- (13) *To protect agricultural lands where appropriate.*

See Sections 6.2, 6.5, 6.6, 6.8, 6.9, 6.10, 6.11 and 6.12 of this report.

147. It is the policy of the Region to:

- (3) *Adopt and maintain, in consultation with the Halton community and in collaboration with the appropriate agencies, a Land Securement Strategy that would identify how the overall environmental quality of Halton can be enhanced through acquisitions of land ownership or land management rights through purchases, conservation easements, or private-public partnership agreements.*

See Section 6.2.4 of this report.

CULTURAL HERITAGE RESOURCES

165. The goal for Cultural Heritage Resources is to protect the material, cultural and built heritage of Halton for present and future generations.

166. The objectives of the Region are:

- (1) *To promote awareness and appreciation of Halton's heritage.*
- (2) *To promote and facilitate public and private stewardship of Halton's heritage.*

167. It is the policy of the Region to:

(1) Maintain, in conjunction with the Local Municipalities, local historical organizations, and municipal heritage committees a list of documented Cultural Heritage Resources in Halton.

(2) Inform promptly the appropriate government agencies, First Nations and Municipal Heritage Committees of development proposals that may affect defined Cultural Heritage Resources and known archaeological sites.

(6) Prior to development occurring in or near areas of archaeological potential, require assessment and mitigation activities in accordance with Provincial requirements and the Regional Archaeological Management Plan.

See Section 6.8 of this report.

TRANSPORTATION

173. It is the policy of the Region to:

(22) Require the proponent of any development considered to have a transportation impact to carry out a detailed transportation study to assess the impact of the proposal and to recommend necessary improvements to the transportation network and services consistent with the goals, objectives and policies of this Plan.

See Section 6.7 of this report.

Appendix 7

Appendix 7

Town of Halton Hills

(Office Consolidation 2017)

The Town of Halton Hills Official Plan was approved under the provisions of the Planning Act. The Official Plan governs land use within the Town of Halton Hills.

The Town of Halton Hills Official Plan requires an amendment to the Official Plan to permit new or expanded mineral aggregate operations. See Application Booklet filed under separate cover for a copy of the proposed Town of Halton Hills Official Plan Amendment.

The proposed amendment is required to conform to the Town of Halton Hills Official Plan. The following is a summary of the key sections of the Town of Halton Hills Official Plan.

The Community Vision of the Official Plan in Part A, Section A1 states:

The primary purpose of the Official Plan is to provide the basis for managing growth that will support and emphasize the Town's unique character, diversity, civic identity, rural lifestyle, natural heritage and to do so in a way that has the greatest positive impact on the quality of life in Halton Hills. The Official Plan is one of a series of municipal policies, guidelines and regulations that will direct the actions of the Town and shape growth and development. The Official Plan establishes a vision for the future land use structure of the Town and, as a result, is intended to serve as the basis for managing change until 2031, which is the planning horizon established by this Plan.

Furthermore, in regards to mineral aggregate extraction, the Plan states:

The Town also recognizes that mineral aggregate extraction is a rural based activity and an important component of the local economy. Mineral aggregate extraction must be undertaken in a manner that minimizes social and environmental impacts. In keeping with the 'environment-first' philosophy, this Plan requires that where a mineral aggregate extraction impacts the Greenlands System, the application will result in a net environmental gain for the features or functions of the Greenlands System through a combination of compensation and enhancements that are initiated prior to and/or during extraction, and the proposed progressive and final rehabilitation of the site to uses that benefit the community.

A2 GOALS AND STRATEGIC OBJECTIVES

A2.1.1 To protect, enhance and where possible restore, significant natural heritage features and related ecological functions in the Town for present and future generations.

A2.4.1 To protect, maintain and enhance the open space character of lands outside of the Urban Areas and the Hamlet Areas for enjoyment by present and future generations.

A2.5.1 To preserve areas demonstrating high capability for agricultural production for that purpose.

A2.6.1 To identify, conserve and enhance the Town's cultural heritage resources and promote their value and benefit to the community.

