

# Aggregate Resources Reference Manual

Regional Official Plan Guidelines





# Halton Region Official Plan Guidelines

The **Regional Official Plan (ROP)** is Halton's guiding document for land use planning. It contains policies that guide decisions related to, among other things, managing growth and its effects on Halton's social, economic and natural environment.

The **ROP Guidelines** are a set of documents that clarify, inform, and aid in the implementation of the Plan's policies.

The Guidelines have been prepared in accordance with Section 192 of the ROP. They provide direction and outline approaches that can be used to satisfy the relevant policies of the Plan. They do not introduce additional policy requirements, and, in the event of a conflict between the Guidelines and the Regional Official Plan, the Plan shall prevail.

The Guidelines may be updated from time to time as required through a report to Regional Council.

For more information, visit [halton.ca/ROP](http://halton.ca/ROP) or [halton.ca/ROPguidelines](http://halton.ca/ROPguidelines) or call 311.

**"This Plan calls for the preparation of certain guidelines or protocols to provide more detailed directions in the implementation of its *policies*."**

**Halton Region Official Plan [2009] – Section 192**



# Aggregate Resources Reference Manual

The **Aggregate Resources Reference Manual** provides guidance to decision-makers and development proponents regarding Planning Act applications for a new or expanded mineral resource extraction use.

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## Purpose

The purpose of the **Aggregate Resources Reference Manual** is to:

- **assist and improve** the processing of applications for a new or expanded mineral resource extraction use;
- **provide** a comprehensive policy checklist to assist proponents in their application and decision-makers in their review; and
- **promote** public knowledge and understanding of mineral resource extraction uses in Halton Region.

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## Application & Use

Section 110(3.1) of the Regional Official Plan provides the basis for the preparation of a Manual that, among other things, provides guidance on the decision-making process and the information required to evaluate an application for a mineral resource extraction use. Section 110(9.1) encourages the proponent of a new or expanded mineral resource extraction use to have regard for the Manual when preparing their application. The Manual should be used for these purposes by a variety of users including:

- **Regional, Local and external agency staff:** as a resource when reviewing mineral resource extraction applications;
- the **aggregate industry:** for clarity on the process, policies, information, studies and proposed plans required to assist in the review of an application; and
- the **public:** to understand the process and policies that underlay decision-making on mineral resource extraction uses.

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## Supporting Documents

In addition to the policy direction provided by the Regional Official Plan, the following documents should be considered alongside this Guideline, as appropriate:

- Aggregate Resources Act
- The Niagara Escarpment Plan, 2005;
- The Greenbelt Plan, 2005;
- The Growth Plan for the Greater Golden Horseshoe, 2006;
- Provincial Policy Statement, 2014;
- Local Official Plan & Zoning By-law.

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## Version

**Version 1.0** | This version of the Aggregate Resources Reference Manual was brought before the Inter-Municipal Liaison Committee on June, 18 2014 through Report No. IMLC01-14.

*This version of the Manual is based on the Halton Region Official Plan as amended by Regional Official Plan Amendment (ROPA) No. 38, adopted by Regional Council on December 16, 2009. Many of the pertinent ROP policies are currently under appeal at the Ontario Municipal Board. The Manual may be updated to address any changes that may occur as a result of the hearing once it is complete.*



# Table of Contents

1.0	Introduction .....	1
1.1	Purpose of the Halton Aggregate Resources Manual.....	1
1.2	Background.....	2
1.3	Ontario Aggregate Approvals Process .....	5
2.0	Regional Aggregate Application Process .....	19
2.1	The Application Review Process.....	19
2.2	The Region's Role in making a Decision on an Application.....	22
3.0	Application Submission Considerations .....	26
4.0	Supporting Study Requirements .....	27
4.1	Agricultural Impact Assessment.....	28
4.2	Archaeological Study.....	29
4.3	Cultural Heritage Study .....	29
4.4	Environmental Impact Study .....	29
4.5	Financial Impact Study.....	30
4.6	Land Use Compatibility Study .....	31
4.7	Planning Justification Report.....	31
4.8	Rehabilitation/Monitoring Study .....	32
4.9	Transportation/Haul Route Study .....	32
4.10	Water Resource Study.....	33
4.11	Adaptive Environmental Management Plan (AEMP).....	34
5.0	References.....	35
	Appendix A .....	37



# 1.0 Introduction

## 1.1 Purpose of the Halton Aggregate Resources Manual

The basis for the preparation of the Aggregate Resources Manual is found within Section 110(3.1) of the Regional Official Plan as amended by ROPA 38.

Subsection a) of this section is intended to provide the basis for the continuous collection of information to guide decision makers on matters related to aggregate extraction in the Greenbelt and Regional Natural Heritage Systems and the surface and ground water systems in Halton. Subsection b) is intended to establish the Best Practices that would be used firstly to establish the Region's expectations and then to measure performance over time. Subsection c) establishes the basis for determining what information is required from the proponent of a mineral aggregate application when an application is submitted.

The focus of the first edition of this Manual is primarily on subsection 110(3.1)c). The intent of this edition is to provide municipal staff and development proponents with one document that identifies submission information requirements including policies that apply to aggregate resource applications. With respect to Provincial policy, this Manual is based upon the Provincial policies in effect at the time this Manual was completed. If Provincial policies change, this Manual will need to be updated. The Manual is supported by a comprehensive policy checklist that is intended to assist reviewers and decision makers with the making of a decision on an application. The policy checklist component of the Aggregate Resources Manual includes all relevant policies in the Provincial Policy Statement, the Greenbelt Plan and the Niagara Escarpment Plan and translates each of the identified policies into a question that needs to be considered and answered prior to making an informed decision on the application. It is noted that other agencies may also have requirements that need to be considered.



The Aggregate Resources Manual also identifies the supporting studies necessary to be submitted in conjunction with an application for aggregate resource extraction and provides details on each of the proposed studies so that all reviewers, as well as applicants are fully aware of the study requirements at the outset of the aggregate application process. Other studies may be required and will be identified through the preconsultation process as needed.

Future editions of the Aggregate Resources Manual will contain information on Best Practices, which will reflect the rapidly growing knowledge base in Halton Region, and in other jurisdictions in Ontario and beyond. The range of Best Practices that could be adopted and applied is extensive, with many of the Best Practices potentially going beyond what the Ministry of Natural Resources currently requires in the context of a licensing process under the Aggregate Resources Act. It is also anticipated that this Manual will be updated when the ROPA 38 Policy framework is approved and when a new Provincial Policy Statement is released.

## 1.2 Background

### Regional Official Plan

On December 16, 2009, Regional Council adopted Regional Official Plan Amendment (ROPA) 38. ROPA 38 is based largely on the 13 Official Plan Directions contained in the “Towards Sustainability” report endorsed by Halton Regional Council in June 2009 and brought the Regional Official Plan into conformity with the Provincial policy framework including, but not limited to, the Provincial Policy Statement (2005), the Growth Plan for the Greater Golden Horseshoe (2006) and the Greenbelt Plan (2005). The overall planning vision of ROPA 38 is to deliver:

- Strong, vibrant, healthy and complete communities;
- An enhanced Natural Heritage System;
- A strong and sustainable agriculture industry; and
- A sustainable land use decision-making process.

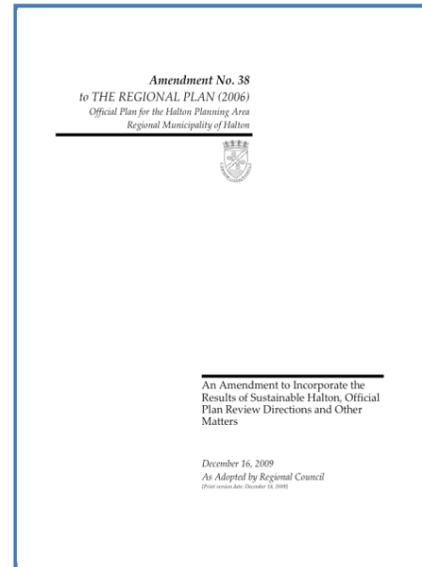
Sections 107 to 112 of the Regional Official Plan (as amended by ROPA 38) and then as modified by the Ministry of Municipal Affairs and Housing (MMAH) contains the policy framework for *Mineral Resource Extraction Areas*.

Section 108 indicates that the *Mineral Resource Extraction Area* land use designation only applies to lands that are subject to a valid licence pursuant to the Aggregate Resources Act. This means that any new land to be licensed requires an Amendment to the Regional Official Plan and if the lands are located within the Niagara Escarpment Planning Area, an amendment to the Niagara Escarpment Plan as well. An Amendment to the local Official Plan is also required. Section 109 establishes the permitted uses in *Mineral Aggregate Resource Areas*. Section 110 contains a number of overarching policies regarding the use of lands for mineral aggregates in Halton Region. This section also identifies areas where new mineral resource extraction areas will be prohibited and includes a policy framework dealing with net environmental gain. Section 110(8) establishes the factors to be considered when a proposal is submitted to the Region.

### Types of Aggregate Extraction in Region (Limestone, Dolostone, Shale, Sand, Gravel)

The physiography and distribution of surficial material in Halton Region are the result of glacial activity that took place in the Late Wisconsinan Substage of the Pleistocene Epoch. This period of time, which lasted from approximately 23,000 to 10,000 years ago, was marked by the repeated advance and melting back of massive continental ice sheets. At the time of maximum glacial extent, Halton Region was covered by a mass of ice called the Ontario Lobe. The ice sheet deposited silty Halton Till over the bedrock as it receded.

The Niagara Escarpment, formed by erosion over millions of years, greatly influenced the pattern of glaciation in the Region. The Escarpment is a high relief bedrock scarp that runs from the southwest of the Region to the northeast. The scale and length of the Niagara Escarpment is extensive, beginning in upper New York State to the east and running through Ontario and looping into the State of Wisconsin beyond Sault Ste. Marie. Following the last ice age, moraine ridges were deposited directly by glacial ice flows to the west of the Escarpment in Southern Ontario. To the east of the Escarpment in Halton Region is a smooth glacial till plain.



The Ministry of Northern Development and Mines produces documentation on Resource Areas in Ontario in the form of Aggregate Resource Inventory Papers. The Aggregate Resource Inventory Paper (ARIP) that applies to Halton Region is #184 and it classifies aggregate resource areas into four levels of significance:

- Primary** These areas represent lands where a major aggregate resource is known to exist. The inventory provides relatively detailed information and data on these sand and gravel deposits.
- Secondary** These areas are representative of lands that contain significant amounts of sand and gravel. Although deposits of secondary significance are not considered to be the best resources, they may contain regionally important quantities of sand and gravel.
- Tertiary** These areas contain aggregate resources, but the quantities may be minimal or extraction may be difficult or not feasible. Such areas may be useful for local needs.
- Bedrock** Bedrock resources fall under their own classification and their location is related directly to the extent of drift cover overlying known bedrock formations.

Sand and gravel resources are derived from unconsolidated deposits, whereas bedrock resources are derived from consolidated material. Aggregate extraction operations for sand and gravel are referred to as pits.

Extraction of bedrock resources requires blasting (except in the case of shale) and crushing of the consolidated rock and these operations are referred to as quarries. Bedrock resources are further divided into two categories in the Region – limestone and shale. Limestone is extracted from lands within and to the west of the Niagara Escarpment. Shale resources are generally found to the east of the Niagara Escarpment.

Table 1 summarizes this information and Table 2 identifies how much land is in each category in Halton Region.

**Table 1 – Aggregate Types in Halton**

Aggregate Product	Description	Primary Use	Extraction Method
Shale	Soft moist sedimentary rock consolidated from very small particles (clay or mud)	Brick and other structural products	Deposit is removed using large excavation equipment
Limestone/ Dolostone	Sedimentary rock composed mainly of calcite or dolomite and other minerals	Concrete, cement, asphalt, steel/metal refining, fill	Drift cover is removed, desirable rock is blasted and removed
Sand and Gravel	Heterogeneous divided rock of certain size. Gravel = 2-75 mm; Sand = .0625-2 mm	Concrete, mortar, cement, asphalt, glass, fill	Non-consolidated deposit is removed with excavation equipment

Source: ARIP 184

**Table 2 – Amount of Resource Area in Halton (Does not include tertiary)**

	Resource Area	Land Area (ha.)	% of Total Resource Area	% of Region
1.	Primary Sand and Gravel	2,631	6.8%	2.7%
2.	Secondary Sand and Gravel	4,343	11.3%	4.4%
3.	Bedrock (limestone and shale)	31,214	81.8%	32%
	TOTAL	38,189	100%	39%

Source: ARIP 184

Table 2 above indicates that about 40% of the Region (with this being the whole of the Region – including urban areas), is the site of a resource area as identified by the Ministry of Northern Development and Mines. However, while the resource area mapping provided by the Province is considered to be relatively accurate, the mapping in and of itself does not preclude landowners from submitting applications to establish a resource use in other areas, if it has been determined by the producer that it is economically viable to extract in these other areas. In addition, while a significant amount of land in the Region is identified as a resource area, a significant amount of this area is also not available for extraction as a result of policy constraints and the nature of existing land uses.

### **Relationship between Aggregate Resources Act, Planning Act and Niagara Escarpment Planning and Development Act Approvals**

In considering new aggregate operations or expansions of existing aggregate operations, proponents are generally required to submit applications under two Provincial Acts, the Aggregate Resources Act (ARA), and the Planning Act. In areas within the Niagara Escarpment Plan Area (NEPA), the application is also considered pursuant to the Niagara Escarpment Planning and Development Act (NEPDA).

Under the NEPDA, no other approvals can be given until an amendment to the Niagara Escarpment Plan is approved and a Development Permit is issued. Any amendment to the Regional Official Plan and a local Official Plan that deals with lands subject to the Niagara Escarpment Plan must be in conformity with the Niagara Escarpment Plan.

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

Notwithstanding the above, Section 66 of the ARA clarifies the role of the MNR relative to other regulatory documents, stating that:

"The regulations and the provisions of licenses and site plans apply despite any municipal by-law, official plan or development agreement and, to the extent that a municipal by-law, official plan or development agreement deals with the same subject matter as the Act, the regulations or provisions of a license or site plan, the by-law, official plan or development agreement is inoperative".

The above Section of the ARA indicates that a municipality cannot take any action that would be contrary to the provisions of any license or site plan approved by the MNR for a licensed property. For example, if a license was issued and following the issuance of that license, a municipality chose to rezone a property to prohibit its use as a pit or quarry, the zoning would be invalid in accordance with Section 66 of the ARA.

In addition, any other municipal by-law, Official Plan or development agreement applying to the lands would also be inoperative in so far as it relates to the license and site plan itself and what this license and site plan provides for. It should be noted that while the ARA is silent on the scope of the items to be dealt with as a condition of license or in the context of a site plan, licenses and site plans only apply to the lands that are to be utilized for the pit or quarry. In some cases, the license may also apply to lands that are in the same ownership or subject to the lease, but which are not being excavated. This is sometimes done to provide the basis for the management and/or protection of these lands in accordance with the license. However, licenses

or site plans do not apply to properties that are in other ownerships or subject to the same lease arrangement or to public roads that are used to access the pit or quarry.

In addition to the above, Section 66(3) indicates that "*no By-law passed under that Act (the Municipal Act) may prohibit or require a license for the carrying on or operating of a pit or quarry or wayside pit or quarry.*" This means that a municipality cannot require that a municipal license be issued to provide for the use of a property as a pit or quarry.

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

Section 14 of the ARA requires licensees to pay an annual license fee to the Aggregate Resources Trust that was established in 1996 by the Province to fund rehabilitation efforts. Section 15 of the ARA requires every licensee to operate the "*pit or quarry in accordance with this Act, the regulations, the site plan and the conditions of the license.*" In order to determine compliance, Section 15.1(1) of the ARA requires that every licensee submit a compliance report on an annual basis to the MNR. Such a report is also to be made available to the Municipality for information purposes. If a contravention to the Act, regulations, site plan or the conditions of the licensee is identified in the compliance report, the licensee is required to take appropriate steps within 90 days after the report is submitted to the MNR.

Section 16 of the ARA permits the MNR to require the licensee to amend a site plan. The licensee can also initiate such an amendment and this section sets out the requirements under which such an amendment to the site plan will be considered and ultimately disposed of. Section 20 of ARA permits the MNR to revoke a license and Section 22 of the ARA provides the MNR with the ability to suspend a license for any period of time.

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

In support of the ARA, the Ministry of Natural Resources has published a number of documents which are intended to identify what their information requirements are and what their expectations are with respect to license applications. The primary document is the *Policies and Procedures Manual* produced by the Ministry of Natural Resources on April 1, 2006.

## **1.3 Ontario Aggregate Approvals Process**

### **Role of Province**

#### **The Ministry of Municipal Affairs and Housing**

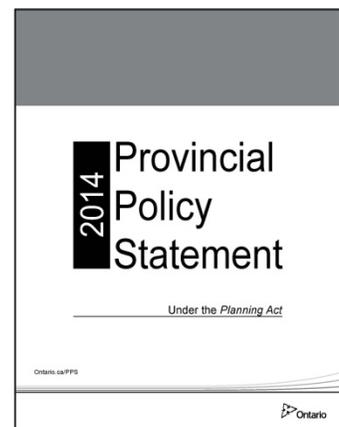
The Ministry of Municipal Affairs and Housing is primarily responsible for administering Provincial policy through the 'one window' plan review. The Region and Local Municipalities implement the Planning Act. Section 2 of the Planning Act outlines matters of Provincial interest. In carrying out the planning function, it is the responsibility of those involved and the decision makers to balance these interests and, in the case of conflicts among them, to determine what is in the best or greater public interest. Some of these matters which have an impact on aggregate extraction include the:

- (a) supply, efficient use and conservation of energy and water;
- (b) adequate provision and efficient use of communication, transportation, sewage and water services and waste management systems;
- (c) minimization of waste;
- (d) orderly development of safe and healthy communities;
- (e) adequate provision of employment opportunities;
- (f) protection of the financial and economic well-being of the Province and its municipalities;
- (g) co-ordination of planning activities of public bodies;
- (h) resolution of planning conflicts involving public and private interests;
- (i) protection of public health and safety;
- (j) appropriate location of growth and development; and the
- (k) promotion of development that is designed to be sustainable, to support public transit and to be oriented to pedestrians.

### Provincial Policy Statement

Section 3 of the Act indicates that the Province may periodically issue policy statements relating to matters of Provincial interest. The Province has issued such a policy statement and it is the Provincial Policy Statement (2014). This section of the Planning Act requires that planning authorities make decisions that are 'consistent' with the policy statements issued under the Act.

Section 1.1.1 of the Provincial Policy Statement is premised on the view that additional growth and development is beneficial to the Province, provided it is appropriately planned. Given that aggregates are one of the raw materials used in the construction industry, maintaining an adequate supply is an important consideration. This section also indicates that uses that may have an impact on the efficient expansion of settlement areas should be avoided.



Section 4.4 states that *“this Provincial Policy Statement shall be read in its entirety and all relevant policies are to be applied to each situation.”* Section 4.7 goes on to state *“the Official Plan is the most important vehicle for implementation of this Provincial Policy Statement.”* It also indicates *“Official Plans shall provide clear, reasonable and attainable policies to protect provincial interests and direct development to suitable areas.”* It is further noted in Section 4.9 that *“this Provincial Policy Statement does not prevent planning authorities and decision-makers from going beyond the minimum standards established in specific policies, unless doing so would conflict with any policy of this Provincial Policy Statement.”*

Below are the specific policies on aggregate extraction that have an impact on the review of applications in Halton Region:

Selected Aggregate Policy in the PPS, 2014
<p><b>Section 2.5.1</b>  <i>Mineral aggregate resources shall be protected for long-term use and, where provincial information is available, deposits of mineral aggregate resources shall be identified.</i></p>
<p><b>Section 2.5.2.1</b>  <i>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.</i></p>

**Section 2.5.2.2**

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

It is recognized that the policies of the Provincial Policy Statement have to be read ‘in their entirety’ and that ‘all relevant policies are to be applied to each situation’. However, Sections 2.5.1 and 2.5.2.1 of the Provincial Policy Statement have been relied upon extensively by the industry, the Province and the Ontario Municipal Board in the consideration of aggregate resource policies or individual applications. The use of the word ‘shall’ in the context of these two policies and the Planning Act requirement that planning decisions ‘be consistent with’ Provincial policy has played a significant role in the preparation of aggregate resource policy and in how these types of applications are considered. The addition of the policy in Section 2.5.2.1 in the 2005 Provincial Policy Statement on the ‘need’ issue indicates that the demonstration of need for mineral aggregate resources ‘shall not be required’ in the development of resource strategies or in the consideration of individual applications, regardless of the municipality or location.

Notwithstanding the above, there are a number of other policies in the 2014 Provincial Policy Statement that have to be balanced against the aggregate policies referenced above in the consideration of applications. These other policies do specifically prohibit extraction in certain natural heritage features, and prohibit extraction in other features unless it can be shown that there will be no negative impacts on the natural features or their ecological functions. The Provincial Policy Statement also permits extraction as an interim use in prime agricultural areas. There are also a number of infrastructure policies that also need to be considered. Below are some of these other policies (recognizing that not all policies have been listed and others that have not been listed may also be relevant depending on the context):

### **Policies in the PPS, 2014 That May Impact the Review of Applications (Depending on Context)**

#### **Section 1.2.1**

*A coordinated, integrated and comprehensive approach should be used when dealing with planning matters within municipalities, across lower, single and/or upper-tier municipal boundaries, and with other orders of government, agencies and boards including:*

- c) *managing natural heritage, water, agricultural, mineral, and cultural heritage and archaeological resources;*

#### **Section 1.1.4**

*Rural areas are important to the economic success of the Province and our quality of life. Rural areas are a system of lands that may include rural settlement areas, rural lands, prime agricultural areas, natural heritage features and areas, and other resource areas. Rural areas and urban areas are interdependent in terms of markets, resources and amenities. It is important to leverage rural assets and amenities and protect the environment as a foundation for a sustainable economy.*

*Ontario’s rural areas have diverse population levels, natural resources, geographies and physical characteristics, and economies. Across rural Ontario, local circumstances vary by region. For example, northern Ontario’s natural environment and vast geography offer different opportunities than the predominately agricultural areas of southern regions of the Province.*

#### **Section 1.1.4.1**

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

- a) building upon rural character, and leveraging rural amenities and assets;
- b) promoting regeneration, including the redevelopment of *brownfield sites*;
- c) accommodating an appropriate range and mix of housing in *rural settlement areas*;
- d) encouraging the conservation and *redevelopment* of existing rural housing stock on *rural lands*;
- e) using rural *infrastructure* and *public service facilities* efficiently;
- f) promoting diversification of the economic base and employment opportunities through goods and services, including value-added products and the sustainable management or use of resources;
- g) providing opportunities for sustainable and diversified tourism, including leveraging historical, cultural, and

<p>natural assets;</p> <p>h) conserving biodiversity and considering the ecological benefits provided by nature; and</p> <p>i) providing opportunities for economic activities in <i>prime agricultural areas</i>, in accordance with policy 2.3.</p>
<p><b>Section 1.2.6.1</b></p> <p><i>Major facilities and sensitive land uses should be planned to ensure they are appropriately designed, buffered and/or separated from each other to prevent or mitigate adverse effects from odour, noise and other contaminants, minimize risk to public health and safety, and to ensure the long-term viability of major facilities.</i></p>
<p><b>Section 1.6.6.7</b></p> <p>Planning for stormwater management shall:</p> <p>a) minimize, or, where possible, prevent increases in contaminant loads;</p> <p>b) minimize changes in water balance and erosion;</p> <p>c) not increase risks to human health and safety and property damage;</p> <p>d) maximize the extent and function of vegetative and pervious surfaces; and</p> <p>e) promote stormwater management best practices, including stormwater attenuation and re-use, and low impact development.</p>
<p><b>Section 1.6.7.1</b></p> <p><i>Transportation systems should be provided which are safe, energy efficient, facilitate the movement of people and goods, and are appropriate to address projected needs.</i></p>
<p><b>Section 1.6.7.5</b></p> <p>Transportation and land use considerations shall be integrated at all stages of the planning process.</p>
<p><b>Section 1.6.8.2</b></p> <p><i>Major goods movement facilities and corridors shall be protected for the long term.</i></p>
<p><b>Section 1.6.8.3</b></p> <p>Planning authorities shall not permit <i>development</i> in <i>planned corridors</i> that could preclude or negatively affect the use of the corridor for the purpose(s) for which it was identified.</p> <p>New <i>development</i> proposed on <i>adjacent lands</i> to existing or <i>planned corridors</i> and transportation facilities should be compatible with, and supportive of, the long-term purposes of the corridor and should be designed to avoid, mitigate or minimize negative impacts on and from the corridor and transportation facilities.</p>
<p><b>Section 1.7.1</b></p> <p><i>Long-term economic prosperity should be supported by optimizing the long-term availability and use of land, resources, infrastructure, electricity generation facilities and transmission and distribution systems, and public service facilities;</i></p>
<p><b>Section 2.1.1</b></p> <p><i>Natural features and areas shall be protected for the long term.</i></p>
<p><b>Section 2.1.2</b></p> <p><i>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.</i></p>
<p><b>Section 2.1.3</b></p> <p>1. <i>Natural heritage systems shall be identified in Ecoregions 6E &amp; 7E, recognizing that natural heritage systems will vary in size and form in settlement areas, rural areas, and prime agricultural areas.</i></p>
<p><b>Section 2.1.4</b></p> <p>Development and site alteration shall not be permitted in:</p> <p>a) <i>significant wetlands in Ecoregions 5E, 6E and 7E; and</i></p> <p>b) <i>significant coastal wetlands.</i></p>

**Section 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;*
- 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.*

**Section 2.1.6**

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

**Section 2.1.7**

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

**Section 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.*

**Section 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) *identifying water resource systems consisting of ground water 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;*
- d) *maintaining linkages and related functions among ground water features, hydrologic functions, natural heritage features and areas, and surface water features including shoreline areas;*
- e) *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;*
- f) *planning for efficient and sustainable use of water resources, through practices for water conservation and sustaining water quality;*
- g) *ensuring consideration of environmental lake capacity, where applicable; and*
- h) *ensuring stormwater management practices minimize stormwater volumes and contaminant loads, and maintain or increase the extent of vegetative and pervious surfaces.*

**Section 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.*

**Section 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, in accordance with policies 2.4 and 2.5; or*

<p><b>Section 2.5.2.1</b></p> <p><i>As much of the mineral aggregate resources as is realistically possible shall be made available as close to markets as possible.</i></p> <p><i>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.</i></p>
<p><b>Section 2.5.2.2</b></p> <p><i>Extraction shall be undertaken in a manner which minimizes social, economic and environmental impacts.</i></p>
<p><b>Section 2.5.2.3</b></p> <p><i>Mineral aggregate resource conservation shall be undertaken, including through the use of accessory aggregate recycling facilities within operations, wherever feasible.</i></p>
<p><b>Section 2.5.2.4</b></p> <p><i>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. When a license for extraction or operation ceases to exist, policy 2.5.2.5 continues to apply.</i></p>
<p><b>Section 2.5.2.5</b></p> <p><i>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:</i></p> <ul style="list-style-type: none"> <li><i>a) resource use would not be feasible; or</i></li> <li><i>b) the proposed land use or development serves a greater long-term public interest; and</i></li> <li><i>c) issues of public health, public safety and environmental impact are addressed.</i></li> </ul>
<p><b>Section 2.5.3.1</b></p> <p><i>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.</i></p>
<p><b>Section 2.5.3.2</b></p> <p><i>Comprehensive rehabilitation planning is encouraged where there is a concentration of mineral aggregate operations.</i></p>
<p><b>Section 2.5.4.1</b></p> <p><i>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.</i></p> <p><i>Complete rehabilitation to an agricultural condition is not required if:</i></p> <ul style="list-style-type: none"> <li><i>a) outside a speciality 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;</i></li> <li><i>b) in a speciality 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;</i></li> <li><i>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: speciality crop areas, Canada Land Inventory Classes 1, 2 and 3; and</i></li> <li><i>d) agricultural rehabilitation in remaining areas is maximized.</i></li> </ul>
<p><b>Section 2.6.1</b></p> <p><i>Significant built heritage resources and significant cultural heritage landscapes shall be conserved.</i></p>
<p><b>Section 2.6.2</b></p> <p><i>Development and site alteration shall not be permitted on lands containing archaeological resources or areas of</i></p>

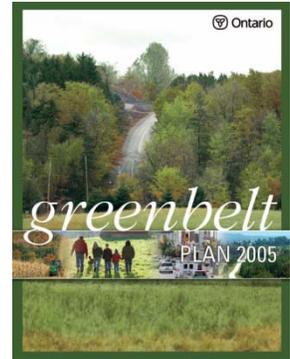
<p><i>archaeological potential unless significant archaeological resources have been conserved.</i></p>
<p><b>Section 2.6.3</b></p> <p>Planning authorities shall not permit <i>development</i> and <i>site alteration</i> on <i>adjacent lands</i> to <i>protected heritage property</i> except where the proposed <i>development</i> and <i>site alteration</i> has been evaluated and it has been demonstrated that the <i>heritage attributes</i> of the <i>protected heritage property</i> will be <i>conserved</i>.</p>
<p><b>Section 4.4</b></p> <p>This Provincial Policy Statement shall be read in its entirety and all relevant policies are to be applied to each situation.</p>
<p><b>Section 4.7</b></p> <p><i>The official plan is the most important vehicle for implementation of this Provincial Policy Statement. Comprehensive, integrated and long-term planning is best achieved through official plans.</i></p> <p><i>Official plans shall identify provincial interests and set out appropriate land use designations and policies. To determine the significance of some natural heritage features and other resources, evaluation may be required.</i></p> <p><i>Official plans should also coordinate cross-boundary matters to complement the actions of other planning authorities and promote mutually beneficial solutions. Official plans shall provide clear, reasonable and attainable policies to protect provincial interests and direct development to suitable areas.</i></p> <p><i>In order to protect provincial interests, planning authorities shall keep their official plans up-to-date with this Provincial Policy Statement. The policies of this Provincial Policy Statement continue to apply after adoption and approval of an official plan.</i></p>
<p><b>Section 4.9</b></p> <p><i>The policies of this Provincial Policy Statement represent minimum standards. This Provincial Policy Statement does not prevent planning authorities and decision-makers from going beyond the minimum standards established in specific policies, unless doing so would conflict with any policy of this Provincial Policy Statement.</i></p>
<p><b>Section 4.10</b></p> <p>A wide range of legislation, regulations, policies, and plans may apply to decisions with respect to <i>Planning Act</i> applications. In some cases, a <i>Planning Act</i> proposal may also require approval under other legislation or regulation, and policies and plans issued under other legislation may also apply.</p>
<p><b>Section 4.12</b></p> <p><i>Provincial plans shall be read in conjunction with this Provincial Policy Statement and take precedence over policies in this Provincial Policy Statement to the extent of any conflict. Examples of these are plans created under the Niagara Escarpment Planning and Development Act, the Ontario Planning and Development Act, 1994, the Oak Ridges Moraine Conservation Act, 2001, the Greenbelt Act, 2005 and the Places to Growth Act, 2005.</i></p>

The number of policies in the Provincial Policy Statement that need to be considered is significant. To assist the user of this Manual with their interpretation, **Appendix A** contains a comprehensive list of these policies and provides assistance on what they mean and how they should be considered in the context of reviewing an application.

