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**Refining the Process:  
Evaluating the Environmental Assessment of  
Mineral Aggregate Resources (Sand, Gravel,  
and Crushed Stone) in Ontario, Canada**

by

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MASTER OF RESOURCE MANAGEMENT

In the  
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of  
Resource and Environmental Management

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## **APPROVAL**

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## ABSTRACT

Mineral aggregate (sand, gravel, and crushed stone) is an important ingredient in the construction of buildings, roads and other infrastructure. Unfortunately, there are significant negative environmental and social impacts associated with the extraction, processing, transportation and use of mineral aggregate.

Using criteria from the environmental assessment (EA) and policy sciences literature, this study evaluates and compares four EA processes that apply to the extraction and use of aggregate for public infrastructure projects in the province of Ontario, Canada: the *Aggregate Resources Act*, Individual Environmental Assessment Act review under the *Environmental Assessment Act*, *Municipal Class Environmental Assessment*, and *Class Environmental Assessment for Provincial Transportation Facilities*. The results show that the *Aggregate Resources Act*, Individual Environmental Assessment Act review and *Municipal Class Environmental Assessment* processes are moderately effective, whereas the *Class Environmental Assessment for Provincial Transportation Facilities* is ineffective. Recommendations are made for improving EA policies to ensure more sustainable aggregate development.

**Keywords:** aggregate; environmental assessment; evaluation; sustainable development; roads; pits; quarries

**Subject Terms:** environmental impact analysis – evaluation – Ontario; aggregate industry – environmental aspects – Ontario; roads – design and construction – environmental aspects – Ontario



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## LIST OF ACRONYMS AND ABBREVIATIONS

<b>APRS</b>	Aggregate and Petroleum Resources Section of the Ontario Ministry of Natural Resources
<b>A.R. _____</b>	The policy number in OMNR 2006g
<b>ARA</b>	<i>Aggregate Resources Act</i>
<b>CEAA</b>	<i>Canadian Environmental Assessment Act</i>
<b>CELA</b>	Canadian Environmental Law Association
<b>CELRF</b>	Canadian Environmental Law Research Foundation
<b>DCR</b>	Design and Construction Report (MTO Class EA)
<b>EA</b>	Environmental assessment (also known as environmental impact assessment)
<b>EA Act</b>	Ontario's <i>Environmental Assessment Act</i>
<b>EAAC</b>	Environmental Assessment Advisory Committee
<b>EAAP</b>	Environmental Assessment Advisory Panel
<b>EAAPIP</b>	Environmental Assessment Program Improvement Project
<b>EACIA</b>	<i>Environmental Assessment and Consultation Improvement Act</i>
<b>EBR</b>	<i>Environmental Bill of Rights</i>
<b>ECO</b>	Environmental Commissioner of Ontario
<b>EIA</b>	Environmental impact assessment (also known as EA)
<b>ERT</b>	Ontario Environmental Review Tribunal
<b>ESR</b>	Environmental Study Report (Municipal Class EA)
<b>MARPS</b>	<i>Mineral Aggregate Resources Policy Statement</i>
<b>MEA</b>	Municipal Engineers Association
<b>MEA Class EA</b>	<i>Municipal Class Environmental Assessment</i>
<b>MTO</b>	Ontario Ministry of Transportation
<b>MTO Class EA</b>	<i>Class Environmental Assessment for Provincial Transportation Facilities</i>
<b>NGO</b>	Non-governmental organization
<b>OMB</b>	Ontario Municipal Board
<b>OMNR</b>	Ontario Ministry of Natural Resources

<b>OMNR Class EA</b>	<i>Class Environmental Assessment for MNR Resource Stewardship and Facility Development Projects</i>
<b>OMOE</b>	Ontario Ministry of the Environment
<b>OMOE-EAAB</b>	Environmental Assessment and Approvals Branch of the Ontario Ministry of Environment
<b>PPS</b>	<i>Provincial Policy Statement</i> (OMMAH 2005 version, unless otherwise specified)
<b>SD</b>	Sustainable development
<b>SDR</b>	Study Design Report (MTO Class EA)
<b>SEA</b>	Strategic environmental assessment
<b>SOR</b>	<i>Aggregate resources of Ontario: A state of the resource study</i> (PILA 1993)
<b>TESR</b>	Transportation Environmental Study Report (MTO Class EA)
<b>TNA</b>	Transportation Needs Assessment (MTO Class EA)
<b>TOARC</b>	The Ontario Aggregate Resources Corporation
<b>TOR</b>	Terms of Reference (Individual EA Act review)
<b>TTT</b>	Transportation-Transit Table (part of EAAP)

# 1. INTRODUCTION

## 1.1 Study Context

Mineral aggregate (sand, gravel, and crushed stone) is the most consumed non-renewable mineral, by tonnage, on Earth (Wellmer and Becker-Platen 2002).<sup>1</sup> In Ontario, Canada, governments, businesses, and approximately 12.5 million residents benefit from the buildings, roads, and other infrastructure constructed from aggregate. But these benefits are not without costs. Constructing infrastructure results in negative impacts including the loss of habitat, disruption of ecosystem processes (e.g., surface and groundwater interactions), and consumption of non-renewable resources. Producing mineral aggregate for construction also results in negative impacts including the loss of mineral aggregate for future generations, land use conflicts, decreasing health and safety of the public, and deterioration of the environment. These negative impacts are usually proximal to the pit or quarry and along haul routes (e.g., dust and noise), but greenhouse gas emissions and the consumption of non-renewable fossil fuels and mineral aggregate affect the entire Earth today and into the future (Richards and Peel 2003).

The Ontario government enacts laws and develops policies to manage the impacts resulting from producing mineral aggregate and constructing infrastructure (mineral

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<sup>1</sup> In this report, “mineral aggregate” means sand, gravel, and crushed stone. I use the term “aggregate” above when I mean mineral aggregate and its substitutes (e.g., mine waste rock, recycled concrete and asphalt, furnace slag, ceramics, and rubber). Sand and gravel are commonly extracted from the same geological deposit. Therefore, I refer to sand and gravel as one type of mineral aggregate, rather than two types.

aggregate resource development).<sup>2</sup> The purposes of these laws and policies include minimizing negative environmental and social impacts of mineral aggregate resource development, ensuring the wise use of mineral aggregate resources, and improving quality of life. Unfortunately, Ontario's current legal and policy framework may be ineffective in achieving these purposes – the real price of mineral aggregate is increasing, mineral aggregate supplies are decreasing, and conflicts surrounding mineral aggregate resource development are escalating. These trends may indicate that Ontario's approach to mineral aggregate resource development is unsustainable.