A2.7.2 o) To protect and recognize the Town's mineral aggregate resource industry as an important component of its economic base.

See Sections 6.2, 6.5, 6.6, 6.8, 6.9 and 6.13 of this report.

A2.10 MINERAL AGGREGATE RESOURCES

A2.10.1 GOAL

To protect mineral aggregate resource areas for long term use while ensuring that extraction occurs in a manner that minimizes environmental and social impacts.

A2.10.2 STRATEGIC OBJECTIVES

- i) To ensure that as much of the mineral aggregate resources in the Town as is realistically possible shall be made available to supply mineral aggregate needs as close to markets as possible provided the extraction can occur in a manner that minimizes environmental and social impacts.*
- j) To ensure the proper management of mineral aggregate operations to minimize potential negative environmental and social impacts.*

See Sections 6.2, 6.4 and 6.5 of this report.

- k) To protect areas having high potential aggregate resource deposits from incompatible development that would preclude or hinder access to the resource.*

See Sections 2.0, 3.0, 6.1, 6.2.1, 6.2.2 and 6.2.3 of this report.

- l) To ensure that all operations are progressively rehabilitated in an environmentally responsible fashion.*

See Section 6.5 of this report.

- m) To ensure that roads are appropriate and built to a standard that can accommodate truck traffic associated with mineral aggregate extraction operations.*
- n) To promote the conservation of mineral aggregate resources through the recovery of these resources wherever feasible.*

The existing Milton Quarry recycles concrete and asphalt and this use is proposed to continue in conjunction with the proposed MQEE to help conserve mineral aggregate resources.

B4.2.3.1 ESCARPMENT RURAL AREA OBJECTIVES

It is the objective of this designation to:

- d) *to provide for the designation of new Mineral Resource Extraction Areas which can be accommodated in accordance with the policies of this Plan and by amendment to the Niagara Escarpment Plan, the Region of Halton Official Plan and this Plan*

See Application Booklet filed under separate cover for a copy of the proposed Town of Halton Hills Official Plan Amendment.

C2.2 WHAT AN EIS SHOULD DEMONSTRATE

Before development is approved in the area subject to the EIS, the EIS shall demonstrate that the relevant policies of this Plan are met, including, for mineral aggregate extraction operations, the principle of net environmental gain as set out in Section E6.4.3.5 of this Plan. The EIS should demonstrate that the use will:

- a) *not have a negative impact on significant natural heritage features and related ecological functions;*
- b) *not discharge any substance that could have an adverse effect on air quality, groundwater, surface water and associated plant and animal life;*
- c) *be serviced by an adequate supply of water and that the groundwater taking associated with the use will not have an adverse effect on existing water supplies, surface water features and associated plant and animal life;*
- d) *not cause erosion or siltation of watercourses or unacceptable changes to watercourse morphology;*
- e) *not interfere with groundwater recharge to the extent that it would adversely affect groundwater supply for any use;*
- f) *not cause an increase in flood potential on or off the site;*
- g) *maintain/enhance/restore/rehabilitate the natural condition of affected watercourses, and protect/enhance/restore/rehabilitate aquatic habitat;*
- h) *not encourage the demand for further development that would negatively affect wetland function or contiguous wetland areas;*
- i) *enhance and restore endangered terrestrial and aquatic habitat where appropriate and feasible;*

- j) *not unduly interfere with the function of existing or potential natural corridors that are determined to be of significance;*
- k) *not lead to a reduction to the extent of significant woodlands within the Greenlands system; and,*
- l) *not lead to species loss or negative impacts on endangered, threatened or rare species and/or their habitat.*

In determining whether the above criteria have been satisfied, reference may be made to applicable federal and provincial standards and regulations as well as referring to the relevant policies of this Plan.

See Sections 6.5 and 6.12 of this report.

C5 WATER RESOURCE MANAGEMENT

At the present time, many of the Town's residents obtain drinking water from private wells. It is a policy of this Plan to protect existing sources of drinking water for future use.