It is noted that Section 4.12 of the Provincial Policy Statement indicates that Provincial Plans shall take precedence over policies in the Provincial Policy Statement to the extent of any conflict. Provincial Plans that apply to Halton Region are the Growth Plan, the Greenbelt Plan and the Niagara Escarpment Plan. This edition of the Aggregate Resources Reference Manual does not include a detailed description of all of the policies of the Niagara Escarpment Plan (NEP) and regard should be had to the NEP when evaluating proposals.

## The Greenbelt Plan

In addition to the Provincial Policy Statement, the Ministry of Municipal Affairs and Housing was responsible for the preparation of the Greenbelt Plan. The area subject to the Greenbelt Act, 2005 includes the areas covered by the Oak Ridges Moraine Conservation Plan (ORMCP) and the Niagara Escarpment Plan (NEP) and adjacent lands. Section 2.2 of the Greenbelt Plan indicates that the requirements of the Niagara Escarpment Plan continue to apply to lands subject to the Greenbelt Plan. Highlights of the Greenbelt Act, 2005 are below:



- Land use decisions and public works must conform to the Greenbelt Plan (Sections 7 (1), 7 (3) and 7 (4)).
- In the event of conflicts between the Greenbelt Plan and the Provincial Policy Statement (PPS), Official Plans or Zoning By-laws, the Greenbelt Plan shall prevail (Section 8 (1)).
- The ORMCP and the NEP prevail in their area of application in the event of a conflict with the Greenbelt Plan (Section 8 (2)).
- Official Plans must be updated to conform to the Greenbelt Plan by a) no later than the five-year review set out in Section 26 (1) of The Planning Act, if the Minister does not direct the council to make the amendments on or before a specified date or b) no later than the date specified by the Minister, if the Minister directs the council to make the amendments on or before the specified date (Section 9 (1)).
- Provisions in Official Plans with respect to certain specified matters (agriculture and aggregate extraction) that are more restrictive or exceed the requirements of the Greenbelt Plan do not conform to the Greenbelt Plan (Section 9(2)).
- In conjunction with the reviews of the NEP and the ORMCP, ten year reviews of the Greenbelt Plan are required (Section 10).
- Only the Minister of Municipal Affairs may initiate amendments to the lands designated Protected Countryside in the Greenbelt Plan (Section 11(1)).

All of the lands subject to the Greenbelt Plan are within the Protected Countryside as set out by the policies of the Greenbelt Plan. Within the Protected Countryside is the Natural System, which is comprised of a Natural Heritage System and a Water Resource System that often coincide given the ecological linkages between terrestrial and water based functions. The Natural Heritage System includes areas with the highest concentration of the most sensitive and/or significant natural features and functions. The Water Resource System is made up of ground and surface water features and their associated functions. In addition to primary recharge areas, headwater and discharge areas associated with lands subject to the Oak Ridges Moraine Conservation Plan (ORMCP) and the NEP, the Water Resource System includes the upper reaches of watersheds to the west of the Niagara Escarpment, lands around the primary discharge zones along the toe of the Escarpment and the base of the Oak Ridges Moraine and the major river valleys between the Moraine/Escarpment and Lake Ontario.

The following is a description of some of the aggregate – related policies in the Greenbelt Plan that have implications on the consideration of applications in Halton Region.

Selected Greenbelt Plan Policies
<p><b>Section 1.2.2.5(b)</b>            One of the goals of the Greenbelt Plan is to recognize the <i>“benefits of protecting renewable and non-renewable natural resources within the Greenbelt”</i>.</p>
<p><b>Section 1.2.2.5(c)</b>            One of the other goals of the Greenbelt Plan is to provide for the <i>“availability and sustainable use of those resources critical to the Region’s social, environment, economic and growth needs.”</i></p>
<p><b>Section 4.3.2.1</b>  <i>Activities related to the use of non-renewable resources are permitted in the Protected Countryside, subject to all other applicable legislation, regulations and municipal official plan policies and by-laws. The availability of mineral aggregate resources for long-term use will be determined in accordance with the PPS, except as provided below.</i></p>
<p><b>Section 4.3.2.2</b>  <i>Non-renewable resources are those non-agriculture based natural resources that have a finite supply, including mineral aggregate resources. Aggregates, in particular, provide significant building materials for our communities and infrastructure, and the availability of aggregates close to market is important both for economic and environmental reasons.</i></p>

There are a number of very specific policies in the Greenbelt Plan that describe where resource operations may be permitted within the Natural Heritage System and on rehabilitation. Specifically, these policies do not permit new operations in Provincially Significant Wetlands, significant habitat of endangered species and threatened species and significant woodlands, unless the woodland is occupied by young plantation or early successional habitat. New operations are permitted in other key natural heritage features and key hydrologic features subject to meeting a number of tests.

Other policies indicate that the expansion of an existing mineral aggregate operation may be permitted in the natural heritage system, including certain key natural heritage features (including significant woodlands) and key hydrologic features and in any associated vegetation protection zone *“only if the related decision is consistent with the PPS”*. There are a number of policies on rehabilitation that establish a maximum allowable disturbed area. The number of policies in the Greenbelt Plan that need to be considered is significant. To assist the user of this Manual with their interpretation, **Appendix A** contains a comprehensive list of these policies and provides assistance on what they mean and how they should be considered in the context of reviewing an application.

**The Growth Plan**

The *Places to Grow Act 2005*, permits the Provincial government to develop and implement high-order plans for land use and growth in Ontario.

The first Growth Plan to be approved by the Province is the Growth Plan for the Greater Golden Horseshoe. This Plan is designed to work in concert with the Greenbelt Plan, Niagara Escarpment Plan and the Oak Ridges Moraine Conservation Plan. The Growth Plan is also intended to complement the Provincial Policy Statement (PPS), which provides general guidance on land use matters for which the Province has an interest. The Growth Plan assigns population projections to individual municipalities and establishes requirements for where and how the growth will occur. As a Provincial policy plan, the Growth Plan is to be implemented by Official Plans within three years.

The premise of the Growth Plan is that the Greater Golden Horseshoe must plan for a certain amount of growth, as articulated by Provincial population projections, while protecting those lands that are deemed to be valuable for environmental or agricultural uses. According to the Growth Plan, municipalities are required

to ensure that an adequate supply of land is available for development in appropriate locations. In order to meet population and employment target requirements, a significant amount of construction is expected to occur. This additional construction will translate into a sustained need for aggregates. It is on this basis that the Growth Plan requires that 'significant' resource areas in the Greater Golden Horseshoe be identified and also protected.

Below are some of the policies in the Growth Plan that may have implications on the consideration of applications to establish a resource use:

Selected Growth Plan Policies
<p><b>Section 1.4</b></p> <p><i>As provided in the Places to Grow Act, 2005, this Plan prevails where there is a conflict between this Plan and the PPS. The only exception is where the conflict is between policies relating to the natural environment or human health. In that case, the direction that provides more protection to the natural environment or human health prevails. Similarly where there is a conflict between the Greenbelt, Niagara Escarpment or Oak Ridges Moraine Conservation Plans and this Plan regarding the natural environment or human health, then the direction that provides more protection to the natural environment or human health prevails.</i></p>
<p><b>Section 4.1</b></p> <p><i>A balanced approach to the wise use and management of all resources, including natural heritage, agriculture, and mineral aggregates, will be implemented.</i></p>
<p><b>Section 4.2.3</b></p> <p><i>Through sub-area assessment, the Ministers of Public Infrastructure Renewal and Natural Resources will work with municipalities, producers of mineral aggregate resources, and other stakeholders to identify significant mineral aggregate resources for the GGH (Greater Golden Horseshoe), and to develop a long-term strategy for ensuring the wise use, conservation, availability and management of mineral aggregate resources in the GGH, as well as identifying opportunities for resource recovery and for co-coordinated approaches to rehabilitation where feasible.</i></p>
<p><b>Section 5.3</b></p> <p><i>The Minister of Public Infrastructure Renewal will work with other Ministers of the Crown, municipalities and other stakeholders on the following key pieces of further analysis, in order to implement this plan:</i></p> <ul style="list-style-type: none"> <li>4. <i>Sub-area assessments at a regional scale, focusing on:</i> <ul style="list-style-type: none"> <li>f) <i>identification of significant aggregate resources.</i></li> </ul> </li> </ul>

It is noted that the 'sub-area assessment' described above has not been undertaken by the Province.

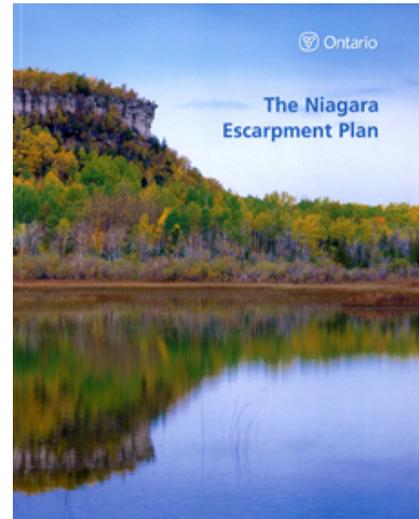
### **The Niagara Escarpment Plan**

The Niagara Escarpment Commission (NEC) is responsible for the management and protection of the Niagara Escarpment lands that stretch from Niagara Falls through to central Ontario. The NEC has the task of protecting the escarpment and its environmental features. While the escarpment exhibits unique and significant environmental characteristics, the Niagara Escarpment is primarily comprised of limestone and is therefore an aggregate resource area. Based on the requirements of the Niagara Escarpment Planning and Development Act, the NEC implements the policies of the Niagara Escarpment Plan and processes applications for Plan amendments and Development Permits. The NEC is an approval authority for those Plan amendment and Development Permit applications. The NEC also provides comments on licence applications and Regional and local Official Plan Amendments.

The purpose of the Niagara Escarpment Plan (NEP) 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."*

As a Provincial land use plan, the NEP guides land use planning decisions within the NEP area and takes precedence over the Provincial Policy Statement and the Greenbelt Plan to the extent of any conflict. The objectives of the Niagara Escarpment Plan are to:

- a) protect unique ecological and historic areas;
- b) maintain and enhance the quality and character of natural streams and water supplies;
- c) provide adequate opportunities for outdoor recreation;
- d) 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;
- e) ensuring that all new development is compatible with the purpose of the Act as expressed in Section 2;
- f) provide adequate public access to the Niagara Escarpment; and,
- g) support municipalities within the Niagara Escarpment planning area in their exercise of planning functions conferred upon them by the Planning Act.



Municipal Official Plan policy must conform with the NEP and no development approvals can be given, including an aggregate license until the NEC has issued a Development Permit.

### **The Ministry of Natural Resources**

The Ministry of Natural Resources (MNR) is responsible for the management of aggregate resources in the Province. MNR's planning mandate is to protect mineral aggregate resources and ensure the continued availability of these resources as close to markets as possible. It is noted that one of the other many roles of the MNR is to study and protect natural heritage features and areas. In this regard, the MNR has prepared the '*Natural Heritage Reference Manual (2010)*' that needs to be considered by proponents and approval authorities.

The MNR is also responsible for the issuing of licenses to extract aggregate in the Province. Aggregate licenses are issued under the jurisdiction of the Aggregate Resources Act (ARA). In considering whether a license is to be issued, Section 12(1) of the ARA states that the MNR shall have regard to:

- The effect of the pit on the environment;
- The effect of the operation on nearby communities;
- Any comments provided by the municipality in which the site is located;
- The suitability of the progressive and final rehabilitation plans for the site;
- Any possible effects on ground and surface water resources;
- Any possible effects on agricultural resources;
- Any planning and land use considerations;
- The main haulage routes and proposed truck traffic to and from the site;
- The quality and quantity of aggregate on-site;
- The applicant's history of compliance with the ARA; and,
- Other matters as considered appropriate.

The Ministry of Natural Resources has the jurisdiction to administer and enforce the requirements of the Endangered Species Act, 2007. The purpose of the Endangered Species Act, 2007 is to identify species at risk

based on the best available scientific information, including information obtained from community knowledge and aboriginal traditional knowledge; to protect species that are at risk and their habitats, and to promote the recovery of species that are at risk; to promote stewardship activities to assist in the protection and recovery of species that are at risk. Studies submitted in support of an application for aggregate resource extraction are required to review the site for the presence of Endangered or Threatened Species or the habitat of Endangered or Threatened Species. Where species of special concern have been identified, a management plan shall be prepared in accordance with Section 12 of the Endangered Species Act, 2007.

### **Role of the Ministry of the Environment and other Ministries**

The Ministry of the Environment (MOE) participates in the review of aggregate proposals by:

- Reviewing hydrogeological reports and providing comments to the MNR in accordance with their protocol and only with respect to licence applications;
- Issuing Permits to Take Water (after the land use is approved) and temporary permits for water taking, if required; and,
- Issuing Certificates of Approval for stationary noise and dust pollution as conditions of ARA licenses (only after the land use is approved).

In addition to the above, the MOE also issues Certificates of Approval for discharge of water from a quarry.

Other Ministries may also become involved in the process depending on the circumstance. For example, the Ministry of Agriculture, Food & Rural Affairs may be asked by either the MNR or the Ministry of Municipal Affairs and Housing to comment on the impacts of a proposal on agriculture and the proposed rehabilitation plan, if it does involve agriculture. The Ministry of Culture may also be asked to review reports that assess the potential for archaeological resources on an affected property. The Ministry of Transportation may also become involved, if the affected property is to be accessed by a Provincial Highway or is located in close proximity to a Provincial Highway.

### **Role of Conservation Authorities**

Conservation Authorities are provided jurisdiction under the Conservation Authorities Act to manage natural resources on a watershed basis. Further, the Conservation Authorities also act as a commenting agency on development applications such as aggregate applications with respect to their mandate and the following agreements with MMAH, Halton Region and the Federal Department of Fisheries:

- a) Under a “Memorandum of Understanding on Procedures to Address Conservation Authority Delegated Responsibility” between the Ministry of Municipal Affairs and Housing, the Ministry of Natural Resources and Conservation Ontario, Conservation Authorities are responsible for the review of planning applications with respect to the Natural Hazards Policies of the Provincial Policy Statement (1997). These policies address the issues of public health and safety related to development in or adjacent to hazardous lands impacted by flooding and/or erosion hazards.
- b) Conservation Authorities have also entered into a Memorandum of Understanding with Halton Region and area municipalities, entitled “An Integrated Halton Area Planning System”. This agreement sets out the Conservation Authorities’ role in providing the provincial plan review function with respect to the Natural Heritage policies of the Provincial Policy Statement and the implications of these policies with respect to planning applications. This agreement also sets out the Conservation Authorities’ role in providing a peer review function with respect the Region’s environmental and resource management responsibilities.
- c) Conservation Authorities, through an agreement with Department of Fisheries and Oceans, are also responsible for reviewing development proposals to ensure that they will not result in a harmful

alteration, disruption or destruction of fish habitat as per the Fisheries Act. Subsection 35(1) of the *Fisheries Act* states that: "No person shall carry on any work or undertaking that results in the harmful alteration, disruption or destruction of fish habitat." However, subsection 35(2) qualifies this prohibition, in that it allows for the authorization by the Minister of Fisheries and Oceans, or through regulation, of the alteration, disruption or destruction of fish habitat. Operationally, decisions on whether subsection 35(2) authorizations are issued are made by regional Habitat staff within the Department of Fisheries and Oceans (DFO).

Ontario Regulation 97/04 implements the Conservation Authorities Act and permits Conservation Authorities to pass regulations that prohibit development on hazardous lands, wetlands, areas adjacent to or close to the shoreline of the Great Lakes – St. Lawrence River System and inland lakes within river or stream valleys, and the lands within 15 metres of the stable top of bank. In addition, Regulation 97/04 allows Conservation Authorities to regulate other lands as deemed appropriate by the Authority. The Regulation further indicates that the authority "may grant permission for straightening, changing, diverting or interfering with the existing channel of a river, creek, stream or water course, or for changing or interfering with a wetland."

In 2006, the Province enacted a number of regulations that were specific to each Conservation Authority. For example, Ontario Regulation 162/06 applies to lands that are within the Halton Region Conservation Authority. Ontario Regulation 162/06 allows the Conservation Authority to control development in wetlands and other areas where development could interfere with the hydrologic function of a wetland.

Based on the regulatory authority provided by the Conservation Authorities Act, Conservation Authorities have the ability to require permits for any works in areas within their jurisdiction including works proposed through the development of aggregate resource operations. However, permits are not required from the Conservation Authority for any works on lands that are the subject of a licence under the ARA. In other words, the provisions of the approved Site Plan and licence for the property issued by the MNR take precedence over the Regulations of the Conservation Authority. However, the Conservation Authority does have a significant role to play in the approval process itself and in the provision of comments to the approval authorities. Any works proposed in the context of the Planning Act application for a proposed resource use that are not on the lands proposed to be licensed will require a permit from the Conservation Authority, if the proposed work does require such a permit in the first place.

### **Role of Halton Region**

With respect to aggregate resources, the Region is responsible for the identification and protection of aggregate resources and aggregate extraction through the Regional Official Plan. The Regional Official Plan identifies locations of existing extraction operations and locations where aggregate resources exist according to information provided by the Ministry of Northern Development and Mines. The Regional Official Plan is intended to be the primary vehicle for the implementation of the PPS and is required to be consistent with the PPS and conform with other Provincial Plans. The policies of the PPS and Provincial Plans continue to apply after adoption and approval of a municipal Official Plan. Proponents will be required to demonstrate that their applications not only conform with Regional and local official plans, but are also consistent with the PPS and conform with Provincial Plans.

The Region is responsible for the land use planning component of the aggregate approvals process and administering applications made under the Planning Act. The Region reviews Planning Act applications on the basis of the impact on surrounding land uses and the compatibility of the proposed development with existing and future land uses. As part of their role, the Region considers issues related to the environment, transportation infrastructure, cultural heritage, surface and groundwater resources, noise, dust, vibration and impacts on human health. The Region is responsible for administering the Planning Act process in

cooperation with Local Municipalities and ensuring that Regional infrastructure such as roads are sufficient to support the demands and requirements of aggregate operations.

### **Role of Local Municipalities**

Local Municipalities function in a similar capacity to the Region and are responsible for the preparation of local official plans and zoning by-laws and for administering Planning Act applications to amend these documents. In this regard, the Local Municipality is responsible for any planning process involving their Official Plans and Zoning By-laws.

Local Municipalities are responsible for the management of local infrastructure such as local roads and ensuring the planning approvals required are in conformity with local planning documents. The Region and Local Municipalities generally work together to review applications.

### **Role of the Joint Agency Review Team (JART)**

The concept of a JART was first established through the adoption and approval by Halton Regional Council of the "Halton Consolidated – Streamlined Mineral Aggregate Review Protocol", on January 31, 2001. Updates to the Protocol were documented through Halton Region Report Nos. PPW135-04 (dated September 29, 2004) and PPW53-07 (dated March 7, 2007).

The purpose of the Protocol is to:

- Facilitate the sharing of information and expertise among review agencies (i.e. local municipalities, conservation authorities, Niagara Escarpment Commission, Provincial Ministries etc.);
- To work with the applicant to understand the technical submissions and obtain more information where necessary;
- Engage and inform the public more effectively; and,
- Improve decision-making and efficiency associated with the processing of aggregate applications.

The Protocol includes the establishment of a JART to ensure coordination among the many agencies that are involved in reviewing aggregate applications. The JART may be chaired by the Region or another agency. The function of JART is to review, analyze and comment on the completeness of the submissions and JART members share their expertise to undertake a technical evaluation of the applicant's applications. JART does not make a recommendation on whether or not the applications should be approved, but rather informs the agencies with decision-making authority on technical considerations. Once the collective work is complete, each JART member agency reviews the merits of the application on an independent basis, and in turn will consider JART's comments along with agency-specific considerations and public comments prior to making their decisions or taking a position. Each agency in turn makes a recommendation according to the specific mandates, regulations or applicable legislation.

The MNR participates as a member of JART to provide advice regarding wetland classification and the habitat of species at risk and the mapping of same as well as input regarding adaptive management plans. Through their protocol with the Ministry of the Environment, MNR will also obtain input regarding water resources impacts of proposed quarries as it relates to the licence application.

## 2.0 Regional Aggregate Application Process

An Official Plan is not a static document. Amendments to an Official Plan are sometimes required, provided that the Amendment conforms to the general intent, goals and objectives of the Plan. In some cases, the Plan requires that an Amendment be obtained to provide for the development of a specific use (such as for an aggregate resource operation).

In order to ensure that Council can make an informed decision on any of the above applications and in order to ensure that the public understands the implications of the application, technical studies are required. Any Amendment to the Official Plan also has to be consistent with the Provincial Policy Statement and conform with the Greenbelt Plan and the Niagara Escarpment Plan. In the end, the Region when considering an application has to be satisfied that all relevant policies have been considered and that the application, if approved, would represent good planning. It is noted that any decision of Regional Council can be appealed to the Ontario Municipal Board.

### 2.1 The Application Review Process

The Planning Act, as amended by Bill 51 on January 1, 2007, permits municipalities to set out what their requirements are in the form of technical studies and plans to support an application to amend the Official Plan or the Zoning By-law, and approve a Plan of Subdivision or Consent. Once this required information has been submitted, the application is then deemed to be “complete” in accordance with the Planning Act, with this date being the date on which the processing time frame in the Planning Act begins. In addition, applicants cannot appeal a failure to make a decision on their application once the application is complete until the processing time frames set out in the Planning Act have elapsed.

Section 187(10) of the Region of Halton Official Plan (as amended by ROPA 38) deals with complete applications. Within this section is a list of reports that may be required to support an application. The list is extensive and is intended to provide applicants with an overview of the issues and items that need to be dealt with in the context of an application. The section indicates that *“the scale and scope of any required report is dependent on the scale and scope of the proposal, its relationship to adjacent land uses, and the type of planning approval required, and shall be determined by the Region as part of the pre-consultation process.”* The section goes on to indicate that *“the Chief Planning Official shall be responsible for deeming a Regional Official Plan Amendment complete or incomplete.”*

#### Pre-Consultation

A key component in the planning process is pre-consultation. It is the intent of any pre-consultation with the Region to determine what is proposed and establish what issues need to be resolved or addressed in the context of reviewing the application. In some municipalities, the product of a pre-consultation meeting is a letter from the approval authority identifying what information is required to support the applications.

Within Halton Region, local municipalities are also involved in the pre-consultation process. The purpose for including local municipalities within the pre-consultation process is to ensure that all information to be included within the technical studies from Halton Region and the local municipal perspective is identified prior to the initiation of the supporting studies. Through the pre-consultation process there should be a general consensus on the methodology through which each supporting study is developed and the criteria by which each study will be evaluated. Pre-consultation is also part of the JART process and will involve consultation with MNR and conservation authorities with respect to the terms of reference for the technical studies and the hiring of peer reviewers.

## **Submission of Complete Application**

Ensuring that an application is as well thought out as possible and therefore complete for processing purposes is a key component in the planning process. In that regard, Section 22(4) of the Planning Act requires that any person that requests an Amendment to the Official Plan shall provide the prescribed information and material to the Council for consideration. The prescribed information and material is contained within an Ontario Regulation. With respect to additional information, the Planning Act allows for such additional information to be obtained provided the Official Plan contains provisions relating to these requirements. In the case of Halton Region, these requirements are set out in Section 187(10) of the Official Plan.