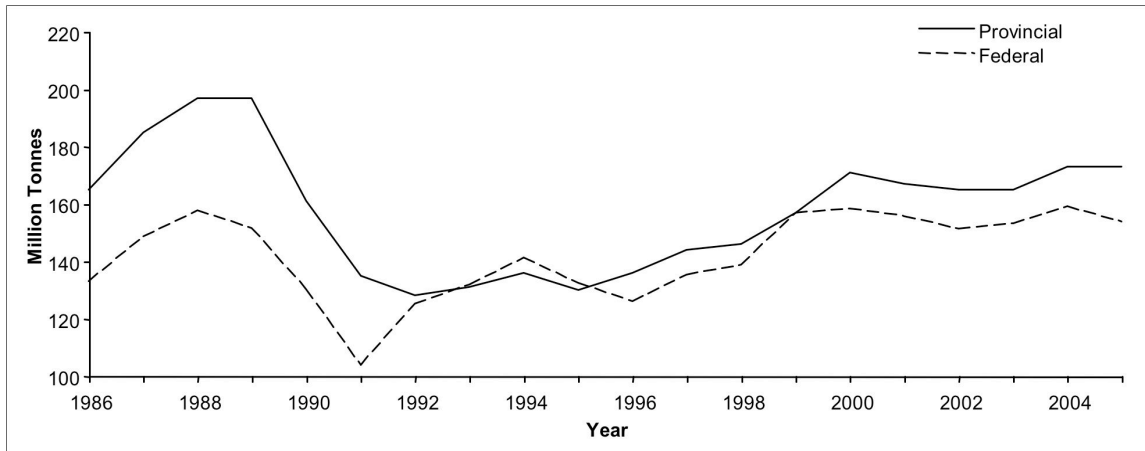
### **1.1.1 Mineral Aggregate Production**

Forty percent of all mineral aggregate produced in Canada is extracted in Ontario (NRCan 2007). Eighty-five percent of Ontario's mineral aggregate is extracted in southern Ontario (southern Ontario includes only 10% of Ontario's land base), which is home to more than 90% of the province's residents (OMNR 2006i, OMPIR 2005). Aggregate production in Ontario has generally increased since the recession ended in 1990-1991. According to data gathered by the Ontario Ministry of Natural Resources (OMNR) and a private partner (The Ontario Aggregate Resources Corporation) (TOARC), approximately 173 million tonnes of mineral aggregate was produced in Ontario in 2005 (Figure 1.1).

---

<sup>2</sup> To be clear, mineral aggregate resource development includes the following activities: extracting, processing and transporting mineral aggregate, and constructing infrastructure (e.g., buildings, roads, sewers, and sidewalks).

**Figure 1.1 Historic mineral aggregate production in Ontario from provincial and federal data sources**



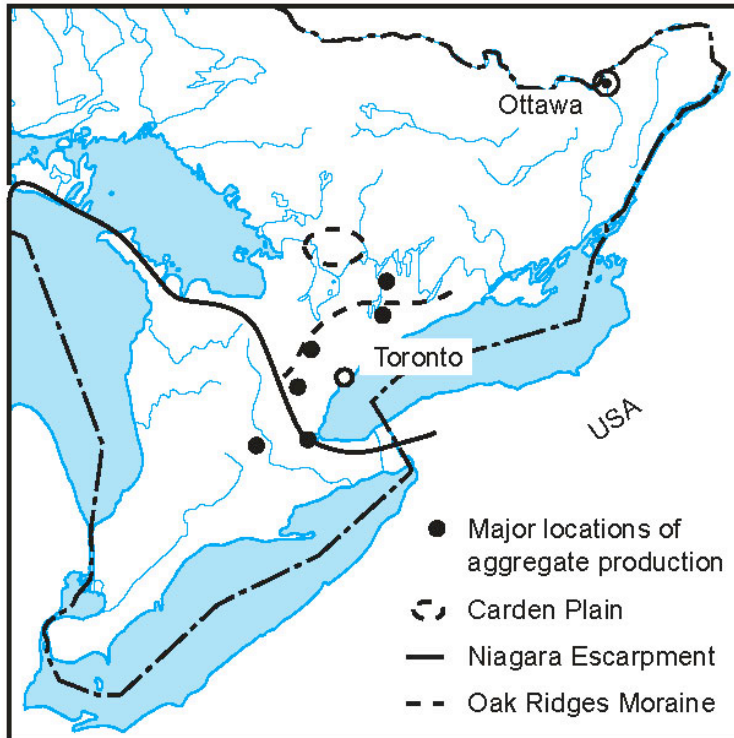
The provincial and federal data may differ because the two levels of government use different procedures for collecting production data. Budney and Peel (2007) concluded that the provincial data gathered by OMNR and TOARC are likely more accurate than the federal data which is gathered by Natural Resources Canada and published by Statistics Canada.

Source: NRCan (2007), StatsCan (1986-1994), TOARC (1999), TOARC (2005b)

In Ontario, unconsolidated sand and gravel, and bedrock (mainly dolostone, limestone, and some sandstone and shale) are extracted for aggregate purposes.<sup>3</sup> Bedrock is processed into the rock commodity called crushed stone. The Niagara Escarpment, Oak Ridges Moraine and Carden Plain are the major source areas for mineral aggregate in southern Ontario (Figure 1.2).

<sup>3</sup> See PILA (1993) for a discussion of mineral aggregate resource geology in Ontario.

**Figure 1.2 Geological features associated with major mineral aggregate production in southern Ontario**



Geological features are based on ECO (2003).  
Source: ECO (2003), NRCan (2002)

In Ontario, sand and gravel, and crushed stone are surface mined (sand and gravel from pits, and crushed stone from quarries). Producers extract raw sand and gravel using backhoes and bobcats. This raw material may be sold as is (known as “pit run”) for fill and other applications, but often sand and gravel is mechanically crushed to break large rocks into smaller pieces. The material is then mechanically sorted into different size classes so the pit operator can sell a variety of rock products. Sometimes the sand and gravel is washed on site to remove clay-sized particles that may be problematic in high concentrations for certain applications, including asphalt. Produced sand and gravel is stored at the pit in uncovered stockpiles until gravel trucks haul the commodity to market. The processing for crushed stone is similar to that for sand and gravel, but explosives are

usually required to break the bedrock into pieces before it can be moved to the crusher for additional processing (as described for sand and gravel).