On this basis, all major applications for development in close proximity to development serviced by private wells shall be supported by a Hydrogeological Report. Major applications shall include any development requiring an Amendment to this Plan. In addition, a Hydrogeological Report may be required for other applications in accordance with the policies of this Plan.

The Report shall be prepared to the satisfaction of the Town and the Region of Halton. The purpose of the Hydrogeological Report is to investigate the impacts of the proposed development on water quality and quantity and provide recommendations on:

- a) *how to protect or enhance the hydrological function of the water resource;*
- b) *how to minimize or eliminate the effect of the proposed use on the groundwater recharge and discharge function;*
- c) *how to minimize or eliminate the effect of the proposed use on the quality and quantity of drinking water in adjacent private and municipal wells;*
- d) *how to protect, enhance or restore sensitive groundwater recharge/discharge areas, aquifers and headwater areas;*
- e) *whether it is necessary to monitor water budgets for groundwater aquifers and surface water features; and,*
- f) *how to ensure that the quality of the sensitive surface water features affected by the development are protected, improved or restored.*

See Sections 6.5 and 6.12 of this report.

C6 GROUNDWATER MANAGEMENT

All residents of the Town of Halton Hills obtain their drinking water from groundwater sources. The majority of the water used is extracted from municipal wells in the Georgetown and Acton urban areas. Given this reliance on groundwater primarily for human use and its ecological importance, it is the objective of this Plan to:

- a) manage water resources in a manner that ensures an adequate sustainable supply of clean water for both human use and the natural environment;*
- b) support the preparation of watershed and subwatershed plans to assist in the proper management of water as a key resource;*
- c) protect existing surface and ground water quality from degradation and to improve and restore water quality where degraded;*
- d) to incorporate source protection objectives into the land use planning process to ensure that the sources of water are not compromised in the future as a result of land use decisions;*
- e) avoid competition for water supplies through appropriate regional planning initiatives and decision-making processes;*
- f) encourage the establishment of water conservation measures as a way to meet water supply needs in the same manner that alternatives to create new supplies are investigated; and,*
- g) educate the public on the value of protecting the resource and how they can contribute to its protection.*

See Sections 6.4, 6.5 and 6.12 of this report.

C6.1 POLICIES

The Region of Halton has long recognized the value of groundwater resources and has prepared an Aquifer Management Plan to provide for an overall understanding of the resource and to provide the basis for policies in the Region of Halton Official Plan.

Policies based on the Aquifer Management Plan have been incorporated into the Region of Halton Official Plan. These include identifying Municipal Wellhead Protection Zones based on the groundwater flow patterns within the vicinity of each of the active wells supplying water to the Region. Municipal Wellhead Protection Zones that are located within Halton Hills are identified on Appendix 1B to this Plan. It is the policy of this Plan:

- a) to encourage the Region to update the AMP as new information becomes available;*
- b) to show the boundaries of the Municipal Wellhead Protection Zones in the Comprehensive Zoning By-law, once incorporated into the Regional Official*

Plan and this Plan by amendments, and prohibit or restrict within these areas land uses that have the potential to release or discharge contaminants to significantly affect groundwater quality;

- c) to require those land uses that have the potential to release or discharge contaminants to significantly affect the quality of groundwater be subject to a review by the Region to assess the risks of such uses to potentially contaminate groundwater and, based on this assessment, to determine whether: the landowner is required to undertake a hydrogeological study to the satisfaction of the Region and implement its recommendations. Such recommendations may result:
 - i) in the prohibition of the use; or*
 - ii) in the restriction of the use; or*
 - iii) an agreement to adopt Best Management Practices as prescribed by the Region.**
- d) to cooperate with the Region in the extension of Municipal Wellhead Protection Zones for municipal wells serving neighbouring municipalities, and request similar protection from neighbouring municipalities for municipal wells serving the residents of Halton Hills.*

See Sections 6.4 and 6.5 of this report.