## **Notice of Complete Application**

Once an application for an Official Plan Amendment has been submitted, the Planning Act requires that the Council notify the applicant whether the application is or is not complete. If the Region decides that the application is not complete, the applicant can then appeal this determination to the Ontario Municipal Board and then the Ontario Municipal Board will determine whether the information or material have in fact been provided or whether a requirement for information made under the Planning Act is indeed reasonable.

If the Council does not provide notice regarding the completeness of the application, the applicant can also appeal that lack of notice to the Ontario Municipal Board. If the Ontario Municipal Board does in fact hold a hearing on the completeness of an application, its determination at the conclusion of that hearing is final.

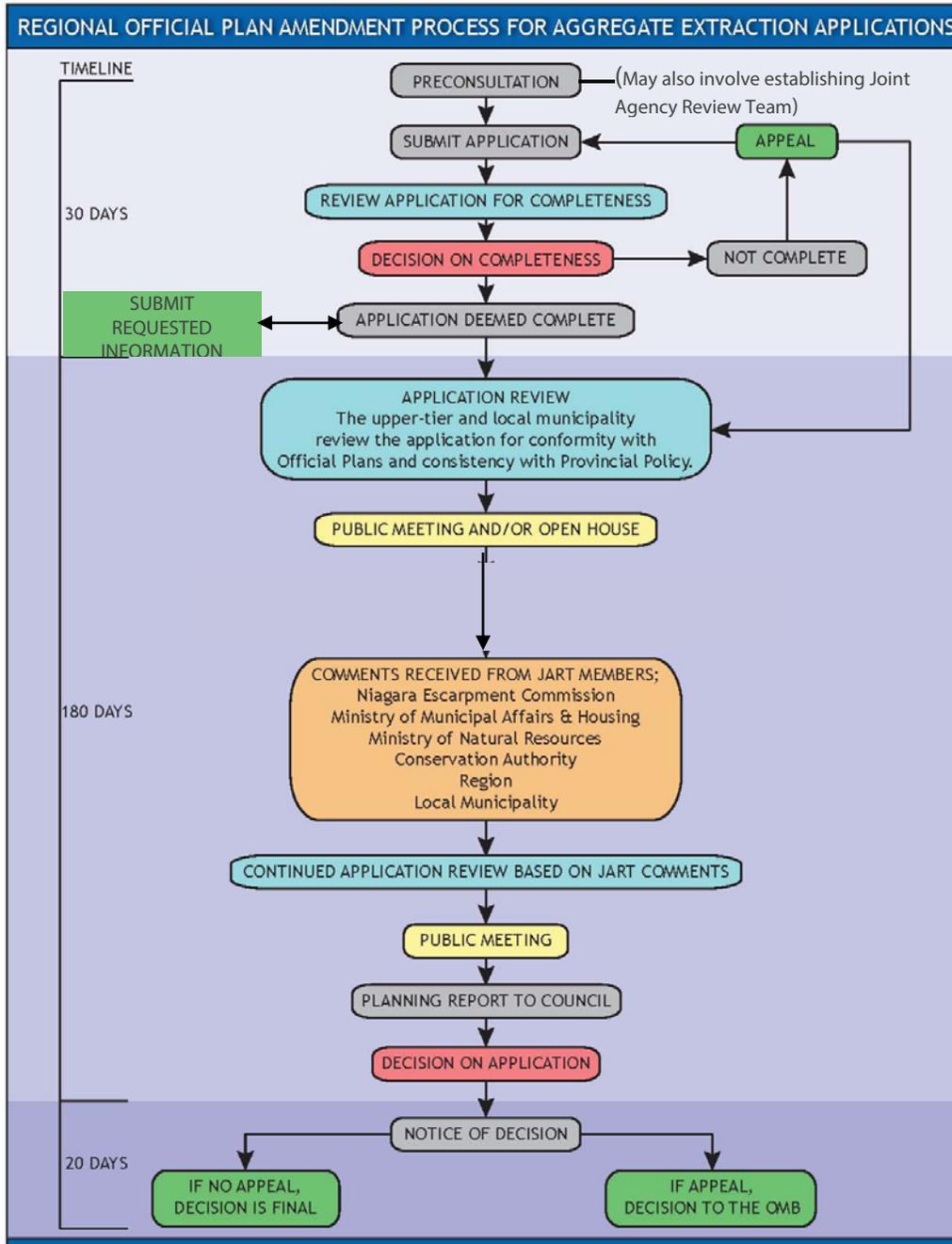
It is important to note that deeming an application to be complete cannot be equated with a determination of whether the application conforms to the Official Plan or any other policy document or whether the supporting studies are adequate. Instead, the intent of the process established in the Planning Act is to ensure that the materials necessary to consider and otherwise review an application are provided.

With respect to the completeness of any particular study, the applicant is responsible for determining to some extent what the scope of any required study will be in conjunction with the approval authority.

## **Application Review**

Once the application is deemed to be complete, the application is then processed and circulated to appropriate agencies for comment. In the case of applications to establish a mineral aggregate use, a Joint Agency Review Team is established as discussed in Section 1.3.4. Given the complexity of many types of Planning Act applications, there may be multiple steps involved in the processing of an application. Chart 1 describes what these steps are in accordance with the Planning Act.

**Chart 1 – Processing of a Planning Act Aggregate Resource Application**



NOTE: Timelines on the above chart are Planning Act timelines and are not the actual times of the application review process. In addition, it is noted that if an application is deemed to be incomplete, the application may be re-submitted.

**Decision on Application**

Following the JART process and a review of the application, an information report is prepared for the statutory public meeting that is held by the Region of Halton. Once the views of the public have been obtained as well as comments from all relevant agencies, a recommendation Staff Report is prepared and then provided to Council for their consideration. After the Council adoption or refusal of a Planning Act application, the decision of Council either comes into effect or may be appealed to the Ontario Municipal Board. If appealed

to the Ontario Municipal Board, they then have the responsibility for making the final decision. Recent changes to the Planning Act now require the OMB, on its own initiative, or on a motion by any party, to consider whether any new information and materials that were not provided to Council before the Council decision was made (if one was made) should be provided to Council for their consideration. The effect of this provision is to ensure that Council has before it all relevant information to make an informed decision. One of the primary intents of this Manual is to ensure that this is indeed the case.

In the event that the proposed pit or quarry involves an amendment to the Niagara Escarpment Plan, any appeals will become the subject of a Joint Board under the Consolidated Hearings Act. The panel will include members from the Ontario Municipal Board and the Environmental Review Tribunal.

## **2.2 The Region's Role in making a Decision on an Application**

The review of a pit or quarry application by the Region is a complex undertaking given the number of potential social and environmental impacts that need to be considered.

### **The Issue of Onus**

In all cases, the onus is always on the proponent to provide the Region (the approval authority) with sufficient information to assess an application. In addition, the onus is also on the proponent to demonstrate to the Region that, based on the information provided, the application is consistent with the Provincial Policy Statement, conforms to the Greenbelt Plan and Niagara Escarpment Plan (if applicable), the Regional and local Official Plans, is considered to be good planning and, overall, is in the public interest to approve. It is also the role of the proponent to ensure that any application is complete as per the Planning Act and its requirements. Given that any ARA or Planning Act application has the potential to be disposed of by the Ontario Municipal Board, it is now common practice to require experts giving evidence at an Ontario Municipal Board hearing to sign an "Acknowledgement of Experts Duty" form that is based on Form 53 pursuant to the Courts of Justices Act. This form requires an expert to indicate the following:

"I acknowledge that it is my duty to provide evidence in relation to this proceeding as follows:

- a) To provide opinion evidence that is fair, objective and non-partisan;
- b) To provide opinion evidence that is related only to matters that are within my area of expertise; and
- c) To provide such additional assistance as the court may reasonably require, to determine a matter in issue.

I acknowledge that the duty referred to above prevails over any obligation which I may owe to any party by whom or on whose behalf I am engaged."

Any expert employed by the Region (staff or consultant) that has the responsibility of reviewing an application should consider these rules as well as the Code of Practice that applies to their profession in Ontario when providing professional advice to Regional Council.

It is the role of the land use planner employed or retained by the Region to make a recommendation to Regional Council to:

1. Assess the findings of any expert to determine whether the conclusions and recommendations are clear, appropriate and implementable;
2. Ensure that the information collected is sufficient to be able to make an informed recommendation to Council;

3. Ensure that Council is aware of the policy framework under which a decision has to be made;
4. Ensure that public comments have been obtained in accordance with the Planning Act and made available to Council for their consideration;
5. Indicate whether it has been demonstrated by the proponent and through the review of the application that the proposal is consistent with Provincial Policy and in conformity with Provincial Plans as required;
6. Indicate whether the Planning Act applications proposed are appropriate and represent good planning; and,
7. If recommending approval, indicate what conditions of approval are required to ensure that the assumptions relied upon to demonstrate that the proposal is consistent with and conforms to Provincial policy are addressed and implemented as required.

### Key Considerations

The role of the land use planner employed by the Region or a consultant retained by the Region in this context is to provide recommendations to Council on applications made pursuant to the Planning Act.

Section 2 of the Planning Act outlines matters of Provincial interest. Halton Region, in carrying out their planning function, has the responsibility of balancing these interests and, in the case of conflicts among them, to determine what is in the best or greater public interest. Some of these Provincial interests include:

- (a) *the protection of ecological systems, including natural areas, features and functions;*
- (b) *the protection of the agricultural resources of the Province;*
- (c) *the conservation and management of natural resources and the mineral resource base;*
- (h) *the orderly development of safe and healthy communities;*
- (l) *the protection of the financial and economic well being of the Province and its municipalities;*
- (m) *the co-ordination of planning activities of public bodies;*
- (n) *the resolution of planning conflicts involving public and private interests;*
- (p) *the appropriate location of growth and development.*

The overall context for considering the above Provincial interests is established in the first two paragraphs of the Part 1 Preamble to the Provincial Policy Statement, as set out below:

*"The Provincial Policy Statement provides policy direction on matters of provincial interest related to land use planning and development. As a key part of Ontario's policy-led planning system, the Provincial Policy Statement sets the policy foundation for regulating the development and use of land. It also supports the provincial goal to enhance the quality of life for all Ontarians.*

*The Provincial Policy Statement provides for appropriate development while protecting resources of provincial interest, public health and safety, and the quality of the natural and built environment. The Provincial Policy Statement supports improved land use planning and management, which contributes to a more effective and efficient land use planning system."*

There are two Provincial Policy Statement policies in particular that should be the focus of any planning report prepared for Council on an application, since they require decision makers to consider how the Provincial interest in the "conservation and management of natural resources and the mineral resource base (Sec. 2 of the Planning Act)" will be balanced against other Provincial interests that relate to the protection of ecological systems, the orderly development of safe and healthy communities and the appropriate location of growth and development, among others. These two policies are Sections 2.5.2.1 and 2.5.2.2, both of which are reproduced below:

### **Section 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.*

### **Section 2.5.2.2**

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

Section 2.5.2.1 recognizes that mineral aggregate resources are an integral component of the economy and that the transportation of this resource to market is cost sensitive. There is no definition of “realistically possible” in the Provincial Policy Statement. The use of word 'shall' in the context of this policy makes it clear that planning authorities must take this direction into account when making planning decisions. The second component of the policy makes it clear that the demonstration of need for mineral aggregate resources is not a factor in the development of resource strategies or in the consideration of individual applications, regardless of the municipality or location. The intent of this policy is to require that any application be considered on its land use merits only.

Section 2.5.2.2 acts as the 'control' over where new resource uses are to be located and is intended to ensure that Policy 2.5.2.1 is balanced against the expressed desire to minimize impacts. In this regard, Section 2.5.2.2 provides the policy basis for the establishment of potential resource areas and to assess applications to establish resource uses. It is noted that the word 'shall' is also used in this section. This section also uses the word “minimize” with no definition of “minimize” provided. As a result, the determination of whether extraction minimizes social, economic and environmental impacts is the most important consideration in making a decision on an application to establish a new resource use. It is also noted that the use of the word ‘minimize’ assumes and recognizes that some impacts may occur.

There are a number of policies within the Provincial Policy Statement that are directly or indirectly supportive of the mineral aggregate industry and the extraction of mineral aggregate resources, recognizing the important role that it plays in our economy and in the availability and efficient delivery of needed services and infrastructure. However, there are other policies focused on the necessary protection of the natural environment that prohibit development and site alteration activities and related impacts associated with extraction to occur within, adjacent or proximate to significant, rare or sensitive natural heritage features or other types of sensitive land uses.

In order to balance these policies which might otherwise totally prohibit extraction, there are other more flexible policies that permit the activities to occur within certain features or areas adjacent to them, provided that it can be demonstrated that there would be no negative impact and that the activity be carried out in a manner that would either prevent adverse impacts, minimize risk or impact or maintain, restore or improve the feature or its function.

There are a number of competing views on which of the policies in the Provincial Policy Statement are to be given more weight when dealing with an application to establish a resource use. For example, Section 2.1.4 indicates that development and site alteration shall not be permitted in certain natural heritage features. Section 2.2.2 indicates that 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.*" The use of the word 'restore' in this section does modify the use of the words 'shall be restricted'. Section 2.5.2.1 of the Provincial Policy Statement then indicates that, as much of the mineral aggregate resources as is realistically possible shall be made available as close to markets as possible. It is then noted that Section 4.4 of the Provincial Policy Statement indicates that the Provincial Policy Statement shall be read in its entirety and all relevant policies are to be applied to each situation. The use of the word 'shall' in each of these policies indicates that the policy is 'mandatory'.

Appendix A to this Manual contains a detailed listing of those Provincial policies that, in the Region's experience, are most frequently engaged by aggregate extraction proposals. However, each aggregate extraction proposal is unique, and may engage other policies depending on site specific considerations and the nature of the proposal.

To assist applicants, the Region has provided a set of questions to help address the policies listed in Appendix A. The questions provided are not intended to be exhaustive, and other questions may arise depending on site specific considerations and the nature of the proposal. As noted previously, the PPS and Provincial Plans continue to apply even where an Official Plan is in effect. Further, these Provincial planning instruments are intended to be read and applied as whole. Proponents should directly review the PPS and any relevant Provincial Plans to ensure that their applications address the requirements of these instruments."

## 3.0 Application Submission Considerations

Every Planning Act application to establish an aggregate extraction operation is unique based on the method of extraction, means of proposed mitigation of impact and location of the proposed use and the characteristics of the site. As a result, each application is required to be supported by a unique set of studies with varying levels of complexity. The study requirements for aggregate operations and the complexity of study required are generally determined through the Regional pre-consultation process as outlined in this Manual.

The following identifies some of the factors that should be considered by proponents and Regional Staff when considering the studies necessary to support an aggregate resources application and the complexity of the required studies:

### Proposal Characteristics

- Type of extraction;
- Proximity to other existing/approved operations;
- Whether the proposal is an expansion to an existing operation or a new operation;
- Depth of extraction in relation to the water table;
- Nature of accessory uses proposed for the site;
- Nature of anticipated noise, vibration and dust impacts;
- Nature of potential cumulative impacts, taking into account the location and nature of nearby operations and/or approvals for resource extraction;
- Location of existing or potential haul routes;
- Duration of aggregate operation; and,
- Proposed method of rehabilitation and after use of property.

### Physical Site Characteristics

- Location in or adjacent to a natural heritage feature, significant natural heritage feature or key natural heritage feature or key hydrologic feature;
- Location in or adjacent to agricultural lands, prime agricultural lands, a prime agricultural area or a specialty crop area;
- Location in or adjacent to an area of known archeological resources or areas of archeological potential;
- Proximity to sensitive land uses, such as residences, schools, hospitals, camps and daycare facilities.
- Location in or adjacent to an area of known cultural heritage or significant cultural heritage resources; and,
- Proximity to surface water features and ground water-dependant features, hydrogeologically sensitive areas (in form and function), water supply areas (private and municipal wells) and Regional wellhead protection areas.

## 4.0 Supporting Study Requirements

Given the nature of the land use, applications to develop new mineral aggregate resource operations or expansions to existing operations are typically fairly complex, because of the many issues that need to be considered and resolved and also because of the number of disciplines that are necessary to prepare and review the application and studies and the number of discrete approvals required under many pieces of legislation. It is on this basis that there is a need for each of the supporting studies to be prepared in a consistent format. In addition, the methodology used in the supporting report should be transparent and in keeping with the practices of the applicable profession.

While the pre-consultation process is intended to determine what work is required to support an application, the actual methodology for carrying out the work and the criteria applied to various situations in the context of carrying out the work is typically the responsibility of the proponent. However, there is a need to discuss the methodology to be applied in advance, along with the criteria to be considered in the context of the report.

The objectives of each study also need to be addressed and agreed to upfront. While study parameters may change during the course of study, agreeing on the study objectives and methodology upfront is in everyone's interest.

This section identifies each of the supporting studies that may be required to be submitted with an application for resource extraction and describes what the purpose and objectives of each report should be. The actual items to be considered in each study would be determined at the outset in consultation with the Region and the relevant agencies.

In order to assist the reviewer, each supporting study should have the same format as set out below:

- Section A      Introduction**  
This section shall provide a (legal) description of the site and include an overview of the subject lands and adjacent land designations/uses, and identify the historic use of the lands as well.
- Section B      Development Proposal**  
This section shall clearly describe the proposed development and identify the expected duration and phasing of extraction and rehabilitation.
- Section C      Policy Summary**  
This section shall identify all policies in any Provincial, Regional or local planning document that deal with the subject matter of the report and which may have an impact on the consideration of the application. Appendix A to this Manual should be considered in this regard.
- Section D      Description of Features/Existing Conditions**  
This section shall include a detailed description and/or inventory of the features being studied, the areas that may be potentially impacted by the proposal and the nature of any land uses that may also be impacted.
- Section E      Potential Impacts**

This section shall review all potential impacts related to the area of study (subject lands and adjacent lands).

**Section F Mitigation and Monitoring**

This section shall review how identified potential impacts are to be mitigated and monitored throughout the lifespan of the development and post development. This section shall also indicate remedial measures that may be considered necessary, and who will absorb the cost of the mitigation measures and monitoring post extraction.

**Section G Conditions of Approval**

This section shall identify potential conditions of approval to implement the mitigation measures related to the area of and monitoring programs that are proposed. Recommended conditions of approval may relate to any applicable legislation.

**Section H Policy Analysis**

This section will review the development proposal for consistency and conformity with the policies identified in Section C.

It is recognized that for many of the studies required, there is already, or soon will be, a Terms of Reference established by the Region that would apply to all types of applications. On this basis, for each of the supporting studies identified below, only the study purpose and study objectives for each report have been identified to ensure that aggregate specific considerations are identified up front.

## **4.1 Agricultural Impact Assessment**

### **Purpose of the Study**

1. To demonstrate whether the proposed use will have a negative impact on agricultural uses in the area.
2. To demonstrate how the site (if required) will be rehabilitated back to agriculture.

### **Objectives of the Agricultural Impact Assessment**

1. To identify the net amount of prime agricultural land that will be lost if the application is approved.
2. To identify the impact of the proposal on the existing agricultural operations in the area including the impact of noise and blasting on livestock.
3. To determine the impact of the proposal on the ability of existing agricultural operations in the area to expand and/or otherwise meet the needs of the market in the future.
4. To identify the impacts of the proposal on the agricultural infrastructure in the area such as municipal drains and sources of water supply.
5. To identify the impact of the additional traffic resulting from the development on the use of rural roads in the area for farm equipment.
6. To determine (if required) how the proposed development can be phased to minimize impacts on adjacent agricultural uses.
7. To determine how the site (if required) is to be rehabilitated to agricultural use.
8. To review options for mitigation and monitoring, if required.

## **4.2 Archaeological Study**

### **Purpose of the Study**

1. To determine how any identified significant archaeological resources are to be conserved, if the development is approved.
2. To document how consultation with First Nations has been undertaken.

### **Objectives of the Archaeological Study**

1. To identify all archaeological resources and areas of archaeological potential that has the potential to be impacted.
2. To develop a strategy to protect and conserve archaeological resources.
3. To review options for mitigation and monitoring, if required.

## **4.3 Cultural Heritage Study**

### **Purpose of the Study**

1. Identify the cultural heritage resources on the site and in the surrounding areas including along any proposed haul route.
2. To determine how any significant built heritage resources and significant cultural heritage landscapes will be conserved.

### **Objectives of the Cultural Heritage Study**

1. To identify and document significant built heritage resources and significant cultural heritage landscapes on the site and along the proposed haul route(s).
2. To make recommendations on how to conserve significant built heritage resources and significant cultural heritage landscapes.
3. To identify how sensitive significant built heritage resources and significant cultural heritage landscapes are to the use of adjacent roads as a haul route.
4. To make recommendations on mitigation measures to protect identified significant built heritage resources and significant cultural heritage landscapes.
5. To identify requirements for site rehabilitation that takes into account the significant cultural heritage resources that exist on site or in the area.

## **4.4 Environmental Impact Study**

### **Purpose of the Study**

1. To demonstrate that the proposal will not have a negative impact on natural heritage features or their ecological functions.
2. To demonstrate that extraction will occur in a manner that minimizes social, economic and environmental impacts.
3. To demonstrate how the diversity and connectivity of the natural features in an area and the long-term ecological function and biodiversity of the natural heritage system can be maintained, restored or where possible improved.

4. Within the NEP area, to demonstrate that the proposal (a) will maintain the Niagara Escarpment and land in its vicinity substantially as a continuous natural environment; and (b) is compatible with the natural environment of the Niagara Escarpment and the land in its vicinity.

### **Objectives of the Environmental Impact Study**

1. To identify all natural heritage features that have the potential to be impacted by the proposed aggregate operations.
2. To identify the connections and linkages between natural heritage features and areas, surface water features and groundwater features.
3. To determine how the diversity and connectivity of the natural features in an area and the long-term ecological function and biodiversity of the natural heritage system can be maintained, restored or where possible improved.
4. Identify all potential impacts on significant natural heritage features and/or key natural heritage features.
5. Determine whether the proposal will have negative impacts on significant natural heritage features and/or key natural heritage features.
6. Determine what mitigation and monitoring measures, if required, are necessary to ensure that environmental impacts are minimized.
7. To determine and make recommendations on how net environmental gain can be provided in the short term and in the longer term both on the site and for the surrounding area.
8. Within the NEP area, identify all potential individual and cumulative impacts on the natural environment.

## **4.5 Financial Impact Study**

### **Purpose of the Study**

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

### **Objectives of the Financial Impact Study**

1. To quantify the amount of assessment to be generated as a consequence of the approval of the application (compared to loss of existing use i.e. farmland).
2. To identify what the economic impacts may be.
3. To estimate how much in license fees will be provided to the affected municipalities.
4. To determine what impacts the additional truck traffic will have on the cost of providing maintenance on affected roads.

5. To determine whether the proposal if approved will impact on the timing and/or need for road improvements to be paid for by the municipality.
6. To identify the financial benefits that may occur generally as a consequence of the approval (i.e. TOARC payments for road improvements).
7. To identify the potential cost of any long-term monitoring and mitigation on the site and the responsibility for that monitoring and the liability to any public authority or agency associated with that responsibility.

## **4.6 Land Use Compatibility Study**

### **Purpose of the Study**

1. To demonstrate how the proposed use and potential after uses will be compatible with surrounding land uses.
2. To demonstrate how potential social impacts will be minimized during and post extraction.
3. To demonstrate how potential adverse effects will be prevented through design, buffering and/or separation.

### **Objectives of the Land Use Compatibility Study**

1. To document those factors that need to be considered in making a determination on land use compatibility.
2. To identify a strategy to minimize the impacts of the proposed development on surrounding land uses.
3. To identify potential after uses for the site that are compatible with surrounding land uses.
4. To identify appropriate buffers from environmental features and existing surrounding land uses to ensure compatibility with natural features and surrounding land uses.
5. To identify potential sources and receivers of noise, vibration and dust resulting from the proposed development.
6. To develop a strategy to minimize impacts and prevent adverse effects through site design and operation timing.
7. To identify mitigation techniques and the monitoring required to minimize noise, vibration and dust impacts, including those impacts related to human health and animal health.

## **4.7 Planning Justification Report**

### **Purpose of the Report**

1. To review whether the proposed development is in the public interest.
2. To determine whether the proposed land use and after use is appropriate for the site and represents good land use planning.
3. To provide an opinion on whether a decision to approve the application is consistent with the Provincial Policy Statement, conforms to the Greenbelt Plan (if required), conforms to the Niagara Escarpment Plan (if required), and conforms with Halton Region and local Official Plans.

### **Objectives of the Planning Report**

1. To provide a complete description of the proposal.
2. To review and summarize all background reports prepared in support of the proposal.
3. To identify all applicable Provincial and municipal policy that has an impact on the proposal and its consideration by the approval authorities and commenting agencies.

4. To review all applicable Provincial and municipal policy and make a determination on whether the application is consistent with or conforms to applicable policy and why.
5. To recommend what conditions of approval should be applied in order to minimize social and environmental impacts among other matters.
6. To identify and review all proposed mitigation and monitoring measures and make a determination if they are necessary, appropriate and implementable.

## **4.8 Rehabilitation/Monitoring Study**

### **Purpose of the Study**

1. To demonstrate how the subject lands will be rehabilitated to a land use that is compatible with the land use of the area and in conformity with Provincial, Regional and local policy.
2. Identify requirements for monitoring and rehabilitation to ensure that the rehabilitation of the site is consistent with the requirements of applicable policy documents.

### **Objectives of the Rehabilitation/Monitoring Study**

1. To identify and document the specific elements of a plan for the progressive and timely rehabilitation of the site.
2. To recommend a rehabilitation strategy for progressive rehabilitation, monitoring and post development rehabilitation.
3. To prepare a strategy to rehabilitate sites to a state of greater or equal ecological value.
4. To identify potential after-uses that are compatible with surrounding land uses.
5. To identify ongoing monitoring milestones for monitoring site impacts and rehabilitation requirements.
6. Identify any further planning approvals that may be necessary to facilitate the final end use.

## **4.9 Transportation/Haul Route Study**

### **Purpose of the Study**

1. To demonstrate how the social and environmental impacts of the selected haul route will be minimized.
2. To demonstrate that all options with respect to the transport of aggregate have been considered.
3. To demonstrate how adverse effects from proposed truck traffic will be prevented through design, buffering and/or separation.

### **Objectives of the Transportation/Haul Route Study**

1. To inventory and provide an analysis of transportation options to deliver resources to market areas.
2. To identify safe and efficient options for the transportation of aggregates to market areas.
3. To identify sensitive receivers to aggregate truck traffic.
4. To review the capacity of existing transportation networks and identify any necessary upgrades.
5. To establish a methodology to assess each of the potential haul routes in relation to each other.
6. To identify any safety issues that may exist in the community with the mixing of truck traffic with residential traffic, school busses, agricultural vehicles, etc.
7. To identify environmental impacts and minimize impact to environmental features.
8. To identify and review options for mitigation and monitoring.

## 4.10 Water Resource Study

### Purpose of the Study

1. To demonstrate how municipal and private drinking water supplies for people and livestock and designated vulnerable areas such as wellhead protection areas will be protected.
2. To demonstrate how vulnerable surface and ground water, sensitive surface water features and sensitive ground water features and their hydrologic functions will be protected, improved or restored.
3. To demonstrate how the water resource system will be protected or enhanced.
4. To demonstrate how the proposal conforms to approved watershed and sub-watershed studies.