There are alternatives to mineral aggregate for construction, including recycled asphalt and concrete, blast furnace/steel/nickel/copper slag, and fly/bottom ash, but current policies and incentives may be insufficient to encourage substitution (Winfield and Taylor 2005, ECO 2003).<sup>4</sup>

### 1.1.2 Mineral Aggregate Consumption

The construction industry is a large consumer of mineral aggregate. Aggregate is an essential ingredient for making concrete, asphalt, brick and glass, and it is also used in the processing of steel and aluminium. These construction materials are foundations of our modern lifestyle. On average, each resident of Ontario consumes more than 14 tonnes of mineral aggregate each year (a tandem dump truck load) (OSSGA 2006?). To better understand the scale of mineral aggregate consumption, it is helpful to consider the amount of mineral aggregate that is consumed during typical construction

(OSSGA 2006):

→ House	440 tonnes	22 truck loads
→ Small School	13 000 tonnes	650 truck loads
→ Office Tower	16 000 tonnes	800 truck loads
→ 1 km of 6-lane expressway	51 800 tonnes	2590 truck loads

Approximately 60% of Ontario mineral aggregate is consumed in building public projects, and over 55% of Ontario mineral aggregate is used in road construction

---

<sup>4</sup> It is estimated that recycled materials and waste products constituted between three and five percent of Ontario's aggregate requirements in 1995, which was approximately 66% of the economically available alternative materials (excluding mine waste rock). There is concern that there may be inadequate information to assess the potential for substitution (Winfield and Taylor 2005, Lura Consulting 2006).

(OMNR 2006c, ECO 2003). The Ontario Ministry of Transportation (MTO) is responsible for maintaining approximately 19 396 km (two lane equivalent) of provincial highways whereas Ontario municipalities maintain approximately 141 000 km (two lane equivalent) of municipal highways (ECO 2003).

### 1.1.3 Relationship Between Mineral Aggregate Production and Consumption

Mineral aggregate production tends to fluctuate with construction spending

(Figure 1.3) (Arsenault 1998, Baker et al 1996, p. 7):

The demand for aggregate is a derived demand, since 90% of crushed stone and 95% of sand and gravel is used in the construction industry... Building demand is closely related to economic cycles and interest rates... Public works demand for aggregate is a function of government funding, which tends to be politically driven sometimes as a counter-cyclical investment strategy as opposed to demand-driven.

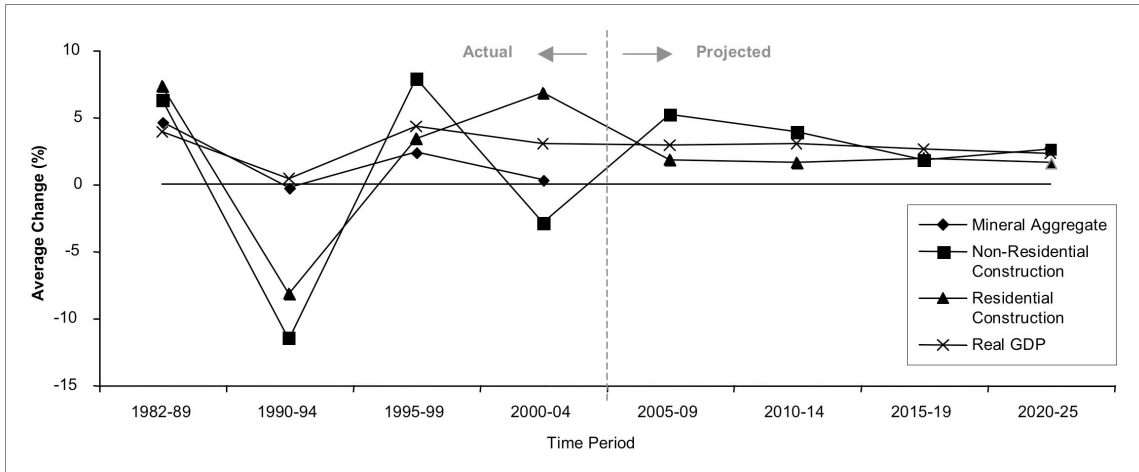
In Ontario, the unit price (production cost per tonne) of sand and gravel is lower than the unit price of crushed stone, approximately \$3.67 and \$8.44 respectively (NRCan 2007). Over the past 20 years, the unit price of sand and gravel has remained relatively static whereas the unit price of crushed stone has generally increased (Figure 1.4).<sup>5</sup> The increase in the unit price of crushed stone has coincided with an increase in the proportion of crushed stone used for aggregate, which may be causing the unit price of mineral aggregate to increase (Figure 1.4 and Figure 1.5).

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<sup>5</sup> Determining the reason for the price increase is beyond the scope of this research project, but perhaps recent changes to the *Ontario Provincial Standards for Roads and Public Works* are contributing factors (ECO 2003). Municipalities and the MTO must now use more mineral aggregate per unit area of highway and a greater proportion of this material must be made of crushed aggregate (ECO 2003). In order to meet the higher standards, crushed stone from quarries (particularly on the Niagara Escarpment and the Carden Plain) must commonly be used rather than crushed gravel from sand and gravel pits because the quality of mineral aggregate from sand and gravel pits is often too low to meet the new specifications (ECO 2003). Quality mineral aggregate is being hauled over longer distances to meet this demand (ECO 2003). Transportation costs make up approximately 60% of the price of mineral aggregate, therefore the longer haul distances to meet provincial construction standards could drive up the price of crushed stone (OMNR 2006i).

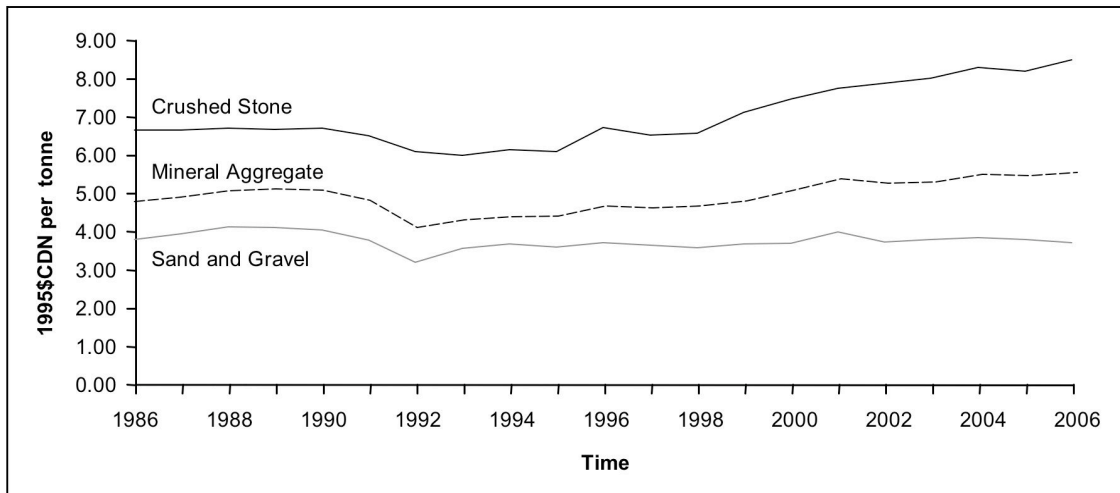


**Figure 1.3 Trends in Ontario's economy and mineral aggregate production**



Source: OMOF (2005), NRCan (2007), StatsCan (1986-1994)