E6 MINERAL RESOURCE EXTRACTION AREA

E6.1 OBJECTIVES

It is the objective of this designation to:

- a) recognize existing pits and quarries and protect them from activities that would preclude or hinder their continued use or expansion;*
- b) protect known aggregate deposits and areas of high potential mineral aggregate resources for potential future extraction;*
- c) ensure that new pits and quarries will not have a negative impact on significant natural heritage features and related ecological functions in keeping with the principle of net environmental gain;*
- d) ensure that the haul routes used are appropriate;*
- e) ensure that extractive activities are carried out in a manner that minimizes environmental and social impacts;*
- f) ensure that aggregate extraction operations are designed to minimize visual impacts on the open space character of the rural landscape; and,*
- h) ensure the progressive rehabilitation of pits and quarries to an appropriate after use.*

See Sections 2.0, 3.0, 6.2, 6.4, 6.5, and 6.9 of this report.

E6.4.3 NEW MINERAL AGGREGATE OPERATIONS OR EXPANSIONS TO EXISTING OPERATIONS

E6.4.3.1 INTRODUCTION

All new mineral aggregate operations and/or expansions to existing mineral aggregate operations onto lands that are not designated Mineral Resource Extraction Area shall require an Amendment to the Official Plan and, where applicable, the Niagara Escarpment Plan. Notwithstanding the foregoing, an Official Plan Amendment will not be required for the proposed expansion of an existing sandstone quarry located on Part of Lot 21, Concession 5.

See Application Booklet filed under separate cover for a copy of the proposed Town of Halton Hills Official Plan Amendment.

E6.4.3.2 LOCATIONAL CRITERIA

It is the policy of this Plan:

- a) to direct new or expanded mineral aggregate operations to locate in the Agricultural Area, the Escarpment Rural Area and the Protected Countryside Area;*
- b) to prohibit new or expanded mineral aggregate operations from locating in the Escarpment Natural Area, Escarpment Protection Area, Urban Area, Hamlet Area and Rural Cluster Area; and,*
- c) to only permit new or expanded mineral aggregate operations within the Greenlands system where it can be demonstrated that there will be no negative impact on significant natural heritage features and related ecological functions in keeping with the principle of net environmental gain in accordance with Section E6.4.3.5 of this Plan.*

See Sections 6.1, 6.4 and 6.5 of this report.

E6.4.3.3 MINERAL AGGREGATE OPERATIONS IN PRIME AGRICULTURAL AREAS

In prime agricultural areas, on prime agricultural land, extraction of mineral aggregates is permitted as an interim use, subject to Section E6.4.3.1 of this Plan, 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 preextraction agricultural capability unfeasible; and,*

- c) *other alternatives, including resources in areas of Canada Land Inventory Class 4 to 7 soils and resources on prime agricultural lands where rehabilitation is feasible, have been considered by the applicant and found unsuitable; and,*
- d) *agricultural rehabilitation in remaining areas will be maximized.*

See Section 6.6 of this report.

E6.4.3.4 APPLICATION REQUIREMENTS

Any application for Amendment to the Official Plan and/or the zoning by-law shall be supported by studies that are based on predictable, measurable, objective effects on people and the environment. Such studies will be based on Provincial standards, regulations and guidelines, where they exist and will consider and identify methods of addressing the anticipated impacts in the area affected by the extractive operation. All applications shall be supported by information that address:

- a) *the impact of the operation of the mineral aggregate resource use on:*
 - i) *the natural heritage features and ecological functions on the site and in the area;*
 - ii) *nearby communities;*
 - iii) *agricultural resources and activities;*
 - iv) *the quality and quantity of groundwater and surface water;*
 - v) *the built or cultural heritage resources in the area;*
 - vi) *significant geologic formations on the site and in the area;*
 - vii) *the groundwater recharge and discharge functions on the site and in the immediate area;*
 - viii) *surface water features in the area; and,*
 - ix) *nearby wells used for drinking water purposes.*
- b) *the effect of the additional truck traffic on the ability of an existing haul route to function as a safe and efficient haul route considering among other matters the following:*
 - i) *the types of operations proposed;*
 - ii) *current road standards and an assessment of the proposed haul route relative to those standards;*
 - iii) *anticipated type of truck traffic; and*