### Objectives of the Water Resource Study

1. To identify the nature of surface and ground water features in the area (e.g. surface water courses and bodies, springs, and groundwater aquifers).
2. To identify physical setting of the groundwater and surface water features (e.g. geology, hydrogeology, geomorphology and surface water systems).
3. To identify hydrologic functions responsible for the natural system integrity (e.g. groundwater-surface water interactions, discharge to surface water).
4. To establish baseline groundwater and surface water conditions in the area (e.g. hydraulics, quality and quantity)
5. To determine effects, if any, of other activities on the proposed development area (e.g. hydraulics, quality, quantity).
6. To assess the adequacy of existing data and identify information gaps/ uncertainties, and determine new data collection and evaluation needs (seen as iterative process).
7. To assess potential risks to groundwater and surface water resources and to key hydrologic functions.
8. To identify the nature and degree of potential impacts on surface and ground water features (both in form and function).
9. To identify potential effects of water diversion, storage, treatment, drainage and discharge on groundwater and surface water systems.
10. To determine the potential zone of influence of the proposed development in consideration of surficial and subsurface water-related functions.
11. To identify the nature, location and the daily, monthly, and annual quantity of water takings caused by the development.
12. To identify potential impacts of the proposed development on water supplies and municipal wellhead protection/drinking source water protection areas (e.g. impact on water levels, supply yields and human health).
13. To identify the impact of development on water budget in consideration of development stages and in terms of cumulative effects and climate change.
14. To develop a strategy to protect, improve or restore sensitive surface water and ground water features and their form and hydrologic function and a strategy to protect, improve, restore or replace water supplies affected by development.
15. To identify vegetation protection zones to protect hydrologic features.
16. To identify buffers between the proposed development and the water supplies/water uses.
17. To develop a strategy to protect, improve and restore drinking water supplies in the areas of development influence.
18. To develop an adaptive water management and mitigation plan and a monitoring program for the development area and surrounding lands.
19. To identify how potential impacts to cross-jurisdictional and cross-watershed impacts will be minimized.

## 4.11 Adaptive Environmental Management Plan (AEMP)

### Purpose of the Plan

1. To understand potential environmental risks so that adaptable monitoring and mitigation measures can be developed to prevent, manage or reduce risks.
2. To demonstrate the feasibility and adequacy of anticipated monitoring and mitigation measures through implementation and testing and other verification means.
3. To demonstrate that the monitoring measures associated with the development can be changed to address varying conditions, should site changes occur,
4. To demonstrate that mitigation measures are adaptable to support changing site conditions.
5. To recognize that a degree of continuity in monitoring and mitigation measures, as well as regular performance-based reviews, are required to ensure system effectiveness in meeting the AEMP-established targets.

### Objectives of the Adaptive Environmental Management Plan

1. To identify features and functions (including implications on terrestrial systems) and collect meaningful observation data relative to each to ensure that the observed data are evaluated relative to effects on these features and functions.
2. To identify an approach to baseline monitoring and to identify an appropriate monitoring regime for these features and functions, to detect impacts before they become acute.
3. To identify a series of mitigation and/or contingency methods specific to the sensitive features/functions that have been identified should impacts be greater than anticipated.
4. To identify what actions should be taken based on the establishment of measurable “triggers” or thresholds where predetermined responses will be initiated to address impacts.
5. To identify how the operation of the quarry will be potentially halted or modified if mitigation measures are deemed to be unsatisfactory.
6. To identify how the AEMP will be periodically reviewed, updated and refined as necessary as more data is collected and details become known about the actual observed effects of the quarry and the effectiveness of the mitigative measures that are employed.
7. To identify securities to be posted by the applicant to protect the public agencies from financial liability for performance of the mitigation requirements and any on-going management over the long term, in the event the owner fails to do so.
8. To develop an action plan and a communication strategy to deal with water supply issues and to respond to impact-related notices.
9. To identify a monitoring and reporting strategy that is continuous throughout the life cycle of the quarry (including rehabilitation and lake filling, if applicable).

## 5.0 References

The documents listed below were reviewed and considered in the preparation of this Manual.

1. Ministry of Natural Resources Release – Matters to be Considered in Issuing/Refusing a Licensing, March 15, 2006.
2. Ministry of Natural Resources Issue – License applications: Hydrogeological Report Standards, March 15, 2006.
3. Conservation Halton / Environmental Impact Study Guidelines, November 2005.
4. Toronto Environmental Alliance (TEA)/Dick Conservation, Not Holes Report, April 2009.
5. Environmental Commissioner of Ontario – Annual Report 2006-2007.
6. Environmental Commission of Ontario – Aggregate Round Table Summary Report, January 2006.
7. Canadian Urban Institute – Between a Rock and a Hard Place.
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# Appendix A

## Halton Aggregate Resources Reference Manual



# Table of Contents

Preface.....	i
1.0 Agricultural Impact Study .....	1
1.1 Provincial Policy Statement.....	1
1.2 Greenbelt Plan .....	4
1.3 Niagara Escarpment Plan .....	5
2.0 Archaeological Study .....	7
2.1 Provincial Policy Statement.....	7
2.2 Greenbelt Plan .....	8
2.3 Niagara Escarpment Plan .....	9
3.0 Cultural Heritage Study.....	10
3.1 Provincial Policy Statement.....	10
3.2 Greenbelt Plan .....	11
3.3 Niagara Escarpment Plan .....	12
4.0 Environmental Impact Study .....	15
4.1 Provincial Policy Statement.....	15
4.2 Greenbelt Plan .....	18
4.3 Niagara Escarpment Plan .....	23
5.0 Financial Impact Study .....	33
5.1 Provincial Policy Statement.....	33
5.2 Greenbelt Plan .....	36
5.3 Niagara Escarpment Plan .....	37
6.0 Land Use Compatibility Study .....	38
6.1 Provincial Policy Statement.....	38
6.2 Greenbelt Plan .....	41
6.3 Niagara Escarpment Plan .....	42
7.0 Rehabilitation/Monitoring Study.....	44
7.1 Provincial Policy Statement.....	44
7.2 Greenbelt Plan .....	46
7.3 Niagara Escarpment Plan .....	49
8.0 Transportation / Haul Route Study .....	51
8.1 Provincial Policy Statement.....	51
8.2 Greenbelt Plan .....	55
8.3 Niagara Escarpment Plan .....	56
9.0 Water Resource Study.....	57

9.1 Provincial Policy Statement..... 57

9.2 Greenbelt Plan ..... 61

9.3 Niagara Escarpment Plan ..... 66

## Preface

The intent of this appendix is to identify those policies within the Provincial Policy Statement, the Greenbelt Plan and the Niagara Escarpment Plan that have been typically considered in the context of reviewing an application to establish a resource use. However, since every application is unique, other policies may also need to be considered. The policies in the Provincial Plans have been sorted on the basis of the nature of the study being completed. As a result, some of the policies are reproduced a number of times to reflect the many aspects of the policy that need to be considered.

The policies are copied as they appear in the Provincial plans and where words appear in italics, in the Provincial Policy Statement and the Greenbelt Plan, the terms used in the policy are as defined by these two Provincial plans. Each of the questions that arise from the policy is identified, with those questions using the words included within the policy for ease of interpretation. It is not the intent of Appendix A to establish a pre-disposition with respect to the application of policy.

It is further noted that the reader should always consult the original policy document to ensure that there is no confusion with respect to the actual wording of the document or its intent. It should also be noted that it is not possible to indicate that every policy identified is to be applied to each application. In this regard, all of the policies in the applicable policy document should be considered with each application.

# 1.0 Agricultural Impact Study

## 1.1 Provincial Policy Statement

Section	Policy
<p><b>2.3</b></p> <p><b>2.3.1</b></p>	<p><b>Agriculture</b></p> <p><i>Prime agricultural areas</i> shall be protected for long-term use for agriculture.</p> <p><i>Prime agricultural areas</i> are areas where <i>prime agricultural lands</i> predominate. <i>Specialty crop areas</i> 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 <i>prime agricultural area</i>, in this order of priority.</p> <p><b>Q1. Are the lands in a prime agricultural area as defined?</b></p>
<p><b>2.3.3</b></p> <p><b>2.3.3.1</b></p> <p><b>2.3.3.2</b></p>	<p><b>Permitted Uses</b></p> <p>In <i>prime agricultural areas</i>, permitted uses and activities are: <i>agricultural uses, agriculture-related uses</i> and <i>on-farm diversified uses</i>.</p> <p>Proposed <i>agriculture-related uses</i> and <i>on-farm diversified uses</i> shall be compatible with, and shall not hinder, surrounding agricultural operations. Criteria for these uses may be based on guidelines developed by the Province or municipal approaches, as set out in municipal planning documents, which achieve the same objectives.</p> <p>In <i>prime agricultural areas</i>, all types, sizes and intensities of <i>agricultural uses</i> and <i>normal farm practices</i> shall be promoted and protected in accordance with provincial standards.</p> <p><b>Q1. Will the proposal affect the ability to maintain, expand or develop permitted uses in prime agricultural areas on nearby lands?</b></p>
<p><b>2.3.6</b></p> <p><b>2.3.6.1</b></p>	<p><b>Non-Agricultural Uses in Prime Agricultural Areas</b></p> <p>Planning authorities may only permit non-agricultural uses in <i>prime agricultural areas</i> for:</p> <ul style="list-style-type: none"> <li>a) extraction of <i>minerals, petroleum resources</i> and <i>mineral aggregate resources</i>, in accordance with policies 2.4 and 2.5; or</li> <li>b) limited non-residential uses, provided that all of the following are demonstrated: <ul style="list-style-type: none"> <li>1. the land does not comprise a specialty crop area;</li> <li>2. the proposed use complies with the <i>minimum distance separation formulae</i>;</li> <li>3. there is an identified need within the planning horizon provided for in policy 1.1.2 for additional land to be designated to accommodate the proposed use; and</li> <li>4. alternative locations have been evaluated, and <ul style="list-style-type: none"> <li>i. there are no reasonable alternative locations which avoid</li> </ul> </li> </ul> </li> </ul>

Section	Policy
	<p style="text-align: center;">ii. <i>prime agricultural areas</i>; and there are no reasonable alternative locations in <i>prime agricultural areas</i> with lower priority agricultural lands.</p>
<p><b>2.3.6.2</b></p> <p><b>2.5.4</b></p> <p><b>2.5.4.1</b></p>	<p>Impacts from any new or expanding non-agricultural uses on surrounding agricultural operations and lands are to be mitigated to the extent feasible.</p> <p><b>Q1. Have the policies of Section 2.5 been satisfied to enable the planning authority to exclude the lands from a prime agricultural area?</b></p> <p><b>Q2. Have impacts from the proposal on surrounding agricultural operations and lands been mitigated to the extent feasible?</b></p> <p><b>Extraction in Prime Agricultural Areas</b></p> <p>In <i>prime agricultural areas</i>, on <i>prime agricultural land</i>, extraction of <i>mineral aggregate resources</i> is permitted as an interim use provided that the site will be rehabilitated back to an <i>agricultural condition</i>.</p> <p>Complete rehabilitation to an <i>agricultural condition</i> is not required if:</p> <ul style="list-style-type: none"> <li>a) outside of a <i>specialty crop area</i>, there is a substantial quantity of <i>mineral aggregate resources</i> below the water table warranting extraction, or the depth of planned extraction in a quarry makes restoration of pre-extraction agricultural capability unfeasible;</li> <li>b) in a <i>specialty crop area</i>, there is a substantial quantity of <i>high quality mineral aggregate resources</i> below the water table warranting extraction, and the depth of planned extraction makes restoration of pre-extraction agricultural capability unfeasible;</li> <li>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 <i>designated growth areas</i>, and resources on <i>prime agricultural lands</i> where rehabilitation is feasible. Where no other alternatives are found, <i>prime agricultural lands</i> shall be protected in this order of priority: <i>specialty crop areas</i>, Canada Land Inventory Classes 1, 2 and 3; and</li> <li>d) agricultural rehabilitation in remaining areas is maximized.</li> </ul> <p><b>Q1. Is the proposed use an interim use?</b></p> <p><b>Q2. Will the lands be rehabilitated back to an agricultural condition?</b></p> <p><b>Q3. If complete rehabilitation to an agricultural condition is not proposed outside of a specialty crop area, has it been warranted that there is a substantial quantity of resource below the water table or has it been determined that it is unfeasible for restoration to occur as a consequence of the depth of planned extraction?</b></p> <p><b>Q4. If complete rehabilitation to an agricultural condition is not proposed in a specialty crop area, has it been warranted that a substantial quantity of high quality mineral aggregate resources below the water table or has it been determined that it is unfeasible for restoration to occur as a consequence of the depth of planned extraction?</b></p> <p><b>Q5. If any of the above circumstances exists, have other alternative locations been considered and these other lands been deemed to be unsuitable?</b></p>

Section	Policy
	<p><b><i>Q6. If no other alternatives are found, have prime agricultural lands been protected in order of priority?</i></b></p> <p><b><i>Q7. In addition to the above, has it been demonstrated that agricultural rehabilitation in the remaining area has been maximized?</i></b></p>

## 1.2 Greenbelt Plan

Section	Policy
3.1.3.1	<p>Within prime agricultural areas, as identified in municipal official plans, <i>normal farm practices</i> and a full range of <i>agricultural, agriculture-related</i> and <i>secondary uses</i> are supported and permitted.</p> <p><b>Q1. If the proposed development is in a prime agricultural area in the Protected Countryside, how does the proposal affect normal farm practices and a full range of agricultural, agriculture-related and secondary uses?</b></p>
4.3.2.5	<p>When operators are undertaking rehabilitation of <i>mineral aggregate operation</i> sites in the Protected Countryside, the following provisions apply:</p> <ul style="list-style-type: none"> <li>e) Outside of the Natural Heritage System, and except as provided in 4.3.2.5 (b), (c) and (d), final rehabilitation will appropriately reflect the long term land use of the general area, taking into account applicable policies of this Plan and, to the extent permitted under this Plan, existing municipal and provincial policies.</li> </ul> <p><b>Q1. If located outside of the Natural Heritage System and in a prime agricultural area, will the proposed rehabilitation plan appropriately reflect the long term land use of the general area taking into account the applicable policies of this Plan and, to the extent permitted under this Plan, existing municipal and provincial policies?</b></p>
4.3.2.7	<p>Operators are encouraged to consider and provide for public access to former aggregate sites upon final rehabilitation.</p> <p><b>Q1. If public access is proposed, and the lands are within or adjacent to prime agricultural areas, what impact will public access have on the ability of agricultural uses to maintain their operations or expand in the future?</b></p> <p><b>Q2. Will the public access have an impact on adjacent agricultural uses from a Minimum Distance Separation (MDS) perspective?</b></p>

### 1.3 Niagara Escarpment Plan

Section	Policy
4.	<p><b>Objectives (Purpose and Objectives Section)</b></p> <p>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.</p> <p><b>Q1. How does the proposed development maintain and enhance the open landscape character of the escarpment?</b></p> <p><b>Q2. Is the proposed development compatible with escarpment land uses?</b></p> <p><b>Q3. Does the development preserve the natural scenery during extraction and following rehabilitation?</b></p> <p><b>Q4. Will the visual buffers that are created preserve the natural scenery during extraction and following rehabilitation?</b></p>
1.5  3.	<p><b>Escarpment Rural Area</b></p> <p>The objectives of the Escarpment Rural Area are to:</p> <p>To encourage agriculture and forestry and to provide for compatible rural land uses.</p> <p><b>Q1. Has it been demonstrated that the proposal, if approved, will be compatible with other rural land uses?</b></p>
1.	<p><b>Development Policies for Mineral Extraction</b></p> <p>In evaluating applications for amendment to the Niagara Escarpment Plan to redesignate Escarpment Rural Area to Mineral Resource Extraction Area, the following matters will be considered:</p> <p style="padding-left: 40px;">d) Capability of the land for agricultural uses and its potential for rehabilitation for agricultural uses.</p> <p><b>Q1. What is the capability of the subject lands for agricultural uses?</b></p> <p><b>Q2. If approved, what is the potential for rehabilitation of the lands to accommodate agricultural uses?</b></p>
1.9  6.	<p><b>Mineral Resource Extraction Area</b></p> <p>After Uses, Permitted Uses, and New Lots</p> <p>Where the rehabilitation is being undertaken to agriculture, substantially the same acreage and average soil capability for agriculture shall be restored.</p> <p><b>Q1. If the site is proposed to be rehabilitated for agricultural purposes, will substantially the same acreage and average soil capability for agriculture be restored?</b></p> <p><b>Q2. Will agricultural restoration be completed to the greatest extent possible?</b></p>

Section	Policy
<p><b>2.10</b></p>	<p><b>Agriculture</b>  The objective is to encourage agricultural uses in agricultural areas, to protect agricultural areas, to permit uses that are compatible with farming and to encourage accessory uses that directly support continued agricultural use.</p> <p><b><i>Q1. How does the proposed development protect agricultural areas?</i></b>  <b><i>Q2. Will the proposed use be compatible with farming?</i></b></p>
<p><b>2.11</b></p> <p><b>1.</b></p>	<p><b>Mineral Resources</b>  The objective is to minimize the impact of new mineral extraction operations and accessory uses on the Escarpment environment</p> <p>Extractive operations including wayside pits and quarries and haul routes shall not conflict with the following criteria:</p> <ul style="list-style-type: none"> <li>c) The maintenance of agricultural areas, in accordance with the Agricultural Policies of the Provincial Policy Statement (PPS).</li> </ul> <p><b><i>Q1. How does the proposed development not conflict with the maintenance of agricultural areas in accordance with the agricultural policies of the PPS?</i></b>  <b><i>Q2. What measures are proposed to minimize impacts?</i></b>  <b><i>Q3. How will these measures be monitored and enforced?</i></b></p>

# 2.0 Archaeological Study

## 2.1 Provincial Policy Statement

Section	Policy
2.0	<p><b>Wise Use and Management of Resources</b></p> <p>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.</p>
2.6	<p><b>Cultural Heritage and Archaeology</b></p>
2.6.2	<p><i>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.</i></p> <p><b>Q1. Does the proposal include lands containing archaeological resources or areas of archaeological potential?</b></p> <p><b>Q2. If so, how are significant archaeological resources proposed to be conserved?</b></p>

## 2.2 Greenbelt Plan

Section	Policy
<p><b>4.4</b></p> <p><b>1.</b></p>	<p><b>Cultural Heritage Resources</b></p> <p>For lands within the Protected Countryside, the following policies shall apply:</p> <p>Cultural heritage resources are defined as man-made or natural features, including structures, objects, neighbourhoods, landscapes and archaeological sites, that have been identified as by the local municipality or the province for being meaningful components of a community's cultural heritage or identity.</p> <p><b><i>Q1. Are there significant archaeological sites on the subject property?</i></b></p>
<p><b>2.</b></p>	<p>Greenbelt municipalities should work with aboriginal groups and other stakeholders to identify and protect cultural heritage resources and plan toward maintaining, developing and using these resources in a manner that will benefit the local community and be compatible with the Greenbelt's vision and goals.</p> <p><b><i>Q1. Has the municipality worked with aboriginal groups in accordance with this policy?</i></b></p>
<p><b>3.</b></p>	<p>Municipalities should build cultural components into their municipal plans and planning processes, including creating inventories of cultural heritage resources and planning for their ongoing protection and appropriate use. Municipal cultural plans should draw from and promote an integrated vision of local cultural development that emphasizes connections across the full range of arts, heritage, cultural industries, libraries, archives and other cultural activity.</p> <p><b><i>Q1. How does the proposal conform to local official plans with respect to archaeology?</i></b></p>

## 2.3 Niagara Escarpment Plan

Section	Policy
<p><b>2.2</b></p> <p><b>1.</b></p>	<p><b>General Development Criteria</b> The objective is to permit reasonable enjoyment by the owners of all lots that can sustain development</p> <p>Permitted uses may be allowed provided that:</p> <p>a) The long-term capacity of the site can support the use without a substantial negative impact on Escarpment environmental features such as contours, water quality, water quantity, natural vegetation, soil, wildlife, population, visual attractiveness and cultural heritage features.</p> <p><b>Q1. Do cultural heritage feature (archaeological resources in this case) exist at the site and will there be a substantial negative impact on these resources if the proposal is approved?</b></p>
<p><b>2.11</b></p> <p><b>1.</b></p>	<p><b>Mineral Resources</b> The objective is to minimize the impact of new mineral extraction operations and accessory uses on the Escarpment environment</p> <p>Extractive operations including wayside pits and quarries and haul routes shall not conflict with the following criteria:</p> <p>a) The protection of sensitive ecological, geological, historic and archaeological sites or areas.</p> <p><b>Q1. Will the proposal conflict with archaeological sites?</b> <b>Q2. Will the proposal affect sensitive historic sites or areas?</b></p>
<p><b>2.12</b></p> <p><b>1.</b></p> <p><b>5.</b></p>	<p><b>Heritage</b></p> <p>Care should be taken to discover unknown and to preserve known archaeological sites (especially native burial sites) and areas where such sites might reasonably be expected to exist.</p> <p>The objective is to inventory, interpret, evaluate, maintain and conserve the cultural heritage features of the Niagara Escarpment Plan Area</p> <p>Where development will destroy or significantly alter cultural landscapes or heritage features, actions should be taken to salvage information on the features being lost. Such actions could include archaeological salvage and excavation, and the recording of buildings or structures through measured drawings or photogrammetry or their physical removal to a different location.</p> <p><b>Q1. If archaeological resources exist on the site, how are they proposed to be salvaged?</b> <b>Q2. Has a review of cultural heritage features been undertaken to discover unknown and to preserve known archaeological sites?</b></p>

## 3.0 Cultural Heritage Study

### 3.1 Provincial Policy Statement

Section	Policy
<p><b>2.6</b></p> <p><b>2.6.1</b></p>	<p><b>Cultural Heritage and Archaeology</b></p> <p><i>Significant built heritage resources and significant cultural heritage landscapes shall be conserved.</i></p> <p><b>Q1. How are identified significant built heritage resources and significant cultural heritage landscapes proposed to be conserved, if the proposed development is approved?</b></p>
<p><b>2.6.3</b></p>	<p>Planning authorities shall not permit <i>development and site alteration on adjacent lands to protected heritage property</i> except where the proposed <i>development and site alteration</i> has been evaluated and it has been demonstrated that the <i>heritage attributes</i> of the <i>protected heritage property</i> will be conserved.</p> <p><b>Q1. Is the proposed development on lands adjacent to a protected heritage property?</b>  <b>Q2. If so, has it been demonstrated that the heritage attributes of the protected heritage property will be conserved?</b></p>

### 3.2 Greenbelt Plan

Section	Policy
<p><b>4.4</b></p> <p><b>1.</b></p>	<p><b>Cultural Heritage Resources</b></p> <p>For lands within the Protected Countryside, the following policies shall apply:</p> <p>Cultural heritage resources are defined as man-made or natural features, including structures, objects, neighbourhoods, landscapes and archaeological sites, that have been identified as <i>significant</i> by the local municipality or the province for being meaningful components of a community’s cultural heritage or identity.</p> <p><b><i>Q1. Have significant cultural heritage resources been identified on the subject lands or on adjacent lands?</i></b></p>
<p><b>2.</b></p>	<p>Greenbelt municipalities should work with aboriginal groups and other stakeholders to identify and protect cultural heritage resources and plan toward maintaining, developing and using these resources in a manner that will benefit the local community and be compatible with the Greenbelt’s vision and goals.</p> <p><b><i>Q1. Has the municipality worked with aboriginal groups in accordance with this policy?</i></b></p>
<p><b>3.</b></p>	<p>Municipalities should build cultural components into their municipal plans and planning processes, including creating inventories of cultural heritage resources and planning for their ongoing protection and appropriate use. Municipal cultural plans should draw from and promote an integrated vision of local cultural development that emphasizes connections across the full range of arts, heritage, cultural industries, libraries, archives and other cultural activity.</p> <p><b><i>Q1. How does the proposal conform to local official plans with respect to cultural heritage?</i></b></p>

### 3.3 Niagara Escarpment Plan

Section	Policy
1.	<p><b>Objective</b></p> <p>To protect unique ecologic and historic areas.</p> <p><b>Q1. How does the proposal protect unique ecological and historic areas?</b></p>
1.3	<p><b>Escarpment Natural Area</b></p> <p>Escarpment features, which are in a relatively natural state, and associated stream valleys, wetlands and forests which are relatively undisturbed are included within this designation. These contain important plant and animal habitats and geological features and cultural heritage features and are the most significant natural and scenic areas of the Escarpment. The policy aims to maintain these natural areas.</p> <p><b>Objectives</b></p> <ol style="list-style-type: none"> <li>1. To maintain the most natural Escarpment features, stream valleys, wetlands and related significant natural areas and associated cultural heritage features.</li> <li>2. To encourage compatible recreation, conservation and educational activities.</li> <li>3. To maintain and enhance the landscape quality of Escarpment features.</li> </ol> <p><b>Q1. If development is adjacent to an Escarpment Natural Area, how does the development propose to maintain cultural heritage features and maintain and enhance the landscape quality of escarpment features?</b></p>
1.4	<p><b>Escarpment Protection Area</b></p> <p>The objectives of the Escarpment Protection Area are to:</p> <ol style="list-style-type: none"> <li>1. maintain and enhance the open landscape character of Escarpment features;</li> <li>2. provide a buffer to prominent Escarpment features; and to</li> <li>3. maintain natural areas of regional significance and cultural heritage features.</li> </ol> <p><b>Q1. Is the proposal adjacent to the Escarpment Protection Area? If so, how does the proposal maintain identified cultural heritage features?</b></p>
1.5	<p><b>Escarpment Rural Area</b></p> <p>The objectives of the Escarpment Rural Area are to:</p> <ol style="list-style-type: none"> <li>2. maintain the open landscape character by encouraging the conservation of the traditional cultural landscape and cultural heritage features.</li> </ol> <p><b>Q1. How does the proposal maintain the open landscape character and conserve the cultural landscape and cultural heritage features?</b></p>

Section	Policy
1.	<p><b>Development Policies for Mineral Resources Extraction Area</b></p> <p>In evaluating applications for amendment to the Niagara Escarpment Plan to redesignate Escarpment Rural Area to Mineral Resource Extraction Area, the following matters will be considered:</p> <ul style="list-style-type: none"> <li>a) Protection of the natural and cultural environment, namely: <ul style="list-style-type: none"> <li>viii) Significant cultural heritage features</li> </ul> </li> </ul> <p><b>Q1. How have significant cultural heritage features been considered?</b></p>
2.2	<p><b>General Development Criteria</b></p> <p>The objective is to permit reasonable enjoyment by the owners of all lots that can sustain development.</p> <p>1. Permitted uses may be allowed provided that:</p> <ul style="list-style-type: none"> <li>a) The long term capacity of the site can support the use without a substantial negative impact on Escarpment environmental features such as contours, water quality, water quantity, natural vegetation, soil, wildlife population, visual attractiveness and cultural heritage features.</li> </ul> <p><b>Q1. Does the proposed use pose a substantial negative impact on Escarpment cultural heritage features?</b></p>
2.12	<p><b>Heritage</b></p> <p>The objective is to inventory, interpret, evaluate, maintain and conserve the cultural heritage features of the Niagara Escarpment Plan Area</p> <p><b>Q1. Has such an inventory been completed?</b></p>
2.	<p>Existing heritage features, areas and properties should be retained and reused. To determine whether such actions are feasible, consideration shall be given to both economic and social benefits and costs.</p> <p><b>Q1. Are there existing heritage features in the area that should be retained and reused?</b>  <b>Q2. If so, has the applicant documented the economic and social benefits and costs of preserving heritage features?</b></p>
4.	<p>Where new development involves a heritage feature it should express the feature in some way. This may include one or more of the following:</p> <ul style="list-style-type: none"> <li>a) Preservation and display of fragments of the former buildings' features and landscaping;</li> <li>b) Marking the traces of former locations, shapes and circulation lines;</li> <li>c) Displaying graphic verbal descriptions of the former use; or</li> <li>d) Reflection of the former architecture and use in the new development.</li> </ul>