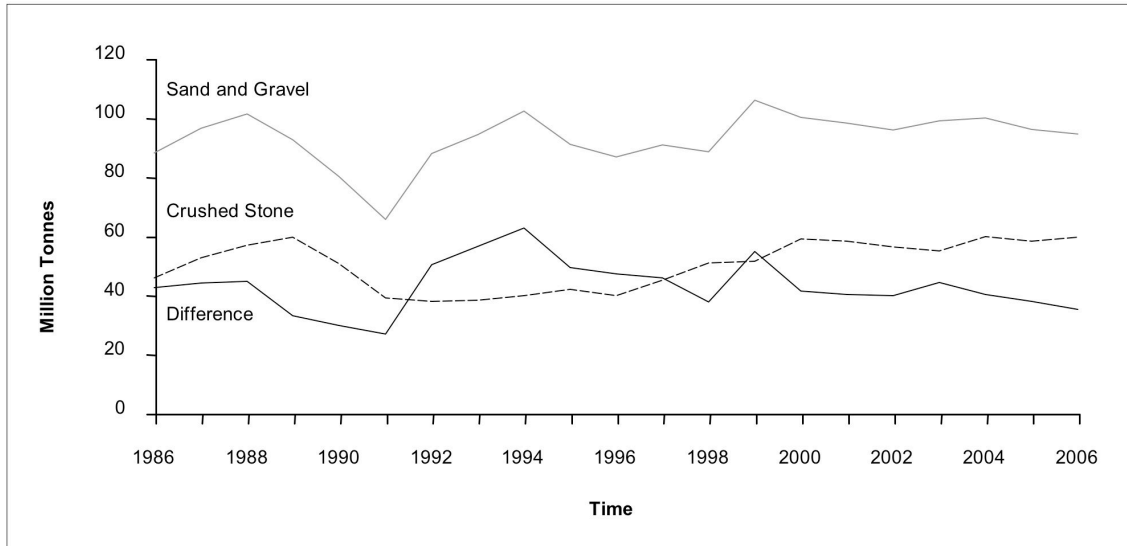
**Figure 1.4 Historic price of Ontario mineral aggregate by material type, in constant dollars**



The "Mineral Aggregate" trend shows the overall price of mineral aggregate, which was calculated by combining the production values for crushed stone and sand and gravel.

Source: StatsCan (1986-1994), NRCan (2007), Bank of Canada (2007)

**Figure 1.5 Ontario mineral aggregate production by material type**

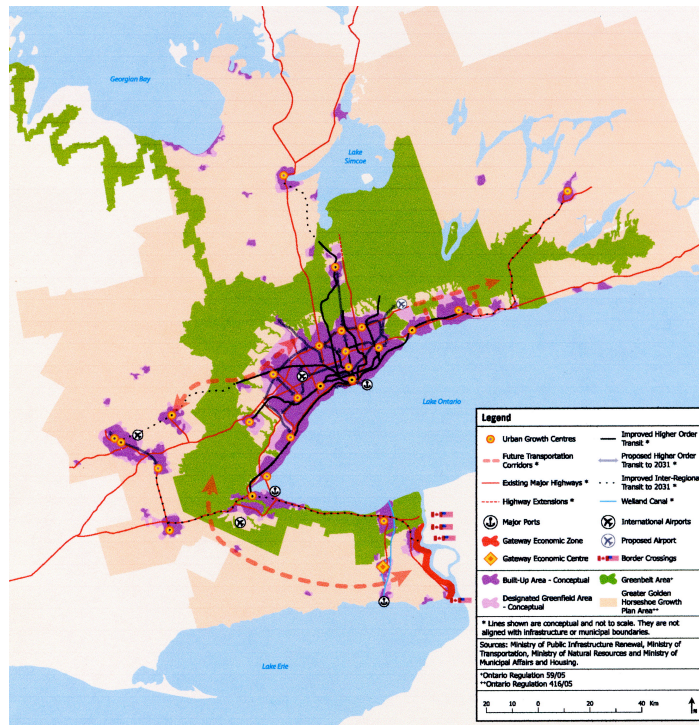


"Difference" was calculated by subtracting tonnes of crushed stone from tonnes of sand and gravel.  
Source: StatsCan (1986-1994), NRCan (2007)

The Ontario Ministry of Finance forecasts the Province's real GDP and construction spending will continue increasing over the next 20 years (OMOF 2005). In May of 2005, the Ontario Government announced during the Ontario Budget Speech that it would spend \$30 billion dollars between 2005 and 2010 as part of a long term strategy to modernize and replace many of the province's roads, highways, hospitals and schools, and in building new ones to accommodate growth (OMPIR 2005).<sup>6</sup> Assuming construction spending increases as predicted and there are no changes to Ontario's approach to managing mineral aggregate resource development, mineral aggregate production could climb with the real price of mineral aggregate. A price increase in mineral aggregate could escalate the cost of public infrastructure.

<sup>6</sup> Twenty-two highway expansion projects in areas of high traffic volume are slated to improve public safety, and seven and a half billion dollars is directed towards infrastructure improvements for managing growth in the Golden Horseshoe area (Figure 1.6) (OMPIR 2005).

**Figure 1.6 Greater Golden Horseshoe area requiring public infrastructure improvements**



Note: The information displayed on this map is not to scale, does not accurately reflect approved land use and planning boundaries, and may be out of date. For more information on precise boundaries, the appropriate municipality should be consulted. For more information on Greenbelt Area boundaries, the Greenbelt Plan 2005 should be consulted. The Province of Ontario assumes no responsibility or liability for any consequences of any use made of this map.

Source: OMPIR (2006a)

### 1.1.4 Environmental and Social Impacts of Mineral Aggregate Production

The production and transport of mineral aggregate threatens environmental and social quality.<sup>7</sup> Disturbance to the land surface is visually disruptive and destroys habitat. Mineral aggregate production can also affect water quantity and quality. Sand and gravel deposits are often hydrological recharge zones and may host drinking water supplies; the extraction of sand and gravel can reduce water well productivity and contaminate drinking water with fluids leaking from equipment. An additional threat to aquifers is the vibration caused when bedrock is blasted for crushed stone production. Blasting vibrations can also damage surrounding buildings and roads, and can be noisy and dusty.

<sup>7</sup> I cannot report the extent and magnitude of all the environmental and social impacts of mineral aggregate resources in Ontario because no one has systematically gathered this information (Budney and Peel 2007). Instead, I summarize the impacts discussed in Richards and Peel (2003) and Baker et al (1996).

Moving mineral aggregate around the pit or quarry, and crushing, separating and washing produced material can also be dusty, noisy, and unsightly. Additionally, processing equipment like asphalt plants may produce odours and other emissions.