- iv) *increases in background traffic levels together with current levels of truck traffic and other traffic;*
- c) *the suitability of any new haul route. It is a policy of this Plan to encourage the establishment of new aggregate operations on established haul routes. If a new haul route is proposed, it shall only be approved if it has been demonstrated that:*
 - i) *The new haul route is, or can be made, safe and capable of handling the volume of traffic proposed;*
 - ii) *The selection and design of the proposed haul route has taken into consideration and addressed impacts on existing and permitted sensitive land uses along the proposed haul route;*
 - iii) *The design of the new haul route has taken into consideration the existing road right-of-way characteristics including existing trees and vegetation within the road right-of-way, wood, wire, stump and stone fence lines within or adjacent to the right-of-way or other historical landscape remnants and where practical has identified means by which such features will be retained in order to minimize the impacts on the character of the area;*
 - iv) *The design of the new haul route has taken into consideration the physical characteristics of the potential route including road classification, load limits, road surfacing and the identification of any physical constraints to heavy truck traffic, such as vertical or horizontal curves, sight lines or shoulders and the means to address any deficiencies;*
 - v) *The design of the haul route has taken into consideration the traffic impacts (both operational and physical) resulting from the truck traffic generated by the proposed operation, including impacts on road structure, traffic flow and safety and the mitigation measures that will be employed to address these impacts;*
- d) *the impact of the noise, odour, dust and vibration generated by the proposed use on adjacent land uses;*
- e) *how the policy of no negative impact on significant natural heritage features and related ecological functions on the site and in the area can be satisfied taking into account the net environmental gain provisions of this Plan. This may be achieved, for example, through the progressive rehabilitation or design of a pit or quarry.*
- f) *how the impacts from the proposed pit or quarry on adjacent uses will be mitigated in order to lessen those impacts; and,*
- g) *how the site will be progressively rehabilitated to accommodate subsequent land uses after the extraction is completed; and,*

- h) *how the visual impacts of the proposed aggregate extraction operation will be minimized through the preparation of appropriate studies that considers potential visual impacts from adjacent roads and from those properties that may be potentially impacted.*

See Section 6.0 of this report.

E.6.4.3.5 ASSESSMENT OF IMPACTS

Where a policy in this Plan requires that mineral aggregate extraction not have a negative impact on a significant natural heritage feature or related ecological function in accordance with the principle of net environmental gain, the Town shall consider compensation and enhancements to be initiated by the proponent prior to and/or during extraction and the proposed progressive and final rehabilitation of the site.

In addition to the above, the required studies for a proposed pit or quarry, that address the matters identified in Section E6.4.3.4 of this Plan shall take into account the impacts from pits or quarries that are operating or undergoing rehabilitation in the area.

See Sections 6.5 and 6.12 of this report.

E6.4.4 CRITERIA FOR APPROVAL

Prior to the approval of an Official Plan Amendment and/or Zoning By-law for a new or expanded mineral aggregate operation the applicant shall demonstrate that:

- f) *the quality of sensitive groundwater and sensitive surface water features in the area will be protected, improved or restored taking into account any mitigative measures initiated by the proponent prior to and/or during extraction and the proposed rehabilitation plan, in accordance with the recommendations of appropriate studies;*
- g) *the quantity of water available for other uses in the area and as base flow for sensitive surface water features will be protected, improved or restored taking into account any mitigative measures that are initiated by the proponent prior to and/or during extraction and the proposed rehabilitation plan, in accordance with the recommendations of appropriate studies;*
- h) *there is no negative impact on significant natural heritage features or related ecological functions in accordance with the principle of net environmental gain taking into account any compensation and enhancements that are recommended in an EIS and initiated by the proponent prior to and/or during extraction and the proposed progressive and final rehabilitation of the site;*
- i) *as much of the site as possible will be rehabilitated by establishing or restoring natural self-sustaining vegetation; and,*

- j) *other environmental and social impacts such as noise, dust, odour and visual impacts are minimized.*

See Sections 6.4 and 6.5 of this report.