Section	Policy
	<p><b><i>Q1. How does the proposed development, if approved, express existing heritage features, if one is affected by the proposal?</i></b></p>
<p><b>5.</b></p>	<p>Where development will destroy or significantly alter cultural landscapes or heritage features, actions should be taken to salvage information on the features being lost. Such actions could include archaeological salvage and excavation, and the recording of buildings or structures through measured drawings or photogrammetry or their physical removal to a different location.</p> <p><b><i>Q1. If destruction of cultural landscapes is proposed, how will the applicant salvage the destroyed or significantly altered cultural landscapes?</i></b></p>

# 4.0 Environmental Impact Study

## 4.1 Provincial Policy Statement

Section	Policy
<p><b>1.0</b></p> <p><b>1.1.1</b></p>	<p><b>Building Strong Healthy Communities</b></p> <p>Healthy, liveable and safe communities are sustained by:</p> <ul style="list-style-type: none"> <li>c) avoiding development and land use patterns which may cause environmental or public health and safety concerns;</li> </ul> <p><b>Q1. Will the application cause environmental or public health and safety concerns?</b></p>
<p><b>1.2.1</b></p>	<p>A coordinated, integrated and comprehensive approach should be used when dealing with planning matters within municipalities, across lower, single and/or upper-tier municipal boundaries, and with other orders of government, agencies and boards including:</p> <ul style="list-style-type: none"> <li>c) managing natural heritage, water, agricultural, mineral, and cultural heritage and archaeological resources;</li> <li>e) ecosystem, shoreline, watershed and Great Lakes related issues;</li> </ul> <p><b>Q1. How have planning matters been considered in a comprehensive manner across municipal boundaries and with other orders of government, agencies and boards?</b></p>
<p><b>1.5.1</b></p>	<p>Healthy, active communities should be promoted by:</p> <ul style="list-style-type: none"> <li>d) recognizing provincial parks, conservation reserves, and other protected areas and minimizing the negative impacts on these areas.</li> </ul> <p><b>Q1. Do provincial parks, conservation reserves and other protected areas exist in proximity to the site?</b></p> <p><b>Q2. How have negative impacts on these areas been minimized?</b></p>
<p><b>2.0</b></p> <p><b>2.1.1</b></p>	<p><b>Wise Use and Management of Resources</b></p> <p>Natural features and areas shall be protected for the long term.</p> <p><b>Q1. Will natural features and areas be protected for the long term if the application is approved?</b></p> <p><b>Q2. How is this proposed?</b></p> <p><b>Q3. How will it be monitored and enforced?</b></p>
<p><b>2.1.2</b></p>	<p>The diversity and connectivity of natural features in an area, and the long-term <i>ecological function</i> and biodiversity of <i>natural heritage systems</i>, should be maintained, restored or, where possible, improved, recognizing linkages between and among <i>natural heritage features and areas, surface water features and ground water features</i>.</p> <p><b>Q1. Will this occur if the application is approved?</b></p> <p><b>Q2. How is this proposed?</b></p>

Section	Policy
	<p><b>Q3. Have all of the natural heritage features on the site been identified and evaluated?</b>  <b>Q4. Have all potential impacts been assessed?</b></p>
2.1.4	<p><i>Development and site alteration shall not be permitted in:</i></p> <ul style="list-style-type: none"> <li>a) <i>significant wetlands in Ecoregions 5E, 6E and 7E; and,</i></li> <li>b) <i>significant coastal wetlands.</i></li> </ul>
2.1.5	<p><i>Development and site alteration shall not be permitted in:</i></p> <ul style="list-style-type: none"> <li>a) <i>significant wetlands in the Canadian Shield north of Ecoregions 5E, 6E and 7E;</i></li> <li>b) <i>significant woodlands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River);</i></li> <li>c) <i>significant valleylands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River);</i></li> <li>d) <i>significant wildlife habitat;</i></li> <li>e) <i>significant areas of natural and scientific interest; and</i></li> <li>f) <i>coastal wetlands in Ecoregions 5E, 6E and 7E that are not subject to policy 2.1.4(b).</i></li> </ul> <p><i>unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.</i></p> <p><b>Q1. If development has been proposed in one of these features, has it been demonstrated that no negative impacts on the natural features or their ecological functions will occur if the development is approved?</b></p>
2.1.6	<p><i>Development and site alteration shall not be permitted in fish habitat except in accordance with provincial and federal requirements.</i></p> <p><b>Q1. Is development proposed in fish habitat?</b>  <b>Q2. Have provincial and federal requirements been considered? How?</b></p>
2.1.7	<p><i>Development and site alteration shall not be permitted in habitat of endangered species and threatened species, except in accordance with provincial and federal requirements.</i></p> <p><b>Q1. Is development proposed in habitat of endangered species and threatened species?</b>  <b>Q2. Have provincial and federal requirements been considered? How?</b></p>
2.1.8	<p><i>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.</i></p> <p><b>Q1. Is development proposed on adjacent lands?</b>  <b>Q2. Has the ecological function of adjacent lands been evaluated?</b>  <b>Q3. Has it been demonstrated that there will be no negative impacts?</b></p>

Section	Policy
2.5.2.2	<p>Extraction shall be undertaken in a manner which minimizes social, economic and environmental impacts.</p> <p><b><i>Q1. What are the identified environmental impacts?</i></b>  <b><i>Q2. Will the proposed extraction be undertaken in a manner that minimizes environmental impacts?</i></b>  <b><i>Q3. How will environmental impacts on natural heritage features be minimized?</i></b>  <b><i>Q4. How will mitigation measures be monitored and enforced?</i></b></p>

## 4.2 Greenbelt Plan

Section	Policy
<p><b>4.3.2</b></p> <p><b>1.</b></p> <p><b>2.</b></p> <p><b>3.</b></p>	<p><b>Non-Renewable Resource Policies</b></p> <p>For lands within the Protected Countryside, the following policies shall apply:</p> <p>Activities related to the use of non-renewable resources are permitted in the Protected Countryside, subject to all other applicable legislation, regulations and municipal official plan policies and by-laws. The availability of mineral aggregate resources for long-term use will be determined in accordance with the PPS, except as provided below.</p> <p>Non-renewable resources are those non-agriculture based natural resources that have a finite supply, including mineral aggregate resources. Aggregates, in particular, provide significant building materials for our communities and <i>infrastructure</i>, and the availability of aggregates close to market is important both for economic and environmental reasons.</p> <p>Notwithstanding the Natural System policies of section 3.2 of this Plan, within the Natural Heritage System, <i>mineral aggregate operations</i> and wayside pits and quarries are subject to the following:</p> <p>a) No new <i>mineral aggregate operation</i> and no wayside pits and quarries, or any ancillary or accessory use thereto will be permitted in the following <i>key natural heritage features</i> and <i>key hydrologic features</i>:</p> <p>i. Significant wetlands;</p> <p>ii. Significant habitat of endangered species and threatened species; and</p> <p>iii. Significant woodlands unless the woodland is occupied by young plantation or early successional habitat (as defined by the Ministry of Natural Resources). In this case, the application must demonstrate that the specific provisions of policy 4.3.2.5 (c), (d) and 4.3.2.6 (c) have been addressed, and that they will be met by the operation.</p> <p><b>Q1. Is the proposal located in one of the key natural heritage features or key hydrologic features listed in this section?</b></p> <p><b>Q2. If the woodland plantation is occupied by early successional habitat, has the applicant demonstrated that policies 4.3.2.5 (c), (d) and 4.3.2.6 (c) have been addressed and that they will be met by the proposal?</b></p>
	<p>b) An application for a new <i>mineral aggregate operation</i> or new wayside pits and quarries may only be permitted in other <i>key natural heritage features</i> and <i>key hydrologic features</i> not identified in 4.3.2.3 (a) and any <i>vegetation protection zone</i> associated with such other feature where the application demonstrates:</p> <p>i. How the Water Resource System will be protected or enhanced; and</p> <p>ii. That the specific provisions in 4.3.2.5 (c), (d) and 4.3.2.6 (c) have been addressed, and that they will be met by the operation.</p> <p><b>Q1. Is the proposal located in a key natural heritage feature, and any associated vegetation protection zone, which are limited to fish habitat, wetlands, Life Science Areas of Natural and Scientific Interest (ANSIs), significant valley lands, significant wildlife habitat, sand barrens, savannahs and tall grass prairies and/or alvars as listed in</b></p>

Section	Policy
	<p><b>Section 3.2.4?</b>  <b>Q2. Is the proposal located in key hydrologic features and any associated vegetation protection zone, which are limited to permanent and intermittent streams, lakes (and the littoral zones), seepage areas and springs and/or wetlands as listed in Section 3.2.4?</b>  <b>Q3. If so, has the applicant demonstrated how the water resource system will be protected or enhanced?</b>  <b>Q4. In addition, have Sections 4.3.2.5 (c) and (d) and 4.3.2.6 (c) been addressed and met by the applicant?</b></p>
	<p>c) Any application for a new <i>mineral aggregate operation</i>, or the expansion of an existing <i>mineral aggregate operation</i> shall be required to demonstrate:</p> <p>i. How the <i>connectivity</i> between <i>key natural heritage features</i> and <i>key hydrologic features</i> will be maintained before, during and after the extraction of mineral aggregates.</p> <p><b>Q1. How will connectivity between key natural heritage features and key hydrologic features be maintained before, during and after extraction?</b></p>
	<p>ii. How the operator could immediately replace any habitat that would be lost from the site with equivalent habitat on another part of the site or on adjacent lands.</p> <p><b>Q1. How will habitat be immediately replaced on the site or on adjacent lands?</b></p>
	<p>iii. How the Water Resource System will be protected or enhanced; and</p> <p><b>Q1. How will the water resource system be protected or enhanced?</b></p>
	<p>d) An application for the expansion of an existing <i>mineral aggregate operation</i> may be permitted in the Natural Heritage System, including <i>key natural heritage features</i> and <i>key hydrologic features</i>, and in any associated <i>vegetation protection zone</i> only if the related decision is consistent with the PPS.</p> <p><b>Q1. Does the proposal constitute an expansion of an existing operation?</b>  <b>Q2. If yes, how will the approval of the proposed development in a key natural heritage features or a key hydrologic feature and any associated vegetation zone be consistent with the PPS?</b></p>
4.	<p>The Ministry of Natural Resources will pursue the following under the <i>Aggregate Resources Act</i>, for all <i>mineral aggregate operations</i>, including wayside pits and quarries, within the Protected Countryside:</p> <p>a) Rehabilitated area will be maximized and disturbed area minimized on an ongoing basis during the life-cycle of an operation.</p> <p><b>Q1. How does the proposal minimize site disturbance and maximize rehabilitation throughout the life-cycle of the operation?</b></p>

Section	Policy
	<p>b) Progressive and final rehabilitation efforts will contribute to the goals of the Greenbelt Plan.</p> <p><b>Q1. How will site rehabilitation contribute to the goals of the Greenbelt Plan?</b></p>
	<p>c) The Ministry of Natural Resources will determine the maximum allowable disturbed area of each <i>mineral aggregate operation</i>. Any excess disturbed area above the maximum will be required to be rehabilitated. For existing operations this shall be completed within 10 years of the date of approval of the Greenbelt Plan, and 50% completed within six years. For new operations, including expansions, the total disturbed area shall not exceed an established maximum allowable disturbed area.</p> <p><b>Q1. Has the MNR established a maximum allowable disturbed area for the proposal?</b></p>
	<p>d) An application for a <i>mineral aggregate operation</i> or wayside pits and quarries may be permitted only where the applicant demonstrates that the quantity and quality of groundwater and surface water will be maintained as per Provincial Standards under the <i>Aggregate Resources Act</i>.</p> <p><b>Q1. Has it been demonstrated that the quantity and quality of groundwater and surface water be maintained?</b></p>
5.	<p>When operators are undertaking rehabilitation of <i>mineral aggregate operation</i> sites in the Protected Countryside, the following provisions apply:</p> <p>a) The aggregate industry will work with the Ministry of Natural Resources to consider the development and implementation of comprehensive rehabilitation plans in areas of high concentration of <i>mineral aggregate operations</i>.</p> <p><b>Q1. Is a comprehensive rehabilitation plan in place?</b>  <b>Q2. If not, is a comprehensive plan warranted and has one been prepared in support of this proposal?</b></p>
	<p>b) The disturbed area of a site will be rehabilitated to a state of equal or greater <i>ecological value</i>, and for the entire site, long-term ecological integrity will be maintained or restored, and to the extent possible, improved.</p> <p><b>Q1. How will the disturbed area of the site be rehabilitated to a state of equal or greater ecological value?</b>  <b>Q2. Has it been demonstrated that the long-term ecological integrity of the entire site will be maintained or restored, and to the extent possible, improved?</b></p>

Section	Policy
	<p>c) If there are <i>key natural heritage features</i> or <i>key hydrologic features</i> on the site, or if such features existed on the site at the time of application:</p> <p>i. The health, diversity and size of these <i>key natural heritage features</i> and <i>key hydrologic features</i> will be maintained or restored and, to the extent possible, improved to promote a net gain of ecological health.</p> <p><b>Q1. How will the health, diversity and size of key natural heritage features and key hydrologic features be maintained or restored or to the extent possible improved, to promote a net gain of ecological health?</b></p>
	<p>ii. Any permitted extraction of mineral aggregates that occurs in a feature will be completed, and the area will be rehabilitated, as early as possible in the life of the operation.</p> <p><b>Q1. How and when is rehabilitation of features to occur?</b>  <b>Q2. Will it occur as early as possible in the life of the operation?</b></p>
	<p>d) Aquatic areas remaining after extraction are to be rehabilitated to aquatic enhancement, which shall be representative of the natural ecosystem in that particular setting or ecodistrict, and the combined terrestrial and aquatic rehabilitation shall meet the intent of 4.3.2.5 (c).</p> <p><b>Q1. If aquatic areas are proposed, will such areas be rehabilitated to aquatic enhancement in accordance with this policy?</b>  <b>Q2. Will the combined terrestrial and aquatic rehabilitation meet the intent of Section 4.3.2.5 c)?</b></p>
	<p>e) Outside the Natural Heritage System, and except as provided in 4.3.2.5 (b), (c) and (d), final rehabilitation will appropriately reflect the long-term land use of the general area, taking into account applicable policies of this Plan and, to the extent permitted under this Plan, existing municipal and provincial policies.</p> <p><b>Q1. If the land is outside the natural heritage system, how will the site be rehabilitated to reflect the long-term land use of the general area?</b></p>
6.	<p>Final rehabilitation in the Natural Heritage System will meet these additional provisions:</p> <p>a) Where there is no underwater extraction, an amount of land equal to that under natural vegetated cover prior to extraction, and no less than 35% of each license, is to be rehabilitated to forest cover, which shall be representative of the natural ecosystem in that particular setting or ecodistrict.</p> <p><b>Q1. If no underwater extraction is proposed, does the site rehabilitation plan indicate that the amount of natural vegetation cover is equal to the amount of natural vegetation cover prior to extraction or a minimum of 35% of the area of the license?</b></p>

Section	Policy
	<p>b) Where there is underwater extraction, no less than 35% of the non-aquatic lands of each license is to be rehabilitated to forest cover, which shall be representative of the natural ecosystem in that particular setting or ecodistrict.</p> <p><b>Q1. If there is underwater extraction, does the site rehabilitation plan indicate no less than 35% of the non-aquatic lands will be rehabilitated to forest cover?</b></p>
	<p>c) Rehabilitation will be implemented so that the connectivity of the <i>key natural heritage features</i> and the <i>key hydrologic features</i> on the site and on adjacent lands will be maintained or restored, and to the extent possible, improved.</p> <p><b>Q1. Does the rehabilitation plan indicate how the connectivity of the key natural heritage features and key hydrologic features on the site and on adjacent lands will be maintained or restored and to the extent possible improved?</b></p>

### 4.3 Niagara Escarpment Plan

Section	Policy
1.5	<p><b>Escarpment Rural Area</b></p> <p><b>Permitted Uses</b></p> <p><b><i>Q1. Is the proposal located in the Escarpment Rural Area and has the applicant applied for an amendment to the NEP and a Development Permit to permit the use?</i></b></p>
1. 2.	<p><b>Objectives</b></p> <p>1. To protect unique ecologic and historic areas.</p> <p>2. To maintain and enhance the quality and character of natural streams and water supplies.</p> <p><b><i>Q1. How does the proposed development protect unique ecological and historic areas?</i></b></p> <p><b><i>Q2. How does the proposed development maintain and enhance the quality and character of natural streams and water supplies?</i></b></p>
1.	<p><b>Development Policies for Mineral Extraction</b></p> <p>In evaluating applications for amendment to the Niagara Escarpment Plan to redesignate Escarpment Rural Area to Mineral Resource Extraction Area, the following matters will be considered:</p> <ul style="list-style-type: none"> <li>a) Protection of the natural and cultural environment, namely: <ul style="list-style-type: none"> <li>i) Groundwater and surface water systems on a watershed basis;</li> <li>ii) Habitat of endangered (regulated), endangered (not regulated), rare, special concern and threatened species;</li> <li>iii) Adjacent Escarpment Protection and Escarpment Natural Areas;</li> <li>iv) Adjacent Rural Area natural features;</li> <li>v) Existing and optimum routes of the Bruce Trail;</li> <li>vi) Provincially significant wetlands;</li> <li>vii) Provincially significant ANSIs; and</li> <li>viii) Significant cultural heritage features.</li> </ul> </li> <li>b) Opportunities for achieving the objectives of Section 8 of the <i>Niagara Escarpment Planning and Development Act</i> through the final rehabilitation of the site;</li> <li>c) Maintenance and enhancement of the quality and character of natural systems, water supplies, including fish habitat.</li> </ul> <p><b><i>Q1. Have all of the matters listed above been considered? How</i></b></p>

Section	Policy
2.	<p>Amendment applications must be accompanied by:</p> <p>a) Information on the location of the site in relation to the actual Escarpment and to the Escarpment Rural, Protection and Natural Area designations.</p> <p><b>Q1. Has the required information been included with the application and does it clearly show the required relationships?</b></p> <p><b>Q2. Have the other policies in the NEP (most notably Policy 1.2.1) been addressed by the applicant?</b></p>
1.9	<p><b>Mineral Resource Extraction Area</b></p> <p><b>After Uses, Permitted Uses and New Lots</b></p> <p>1. Except for progressive rehabilitation, as set out in the Development Criteria for Mineral Resources in Parts 2.11.5, 2.11.6 and 2.11.9 of this Plan, any new lot creation or any change in land use within a Mineral Resource Extraction Area, other than the identified permitted uses, shall require an amendment to the Niagara Escarpment Plan.</p> <p><b>Q1. What after use is proposed and will it require a further amendment?</b></p>
2.	<p>Except for the identified permitted uses that comply with the provisions of the Development Criteria for Mineral Resources in Part 2.11.5 of this Plan, all after uses shall require an amendment to the Niagara Escarpment Plan and shall be subject to a redesignation of the Mineral Resource Extraction Area designation to the applicable Niagara Escarpment Plan designation as determined through the application of the criteria for designation contained in the Niagara Escarpment Plan.</p> <p><b>Q1. What after use is proposed and will it require a further amendment?</b></p>
3.	<p>After uses of the Mineral Resource Extraction Area shall be in conformity with the objectives and permitted uses of the applicable redesignation of the Plan as determined through subsection 2 above.</p> <p><b>Q1. Will the proposed after-use be in conformity with the objectives and policies of the applicable designation?</b></p>
4.	<p>Where the rehabilitation is being undertaken by reforestation, the after use shall aim to re-establish a functioning ecosystem similar in condition to the natural ecosystems in the region.</p> <p><b>Q1. If rehabilitation in this manner is proposed, will the after use establish a functioning ecosystem similar in condition to the natural ecosystems in the region?</b></p>
5.	<p>The site shall be rehabilitated in accordance with the objectives of the applicable redesignation of the Niagara Escarpment Plan and be compatible with and have minimal impact upon the surrounding natural and visual environment and existing uses.</p> <p><b>Q1. Is the site proposed to be rehabilitated in accordance with the objectives of the applicable designation of the NEP and be compatible with and have a minimal impact</b></p>

Section	Policy
	<b><i>upon the surrounding natural and visual environment and existing uses?</i></b>
6.	<p>Where the rehabilitation is being undertaken to agriculture, substantially the same acreage and average soil capability for agriculture shall be restored.</p> <p><b><i>Q1. Were the lands previously used for agriculture?</i></b>  <b><i>Q2. Are agricultural lands proposed to be substantially restored in accordance with this policy?</i></b></p>
1.	<p><b>New Mineral Resource Extraction Areas</b></p> <p>New Mineral Resource Extraction Areas producing less than 20,000 tonnes (22,000 tons) annually may be permitted in the Escarpment Rural Area without an amendment to the Plan.</p> <p><b><i>Q1. Would the proposed use extract less than 20,000 tonnes annually?</i></b></p>
2.	<p>New Mineral Resource Extraction Areas producing more than 20,000 tonnes (22,000 tons) annually may be designated in the Escarpment Rural Area by an amendment to the Plan. Such an amendment will be to effect the change from Escarpment Rural Area to Mineral Resource Extraction Area.</p> <p><b><i>Q1. Would the proposed use extract more than 20,000 tonnes annually and has the applicant submitted an application to amend the NEP and applied for a Development Permit and a license pursuant to the ARA?</i></b></p>
2.2	<p><b>General Development Criteria</b></p> <p>The objective is to permit reasonable enjoyment by the owners of all lots that can sustain development.</p> <p>1.</p> <p style="padding-left: 40px;">a) The long term capacity of the site can support the use without a substantial negative impact on Escarpment environmental features such as contours, water quality, water quantity, natural vegetation, soil, wildlife, population, visual attractiveness and cultural heritage features.</p> <p><b><i>Q1. Does the proposed use pose a substantial negative impact on Escarpment environmental features?</i></b></p>
	<p style="padding-left: 40px;">b) The cumulative impact of development will not have serious detrimental effects on the Escarpment environment (e.g. water quality, vegetation, soil, wildlife, and landscape).</p> <p><b><i>Q1. Will the cumulative impact of development have a detrimental affect on the Escarpment environment?</i></b></p>
2.5	<p><b>New Development Affecting Steep Slopes and Ravines</b></p> <p>The objective is to ensure that new development affecting steep slopes (e.g. Escarpment slopes, rock faces, and talus slopes) and ravines does not result in environmental damage or in unsafe conditions.</p>

Section	Policy
1.	The crest or brow and toe of the slope or ravine shall be established by means of a site inspection by the implementing authority and these lines will be plotted on proposed development plans.
2.	The implementing authority will establish a minimum development setback from the brow or crest and toe of a slope or ravine and no disturbance of grades or vegetation below the crest or brow and above the toe shall occur.
3.	Where this setback cannot be achieved on an existing lot of record on a steep slope, the setback may be varied or eliminated to the satisfaction of the implementing authority.
4.	An engineering report shall be prepared by the applicant if the existing or future stability of the slope or ravine is in question.
5.	Structures of any kind unless permitted by the policies of this Plan should not be placed on slopes in excess of 25 per cent (1 in 4 slope).
6.	During development, a screen of appropriate fencing material (e.g. snow fencing) should be established approximately three metres (10 feet) from the crest of the slope in order to prevent any dumping.
7.	Development (e.g. ski facilities) should be designed in such a way as to minimize the disturbance and ensure the stability of Escarpment and ravine slopes.  <b>Q1. Is the development proposed in the area of steep slopes or ravines?</b> <b>Q2. If so, how have the requirements of Section 2.5 been addressed?</b>
2.6	<p><b>New Development Affecting Water Resources</b></p> <p>The objective is to ensure that new development affecting streams, watercourses, lakes, wetlands, and groundwater systems will have minimum individual and cumulative effect on water quality and quantity, and on the Escarpment environment.</p> <p>Water Quality</p> <p>1. Changes to the natural drainage should be avoided.</p> <p><b>Q1. Have changes to natural drainage been avoided?</b></p>
3.	<p>A setback for other development will be established from each side of a stream, river bed, lakeshore or wetland necessary to maintain existing water quality. The width of this buffer shall be determined by the implementing authority in consultation with the Ministry of Environment, Conservation Authority and the Ministry of Natural Resources, which shall consider:</p> <ul style="list-style-type: none"> <li>a) Soil type;</li> <li>b) Types and amounts of vegetation cover;</li> <li>c) Slope of the land; and</li> <li>d) Fish and wildlife.</li> </ul> <p><b>Q1. Have agencies been consulted about appropriate setbacks from features identified in this Section?</b></p> <p><b>Q2. Will the recommended setbacks maintain existing water quality?</b></p>

Section	Policy
4.	<p>No alteration of the natural grade or drainage shall occur within the setback where, in the opinion of the implementing authority, such action would adversely affect surface and/or groundwater resources.</p> <p><b>Q1. Are alterations proposed within the setback areas established by agencies?</b>  <b>Q2. If so, would such an action adversely affect surface and/or groundwater resources?</b></p>
6.	<p>Where in the opinion of the implementing authority a potential ground or surface water pollution problem exists, the applicant shall detail through appropriate studies, the detrimental effects and how they will be minimized.</p> <p><b>Q1. How will detrimental effects of ground or surface water pollution problems be minimized if the proposed development is approved?</b></p>
7.	<p>During development, the following sediment and erosion control practices should be carried out:</p> <ul style="list-style-type: none"> <li>a) Only the smallest practical area of land should be exposed at any time during the development.</li> <li>b) When land is exposed during development the exposure should be kept to the shortest practical period of time.</li> <li>c) Natural features such as tree groves, grades and waterways should be preserved.</li> <li>d) Temporary vegetation and/or mulching should be used to protect critical areas exposed during development.</li> <li>e) Final landscaping and vegetation should be installed as soon as practical following completion of the development.</li> <li>f) Topsoil should not be removed from the site, but rather, should be stored and redistributed as a suitable base for seeding and planting.</li> <li>g) Sediment control devices should be installed to remove sediment from run-off due to changed soil surface conditions during and after construction.</li> <li>h) Construction in or across a watercourse or wetland should be appropriately timed to minimize impacts on fish and wildlife habitat.</li> </ul> <p><b>Q1. Do the identified sediment and erosion control practices identified in the operational plans conform with these policies?</b></p>
8.	<p><b>Water Quantity</b></p> <p>Permitted Uses which involve water taking or undertake stream diversions must be demonstrated to be an essential part of their operation and shall be of a scale and intensity that will not adversely affect water quality, quantity and the Escarpment environment. The implementing authority may require that studies be undertaken to justify the need and amount of water taking and/or diversions and to mitigate impact on the Escarpment environment.</p> <p><b>Q1. If stream diversion or water taking is proposed, has it been demonstrated that it is an essential part of the operation and it is of a scale and intensity that would not adversely affect water quality, quantity and the Escarpment environment?</b></p>