If driven carelessly, gravel trucks are hazardous to other drivers and pedestrians. If truck drivers do not cover their loads or sweep loose gravel from truck ledges, flying debris can damage other vehicles.

Rehabilitation of exhausted pits and quarries is a common mitigation measure to ameliorate long term impacts, but Ontario law and policy may not be ensuring that timely rehabilitation occurs. The Ontario Ministry of Natural Resources (OMNR) and a private partner, the Ontario Aggregate Resources Corporation (TOARC), rehabilitated 175 of 6700 abandoned sites (291 ha) from 1992 to 2004 (TOARC 2002 and TOARC 2005a). At this rate all sites will not be rehabilitated until 2525. Fortunately, according to TOARC, all of the inventoried pits and quarries may not require rehabilitation as at least 30% of the sites are, in essence, rehabilitating themselves, many of the sites have already been converted to other land uses, and many land owners decline the offer of TOARC to rehabilitate their properties (Consedine 1999). However, the decline of rehabilitation assistance by land owners does not mean that these abandoned sites are without environmental and social impacts.

A recent review by the OMNR addressed concerns from an Ontario-based environmental group (Gravel Watch) that mineral aggregate operators have disturbed two times the amount of land than they have rehabilitated. Gravel Watch feels this rate of disturbance is contrary to the requirements for progressive rehabilitation set down in Ontario's *Aggregate Resources Act, R.S.O. 1990, Chapter A.8*. Although the quality of

the rehabilitation data (collected by TOARC) that informed Gravel Watch's assessment is debatable, the OMNR review of mineral aggregate sites in the Oak Ridges Moraine determined that 32% of the 121 sites were not meeting all rehabilitation requirements and the producers could have been subject to enforcement action (a Minister's Order to require rehabilitation) (OMNR 2006c).<sup>8</sup>

### **1.1.5 Environmental and Social Impacts of Aggregate Consumption**

Environmental and social impacts also result from the consumption of aggregate resources. Since 1993, an area almost the size of the City of Toronto (>154 000 acres) has been paved over in the Golden Horseshoe area (Figure 1.6) (OMPIR 2005). Bunting et al (2002) found that the area of urbanized land in metropolitan areas in southern Ontario increased between 10.7% and 83.6% from 1971 to 1996. While the area of urbanized land increased, the mean population density of urbanized tracts decreased by 4.6% to 15.7% in four of the seven areas studied (Bunting et al 2002). A readily available, inexpensive supply of aggregate for making concrete and asphalt has contributed to the province's unsustainable growth pattern, which the Ontario government admits results from "decades of unplanned growth" (OMPIR 2005).

To reach construction sites, producers are hauling mineral aggregate over longer distances, as close-to-market supplies are exhausted or made inaccessible due to land use planning choices. It is estimated that every additional kilometre of haul into the Greater Toronto Area increases annual greenhouse gas emissions by 3500 tonnes and consumes an additional two million litres of fossil fuel (OSSGA 2006?).

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<sup>8</sup> The rehabilitation statistics may not be completely accurate because of data collection problems (OMNR 2006c and Budney and Peel 2007).

### 1.1.6 Ontario Laws for Managing Aggregate Resources

The *Constitution Act, 1867 (U.K.), 30 & 31 Victoria, c. 3* enables Ontario to exclusively make laws governing most natural resources in the province. Specifically, s. 92A(1)(b) provides provinces the jurisdiction to make laws relating to the development, conservation and management of non-renewable natural resources, including laws in relation to the rate of primary production therefrom. Furthermore, s. 92A(4)(a) allows provinces to make laws relating to the raising of money by any mode or system of taxation in respect of non-renewable resources and the primary extraction therefrom. In 1971, Ontario first exercised this authority over mineral aggregate resources by enacting the *Pits and Quarries Control Act* (OMAWP 1977):

The intent of the Act was to provide rules and regulations that would accelerate rehabilitation and minimize the environmental impact of pit and quarry operations while still providing the aggregate requirements of the Province to be met within the Province.

According to the Coalition on the Niagara Escarpment (2005) and Winfield and Taylor (2005) the *Pits and Quarries Control Act* also was intended to limit municipalities' ability to control pits and quarries or prohibit their expansion.

In 1989, the *Aggregate Resources Act* (ARA) replaced the *Pits and Quarries Control Act* and expanded the responsibilities of producers to mitigate environmental and social impacts of extraction. The ARA gave the Minister of Natural Resources discretion to refer appeals by individuals and municipalities to the Ontario Municipal Board for public hearings, and the ability to control the issues that the Ontario Municipal Board could decide. Provisions in the ARA also enabled the collection from producers of annual fees (per tonne of mineral aggregate produced). This money is shared among the Crown, municipalities, and TOARC. Winfield and Taylor (2005) feel that the ARA further

limited the power of municipalities, “Again, the underlying theme appears to be the constraint of municipalities or individuals in limiting or preventing aggregate extraction operations in any way that would interfere with access to the resource.”

In 1996, The *Aggregate and Petroleum Resources Statute Law Amendment Act* shifted some responsibilities, including compliance reporting, rehabilitation of abandoned pits, and royalty and fee collection, from the Ministry of Natural Resources to the mineral aggregate resource industry (Winfield and Taylor 2005). Then in 1997, mineral aggregate producers were required by regulation (*General, Ontario Regulation 244/97*) to comply with the *Aggregate Resources of Ontario Provincial Standards* (Provincial Standards) that are meant to guide proponents through the application process for pits and quarries. The Provincial Standards also includes mandatory conditions of approval for pits and quarries.

The OMNR identified at least 14 other provincial and federal statutes that affect aggregate production in Ontario (e.g., provincial land use planning statutes, the federal *Fisheries Act*, the provincial *Environmental Protection Act*).<sup>9</sup> Provisions in these statutes may restrict the location of mineral aggregate pits and quarries (primarily the land use planning statutes discussed below), or inhibit or minimize specific environmental impacts by establishing regulated limits for impacts or requiring mitigation measures (e.g., no net loss of fish habitat, safe placement of pit/quarry entrances onto provincial highways).

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<sup>9</sup> See OMNR (2006c) for the list of statutes, their purposes, and how they affect mineral aggregate production.

### 1.1.7 Ontario Land Use Planning Laws

Ontario is enabled to make land use planning laws, in part, by s. 92(13) of the *Constitution Act, 1867*, which establishes provincial jurisdiction over property and civil rights, and s. 92(16), which allocates jurisdiction to provincial legislatures generally over all matters of a merely local or private nature in the province. In addition, the province has planning authority over the land that it owns. Land use planning in Ontario dates back to the early 1900's (HPL 2005). The current *Planning Act, R.S.O. 1990, c. P.13* and its predecessors allow municipalities to make official plans and zoning bylaws, and enable the Crown to plan land use. Provisions in the *Planning Act* may control the location of aggregate extraction.