E6.4.7 REHABILITATION

It is the policy of this Plan to encourage the progressive rehabilitation of all pits and quarries within the Town. Council will work with pit and quarry operators and the Ministry of Natural Resources to ensure that all new licences have appropriate progressive rehabilitation plans. If the site to be rehabilitated is in the area of the Niagara Escarpment Plan Area, rehabilitation shall take place in accordance with the objectives of the applicable redesignation of the Niagara Escarpment Plan. The rehabilitation measures taken will be compatible with, and have minimal impact upon, the surrounding natural and visual environment and existing uses.

If a site is to be rehabilitated to a natural state, it is the policy of this Plan that natural self-sustaining vegetation and, where possible, hydrologic features be established and restored. The rehabilitation of prime agricultural lands shall be in accordance with Section E6.4.3 of this Plan.

See Sections 6.2.4 and 6.5 of this report.

Appendix 8

**Ministry of Heritage, Sport, Tourism, and
Culture Industries**

Archaeology Program Unit
Programs and Services Branch
Heritage, Tourism and Culture Division
401 Bay Street, Suite 1700
Toronto ON M7A 0A7
Tel.: (416) 314-7137
Email: Jessica.Marr@ontario.ca

**Ministère des Industries du patrimoine, du sport, du
tourisme et de la culture**

Unité des programme d'archéologie
Direction des programmes et des services
Division du patrimoine, du tourisme et de la culture
401, rue Bay, bureau 1700
Toronto ON M7A 0A7
Tél. : (416) 314-7137
Email: Jessica.Marr@ontario.ca



Jun 29, 2021

Rhiannon Fisher (P468)
Golder Associates Ltd.
100 - 6925 Century Mississauga ON L5N7K2

RE: Entry into the Ontario Public Register of Archaeological Reports: Archaeological Assessment Report Entitled, "Stage 1 and 2 Archaeological Assessment Milton Quarry East Extension, Part of Lots 11 and 12, Concession 1, Former Esquesing Township, Halton County, Now the Town of Halton Hills, Regional Municipality of Halton", Dated Apr 30, 2021, Filed with MHSTCI Toronto Office on N/A, MHSTCI Project Information Form Number P468-0060-2020, MHSTCI File Number 0013155

Dear Ms. Fisher:

The above-mentioned report, which has been submitted to this ministry as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18, has been entered into the Ontario Public Register of Archaeological Reports without technical review.¹

Please note that the ministry makes no representation or warranty as to the completeness, accuracy or quality of reports in the register.

Should you require further information, please do not hesitate to send your inquiry to Archaeology@Ontario.ca

cc. Archaeology Licensing Officer
Kevin Mitchell, CRH Canada Group Inc.
Approval Authority, Town of Milton

¹In no way will the ministry be liable for any harm, damages, costs, expenses, losses, claims or actions that may result: (a) if the Report(s) or its recommendations are discovered to be inaccurate, incomplete, misleading or fraudulent; or (b) from the issuance of this letter. Further measures may need to be taken in the event that additional artifacts or archaeological sites are identified or the Report(s) is otherwise found to be inaccurate, incomplete, misleading or fraudulent.

**Ministry of Heritage, Sport, Tourism, and
Culture Industries**

Archaeology Program Unit
Programs and Services Branch
Heritage, Tourism and Culture Division
401 Bay Street, Suite 1700
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**Ministère des Industries du patrimoine, du sport, du
tourisme et de la culture**

Unité des programme d'archéologie
Direction des programmes et des services
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Email: Michelle.Davies@ontario.ca



Jul 30, 2021

Rhiannon Fisher (P468)
Golder Associates Ltd.
100 - 6925 Century Mississauga ON L5N7K2