Section	Policy
	<b>Q2. Has the need for the water taking and /or diversion been justified?</b>
9.	<p>When considering whether to allow a use which involves water taking or diversion, the implementing authority shall consider:</p> <ul style="list-style-type: none"> <li>a) The number, distribution, location and intensity of such activities within the watershed in terms of: <ul style="list-style-type: none"> <li>i) The impact on water quality and quantity;</li> <li>ii) The cumulative effect on the objectives of the Plan and its designations; and</li> <li>iii) The quality and character of natural streams and water supplies.</li> </ul> </li> <li>b) The water resource management policies/activities and permit requirements of the Ministry of Environment, Ministry of Natural Resources and Conservation Authority.</li> </ul> <p><b>Q1. Have these factors been considered? How?</b></p>
10.	<p><b>Wetlands</b></p> <p>Development shall locate outside wetlands.</p> <p><b>Q1. Is the development proposed in a wetland?</b>  <b>Q2. Has the Ministry of Natural Resources evaluated the wetland(s) and identified any provincially significant wetlands on or adjacent to the subject lands?</b></p>
11. 12.	<p>The limits of the wetland shall be determined by the implementing authority, in consultation with the Ministry of Natural Resources and/or Conservation Authority.</p> <p>In addition to # 1 to 7 (Water Quality), development adjacent to wetlands may be permitted only if it does not result in any of the following:</p> <ul style="list-style-type: none"> <li>a) Loss of wetland functions;</li> <li>b) Subsequent demand for future development which will negatively affect existing wetland functions;</li> <li>c) Conflict with existing site-specific wetland management practices; and</li> <li>d) Loss of contiguous wetland area.</li> </ul> <p><b>Q1. Is the proposed development adjacent to a wetland?</b>  <b>Q2. If so, how has it been demonstrated that the items listed in a) to d) will not result?</b></p>
13.	<p>A development setback from the wetland area, which is to be maintained or established as a natural vegetative buffer, shall be established by the implementing authority in consultation with the Ministry of Natural Resources.</p> <p><b>Q1. Has a development setback been identified by the implementing authority and the Ministry of Natural Resources?</b></p>

Section	Policy
14.	<p><b>Fisheries</b></p> <p>New Development or redevelopment adjacent to significant fishery resources shall demonstrate the following:</p> <ul style="list-style-type: none"> <li>a) The development shall ensure net gain/no net loss of productive capacity of fish habitat;</li> <li>b) Maintenance of minimum baseflow of watercourses;</li> <li>c) Maintenance of existing watercourses in a healthy, natural state;</li> <li>d) Maintenance of vegetative buffers in accordance with the sensitivity of the fishery resource and development criteria; and</li> <li>e) Best available construction and management practices shall be used to protect water quality and quantity, both during and after construction. Treatment of surface run-off to maintain water quality and hydrological characteristics in receiving watercourses shall meet the standards established by the Ministries of Environment and Natural Resources.</li> </ul> <p><b><i>Q1. Is the proposed development adjacent to a significant fisheries resource?</i></b>  <b><i>Q2. If so, how have the above criteria been considered?</i></b></p>
15.	<p>Public access to fishery resource areas shall be maintained or, wherever possible, improved.</p> <p><b><i>Q1. Is public access to fisheries resources proposed to be maintained if development is approved?</i></b></p>
16.  17.  18.  20.	<p><b>Flood Plains</b></p> <p>No building or structure shall be permitted in identified flood plains or fill regulated areas except where the building or structure has been approved by the Municipal Council, the Conservation Authority and/or the Ministry of Natural Resources in accordance with established floodplain management and the development criteria.</p> <p>Watershed management and flood and erosion control projects shall be carried out in accordance with the standards, policies or guidelines of the Ministry of Natural Resources and/or Conservation Authority.</p> <p>Where possible, such projects should be designed and located to avoid or minimize the impact on wetlands, wildlife habitat, source areas, streams, steep slopes and other areas of visual and environmental significance.</p> <p>When considering a new project the implementing authority shall consider the number, distribution and location of these works within the watershed in terms of their cumulative effect on the objectives of the applicable designation and watershed management policies/activities of the Ministry of Environment, Ministry of Natural Resources and the Conservation Authority.</p> <p><b><i>Q1. Is the proposal in a floodplain or a fill regulated area?</i></b>  <b><i>Q2. If approved, how have items 16-20 been considered?</i></b>  <b><i>Q3. Have the floodplain limits been verified by the appropriate agency?</i></b></p>

Section	Policy
23.	<p><b>Ponds</b></p> <p>Existing ponds shall be encouraged to revert to a natural state (e.g. where there are significant environmental impacts or structural problems).</p> <p><b>Q1. If ponds currently exist on the subject lands, how are they proposed to be reverted back to a natural state through rehabilitation?</b></p>
24.	<p>Where an existing pond has a substantial ecological or potentially hazardous impact, the property owner shall be encouraged to take corrective measures which may include the installation of a bottom draw-off device or the establishment of a natural vegetative buffer at the edge of the pond.</p>
26.	<p>Where possible, ponds should be designed to be off-stream with bottom draw-off control structures.</p> <p><b>Q1. If an existing pond is deemed to meet the condition set out in Section 24, is the proponent planning to take corrective measures as set out in Section 26?</b></p>
2.7	<p><b>New Development Within Wooded Areas</b></p> <p>The objective is to ensure that new development should preserve as much as possible of wooded areas.</p>
1.	<p>Disturbance of treed areas should be minimized, and proposed developments in heavily treed areas shall have site plan agreements containing specific management details regarding the protection of existing trees.</p> <p><b>Q1. How will tree disturbance be minimized if the development is approved?</b></p>
2.	<p>Trees to be retained should be protected by means of snow fencing, wrapping, or other acceptable means during construction (e.g. tree wells).</p>
3.	<p>Existing tree cover or other stabilizing vegetation will be maintained on slopes in excess of 25 per cent (1 in 4 slope).</p> <p><b>Q1. Has it been demonstrated that items 2 and 3 will be met?</b></p>
2.8	<p><b>Wildlife Habitat</b></p> <p>The objective is to protect the habitat of endangered (regulated) as prescribed by the Endangered Species Act, endangered (not regulated), rare, special concern and threatened, plant and animal species, and minimize the impact of new development on wildlife habitat.</p>
1.	<p>New development will not be permitted in identified habitat of endangered (regulated) plant or animal species.</p>
2.	<p>Development shall be designed so as to:</p> <ul style="list-style-type: none"> <li>a) Minimize the impacts upon wildlife habitat, in particular, habitats of endangered (not regulated), rare, special concern, and threatened plant or animal species, as identified by on-site evaluation;</li> <li>b) Maintain wildlife corridors and linkages with adjacent areas; and</li> <li>c) Enhance wildlife habitat wherever possible.</li> </ul>

Section	Policy
	<p><b>Q1. Is habitat of endangered, (regulated or not regulated) rare, special concern and threatened plant or animal species present on the site or on adjacent lands?</b></p> <p><b>Q2. How does the proposed development minimize impact on wildlife habitat?</b></p> <p><b>Q3. How is the impact on wildlife habitat proposed to be minimized?</b></p> <p><b>Q4. How are wildlife corridors linkages maintained with adjacent areas?</b></p> <p><b>Q5. How is wildlife habitat enhanced?</b></p>
<p><b>2.9</b></p> <p><b>4.</b></p>	<p><b>Forest Management</b></p> <p>The objective is to maintain and enhance the forests and associated animal and plant habitats.</p> <p>Reforestation using native tree species shall be encouraged by both provincial and municipal authorities, particularly in areas of shallow and unstable soils, steep slopes, stream valleys, headwaters and groundwater infiltration areas critical to the maintenance of the quality and quantity of natural streams and water supplies; also, to restore open abandoned sub-marginal agricultural land to productivity by growing a forest crop.</p> <p><b>Q1. Is reforestation proposed in the areas identified?</b></p>
<p><b>5.</b></p>	<p>Any tree cutting program should include natural regeneration or rehabilitation through reforestation where necessary.</p> <p><b>Q1. If reforestation is proposed, how has regeneration and rehabilitation been proposed?</b></p>
<p><b>2.11</b></p> <p><b>1.</b></p>	<p><b>Mineral Resources</b></p> <p>The objective is to minimize the impact of new mineral extraction operations and accessory uses on the Escarpment environment.</p> <p>Extractive operations including wayside pits and quarries and haul routes shall not conflict with the following criteria:</p> <ul style="list-style-type: none"> <li>a) The protection of sensitive ecological, geological, historic and archaeological sites or areas.</li> <li>b) The protection of surface and groundwater resources.</li> </ul> <p><b>Q1. Does the proposed development conflict with a) or b)?</b></p> <p><b>Q2. Will the impact of the operation on the Escarpment environment be minimized?</b></p>
<p><b>2.14</b></p> <p><b>1.</b></p>	<p><b>Areas of Natural and Scientific Interest (ANSIs)</b></p> <p>The objective is to protect provincially and regionally significant elements of the natural landscapes of Ontario.</p> <p>Development shall be directed to locate outside of Provincially Significant and Regionally Significant Life Science ANSIs. Minor encroachments will be considered in relation to:</p> <ul style="list-style-type: none"> <li>a) Specific features for which the ANSIs have been identified;</li> <li>b) Protection, natural heritage appreciation, scientific study or educational values and their maintenance; and</li> <li>c) Whether appropriate mitigative measures can be applied to protect ANSI values.</li> </ul>

Section	Policy
	<p><b>Q1. Does the proposal encroach on a Provincially or Regionally significant life science ANSI as defined?</b></p> <p><b>Q2. If so, how have Items a), b) and c) been considered?</b></p> <p><b>Q3. How will Provincially and Regionally significant elements of the natural landscape of Ontario be protected if the development is approved?</b></p>
2.	<p>A setback for development shall be established for Provincially and Regionally Significant Life Science ANSIs or features therein wherever it may be determined that such setback is necessary to maintain the protection, natural heritage appreciation, scientific study, or educational values of such areas. The setback shall be established by the implementing authority in consultation with the Ministry of Natural Resources.</p> <p><b>Q1. Has a setback been established from a Provincially or Regionally Significant Life Science ANSI, if applicable?</b></p> <p><b>Q2. Will the setback maintain the protection, natural heritage appreciation, scientific study or educational values of such areas?</b></p>
3.	<p>In Provincially Significant Earth Science ANSIs development will be considered, provided that:</p> <ul style="list-style-type: none"> <li>a) Development does not significantly alter the natural topography or geological features of the Earth Science ANSI; and</li> <li>b) Methods are employed to minimize the impact of the use on the values for which the site has been identified.</li> </ul> <p><b>Q1. Is development proposed in a Provincially Significant Earth Science ANSI?</b></p> <p><b>Q2. How will Provincially and Regionally significant elements of the natural landscape be protected if the development is approved?</b></p>

# 5.0 Financial Impact Study

## 5.1 Provincial Policy Statement

Section	Policy
<b>1.0</b>	<p><b>Building Strong Healthy Communities</b></p> <p>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.</p>
<b>1.1.5</b>	<p><b>Rural Lands in Municipalities</b></p>
<b>1.1.5.5</b>	<p>Development shall be appropriate to the <i>infrastructure</i> which is planned or available, and avoid the need for the unjustified and/or uneconomical expansion of this <i>infrastructure</i>.</p> <p><b>Q1. Is the proposed development on rural lands as defined?</b>  <b>Q2. If so, is the proposed development appropriate for the infrastructure as defined, which is planned or available in the area?</b>  <b>Q3. In addition, will the proposed development avoid the need for the unjustified and/or uneconomic expansion of infrastructure?</b></p>
<b>1.2.6</b>	<p><b>Land Use Compatibility</b></p> <p><i>Major facilities</i> and <i>sensitive land uses</i> should be planned to ensure they are appropriately designed, buffered and/or separated from each other to prevent or mitigate adverse effects from odour, noise and other contaminants, minimize risk to public health and safety, and to ensure the long-term viability of <i>major facilities</i>.</p>
	<p><b>Q1. How is the proposed development being appropriately designed, buffered and separated from sensitive land uses to prevent or mitigate adverse effects from odour, noise and other contaminants, minimize the risk of public health and safety, and to ensure the long-term viability of the proposed development?</b></p>
<b>1.6</b>	<p><b>Infrastructure and Public Service Facilities</b></p>
<b>1.6.1</b>	<p><i>Infrastructure</i>, electricity generation facilities and transmission and distribution systems, and <i>public service facilities</i> shall be provided in a coordinated, efficient and cost effective manner that considers impacts from climate change while accommodating projected needs.</p> <p>Planning for <i>infrastructure</i>, electricity generation facilities and transmission and distribution systems, and public service facilities shall be coordinated and integrated with land use planning so that they are:</p> <ul style="list-style-type: none"> <li>a) financially viable over the life cycle, which may be demonstrated through asset management planning; and</li> <li>b) available to meet current and projected needs.</li> </ul>

Section	Policy
	<p><b>Q1. Is new infrastructure to be provided and if so is it being provided in a coordinated, efficient and cost effective manner that considers impacts from climate change while accommodating projected needs?</b></p> <p><b>Q2. If existing infrastructure is proposed to be upgraded and/or improved, is it being done in a coordinated, efficient and cost effective manner that considers impacts from climate change while accommodating projected needs?</b></p>
<p><b>1.6.3</b></p>	<p>Before consideration is given to developing new <i>infrastructure</i> and <i>public service facilities</i>:</p> <p>a) the use of existing <i>infrastructure</i> and <i>public service facilities</i> should be optimized; and  b) opportunities for adaptive re-use should be considered, where feasible.</p> <p><b>Q1. Is existing infrastructure being optimized wherever feasible, before consideration is being given to developing new infrastructure as a consequence of the approval of the proposal?</b></p> <p><b>Q2. Are opportunities for adaptive re-use being considered, wherever feasible, before consideration is being given to developing new infrastructure as a consequence of the approval of the proposal?</b></p>
<p><b>1.6.6.1</b></p>	<p>Planning for sewage and water services shall:</p> <p>b) ensure that the systems are provided in a manner that:</p> <ol style="list-style-type: none"> <li>1. can be sustained by the water resources upon which such services rely;</li> <li>2. is feasible, financially viable and complies with all regulatory departments; and,</li> <li>3. protects human health and the natural environment.</li> </ol> <p><b>Q1. Will the sewage and water services proposed conform with these criteria?</b></p>
<p><b>1.6.7.2</b></p>	<p>Efficient use shall be made of existing and planned <i>infrastructure</i>, including through the use of <i>transportation demand management</i> strategies, where feasible.</p> <p><b>Q1. Is the proposal relying upon existing and planned infrastructure and is the use of that infrastructure determined to be efficient?</b></p> <p><b>Q2. Are there any costs involved to upgrade existing or planned infrastructure?</b></p> <p><b>Q3. If so, how will these costs be funded?</b></p>
<p><b>1.7</b></p> <p><b>1.7.1</b></p>	<p><b>Long-term Economic Prosperity</b></p> <p>Long-term economic prosperity should be supported by:</p> <p>a) promoting opportunities for economic development and community investment-readiness.</p>
	<p><b>Q1. How does the proposal support economic development and community investment readiness?</b></p>

Section	Policy
<p><b>2.5.3</b></p> <p><b>2.5.3.1</b></p>	<p><b>Rehabilitation</b></p> <p>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.</p> <p><b><i>Q1. Will the proposed progressive and final rehabilitation involve long-term monitoring and/or long term management?</i></b></p> <p><b><i>Q2. If so, what are the financial impacts and who will be responsible for their funding?</i></b></p> <p><b><i>Q3. What are the financial costs and benefits of rehabilitation?</i></b></p>
<p><b>3.2</b></p> <p><b>3.2.1</b></p>	<p><b>Human-Made Hazards</b></p> <p>Development on, abutting or adjacent to lands affected by mine hazards; oil, gas and salt hazards; or formal mineral mining operations, mineral aggregate operations or petroleum resource operations may be permitted only if rehabilitation measures to address and mitigate known or suspected hazards are underway or have been completed.</p> <p><b><i>Q1. Do the proposed rehabilitation plans create human made hazards over the long term that may affect development on adjacent lands?</i></b></p>

## 5.2 Greenbelt Plan

Section	Policy
4.3.2.2	<p>Non-renewable resources are those non-agriculture based natural resources that have a finite supply, including mineral aggregate resources. Aggregates, in particular, provide significant building materials for our communities and infrastructure, and the availability of aggregates close to market is important both for economic and environmental reasons.</p> <p><b><i>Q1. Has the proponent demonstrated that the proposed location of the use is important for economic reasons as it relates to providing building materials for our communities and infrastructure?</i></b></p>

### 5.3 Niagara Escarpment Plan

Section	Policy
	No relevant Policies apply.

# 6.0 Land Use Compatibility Study

## 6.1 Provincial Policy Statement

Section	Policy
1.0	<p><b>Building Strong Healthy Communities</b></p> <p>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.</p>
1.1	<p><b>Managing and Directing Land Use to Achieve Efficient and Resilient Development and Land Use Patterns</b></p>
1.1.1	<p>Healthy, liveable and safe communities are sustained by:</p>
	<ul style="list-style-type: none"> <li>a) promoting efficient development and land use patterns which sustain the financial well-being of the Province and municipalities over the long term;</li> <li>c) avoiding development and land use patterns which may cause environmental or public health and safety concerns;</li> <li>d) avoiding development and land use patterns that would prevent the efficient expansion of <i>settlement areas</i> in those areas which are adjacent or close to <i>settlement areas</i>.</li> </ul> <p><b>Q1. Does the proposal have an impact on the promotion of efficient development and land use patterns in the area?</b></p> <p><b>Q2. Will development and land use patterns that may cause environmental or public health and safety concerns be avoided if the proposal is approved?</b></p> <p><b>Q3. Will the proposal prevent the efficient expansion of Settlement Areas?</b></p>
1.1.5	<p><b>Rural Lands in Municipalities</b></p>
1.1.5.3	<p>Recreational, tourism and other economic opportunities should be promoted.</p> <p><b>Q1. Is the proposed development on rural lands?</b></p> <p><b>Q2. What impacts will the proposal have on the promotion of recreation, tourism and other economic opportunities on rural lands from a land use compatibility perspective?</b></p>
1.1.5.4	<p>Development that is compatible with the rural landscape and can be sustained by rural service levels should be promoted.</p> <p><b>Q1. Is the proposed development on rural lands?</b></p> <p><b>Q2. Is so, will the proposed development be compatible with the rural landscape and sustained by rural service levels?</b></p>

Section	Policy
1.1.5.6	<p>Opportunities should be retained to locate new or expanding land uses that require separation from other uses.</p> <p><b>Q1. Is the proposed development in a rural area?</b>  <b>Q2. Will the proposal have an impact on the opportunities that may be available to locate new or expanding land uses that require separation from other uses on rural lands?</b></p>
1.2.6	<p><b>2. Land Use Compatibility</b></p>
1.2.6.1	<p><i>Major facilities and sensitive land uses</i> should be planned to ensure they are appropriately designed, buffered and/or separated from each other to prevent or mitigate adverse effects from odour, noise and other contaminants, minimize risk to public health and safety, and to ensure the long-term viability of <i>major facilities</i>.</p> <p><b>Q1. Has the proposed extraction activity been appropriately designed, buffered and/or separated from sensitive land uses to prevent adverse effects?</b>  <b>Q2. What impacts will the proposal have on the ability of potentially sensitive land uses to be developed in the vicinity and in the future if the proposal is approved?</b></p>
1.7	<p><b>Long-term Economic Prosperity</b></p> <p>Long-term economic prosperity should be supported by:</p> <ul style="list-style-type: none"> <li>g) providing opportunities for sustainable tourism development;</li> <li>f) providing opportunities to support local food, and promoting the sustainability of agri-food and agri-product businesses by protecting agricultural resources, and minimizing land use conflicts.</li> </ul> <p><b>Q1. What impacts will the proposal have on opportunities for providing sustainable tourism development?</b>  <b>Q2. What impacts will the proposal have on the sustainability of agri-food and agri-product businesses?</b>  <b>Q3. How will land use conflicts with agri-food and agri-product businesses be minimized if the proposal is approved?</b></p>
2.5	<p><b>Mineral Aggregate Resources</b></p> <p><b>2.5.2 Protection of Long-Term Resource Supply</b></p> <p><b>2.5.2.2</b> Extraction shall be undertaken in a manner which minimizes social, economic and environmental impacts.</p> <p><b>Q1. Has it been demonstrated that extraction will occur in a manner that minimizes social, economic and environmental impacts from a land use compatibility perspective?</b></p>
2.5.2.4	<p><i>Mineral aggregate operations</i> shall be protected from <i>development</i> 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 <i>mineral aggregate operations</i> shall be permitted to continue without the need for official plan amendment, rezoning or development permit under the <i>Planning Act</i>. When a license for extraction or</p>

Section	Policy
	operation ceases to exist, policy 2.5.2.5 continues to apply.
	<p><b><i>Q1. Is there development or activities in the vicinity of the proposal that may preclude or hinder the expansion or continued use of the operation in the future?</i></b></p> <p><b><i>Q2. Are there land use planning permissions in place in the vicinity of the proposal that may preclude or hinder the expansion or continued use of the operation in the future, if they are implemented?</i></b></p>
<p><b>2.5.3</b></p> <p><b>2.5.3.1</b></p>	<p><b>Rehabilitation</b></p> <p>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.</p> <p><b><i>Q1. Does the rehabilitation/monitoring plan propose progressive and final rehabilitation that promotes land use compatibility with surrounding land uses?</i></b></p> <p><b><i>Q2. Does the proposed rehabilitation plan recognize the interim nature of the use from a land use compatibility perspective?</i></b></p> <p><b><i>Q3. Does the proposed rehabilitation plan mitigate negative impacts to the extent possible?</i></b></p>

## 6.2 Greenbelt Plan

Section	Policy
<p>4.3.2</p> <p>2.</p>	<p><b>General Infrastructure Policies</b> For lands falling within the Protected Countryside, the following policies shall apply:</p> <p>The location and construction of <i>infrastructure</i> and expansions, extensions, operations and maintenance of <i>infrastructure</i> in the Protected Countryside, are subject to the following:</p> <ul style="list-style-type: none"> <li>b) Planning, design and construction practices shall minimize, wherever possible, the <i>negative impacts</i> and disturbance of the existing landscape, including, but not limited to, impacts caused by light intrusion, noise and road salt;</li> </ul> <p><b>Q1. How does the construction of infrastructure associated with the proposal minimize the negative impacts and disturbances of the existing landscape and impacts caused by light intrusion, noise and road salt?</b></p>
<p>5.</p>	<p>When operators are undertaking rehabilitation of <i>mineral aggregate operation</i> sites in the Protected Countryside, the following provisions apply:</p> <ul style="list-style-type: none"> <li>e) Outside the Natural Heritage System, and except as provided in 4.3.2.5 (b), (c) and (d), final rehabilitation will appropriately reflect the long-term land use of the general area, taking into account applicable policies of this Plan and, to the extent permitted under this Plan, existing municipal and provincial policies.</li> </ul> <p><b>Q1. If the proposed development is located outside the Natural Heritage System, does the final rehabilitation/monitoring plan appropriately reflect the long-term land use of the general area?</b></p>

## 6.3 Niagara Escarpment Plan

Section	Policy
5.	<p><b>Objective</b></p> <p>To ensure that all new development is compatible with the purpose of the Plan;</p> <p><b>Q1. How is the proposed development compatible with this objective of the NEP?</b></p>
1.5  3.	<p><b>Escarpment Rural Area</b></p> <p>The objectives of the Escarpment Rural Area are to:</p> <p>To encourage agriculture and forestry and to provide for compatible rural land uses.</p> <p><b>Q1. Is the proposed use a compatible rural land use?</b> <b>Q2. How and why?</b></p>
2.11  1.	<p><b>Mineral Resources</b></p> <p>The objective is to minimize the impact of new mineral extraction operations and accessory uses on the Escarpment environment.</p> <p>Extractive operations including wayside pits and quarries and haul routes shall not conflict with the following criteria:</p> <ul style="list-style-type: none"> <li>a) The protection of sensitive ecological, geological, historic and archaeological sites or areas.</li> <li>b) The protection of surface and groundwater resources.</li> <li>c) The maintenance of agricultural areas, in accordance with the Agricultural Policies of the Provincial Policy Statement (PPS).</li> <li>d) The minimization of the adverse impact of extractive and accessory operations on existing agricultural or residential development</li> <li>e) The preservation of the natural and cultural landscapes as much as possible during extraction and after rehabilitation.</li> <li>f) The minimization of the adverse impact of extractive and accessory operations on parks, open space and the existing and optimum routes of the Bruce Trail.</li> </ul> <p><b>Q1. How has it been demonstrated that the proposal will not conflict with the criteria of the section?</b></p>
3.	<p>As a condition of the licence the extractive operation shall be screened while it is in progress and, where possible, prior to extraction in a manner compatible with the surrounding visual environment.</p> <p><b>Q1. Is the development proposed to be screened prior to development and while extraction is in progress?</b> <b>Q2. Is screening proposed in a manner that ensures that extraction will be compatible with the surrounding visual environment?</b> <b>Q3. Does the development have regard for the Visual Impact Guidelines of the NEC and has the applicant submitted a visual impact assessment with their application?</b></p>

Section	Policy
4.	<p>Screening shall incorporate the following:</p> <ul style="list-style-type: none"> <li>a) Overburden material supplemented with native tree and shrub plantings should be utilized for screening purposes.</li> <li>b) Tree screen plantings are to be of compatible species and sizes to permit only very limited visual contact from the surrounding landscape.</li> <li>c) All plantings should be properly maintained to ensure continued survival and good growth rates.</li> <li>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 stock piling of overburden materials will be permitted within the forested area being used as a natural screen.</li> </ul> <p><b>Q1. Has screening been proposed in accordance with the requirements of this section?</b></p>
5.	<p>Wherever possible, rehabilitation shall be progressive as the extraction proceeds. Progressive rehabilitation may include the use of off-site material, and where on-site material is not available, minimal amounts of off-site material required to stabilize and re-vegetate disturbed areas, but shall not include any major regarding toward a planned after-use with the deposition of off-site material.</p>
6.	<p>The use of off-site material for progressive rehabilitation must also be acceptable to the Ministry of Environment and the Ministry of Natural Resources.</p> <p><b>Q1. Is the proposed rehabilitation progressive in nature?</b>  <b>Q2. Has the use of off-site materials been minimized?</b>  <b>Q3. Is any major re-grading toward a planned after use with the deposition of off-site material proposed?</b></p>
8.	<p>All accessory uses to the Mineral Resource Extraction Area operation shall be discontinued and be required to vacate the property as soon as the site is depleted, and on-site processed material has been transported from the property.</p> <p><b>Q1. Does the rehabilitation/monitoring plan identify that accessory uses will be removed from the property post site development?</b></p>
9.	<p>Rehabilitation shall incorporate the following:</p> <ul style="list-style-type: none"> <li>a) Excess topsoil and overburden are to be retained and stabilized for future rehabilitation.</li> <li>b) All excavated pit walls are to be re-graded to a slope of 3 to 1 or less except in regions where topsoil and fill materials are scarce. In such areas finished slopes may be no steeper than 2 to 1. Exposed sections of pit or quarry faces may be left unrehabilitated for aesthetic or educational purposes as incorporated into an approved after use plan.</li> <li>c) Vegetation, including seeding, crops or trees and shrubs, shall be planted as soon as possible following finished grading.</li> </ul> <p><b>Q1. Has site rehabilitation been proposed in accordance with the requirements of this section?</b></p>