As mentioned previously, Winfield and Taylor (2005) observed that over time, the Province of Ontario has increasingly restricted municipalities' ability to plan for and regulate mineral aggregate operations (Winfield and Taylor 2005). In 1979, the OMNR adopted the *Mineral Aggregate Resource Policy for Official Plans*, which stated that lands with significant mineral aggregate deposits could not be developed until after the mineral aggregate was removed (Winfield and Taylor 2005). This policy also required that the OMNR provide information about mineral aggregate resources to municipalities for planning purposes (Scott 1984) – the Ontario Geological Survey has published information about mineral aggregate deposits in *Aggregate Resource Inventory Papers*, covering about 70% of the populated region of Ontario (Peel 2004).

In 1983, a revised *Planning Act* enabled the province to create provincial policy statements to provide direction to municipal governments and other planning authorities when making land use planning decisions (*Planning Act* s. 3). More specifically, the



current *Planning Act* requires that when the following people or groups make decisions that affect planning matters, they must be sure that their decisions are consistent with the provincial policy statements: municipal councils, local boards, planning boards, Ministries and Ministers, and commissions and agencies of the government (*Planning Act* s. 3(5)).

The current *Provincial Policy Statement* (approved in 2005) (PPS) is a comprehensive set of policies addressing a broad range of land use topics including transportation, water, agriculture, mineral resources, air quality, housing, and natural hazards (OMMAH 2005). The current policy statements for mineral aggregate include the following (OMMAH 2005):

- 2.5.1 Mineral aggregate resources shall be protected for long-term use.
- 2.5.2.1 As much of the mineral aggregate resources as is realistically possible shall be made available as close to markets as possible. Demonstration of need for mineral aggregate resources, including any type of supply/demand analysis, shall not be required, notwithstanding the availability, designation or licensing for extraction of mineral aggregate resources locally or elsewhere.
- 2.5.2.2 Extraction shall be undertaken in a manner which minimizes social and environmental impacts.
- 2.5.2.3 The conservation of mineral aggregate resources should be promoted by making provision for the recovery of these resources, wherever feasible.
- 2.5.2.4 Mineral aggregate operations shall be protected from development and activities that would preclude or hinder their expansion or continued use or which would be incompatible for reasons of public health, public safety or environmental impact. Existing mineral aggregate operations shall be permitted to continue without the need for official plan amendment, rezoning or development permit under the *Planning Act*. When a license for extraction or operation ceases to exist, policy 2.5.2.5 continues to apply.

- 2.5.2.5 In areas adjacent to or in known deposits of mineral aggregate resources, development and activities which would preclude or hinder the establishment of new operations or access to the resources shall only be permitted if:
- a) Resource use would not be feasible; or
  - b) The proposed land use or development serves a greater long-term public interest; and
  - c) Issues of public health, public safety and environmental impact are addressed.

Baker et al (1996) found that the policy statements for mineral aggregate have dictated how mineral aggregate resources are managed in Ontario, even though the ARA does not refer to the PPS.

The province has drafted several land use plans in southern Ontario to address competing and conflicting land uses, including the *Niagara Escarpment Plan* (approved in 1985 and amended in 1994 and 2005), the *Oak Ridges Moraine Conservation Plan* (approved in 2001), and the *Greenbelt Plan* (approved in 2005).<sup>10</sup> These plans constrain the location of new aggregate pits and quarries, and may require higher levels of mitigation. In addition, the *Growth Plan for the Greater Golden Horseshoe* (GGH – approved in 2006) proposes the following:

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, 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-ordinated approaches to rehabilitation where feasible.

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<sup>10</sup> The Greenbelt plan area encompasses the Niagara Escarpment and Oak Ridges Moraine Conservation plan areas. The Greater Golden Horseshoe plan area includes the majority of the Greenbelt plan area (OMPIR 2006b, Schedule 1, and Govt. of ON 2005).

### **1.1.8 Ontario Environmental Assessment Act**

Ontario's *Environmental Assessment Act, R.S.O. 1990, Chapter E.18* (EA Act) came into force in 1976. The design of the environmental assessment (EA) process was largely based on the United States' *National Environmental Policy Act* (EAAP 2005). "The purpose of [the EA Act] is the betterment of the people of the whole or any part of Ontario by providing for the protection, conservation and wise management in Ontario of the environment" (EA Act s. 2). The EA process is focussed on identifying and selecting a preferred alternative for any proposed undertaking from among a range of reasonable alternatives and having regard for the environmental advantages and disadvantages of the proposed undertaking and the alternatives (EAAP 2005). The Environmental Assessment Branch of the Ministry of the Environment (OMOE-EAAB) administers the EA Act. The EA Act provides for two types of environmental assessment: 1) Individual EA Act review and 2) Class EA.

The Individual EA Act review is a more formal process that requires the approval of a Terms of Reference specific to the proposed project (prepared by the proponent in accordance with the EA Act) early in the EA process, and a Ministry Review of the proponent's EA report. EA reports require the approval of the Minister of the Environment.

The Class EA process applies to specified types of undertakings that take place routinely or repeatedly and that have relatively predictable and mitigable impacts, such as minor forest management activities or transportation projects (EAAP 2005). Class EAs outline processes that proponents of these types of undertakings can follow in order to

avoid the Individual EA Act review process but still meet the intent of the EA Act – Ontario’s Class EAs have effectively expedited these projects through EA (EAAP 2005).

Provincial transportation projects and municipal infrastructure projects and plans (roads, water and wastewater) must undergo EA as required by two Class EAs: 1) *Class Environmental Assessment for Provincial Transportation Facilities* (MTO Class EA) and 2) *Municipal Class Environmental Assessment* (MEA Class EA). Since approximately 55% of mineral aggregate resources extracted in Ontario are destined for public roads, the MTO and MEA Class EAs should be important tools for ensuring Ontario’s aggregate resources are developed sustainably. Both the MTO Class EA and MEA Class EA prescribe a range of levels of EA; the rigour of the required EA process increases with the potential environmental impacts of the proposed project or plan. Class EAs can also specify undertakings that must undergo separate individual review. For example, the MTO Class EA requires the planning stage for new freeways to undergo Individual EA Act review as prescribed in the EA Act (MTO 2000). Proponents are responsible for nearly all aspects of the Class EA processes including any monitoring of compliance and impacts. EA reports may be reviewed by the public and government agencies, but there are no approvals or refusals issued.