RE: Review and Entry into the Ontario Public Register of Archaeological Reports: Archaeological Assessment Report Entitled, "Stage 3 Archaeological Assessment Location 2 (AjGx-306), Milton Quarry East Extension, 9410 Dublin Line, Part of Lot 12, Concession 1, Former Esquesing Township, Halton County, Now the Town of Halton Hills, Regional Municipality of Halton, Ontario", Dated Apr 30, 2021, Filed with MHSTCI Toronto Office on Jul 2, 2021, MHSTCI Project Information Form Number P468-0064-2020, MHSTCI File Number 0013155

Dear Ms. Fisher:

This office has reviewed the above-mentioned report, which has been submitted to this ministry as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18.¹ This review has been carried out in order to determine whether the licensed professional consultant archaeologist has met the terms and conditions of their licence, that the licensee assessed the property and documented archaeological resources using a process that accords with the 2011 *Standards and Guidelines for Consultant Archaeologists* set by the ministry, and that the archaeological fieldwork and report recommendations are consistent with the conservation, protection and preservation of the cultural heritage of Ontario.

The report documents the assessment/mitigation of the study area as depicted in Figure 7 of the above titled report and recommends the following:

The results of the Stage 3 Archaeological Assessment and the analysis and conclusions presented in Section 4.0

provide the basis for the following recommendation:

Location 2 (AjGx-306) has been sufficiently assessed and documented, and no further archaeological assessment is required.

The Ontario Ministry of Heritage, Sport, Tourism and Culture Industries is asked to review the results and recommendations presented herein, accept this report into the Provincial Register of archaeological reports and

issue a standard letter of compliance with the Ministry's 2011 Standards and Guidelines for Consultant Archaeologists and the terms and conditions for archaeological licencing.

Based on the information contained in the report, the ministry is satisfied that the fieldwork and reporting for the archaeological assessment are consistent with the ministry's 2011 *Standards and Guidelines for Consultant Archaeologists* and the terms and conditions for archaeological licences. This report has been entered into the Ontario Public Register of Archaeological Reports. Please note that the ministry makes no representation or warranty as to the completeness, accuracy or quality of reports in the register.

Should you require any further information regarding this matter, please feel free to contact me.

Sincerely,

Michelle Davies
Archaeology Review Officer

cc. Archaeology Licensing Officer
Kevin Mitchell, CRH Canada Group Inc.
Approval Authority, Town of Milton

¹ *In no way will the ministry be liable for any harm, damages, costs, expenses, losses, claims or actions that may result: (a) if the Report(s) or its recommendations are discovered to be inaccurate, incomplete, misleading or fraudulent; or (b) from the issuance of this letter. Further measures may need to be taken in the event that additional artifacts or archaeological sites are identified or the Report(s) is otherwise found to be inaccurate, incomplete, misleading or fraudulent.*

Appendix 9



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.

CONTACT

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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

CONTACT

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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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Appendix 10



CURRICULUM VITAE

Ellen Ferris, BSc., MSc., MCIP, RPP

EDUCATION

2019
Master of Science in Planning,
University of Toronto

2017
Bachelor of Science, Honours,
University of Guelph

Ellen Ferris, BSc., MSc., is a Planner with MHBC. She provides planning, analysis and research support for all aspects of the firm's activities, which includes large multi-disciplinary projects for both private and public sector clients.

Ellen received her Master of Science in Planning from the University of Toronto in 2019 and her Bachelor of Science, Honours, from the University of Guelph in 2017.

Ellen's previous work experience includes various positions with the City of Toronto, the Niagara Escarpment Commission and the Conseil scolaire Viamonde.

PROFESSIONAL ACCREDITATIONS

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

PROFESSIONAL HISTORY

May 2019 – Present **Planner**, MacNaughton Hermsen Britton Clarkson Planning Limited (MHBC), Barrie

Sep-Dec 2018 **Consultant**, Conseil scolaire Viamonde (Regional French Public School Board)

Apr-Sep 2018 **Planner**, Niagara Escarpment Commission

May-Sep 2017 **Land Use Planning Assistant**, Niagara Escarpment Commission

Sep 2017 – Apr 2018 **Planning Intern**, City of Toronto

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