# 7.0 Rehabilitation/Monitoring Study

## 7.1 Provincial Policy Statement

Section	Policy
<p><b>2.5</b></p> <p><b>2.5.3</b></p> <p><b>2.5.3.1</b></p>	<p><b>Mineral Aggregate Resources</b></p> <p><b>Rehabilitation</b></p> <p>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.</p> <p><b>Q1. Does the proposed rehabilitation plan promote land use compatibility?</b>  <b>Q2. Does the proposed rehabilitation plan recognize the interim nature of extraction?</b>  <b>Q3. Does the proposed rehabilitation plan mitigate negative impacts to the extent possible?</b>  <b>Q4. Does the proposed rehabilitation plan take surrounding land use and approved land use designations into consideration?</b></p>
<p><b>2.5.4</b></p> <p><b>2.5.4.1</b></p>	<p><b>Extraction in Prime Agricultural Areas</b></p> <p>In <i>prime agricultural areas</i>, on <i>prime agricultural land</i>, extraction of <i>mineral aggregate resources</i> is permitted as an interim use provided that the site will be rehabilitated back to an <i>agricultural condition</i>.</p> <p>Complete rehabilitation to an <i>agricultural condition</i> is not required if:</p> <ul style="list-style-type: none"> <li>a) outside of a <i>specialty crop area</i>, there is a substantial quantity of <i>mineral aggregate resources</i> below the water table warranting extraction, or the depth of planned extraction in a quarry makes restoration of pre-extraction agricultural capability unfeasible;</li> <li>b) in a <i>specialty crop area</i>, there is a substantial quantity of <i>high quality mineral aggregate resources</i> below the water table warranting extraction, and the depth of planned extraction makes restoration of pre-extraction agricultural capacity unfeasible;</li> <li>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 <i>designated growth areas</i>, and resources on <i>prime agricultural lands</i> where rehabilitation is feasible. Where no other alternatives are found, <i>prime agricultural lands</i> shall be protected in this order of priority: <i>specialty crop areas</i>, Canada Land Inventory Classes 1, 2 and 3; and</li> <li>d) agricultural rehabilitation in remaining areas is maximized.</li> </ul> <p><b>Q1. If the development is proposed on prime agricultural land in a prime agricultural area, how are the lands proposed to be rehabilitated back to an agricultural condition in accordance with this section?</b></p>

Section	Policy
<p><b>3.2</b></p> <p><b>3.2.1</b></p>	<p><b>Human-Made Hazards</b></p> <p>Development on, abutting or adjacent to lands affected by <i>mine hazards; oil, gas and salt hazards; or former mineral mining operations, mineral aggregate operations or petroleum resource operations</i> may be permitted only if rehabilitation or other measures to address and mitigate known or suspected hazards are under way or have been completed.</p> <p><b>Q1. How does the rehabilitation/monitoring plan propose to address and mitigate suspected hazards created from the development in a manner that does not preclude future development on adjacent lands?</b></p>

## 7.2 Greenbelt Plan

Section	Policy
<p><b>4.3.2</b></p> <p><b>3.</b></p>	<p><b><i>Non-Renewable Resource Policies</i></b> For lands within the Protected Countryside, the following policies shall apply:</p> <p>Notwithstanding the Natural System policies of section 3.2 of this Plan, within the Natural Heritage System, <i>mineral aggregate operations</i> and wayside pits and quarries are subject to the following:</p> <ul style="list-style-type: none"> <li>c) An application for a new <i>mineral aggregate operation</i> or new wayside pits and quarries may only be permitted in other <i>key natural heritage features</i> and <i>key hydrologic features</i> not identified in 4.3.2.3 (a) and any <i>vegetation protection zone</i> associated with such other feature where the application demonstrates: <ul style="list-style-type: none"> <li>i. How the Water Resource System will be protected or enhanced; and</li> <li>ii. That the specific provisions in 4.3.2.5 (c), (d) and 4.3.2.6 (c) have been addressed, and that they will be met by the operation; and</li> </ul> </li> <li>d) Any application for a new <i>mineral aggregate operation</i>, or the expansion of an existing <i>mineral aggregate operation</i> shall be required to demonstrate: <ul style="list-style-type: none"> <li>i. How the <i>connectivity</i> between <i>key natural heritage features</i> and <i>key hydrologic features</i> will be maintained before, during and after the extraction of mineral aggregates;</li> <li>ii. How the operator could immediately replace any habitat that would be lost from the site with equivalent habitat on another part of the site or on adjacent lands; and</li> <li>iii. How the Water Resource System will be protected or enhanced.</li> </ul> </li> </ul> <p><b>Q1. If the proposal is in a key natural heritage area or key hydrologic area not identified in 4.3.2.3 (a) or associated vegetation protection zone, how have the provision of 4.3.2.5 (c), (d) and 4.3.2.6 (c) have been addressed?</b></p> <p><b>Q2. Has it been demonstrated that the operator will immediately replace any habitat that would be lost from the site with equivalent habitat on another part of the site or on adjacent lands?</b></p> <p><b>Q3. How does the rehabilitation and monitoring plan indicate that connectivity between key natural heritage features and key hydrologic features be maintained before, during and after the extraction of materials?</b></p> <p><b>Q4. How is the water resource system proposed to be protected or enhanced?</b></p>
<p><b>4.</b></p>	<p>The Ministry of Natural Resources will pursue the following under the <i>Aggregate Resources Act</i>, for all <i>mineral aggregate operations</i>, including wayside pits and quarries, within the Protected Countryside:</p> <ul style="list-style-type: none"> <li>a) Rehabilitated area will be maximized and disturbed area minimized on an ongoing basis during the life-cycle of an operation;</li> <li>b) Progressive and final rehabilitation efforts will contribute to the goals of the Greenbelt Plan;</li> <li>c) The Ministry of Natural Resources will determine the maximum allowable</li> </ul>

Section	Policy
	<p>disturbed area of each <i>mineral aggregate operation</i>. Any excess disturbed area above the maximum will be required to be rehabilitated. For existing operations this shall be completed within 10 years of the date of approval of the Greenbelt Plan, and 50% completed within six years. For new operations, including expansions, the total disturbed area shall not exceed an established maximum allowable disturbed area; and</p> <p>d) An application for a <i>mineral aggregate operation</i> or wayside pits and quarries may be permitted only where the applicant demonstrates that the quantity and quality of groundwater and surface water will be maintained as per Provincial Standards under the <i>Aggregate Resources Act</i>.</p>
	<p><b>Q1. Will the Rehabilitation Plan conform with the criteria established in this section?</b></p>
<p>5.</p>	<p>When operators are undertaking rehabilitation of <i>mineral aggregate operation</i> sites in the Protected Countryside, the following provisions apply:</p> <p>a) The aggregate industry will work with the Ministry of Natural Resources to consider the development and implementation of comprehensive rehabilitation plans in areas of high concentration of <i>mineral aggregate operations</i>;</p> <p>b) The disturbed area of a site will be rehabilitated to a state of equal or greater <i>ecological value</i>, and for the entire site, long-term ecological integrity will be maintained or restored, and to the extent possible, improved;</p> <p>c) If there are <i>key natural heritage features</i> or <i>key hydrologic features</i> on the site, or if such features existed on the site at the time of application:</p> <p>i. The health, diversity and size of these <i>key natural heritage features</i> and <i>key hydrologic features</i> will be maintained or restored and, to the extent possible, improved to promote a net gain of ecological health; and</p> <p>ii. Any permitted extraction of mineral aggregates that occurs in a feature will be completed, and the area will be rehabilitated, as early as possible in the life of the operation.</p> <p>d) Aquatic areas remaining after extraction are to be rehabilitated to aquatic enhancement, which shall be representative of the natural ecosystem in that particular setting or ecodistrict, and the combined terrestrial and aquatic rehabilitation shall meet the intent of 4.3.2.5 (c).</p> <p>e) Outside the Natural Heritage System, and except as provided in 4.3.2.5 (b), (c) and (d), final rehabilitation will appropriately reflect the long-term land use of the general area, taking into account applicable policies of this Plan and, to the extent permitted under this Plan, existing municipal and provincial policies.</p> <p><b>Q1. How is the disturbed area of the site proposed to be rehabilitated to a state of equal or greater ecological value?</b></p> <p><b>Q2. Has it been demonstrated through the rehabilitation plan that the long-term ecological integrity of the entire site will be maintained or restored and to the extent possible improved?</b></p>

Section	Policy
	<p><b>Q3. How are the health, diversity and size of the key natural heritage features and key hydrologic features on the site to be maintained or restored and to the extent possible, improved to promote a net gain of ecological health?</b></p> <p><b>Q4. Will any extraction area that occurs in a feature be rehabilitated as early as possible in the life of the operation?</b></p> <p><b>Q5. Will proposed aquatic areas conform to Subsection d)?</b></p> <p><b>Q6. Has the policy in Section e) been met if the lands are outside the natural heritage system?</b></p>
6.	<p>Final rehabilitation in the Natural Heritage System will meet these additional provisions:</p> <ul style="list-style-type: none"> <li>a) Where there is no underwater extraction, an amount of land equal to that under natural vegetated cover prior to extraction, and no less than 35% of each license, is to be rehabilitated to forest cover, which shall be representative of the natural ecosystem in that particular setting or ecodistrict;</li> <li>b) Where there is underwater extraction, no less than 35% of the non-aquatic lands of each license is to be rehabilitated to forest cover, which shall be representative of the natural ecosystem in that particular setting or ecodistrict; and</li> <li>c) Rehabilitation will be implemented so that the connectivity of the <i>key natural heritage features</i> and the <i>key hydrologic features</i> on the site and on adjacent lands will be maintained or restored, and to the extent possible, improved.</li> </ul> <p><b>Q1. How does the rehabilitation/monitoring plan meet these provisions?</b></p>
7.	<p>Operators are encouraged to consider and provide for public access to former aggregate sites upon final rehabilitation.</p> <p><b>Q1. Has public access to the site been considered as part of the rehabilitation plan?</b></p>
10.	<p>Municipalities should ensure that all land use activities related to the post extraction rehabilitation of mineral aggregate operations are consistent with any relevant approved source protection plan and relevant watershed or sub-watershed plan.</p> <p><b>Q1. How has it been demonstrated that through rehabilitation and monitoring that post extraction land uses will be consistent with approved source protection plans and relevant watershed or sub-watershed plans?</b></p>

### 7.3 Niagara Escarpment Plan

Section	Policy
<p><b>1.5</b></p> <p><b>1.</b></p>	<p><b>Development Policies for Mineral Extraction</b> In evaluating applications for amendment:</p> <p>b) Opportunities for achieving the objectives of Section 8 of the <i>Niagara Escarpment Planning and Development Act</i> through the final rehabilitation of the site;</p> <p>d) Capability of the land for agricultural uses and its potential for rehabilitation for agricultural uses.</p> <p><b>Q1. Can the objectives of the NEP be met?</b></p>
<p><b>1.9</b></p> <p><b>4.</b></p>	<p><b>Mineral Resource Extraction Area</b> The Mineral Resource Extraction Area designation includes pits and quarries licensed pursuant to the <i>Aggregate Resources Act</i> and areas where mineral resource extraction may be permitted subject to the policies of this Plan.</p> <p>The objectives of the Mineral Resource Extraction Area are:</p> <p>To ensure that after uses and rehabilitation are compatible with the applicable Plan designation, the surrounding environment and existing uses.</p> <p><b>Q1. How has the rehabilitation/monitoring plan demonstrated that after uses will be compatible with the surrounding environment and existing uses?</b></p>
<p><b>5.</b></p>	<p>To encourage, where possible, the rehabilitated after uses of pits and quarries to be integrated into the Niagara Escarpment Parks and Open Space System.</p> <p><b>Q1. Is the property proposed to be rehabilitated and integrated into the Niagara Escarpment Parks and Open Space System?</b></p>
<p><b>1.</b></p> <p><b>4.</b></p>	<p><b>After Uses, Permitted Uses and New Lots</b></p> <p>Except for progressive rehabilitation, as set out in the Development Criteria for Mineral Resources in Parts 2.11.5, 2.11.6 and 2.11.9 of this Plan, any new lot creation or any change in land use within a Mineral Resource Extraction Area, other than the identified permitted uses, shall require an amendment to the Niagara Escarpment Plan.</p> <p>Where the rehabilitation is being undertaken by reforestation, the after use shall aim to re-establish a functioning ecosystem similar in condition to the natural ecosystems in the region.</p> <p><b>Q1. How has the rehabilitation/monitoring plan identified that where rehabilitation by reforestation is proposed, rehabilitation will occur in a manner that re-establishes the functioning eco-systems similar in condition to natural eco-systems in the Region?</b></p>
<p><b>5.</b></p> <p><b>6.</b></p>	<p>The site shall be rehabilitated in accordance with the objectives of the applicable redesignation of the Niagara Escarpment Plan and be compatible with and have minimal impact upon the surrounding natural and visual environment and existing uses.</p> <p>Where the rehabilitation is being undertaken to agriculture, substantially the same acreage and average soil capability for agriculture shall be restored.</p>

Section	Policy
7.	<p><b>Q1. Does the rehabilitation/monitoring plan indicate that, where rehabilitation to an agricultural use is proposed that substantially the same acreage and average soil capability for agricultural is to be restored?</b></p> <p>After uses shall be subject to conformity with Part 2, Development Criteria.</p> <p><b>Q1. Does the proposed after use of this site conform with the development criteria of this plan?</b></p>
2.11  1.	<p><b>Mineral Resources</b></p> <p>The objective is to minimize the impact of new mineral extraction operations and accessory uses on the Escarpment environment.</p> <p>e) The preservation of the natural and cultural landscapes as much as possible during extraction and after rehabilitation.</p> <p><b>Q1. How does the rehabilitation/monitoring plan propose to preserve natural and cultural landscapes after rehabilitation?</b></p>
5.	<p>Wherever possible, rehabilitation shall be progressive as the extraction proceeds. Progressive rehabilitation may include the use of off-site material, and where on-site material is not available, minimal amounts of off-site material required to stabilize and re-vegetate disturbed areas, but shall not include any major re-grading toward a planned after-use with the deposition of off-site material.</p> <p><b>Q1. Has it been demonstrated that the intent of this section will be met?</b></p>
6.  9.	<p>The use of off-site material for progressive rehabilitation must also be acceptable to the Ministry of Environment and the Ministry of Natural Resources.</p> <p>Rehabilitation shall incorporate the following:</p> <p>a) Excess topsoil and overburden are to be retained and stabilized for future rehabilitation.</p> <p>b) All excavated pit walls are to be re-graded to a slope of 3 to 1 or less except in regions where topsoil and fill materials are scarce. In such areas finished slopes may be no steeper than 2 to 1. Exposed sections of pit or quarry faces may be left unrehabilitated for aesthetic or educational purposes as incorporated into an approved after use plan.</p> <p>c) Vegetation, including seeding, crops or trees and shrubs, shall be planted as soon as possible following finished grading.</p> <p><b>Q1. Is rehabilitation proposed in accordance with the requirements of this section?</b></p>

# 8.0 Transportation / Haul Route Study

## 8.1 Provincial Policy Statement

Section	Policy
1.0	<p><b>Building Strong Healthy Communities</b></p> <p>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.</p>
1.1.1	<p>Healthy, liveable and safe communities are sustained by:</p> <ul style="list-style-type: none"> <li>a) promoting efficient development and land use patterns which sustain the financial well-being of the Province and municipalities over the long term;</li> </ul> <p><b>Q1. Will the transportation infrastructure to be utilized by the proposed use have an impact on the financial well-being of the Province and municipalities affected over the long term?</b></p>
1.1.1	<p>Healthy, liveable and safe communities are sustained by:</p> <ul style="list-style-type: none"> <li>c) avoiding development and land use patterns which may cause environmental or public health and safety concerns.</li> </ul> <p><b>Q1. Will environmental or public health and safety concerns be avoided if the proposed haul route is selected?</b>  <b>Q2. Have all potential environmental or public health and safety concerns been identified?</b></p>
1.1.1	<p>Healthy, liveable and safe communities are sustained by:</p> <ul style="list-style-type: none"> <li>g) ensuring that necessary <i>infrastructure</i>, electricity generation facilities and transmission distribution systems, and <i>public service facilities</i> are or will be available to meet current and projected needs.</li> </ul> <p><b>Q1. Is the transportation infrastructure proposed to be utilized sufficient to meet the current and projected needs arising from the establishment of the proposed use?</b></p>
1.1.5	<p><b>Rural Lands in Municipalities</b></p>
1.1.5.2	<p>On rural lands located in municipalities, permitted uses area:</p> <ul style="list-style-type: none"> <li>a) the management or use of resources;</li> <li>b) resource-based recreational uses (including recreational dwellings)</li> <li>c) limited residential development;</li> <li>d) home occupations and home industries;</li> </ul>

Section	Policy
	<p>e) cemeteries; and f) other rural land uses.</p>
	<p><b>Q1. Will the use of the transportation infrastructure as proposed have an impact on the establishment of other uses permitted on rural lands?</b></p>
<p><b>1.1.4.1</b></p>	<p>b) In rural areas located in municipalities, 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.</p> <p><b>Q1. Is the development appropriate to the infrastructure that is planned or available?</b> <b>Q2. Has the need for the unjustified and/or uneconomical expansion of this infrastructure been avoided?</b></p>
<p><b>1.1.5.3</b></p>	<p>Recreational, tourism and other economic opportunities should be promoted.</p> <p><b>Q1. Will the use of the proposed haul route by truck traffic have an impact on the promotion of recreational, tourism and other economic opportunities in the area?</b></p>
<p><b>1.1.5.4</b></p>	<p>Development that is compatible with the rural landscape and can be sustained by rural service levels should be promoted.</p> <p><b>Q1. Is the haul route serving the proposed development compatible with the rural landscape?</b> <b>Q2. Can the proposed haul route be sustained by rural service levels?</b></p>
<p><b>1.2.1</b></p>	<p>A coordinated, integrated and comprehensive approach to be used when dealing with planning matters within municipalities, across lower, single and/or upper tier municipal boundaries, and with other orders of government, agencies and boards, including:</p> <p>d) infrastructure, electricity generation facilities and transmission and distribution systems, <i>multimodal transportation systems, public service facilities and waste management systems.</i></p> <p><b>Q1. Do any of the proposed haul routes cross municipal boundaries?</b> <b>Q2. If so, has the review of the impacts of the proposed haul route been coordinated between municipalities?</b></p>
<p><b>1.2.6</b></p>	<p><b>Land Use Compatibility</b></p>
<p><b>1.2.6.1</b></p>	<p><i>Major facilities and sensitive land uses</i> should be planned to ensure they are appropriately designed, buffered and/or separated from each other to prevent or mitigate adverse effects from odour, noise and other contaminants, minimize risk to public health and safety, and to ensure the long-term viability of <i>major facilities.</i></p> <p><b>Q1. Has it been demonstrated that the transportation corridor to be utilized by trucks has been appropriately designed, buffered and/or separated from sensitive land uses to minimize risk to public health and safety?</b></p>

Section	Policy
1.6.3	<p>Before consideration is given to developing new <i>infrastructure</i> and <i>public service facilities</i>:</p> <p>a) the use of existing <i>infrastructure</i> and <i>public service facilities</i> should be optimized; and  b) opportunities for adaptive re-use should be considered, wherever feasible.</p> <p><b>Q1. Is existing infrastructure being optimized wherever feasible, before consideration is being given to developing new infrastructure as a consequence of the approval of the proposal?</b></p> <p><b>Q2. Are opportunities for adaptive re-use being considered, wherever feasible, before consideration is being given to developing new infrastructure as a consequence of the approval of the proposal?</b></p>
1.6.7 1.6.7.1	<p><b>Transportation Systems</b></p> <p><i>Transportation systems</i> should be provided which are safe, energy efficient, facilitate the movement of people and goods, and are appropriate to address projected needs.</p> <p><b>Q1. Are the routes proposed for the transportation of materials safe, energy efficient, facilitate the movement of people and goods and appropriate to address projected needs?</b></p> <p><b>Q2. What impact will the proposed use have on the current level of service and the level of service predicted in the future?</b></p> <p><b>Q3. How will that level of service be maintained or enhanced if the proposal is approved?</b></p>
1.6.7.2	<p>Efficient use shall be made of existing and planned <i>infrastructure</i>, including through the use of <i>transportation demand management strategies</i>, where feasible.</p> <p><b>Q1. Does the proposal make use of existing transportation infrastructure or is new infrastructure planned?</b></p>
1.6.7.5	<p>Transportation and land use considerations shall be integrated at all stages of the planning process.</p> <p><b>Q1. Have both land use and transportation issues been considered together as part of the process?</b></p>
1.6.8 1.6.8.1	<p><b>Transportation and Infrastructure Corridors</b></p> <p>Planning authorities shall plan for and protect corridors and rights-of-way for <i>infrastructure</i>, including transportation, transit and electricity generation facilities and transmission systems to meet current and projected needs.</p> <p><b>Q1. Do the corridors proposed to be used have a right-of-way that is suitable to meet current and projected needs, as modified by the additional truck traffic proposed on these roads?</b></p>
1.6.8.3	<p>Planning authorities shall not permit <i>development in planned corridors</i> that would preclude or negatively affect the use of the corridor for the purpose(s) for which it was identified.</p> <p>New <i>development</i> proposed on <i>adjacent lands</i> to existing or <i>planned corridors</i> and</p>

Section	Policy
	<p>transportation facilities should be compatible with, and supportive of, the long-term purposes of the corridor and should be designed to avoid, mitigate or minimize negative impacts on and from the corridor and transportation facilities.</p>
	<p><b>Q1. Does the proposal rely upon a planned corridor as defined?</b>  <b>Q2. If so, will the proposal negatively affect the use of the corridor?</b>  <b>Q3. If so, is the proposal compatible with, and supportive of, the long-term purposes of the corridor?</b>  <b>Q4. If so, how will the proposal be designed so as to avoid, mitigate, or minimize negative impacts on and from the corridor and transportation facilities?</b></p>
1.6.8.5	<p>When planning for corridors and rights-of-way for significant transportation, electricity transmission, and <i>infrastructure</i> facilities, consideration will be given to the significant resources in Section 2: Wise Use and Management of Resources.</p> <p><b>Q1. Has the need to provide for the transportation of resources been factored into long term planning of the area?</b></p>
1.7.1	<p>Long term economic prosperity should be supported by:</p> <p style="padding-left: 40px;">h) providing opportunities to support local food and promoting the sustainability of agri-food and agri-product businesses by protecting agricultural resources, and minimizing land use conflicts.</p> <p><b>Q1. Will land use conflicts with agri-food and agri-product businesses and the agricultural resources in the area be minimized if the proposed haul route is selected?</b></p>
2.5.2.2	<p>Extraction shall be undertaken in a manner which minimizes social, economic and environmental impacts.</p> <p><b>Q1. Has it been demonstrated that the haul route proposed will be designed and used in a manner that minimizes social, economic and environmental impacts?</b></p>
2.6.1	<p><i>Significant built heritage resources and significant cultural heritage landscapes shall be conserved.</i></p> <p><b>Q1. Are any significant built heritage resources and/or significant cultural heritage landscapes located in the vicinity of the proposed haul route?</b>  <b>Q2. How will these resources and/or landscapes be conserved?</b></p>
2.6.3	<p>Planning authorities shall not permit <i>development and site alteration on adjacent lands to protected heritage property</i> except where the proposed <i>development and site alteration</i> has been evaluated and it has been demonstrated that the <i>heritage attributes</i> of the <i>protected heritage property</i> will be conserved.</p> <p><b>Q1. Will the proposed haul route be located in the vicinity of protected heritage property?</b>  <b>Q2. If so, has it been demonstrated that the heritage attributes of the protected heritage property will be conserved if the haul route is used as proposed?</b></p>

## 8.2 Greenbelt Plan

Section	Policy
	No relevant policies apply.