The EA Act exempts mineral aggregate pits and quarries on private land from EA, unless the Minister of the Environment designates the project by regulation. However, the OMNR must assess applications for pits and quarries on public land (aggregate permits) according to the *Class EA for MNR Resource Stewardship and Facility Development Projects* (OMNR Class EA) (OMNR 2006g). No mineral aggregate pit or quarry in Ontario has ever been designated for Individual EA Act review. The public

has requested that at least one mineral aggregate operation (Superior Aggregate Company's proposed quarry near Wawa) be designated. Reasons for the designation requests included a wide range of potential impacts to the physical, natural, social, cultural, and economic environment that those who requested the designation believed could not be addressed by existing legislation (Govt. of ON 2004). Over 4600 comments out of a total of 5734 comments received by the Ministry of Environment supported the designation of the proposed quarry under the EA Act.

The Minister of the Environment denied the request for designation under the EA Act, citing the following reasons (Govt. of ON 2004):

- Key environmental concerns can be addressed through the processes for licences, approvals and permits under existing legislation including the *Planning Act*, *Environmental Protection Act*, *Ontario Water Resources Act*, and the *Aggregate Resources Act* (ARA)
- The ARA is the best legislative tool to apply to the new quarry operations as the Act requires approvals from the OMNR, and the application of Provincial Standards including environmental standards for the establishment, operation and rehabilitation of the proposed quarry
- There is “no significant benefit to designating the proposed quarry under the EA Act”

The Superior Aggregate case provides evidence that the Ministry of the Environment does not believe the Individual EA Act review process offers more environmental protection than the regulatory approvals process under the ARA. The public comments, overwhelmingly in support of the designation request, suggest there is a sizeable portion of the Ontario population that does not equate the ARA with the EA Act.

### 1.1.9 Environmental Assessment and Sustainable Development

Practiced in over 100 countries (Wood 2003), EA is a popular “...anticipatory, participatory environmental management tool” (Jay et al 2007). EA processes commonly involve consultation and public participation, and result in reports describing a range of project or plan alternatives, the likely environmental impacts of the alternatives, and mitigation measures to eliminate or reduce the significant impacts. Decision makers may refer to the EA report when determining whether a project or plan should proceed. Many authors have questioned whether EA actually results in decisions that prevent environmental degradation, an original purpose of EA (Jay et al 2007).

In 1969, the United States of America enacted the first EA legislation, the *National Environmental Policy Act*. This Act pursued the goal of environmental protection and also sustainable development (Jay et al 2007, p. 289):

The Congress, recognizing the profound impact of man's activity on the ... natural environment ...and ... the critical importance of restoring and maintaining environmental quality ... declares that it is the continuing policy of the Federal Government ... to use all practicable means and measures ... to create and maintain conditions under which man and nature can exist in productive harmony, and fulfil the social, economic, and other requirements of present and future generations of Americans. (Section 101(a))

Twenty-three years later, the *Rio Declaration on Environment and Development* recognized EA as a tool for achieving sustainable development (UN 1992):

**Principle 17** – EIA, as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority.

And nearly 40 years after the *National Environmental Policy Act* was legislated, in the academic literature there continues a discussion about EA's role in achieving sustainable development (e.g., Jay et al 2007, Cashmore et al 2004).

Despite being vague, the Brundtland Commission's definition of sustainable development is one of the most commonly used: development that meets the needs of the present without compromising the ability of future generations to meet their own needs (WCED 1987). There are over 500 indicator initiatives for measuring sustainable development to complement the multitude of definitions for this popular concept (Parris and Kates 2003). The definitions differ "...on what is to be sustained, what is to be developed, how to link environment and development, and for how long a time" (Parris and Kates 2003, p. 560). Additionally, definitions for sustainable development commonly include the values of inter- and intra-generational fairness.

The following three conceptualizations of sustainable development are briefly discussed (summarized from Hussen 2000) to illustrate the range of perspectives on the meaning of sustainable development (Table 1.1). Hartwick-Solow sustainability, also called "weak sustainability," is the neo-classical economics understanding of sustainable development and does not require the maintenance of constant natural capital. Non-renewable resources may be extracted and converted into human capital as long as this use is intertemporally efficient, and the rent from the extracted resources is invested in renewable capital assets for future generations. In contrast, the concept of ecological economics sustainability, or "strong sustainability," assumes that ecological systems must be sustained in order to sustain economic development. Similar to Hartwick-Solow sustainability, non-renewable resources may be extracted as long as renewable substitutes

are invested in for future generations. In contrast to the weak and strong models of sustainable development, the safe minimum standards approach to sustainable development is focussed on erring on the side of caution by avoiding actions that would cause large-scale, irreversible degradation of natural capital. Similar to the other two concepts of sustainability, non-renewable resources may be extracted but renewable alternatives must be available for the use of future generations.

**Table 1.1 Three conceptualizations of sustainable development**

Conceptualization of Sustainability	What is sustained?	What is developed?	Link between environment and development	Time frame
<b>Hartwick-Solow (Weak)</b>	Constant real consumption of goods and services	A constant capital stock	Human and natural capital are substitutes	Indefinitely
<b>Ecological Economics (Strong)</b>	Constant natural capital	Economy	Human and natural capital are complements	Indefinitely
<b>Safe Minimum Standards</b>	Constant natural capital	Economy	Cannot assume human and natural capital are substitutes when human impacts are uncertain and may be large and irreversible	Indefinitely

Source: Hussen (2000)

Not all concepts of sustainable development attach the same conditions for the extraction of non-renewable resources (efficient use of the exhaustible resource and investment in renewable substitutes). According to the Natural Step approach, “Substances from the lithosphere must not systematically increase in the ecosphere; substances produced by society must not systematically increase in the ecosphere” (Upham 2000 and reference within). Strictly interpreted, these rules mean that non-renewable resources, including mineral aggregate, should not be relied upon for construction purposes, and we should not continually increase the size of our built



environment. In sharp contrast, the Brundtland report delivers the opposite message about mineral aggregate (Huber 2000, emphasis is added for this study):

The consumption rate of exhaustible resources (ecologically sensitive resources such as land or oil, coal and natural gas, **but not commonplace materials such as sand and stones**) is to be minimized by (a) substituting renewable resources for exhaustible ones; (b) increasing material and energy efficiency; and (c) recycling to the extent that is ecologically reasonable and economically justifiable.

Other authors share this view that sand and gravel, and crushed stone are so abundant that they should be viewed as unlimited resources for sustainability purposes (e.g., Kellett 1995).

For this study, it is important to understand how the Province of Ontario defines sustainable development. Since the OMNR is responsible for managing mineral aggregate resources, I refer to the OMNR's definition of sustainable development (OMNR 2005):

Under the concept of sustainable development, Ontario's natural resources constitute natural "capital." Resources over and above those essential for long-term sustainability requirements become available over time as "interest" for use, enjoyment and development. Development which maintains the natural capital and allows for the accumulation of this natural interest is sustainable.

This definition can be broken down as follows:

**What is sustained?** Constant natural capital

**What is developed?** Natural resources for use, enjoyment and development.

**Link between environment and development:** Development cannot reduce natural capital or the ability of future generations to use, enjoy and develop natural resources.