### 8.3 Niagara Escarpment Plan

Section	Policy
<p><b>2.15</b></p> <p><b>1.</b></p>	<p><b>Transportation and Utilities</b></p> <p>The objective is to design and locate new and expanded transportation and utility facilities so the least possible change occurs in the environment and the natural and cultural landscape.</p> <p>All new and reconstructed transportation and utility facilities shall be designed and located to minimize the impact on the Escarpment environment and be consistent with the objectives of this Plan. Examples of such site and design guidelines include the following:</p> <ul style="list-style-type: none"> <li>a) Blasting, grading and tree removal should be minimized where possible through realignment and utilization of devices such as curbs and gutters, retaining walls and tree wells.</li> <li>b) Finished slopes should be graded to a 2 to 1 slope minimum and planted; large cuts should be terraced to minimize surface erosion and slope failure.</li> <li>c) Site rehabilitation should use native species of vegetation and blend into the surrounding landscape.</li> <li>d) Vegetation screens should be used where feasible.</li> <li>i) Transportation and utility facilities should be sited and designed to avoid or minimize the impacts on parks, open space and the Bruce Trail. Where Trail impacts cannot be avoided the objective will be to provide for an acceptable, safe alternative.</li> </ul> <p><b>Q1. How does the proposed transportation infrastructure minimize visual impact on the Escarpment environment in accordance with this section?</b></p> <p><b>Q2. How does the proposed transportation infrastructure limit change to the natural and cultural landscape?</b></p>
<p><b>2.</b></p>	<p>New transportation and utility facilities should avoid Escarpment Natural Areas.</p> <p><b>Q1. Does new infrastructure avoid Escarpment Natural Areas?</b></p>

## 9.0 Water Resource Study

### 9.1 Provincial Policy Statement

Section	Policy
<p><b>1.1</b></p> <p><b>1.1.1</b></p>	<p><b>Managing and Directing Land Use to Achieve Efficient and Resilient Development and Land Use Patterns</b></p> <p>Healthy, liveable and safe communities are sustained by:</p> <ul style="list-style-type: none"> <li>c) avoiding development and land use patterns which may cause environmental or public health and safety concerns.</li> </ul> <p><b>Q1. How will the proposed development, if approved, avoid environmental or public health and safety concerns related to water resources?</b></p>
<p><b>1.1.5</b></p>	<p><b>Rural Lands in Municipalities</b></p>
<p><b>1.1.5.5</b></p>	<p>Development shall be appropriate to the <i>infrastructure</i> which is planned or available, and avoid the need for the unjustified and/or uneconomical expansion of this <i>infrastructure</i>.</p> <p><b>Q1. Will the proposal require water-related infrastructure as defined by the PPS?</b>  <b>Q2. If new infrastructure is proposed, or the expansion of existing infrastructure is proposed, has it been demonstrated that the need has been justified and that the expansion will be economical?</b></p>
<p><b>1.6.3</b></p>	<p>Before consideration is given to developing new <i>infrastructure</i> and <i>public service</i> facilities:</p> <ul style="list-style-type: none"> <li>a) the use of existing <i>infrastructure</i> and <i>public service facilities</i> should be optimized; and</li> <li>b) opportunities for adaptive re-use should be considered, wherever feasible.</li> </ul> <p><b>Q1. If the expansion of existing water-related infrastructure or the development of new infrastructure that has the effect of providing water to the proposed use and/or adjacent uses is proposed, has it been demonstrated that the existing infrastructure is being optimized and that opportunities for adaptive re-use have been considered where feasible?</b></p>
<p><b>1.6.6.1</b></p>	<p>Planning for <i>sewage</i> and <i>water services</i> shall:</p> <ul style="list-style-type: none"> <li>b) ensure that these systems are provided in a manner that: <ul style="list-style-type: none"> <li>1. can be sustained by the water resources upon which such services rely;</li> <li>2. is feasible, financially viable and complies with all regulatory requirements; and</li> <li>3. protects human health and the natural environment.</li> </ul> </li> </ul> <p><b>Q1. If water-related infrastructure is required to provide water to the proposed development and/or adjacent uses, has it been demonstrated that Items 1, 2 and 3 in this policy have been met?</b></p>

Section	Policy
1.6.6.1	<p>Planning for <i>sewage</i> and <i>water services</i> shall:</p> <ul style="list-style-type: none"> <li>c) promote water conservation and water use efficiency.</li> </ul> <p><b>Q1. Has it been demonstrated that the proposed use promotes water conservation and the efficient use of water?</b>  <b>Q2. What impact will the proposed use have on water conservation efforts in the immediate area and the efficient use of water for adjacent uses?</b></p>
1.6.6.1	<p>Planning for <i>sewage</i> and <i>water services</i> shall:</p> <ul style="list-style-type: none"> <li>d) integrate servicing and land use considerations at all stages of the planning process.</li> </ul> <p><b>Q1. Has the consideration of providing servicing to the proposed use and adjacent uses been a consideration at all stages of the planning process?</b></p>
1.6.6.4	<p>Where <i>municipal sewage services</i> and <i>municipal water services</i> or <i>private communal water services</i> are not provided, <i>individual on-site water services</i> may be used provided that site conditions are suitable for the long-term provision of such services with no <i>negative impacts</i>. In <i>settlement areas</i>, these services may only be used for infilling and minor rounding out of existing development.</p> <p><b>Q1. Has it been demonstrated that site conditions are suitable for the long-term provision of individual on-site water services with no negative impacts if such servicing is proposed?</b></p>
1.6.6.5	<p><i>Partial services</i> shall only be permitted in the following circumstances:</p> <ul style="list-style-type: none"> <li>a) where they are necessary to address failed <i>individual on-site sewage services</i> and <i>individual on-site water services</i> in existing development; or</li> <li>b) within <i>settlement areas</i>, to allow for infilling and minor rounding out of existing development on <i>partial services</i> provided that site conditions are suitable for the long-term provision of such services with no negative impacts.</li> </ul> <p><b>Q1. If partial services as defined by the PPS are proposed, are they permitted in accordance with sub-section a)?</b></p>
1.6.6.7	<p>Planning for stormwater management shall:</p> <ul style="list-style-type: none"> <li>a) minimize, or, where possible, prevent increases in contaminant loads;</li> <li>b) minimize changes in water balance and erosion;</li> <li>c) not increase risks to human health and safety and property damage;</li> <li>d) maximize the extent and function of vegetative and pervious surfaces; and</li> <li>e) promote stormwater management best practices, including stormwater attenuation and re-use, and low impact development.</li> </ul>

Section	Policy
	<p><b>Q1. Where stormwater management is proposed, how are contaminant loads being minimized?</b></p> <p><b>Q2. Have changes in the water balance being minimized?</b></p> <p><b>Q3. Have risks to human health, safety and property damage being addressed and how is the proponent minimizing these impacts?</b></p> <p><b>Q4. Have vegetative and pervious surfaces been maximized to the extent possible?</b></p> <p><b>Q5. Have low impact development and stormwater management best management practices been promoted?</b></p>
<p><b>2.0</b></p> <p><b>2.2</b></p> <p><b>2.2.1</b></p>	<p><b>Wise Use and Management of Resources</b></p> <p><b>Water</b></p> <p>Planning authorities shall protect, improve or restore the <i>quality and quantity of water</i> by:</p> <ul style="list-style-type: none"> <li>a) using the <i>watershed</i> as the ecologically meaningful scale for integrated and long-term planning, which can be a foundation for considering cumulative impacts of development;</li> <li>b) minimizing potential <i>negative impacts</i>, including cross-jurisdictional and cross-<i>watershed</i> impacts;</li> <li>c) identifying water resource systems consisting of <i>ground water features, hydrologic functions, natural heritage features and areas</i> and <i>surface water features</i> including shoreline areas, which are necessary for the ecological and hydrological integrity of the <i>watershed</i>;</li> <li>d) maintaining linkages and related functions among <i>ground water features, hydrologic functions, natural heritage features and areas</i>, and <i>surface water features</i> including shoreline areas;</li> <li>e) implementing necessary restrictions on <i>development</i> and <i>site alteration</i> to: <ul style="list-style-type: none"> <li>1. protect all municipal drinking water supplies and <i>designated vulnerable areas</i>; and</li> <li>2. protect, improve or restore <i>vulnerable</i> surface and ground water, <i>sensitive surface water features</i> and <i>sensitive ground water features</i>, and their <i>hydrologic functions</i>;</li> </ul> </li> <li>f) planning for efficient and sustainable use of water resources, through practices for water conservation and sustaining water quality;</li> <li>g) ensuring consideration of environmental lake capacity, where applicable;</li> <li>h) ensuring stormwater management practices minimize stormwater volumes and contaminant loads, and maintain or increase the extent of vegetative and pervious surfaces.</li> </ul> <p><b>Q1. Has it been demonstrated that the quality and quantity of water as defined by the PPS will be protected, improved or restored if the development is approved?</b></p> <p><b>Q2. Has the planning authority used the watershed as the ecologically meaningful scale for integrated and long-term planning in the consideration of the proposal?</b></p> <p><b>Q3. Has it been demonstrated that the potential negative impacts, including cross-jurisdictional and cross-watershed impacts will be minimized if the proposal is approved?</b></p>

Section	Policy
	<p><b>Q4. Have ground water 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 been identified?</b></p> <p><b>Q5. Will identified linkages and related functions among groundwater features, hydrologic functions, natural heritage features and areas, and surface water features including shoreline areas be maintained if the proposal is approved?</b></p> <p><b>Q6. Will all necessary restrictions on development and site alteration be implemented to protect all municipal drinking water supplies and designated vulnerable areas?</b></p> <p><b>Q7. Will all necessary restrictions on development and site alteration be implemented to protect, improve or restore vulnerable servicing groundwater, sensitive surface water features and sensitive groundwater features, and their hydrologic functions?</b></p> <p><b>Q8. Is planning for efficient and sustainable use of water resources, through practices for water conservation and sustaining water quality part of the proposal and how will this be implemented?</b></p> <p><b>Q9. Has it been demonstrated, if applicable, that consideration has been given to environmental lake capacity?</b></p> <p><b>Q9. Has it been demonstrated that stormwater volumes and contaminate loads will be minimized and that the extent of vegetative and pervious services are being maintained or increased?</b></p>
2.2.2	<p><i>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.</i></p> <p><i>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.</i></p> <p><b>Q1. Is the proposed development in or near sensitive surface water features or sensitive ground water features?</b></p> <p><b>Q2. If so, how are these features proposed to be protected, improved or restored?</b></p> <p><b>Q3. What mitigation measures are required, if any, to protect, improve or restore these features?</b></p>

## 9.2 Greenbelt Plan

Section	Policy
<p>3.2</p> <p>3.2.3</p> <p>1.</p>	<p><b>Natural System</b></p> <p><b>Water Resource System Policies</b></p> <p>The following Water Resource System policies apply throughout the Protected Countryside:</p> <p>All planning authorities shall provide for a comprehensive, integrated and long-term approach for the protection, improvement or restoration of the quality and quantity of water. Such an approach will consider all hydrologic features and functions and include a systems approach to the inter-relationships between and/or among recharge/discharge areas, aquifers, headwaters and surface waters (e.g. <i>lakes</i> as well as rivers and streams, including <i>intermittent streams</i>).</p> <p><b>Q1. Has the planning authority established the approach set out above?</b>  <b>Q2. If so, how has it been established and how will the proposal fit in with the established approach?</b></p>
<p>2.</p>	<p>Watersheds are the most meaningful scale for hydrological planning, and municipalities together with conservation authorities should ensure that <i>watershed plans</i> are completed and used to guide planning and development decisions within the Protected Countryside.</p> <p><b>Q1. Has a Watershed Plan been prepared for the area?</b>  <b>Q2. If so, how does the proposal conform to the applicable portions of the Watershed Plan?</b></p>
<p>3.</p> <p>4.</p>	<p>Cross-jurisdictional and cross-watershed impacts need to be considered in the development of <i>watershed plans</i>. The development of <i>watershed plans</i> and watershed management approaches in the Protected Countryside should be integrated with watershed planning and management in the NEP and the ORMCP areas and beyond the Greenbelt.</p> <p>Municipalities shall, in accordance with provincial direction related to the protection of source water, protect <i>vulnerable</i> surface and ground water areas, such as wellhead protection areas, from <i>development</i> that may adversely affect the quality and quantity of ground and surface waters.</p> <p><b>Q1. Has it been demonstrated that identified vulnerable surface and groundwater areas will be protected from the proposed development that may adversely affect the quality and quantity of ground and surface waters?</b></p>
<p>3.2.4</p>	<p><b>Key Natural Heritage Features and Key Hydrologic Features Policies</b></p> <p><i>Key hydrologic features</i> include:</p> <ul style="list-style-type: none"> <li>• <i>Permanent and intermittent streams;</i></li> <li>• <i>Lakes</i> (and their littoral zones);</li> <li>• <i>Seepage areas and springs;</i> and</li> <li>• <i>Wetlands.</i></li> </ul> <p>For lands within a key natural heritage feature or a <i>key hydrologic feature</i> in the Protected Countryside, the following policies shall apply:</p>

Section	Policy
1.	<p><i>Development or site alteration is not permitted in key hydrologic features and key natural heritage features within the Natural Heritage System, including any associated vegetation protection zone, with the exception of:</i></p> <ul style="list-style-type: none"> <li>a) Forest, fish and wildlife management;</li> <li>b) Conservation and flood or erosion control projects, but only if they have been demonstrated to be necessary in the public interest and after all alternatives have been considered; or</li> <li>c) <i>Infrastructure, aggregate, recreational, shoreline and existing uses, as described by and subject to the general policies of section 4 of this Plan.</i></li> </ul>
2.	<p>Beyond the <i>natural heritage system</i> within the Protected Countryside (as shown on Schedule 4), <i>key hydrologic features</i> are defined by and subject to the natural features policies of Section 3.2.4.</p>
4.	<p>In the case of <i>wetlands, seepage areas and springs, fish habitat, permanent and intermittent streams, lakes, and significant woodlands</i>, the minimum <i>vegetation protection zone</i> shall be a minimum of 30 metres wide measured from the outside boundary of the <i>key natural heritage feature</i> or <i>key hydrologic feature</i>.</p>
	<p><b>Q1. If the lands are outside of the natural heritage system, and a key hydrologic feature has been identified on or adjacent to the site, has a minimum vegetation protection zone that has a minimum width of 30 metres been established from the boundary of a wetland, seepage areas and springs, permanent and intermittent streams and lakes, as defined by the Greenbelt Plan?</b></p>
5.	<p>A proposal for new <i>development or site alteration</i> within 120 metres of a <i>key natural heritage feature</i> within the Natural Heritage System or a <i>key hydrologic feature</i> anywhere within the Protected Countryside requires a natural heritage evaluation and hydrological evaluation, which identify a <i>vegetation protection zone</i> which:</p> <ul style="list-style-type: none"> <li>a) Is of sufficient width to protect the <i>key natural heritage feature</i> or <i>key hydrologic feature</i> 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</li> <li>b) Is established to achieve, and be maintained as <i>natural self-sustaining vegetation</i>.</li> </ul> <p><b>Q1. Is the development proposed within 120 metres of a key hydrologic feature?</b>  <b>Q2. If so, has a natural heritage evaluation and a hydrological evaluation been completed to identify a vegetation protection zone?</b>  <b>Q3. Will the vegetation production zone be of a 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?</b>  <b>Q4. Has it been demonstrated that it is possible to restore or enhance the feature and/or its function as a consequence of the establishment of the vegetation protection zone?</b>  <b>Q5. Has it been demonstrated that the vegetation protection zone will be established to achieve, and be maintained as natural self-sustaining vegetation?</b></p>

Section	Policy
<p><b>4.1</b></p> <p><b>4.1.1</b></p> <p><b>2.</b></p>	<p><b>NON-AGRICULTURAL USES</b></p> <p><b>General Non-Agricultural Use Policies</b> For non-agricultural uses, the following policies apply:</p> <p>Proposals for non-agricultural uses must demonstrate that:</p> <ul style="list-style-type: none"> <li>a) The use is appropriate for location in a rural area;</li> <li>b) The type of water and sewer servicing proposed is appropriate for the type of use;</li> <li>c) There are no <i>negative impacts</i> on <i>key natural heritage features</i> and/or <i>key hydrologic features</i> or their functions; and</li> <li>d) There are no <i>negative impacts</i> on the biodiversity or <i>connectivity</i> of the Natural Heritage System.</li> </ul> <p><b>Q1. Has it been demonstrated that there will be no negative impacts on key hydrologic features or their functions if the application is approved?</b></p>
<p><b>4.3</b></p> <p><b>4.3.2</b></p> <p><b>3</b></p>	<p><b>NATURAL RESOURCES</b></p> <p><b>Non-Renewable Resource Policies</b> For lands within the Protected Countryside, the following policies shall apply:</p> <p>Notwithstanding the Natural System policies of section 3.2 of this Plan, within the Natural Heritage System, <i>mineral aggregate operations</i> and wayside pits and quarries are subject to the following:</p> <ul style="list-style-type: none"> <li>a) No new <i>mineral aggregate operation</i> and no wayside pits and quarries, or any ancillary or accessory use thereto will be permitted in the following <i>key natural heritage features</i> and <i>key hydrologic features</i>: <ul style="list-style-type: none"> <li>i. Significant wetlands ;</li> <li>ii. Significant habitat of endangered species and threatened species; and</li> <li>iii. Significant woodlands unless the woodland is occupied by young plantation or early successional habitat (as defined by the Ministry of Natural Resources). In this case, the application must demonstrate that the specific provisions of policy 4.3.2.5 (c), (d) and 4.3.2.6 (c) have been addressed, and that they will be met by the operation.</li> </ul> </li> </ul> <p><b>Q1. Is part or all of the proposal within a significant wetland?</b></p>
<p><b>3</b></p>	<ul style="list-style-type: none"> <li>b) An application for a new <i>mineral aggregate operation</i> or new wayside pits and quarries may only be permitted in other <i>key natural heritage features</i> and <i>key hydrologic features</i> not identified in 4.3.2.3 (a) and any <i>vegetation protection zone</i> associated with such other feature where the application demonstrates: <ul style="list-style-type: none"> <li>i. How the Water Resource System will be protected or enhanced; and</li> <li>ii. That the specific provisions in 4.3.2.5 (c), (d) and 4.3.2.6 (c) have been addressed, and that they will be met by the operation.</li> </ul> </li> </ul>

Section	Policy
	<p><b>Q1. If the proposal is for a new mineral aggregate operation, are there lands that are the site of a key hydrologic feature not identified in Section 4.3.2.3 (a) and any vegetation protection zone associated with such other feature (wetlands, seepage areas and springs, lake and their littoral zones and permanent and intermittent streams)?</b></p> <p><b>Q2. If a new mineral aggregate operation is proposed in one of these key hydrologic features, has it been demonstrated that the water resource system will be protected or enhanced?</b></p> <p><b>Q3. In addition, has it been demonstrated that the specific provisions identified in sub-section 2 have been addressed and that they will be met by the operation?</b></p>
3.	<p>c) Any application for a new <i>mineral aggregate operation</i>, or the expansion of an existing <i>mineral aggregate operation</i> shall be required to demonstrate:</p> <ul style="list-style-type: none"> <li>i. How the <i>connectivity</i> between <i>key natural heritage features</i> and <i>key hydrologic features</i> will be maintained before, during and after the extraction of mineral aggregates;</li> <li>ii. How the operator could immediately replace any habitat that would be lost from the site with equivalent habitat on another part of the site or on adjacent lands; and</li> <li>iii. How the Water Resource System will be protected or enhanced.</li> </ul> <p><b>Q1. Has it been demonstrated how the connectivity between key natural heritage features and key hydrologic features will be maintained before, during and after the extraction of mineral aggregates?</b></p> <p><b>Q2. Has it been demonstrated how the operator can immediately replace any habitat that would be lost from the site with equivalent habitat on another part of the site or adjacent lands?</b></p> <p><b>Q3. Has it been demonstrated that the water resource system will be protected or enhanced if the development is approved?</b></p>
	<p>e) An application for the expansion of an existing <i>mineral aggregate operation</i> may be permitted in the Natural Heritage System, including <i>key natural heritage features</i> and <i>key hydrologic features</i>, and in any associated <i>vegetation protection zone</i> only if the related decision is consistent with the PPS.</p> <p><b>Q1. If the proposal involves the expansion of an existing mineral aggregate operation, and if the lands affected include a key hydrologic feature, has it been demonstrated that a decision to approve the proposed development would be consistent with the Provincial Policy Statement?</b></p>
4.	<p>The Ministry of Natural Resources will pursue the following under the <i>Aggregate Resources Act</i>, for all <i>mineral aggregate operations</i>, including wayside pits and quarries, within the Protected Countryside:</p> <p>d) An application for a <i>mineral aggregate operation</i> or wayside pits and quarries may be permitted only where the applicant demonstrates that the quantity and quality of groundwater and surface water will be maintained as per Provincial Standards under the <i>Aggregate Resources Act</i>.</p>

Section	Policy
	<p><b>Q1. Has it been demonstrated that the quantity and quality of groundwater and surface water will be maintained as per Provincial standards under the Aggregate Resources Act?</b></p>
<p>5.</p>	<p>When operators are undertaking rehabilitation of <i>mineral aggregate operation</i> sites in the Protected Countryside, the following provisions apply:</p> <ul style="list-style-type: none"> <li>c) If there are <i>key natural heritage features</i> or <i>key hydrologic features</i> on the site, or if such features existed on the site at the time of application: <ul style="list-style-type: none"> <li>i. The health, diversity and size of these <i>key natural heritage features</i> and <i>key hydrologic features</i> will be maintained or restored and, to the extent possible, improved to promote a net gain of ecological health; and</li> <li>ii. Any permitted extraction of mineral aggregates that occurs in a feature will be completed, and the area will be rehabilitated, as early as possible in the life of the operation.</li> </ul> </li> </ul> <p><b>Q1. Has it been demonstrated that the health, diversity and size of the key hydrologic features on the site will be maintained or restored and to the extent possible improved to promote a net gain of ecological health?</b></p> <p><b>Q2. Has it been demonstrated that any permitted extraction that occurs in a feature will be completed, and the area will be rehabilitated, as early as possible in the life of the operation?</b></p>
	<ul style="list-style-type: none"> <li>d) Aquatic areas remaining after extraction are to be rehabilitated to aquatic enhancement, which shall be representative of the natural ecosystem in that particular setting or ecodistrict, and the combined terrestrial and aquatic rehabilitation shall meet the intent of 4.3.2.5 (c).</li> </ul> <p><b>Q1. Has it been demonstrated that the aquatic areas remaining after extraction are to be rehabilitated to aquatic enhancement as per sub-section d)?</b></p>
<p>6.</p>	<p>Final rehabilitation in the Natural Heritage System will meet these additional provisions:</p> <ul style="list-style-type: none"> <li>c) Rehabilitation will be implemented so that the connectivity of the <i>key natural heritage features</i> and the <i>key hydrologic features</i> on the site and on adjacent lands will be maintained or restored, and to the extent possible, improved.</li> </ul> <p><b>Q1. If key hydrologic features are located on the site and/or adjacent lands, has it been demonstrated that rehabilitation will be implemented so that the connectivity of the key natural heritage features and the key hydrologic features will be maintained or restored, and to the extent possible, improved?</b></p>

### 9.3 Niagara Escarpment Plan

Section	Policy
	<p><b>Objectives</b></p> <p>To maintain and enhance the quality and character of natural streams and water supplies;</p> <p><b>Q1. How does the proposed development maintain and enhance the quality and character of natural streams and water supplies?</b></p>
<p><b>1.5.1</b></p>	<p><b>Development Policies For Mineral Extraction</b></p> <p>In evaluating applications for amendment to the Niagara Escarpment Plan to redesignate Escarpment Rural Area to Mineral Resource Extraction Area, the following matters will be considered:</p> <ul style="list-style-type: none"> <li>a) Protection of the natural and cultural environment, namely: <ul style="list-style-type: none"> <li>i) Groundwater and surface water systems on a watershed basis.</li> </ul> </li> </ul> <p><b>Q1. Does the development consider the protection of groundwater and water systems on a watershed basis?</b></p>
	<ul style="list-style-type: none"> <li>b) Opportunities for achieving the objectives of Section 8 of the <i>Niagara Escarpment Planning and Development Act</i> through the final rehabilitation of the site;</li> </ul> <p><b>Q1. Have opportunities for achieving the objectives of Section 8 been considered through the rehabilitation plan?</b></p>
<p><b>2.6</b></p> <p><b>1.</b></p>	<p><b>New Development Affecting Water Resources</b></p> <p>The objective is to ensure that new development affecting streams, watercourses, lakes, wetlands, and groundwater systems will have minimum individual and cumulative effect on water quality and quantity, and on the Escarpment environment.</p> <p><b>Water Quality</b></p> <p>Changes to the natural drainage should be avoided.</p> <p><b>Q1. Does the development propose changes to natural drainage?</b></p>
<p><b>3.</b></p>	<p>A setback for other development will be established from each side of a stream, river bed, lakeshore or wetland necessary to maintain existing water quality. The width of this buffer shall be determined by the implementing authority in consultation with the Ministry of Environment, Conservation Authority and the Ministry of Natural Resources, which shall consider:</p> <ul style="list-style-type: none"> <li>a) Soil type;</li> <li>b) Types and amounts of vegetation cover;</li> <li>c) Slope of the land; and</li> <li>d) Fish and wildlife.</li> </ul>

Section	Policy
	<p><b>Q1. Has a setback for the development been determined by the implementing authority in consultation with Provincial agencies, which takes into account items mentioned in sub-sections a), b), c) and d)?</b></p>
4.	<p>No alteration of the natural grade or drainage shall occur within the setback where, in the opinion of the implementing authority, such action would adversely affect surface and/or groundwater resources.</p> <p><b>Q1. If alteration of a natural grade or drainage were proposed within a setback, would there be an adverse effect on surface or ground water resources?</b></p>
6.	<p>Where in the opinion of the implementing authority a potential ground or surface water pollution problem exists, the applicant shall detail through appropriate studies, the detrimental effects and how they will be minimized.</p> <p><b>Q1. If the potential for ground or surface water pollution exists as a consequence of the approval of the proposal, has the applicant identified the detrimental effects and how they will be minimized?</b></p>
7.	<p>During development, the following sediment and erosion control practices should be carried out:</p> <ul style="list-style-type: none"> <li>a) Only the smallest practical area of land should be exposed at any time during the development.</li> <li>b) When land is exposed during development the exposure should be kept to the shortest practical period of time.</li> <li>c) Natural features such as tree groves, grades and waterways should be preserved.</li> <li>d) Temporary vegetation and/or mulching should be used to protect critical areas exposed during development.</li> <li>e) Final landscaping and vegetation should be installed as soon as practical following completion of the development.</li> <li>f) Topsoil should not be removed from the site, but rather, should be stored and redistributed as a suitable base for seeding and planting.</li> <li>g) Sediment control devices should be installed to remove sediment from run-off due to changed soil surface conditions during and after construction.</li> <li>h) Construction in or across a watercourse or wetland should be appropriately timed to minimize impacts on fish and wildlife habitat.</li> </ul> <p><b>Q1. How will sediment and erosion control practices be carried out in accordance with the requirements of this section?</b></p>
8.	<p><b>Water Quantity</b></p> <p>Permitted Uses which involve water taking or undertake stream diversions must be demonstrated to be an essential part of their operation and shall be of a scale and intensity that will not adversely affect water quality, quantity and the Escarpment environment. The implementing authority may require that studies be undertaken to justify the need and amount of water taking and/or diversions and to mitigate impact on the Escarpment environment.</p>

Section	Policy
	<p><b>Q1. If a water-taking or stream-diversion is proposed, has it been demonstrated that these are an essential part of their operation?</b></p> <p><b>Q2. In addition, has it been demonstrated that the scale and intensity of the water-taking or stream diversion is such that it will not adversely affect water quality, quantity and the Escarpment environment?</b></p>
9.	<p>When considering whether to allow a use which involves water taking or diversion, the implementing authority shall consider:</p> <ul style="list-style-type: none"> <li>a) The number, distribution, location and intensity of such activities within the watershed in terms of: <ul style="list-style-type: none"> <li>i) The impact on water quality and quantity;</li> <li>ii) The cumulative effect on the objectives of the Plan and its designations; and</li> <li>iii) The quality and character of natural streams and water supplies.</li> </ul> </li> <li>b) The water resource management policies/activities and permit requirements of the Ministry of Environment, Ministry of Natural Resources and Conservation Authority.</li> </ul> <p><b>Q1. Has enough information been submitted to permit the implementing authority to consider the items identified in this section?</b></p>
10.	<p><b>Wetlands</b></p> <p>Development shall locate outside wetlands</p> <p><b>Q1. Is the development proposed outside a wetland?</b></p>
11.	<p>The limits of the wetland shall be determined by the implementing authority, in consultation with the Ministry of Natural Resources and/or Conservation Authority.</p> <p><b>Q1. If a wetland is potentially affected by the proposal, have the limits of the wetland been determined in consultation with the Ministry of Natural Resources and/or Conservation Authority?</b></p>
12.	<p>In addition to # 1 to 7 (Water Quality), development adjacent to wetlands may be permitted only if it does not result in any of the following:</p> <ul style="list-style-type: none"> <li>a) Loss of wetland functions;</li> <li>b) Subsequent demand for future development which will negatively affect existing wetland functions;</li> <li>c) Conflict with existing site-specific wetland management practices; and</li> <li>d) Loss of contiguous wetland area.</li> </ul> <p><b>Q1. Is development proposed adjacent to a wetland?</b></p> <p><b>Q2. Has it been demonstrated that the proposed development will not result in the loss of wetland functions, subsequent demand for future development that will negatively</b></p>

Section	Policy
	<p><b><i>affect existing wetland functions, not conflict with existing site-specific wetland management practices and loss of contiguous wetland area?</i></b></p>
<p><b>13.</b></p>	<p>A development setback from the wetland area, which is to be maintained or established as a natural vegetative buffer, shall be established by the implementing authority in consultation with the Ministry of Natural Resources.</p> <p><b><i>Q1. Has a development setback from the wetland area been proposed and is it to be maintained or established as a natural vegetative buffer?</i></b></p>
<p><b>14.</b></p>	<p>New Development or redevelopment adjacent to significant fishery resources shall demonstrate the following:</p> <ul style="list-style-type: none"> <li>a) The development shall ensure net gain/no net loss of productive capacity of fish habitat;</li> <li>b) Maintenance of minimum baseflow of watercourses;</li> <li>c) Maintenance of existing watercourses in a healthy, natural state;</li> <li>d) Maintenance of vegetative buffers in accordance with the sensitivity of the fishery resource and development criteria; and</li> <li>e) Best available construction and management practices shall be used to protect water quality and quantity, both during and after construction. Treatment of surface run-off to maintain water quality and hydrological characteristics in receiving watercourses shall meet the standards established by the Ministries of Environment and Natural Resources.</li> </ul> <p><b><i>Q1. Is the development proposed in an area adjacent to significant fisheries resources?</i></b>  <b><i>Q2. If so, have the requirements of this section been demonstrated?</i></b></p>