**Time frame:** Long-term.

The OMNR definition of sustainable development is similar to the ecological economics and safe minimum standards concepts. I conclude that the definition is most

like the ecological economics (strong sustainability) approach because the OMNR is not focussed on managing resources in the face of uncertainty – a search of the strategic document containing the definition of sustainable development found only one occurrence of the word “uncertainty” (OMNR 2005).

#### **1.1.10 Problem Statement**

Despite Ontario’s laws for managing mineral aggregate resource development, aggregate producers, government officials, and environmental organizations broadly agree that mineral aggregate supplies close to market are shrinking while land use conflicts are increasing (Lura Consulting 2006). According to Winfield and Taylor (2005), mineral aggregate resource development in Ontario is currently unsustainable: the efficiency of mineral aggregate consumption in Ontario is questionable, and alternatives to virgin mineral aggregate, including recycling, are not being used as much as possible.

Moreover, Mineral aggregate is being transported over longer distances to reach the intended market, meaning one community reaps the benefits (i.e., public infrastructure construction and maintenance) while another community pays the costs of hosting a pit or quarry. Under some definitions of sustainability, the transfer of an environmental problem from one community to another is unsustainable (Kellett 1995, Cowell and Owens 1998). The levy on mineral aggregate production could potentially compensate the extractive communities, but until very recently producers had paid the same fee for nearly 20 years even though concerns surrounding pits and quarries had increased. It is unclear whether recent (January 2007) fee increases will fairly compensate municipalities hosting mineral aggregate operations.

Ontario's approach to managing mineral aggregate resource development may be contributing to these problems. The ARA may not ensure aggregate pits and quarries are optimally located, designed, operated, and host communities compensated. Similarly, the EA Act may not ensure that the most beneficial infrastructure projects with the least environmental and social impacts are constructed. Finally, the EA Act may not reduce the demand for aggregate resources, which represents a lost opportunity to decrease the need for new or expanded pits and quarries.

## **1.2 Study Overview**

Is Ontario's approach to managing mineral aggregate resource development flawed? This study evaluates the effectiveness of the application process prescribed in the ARA, and the EA processes defined by the EA Act, MEA Class EA and the MTO Class EA. The OMNR Class EA is not evaluated in this study because the ARA process is the primary policy that describes the rules for assessing the merits and environmental impacts of mineral aggregate pits and quarries, like the MTO Class EA and MEA Class EA are the primary policies outlining how the merits and environmental impacts of constructing public infrastructure are assessed. The Individual EA Act review process is evaluated because it applies to the most environmentally significant public infrastructure projects.

If these processes for assessing mineral aggregate resource development are ineffective, the flaws may be contributing to the loss of close to market aggregate supplies, increased land use conflicts, and the unsustainable development of mineral aggregate resources. To the best of my knowledge, this is the first study evaluating the processes in Ontario that assess the merits and impacts of mineral aggregate resource

development from extraction of the raw material to construction of the finished product (e.g., roads).

Public infrastructure projects – which consume approximately 60% of all mineral aggregate resources produced in Ontario – can only proceed if the requirements of the EA processes are met (EA Act, MEA Class EA and the MTO Class EA). By requiring that EA participants consider the environmental impacts of alternative technologies that use less or no mineral aggregate resources to meet public needs like transportation and water, the demand for mineral aggregate resources could be reduced, thereby extending the life of close to market aggregate supplies and reducing the need for new or expanded pits and quarries.<sup>11</sup> Moreover, if EA participants must properly consider the impacts of constructing public infrastructure projects on top of or near mineral aggregate deposits, less mineral aggregate resources would be made unavailable for potential pit or quarry development by future generations.

Nearly all aggregate pits and quarries in Ontario are located, designed, operated, and rehabilitated according to the ARA requirements. Fixing any flaws in the ARA process could better ensure that aggregate pits and quarries are located, designed, and operated so that the health and safety of the environment and Ontario residents is adequately protected.

The Ontario case is an important study because Ontario is the largest producer of sand and gravel, and crushed stone in Canada. Moreover, the ARA is “...the only Canadian statute giving specific recognition to the value of aggregate resources” (Peel

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<sup>11</sup> The following are some examples of alternative technologies: using public transit; increasing the efficient use of existing infrastructure; substituting alternative materials for mineral aggregates; and constructing with low-gravel content concrete.

2004). Ontario has battled issues of mineral aggregate resource development for over 40 years, meaning there is a rich history from which to learn. The Province is explicitly committed to achieving sustainable development (Govt. of Ontario 2005), a challenging goal to pursue since Ontario's population continues to grow along with the production of mineral aggregate resources.

### **1.3 Purpose**

To evaluate the effectiveness of existing provincial processes for assessing the merits and environmental impacts of mineral aggregate resource development in Ontario.

### **1.4 Objectives**

1. To evaluate Ontario's processes for assessing the merits and environmental impacts of mineral aggregate resource development using criteria from the EA and policy sciences literature.
2. To recommend improvements to the processes for assessing the merits and environmental impacts of mineral aggregate resource development in Ontario, and draw lessons from the Ontario case for the consideration of other jurisdictions.

### **1.5 Methods**

The program and policy evaluation literature is vast. In contrast, the literature about evaluating EA systems is small (Sadler 2004). I found the most comprehensive definition of evaluation for program improvement in the social program literature (Rossi et al 2004):

Program evaluation is the use of social research methods to systematically investigate the effectiveness of social intervention programs in ways that are adapted to their political and organizational environments and are designed to inform social action to improve social conditions.

This definition is made relevant to EA by simply adding "environmental" to the parts of the phrase where "social" appears. This definition ties together the components of

evaluation discussed in the general and EA specific evaluation literature: research methods, judgment of effectiveness, and policy context.

There is no “one-size-fits-all” approach to evaluation (Rossi et al 2004, Morrison-Saunders and Arts 2004); all evaluations should involve the careful choice of research questions, evaluation criteria, and research methods. The quality of these choices affects the utility of the evaluation.

Criticisms of evaluations are commonly focused on methodological issues because all evaluations have methodological flaws (Berk and Rossi 1990). The following characteristics describe appropriate evaluation methods (Rossi et al 2004):

**Systematic** – evaluators should follow the established rules of research methods when gathering, analyzing, and interpreting evidence

**Adapted to political and organizational environments** – the choice of evaluation questions, methods and procedures for answering evaluation questions, and the nature of the evaluator-stakeholder relationship should be context specific; the purposes of the evaluation, program’s structure and circumstances, and the resources available for the evaluation are key components of the context that would influence the evaluation design

**Designed to inform social action** – the choice of the evaluation questions, performance criteria, and procedures for data gathering, analysis and interpretation should be made with the goal of informing social actions to improve conditions

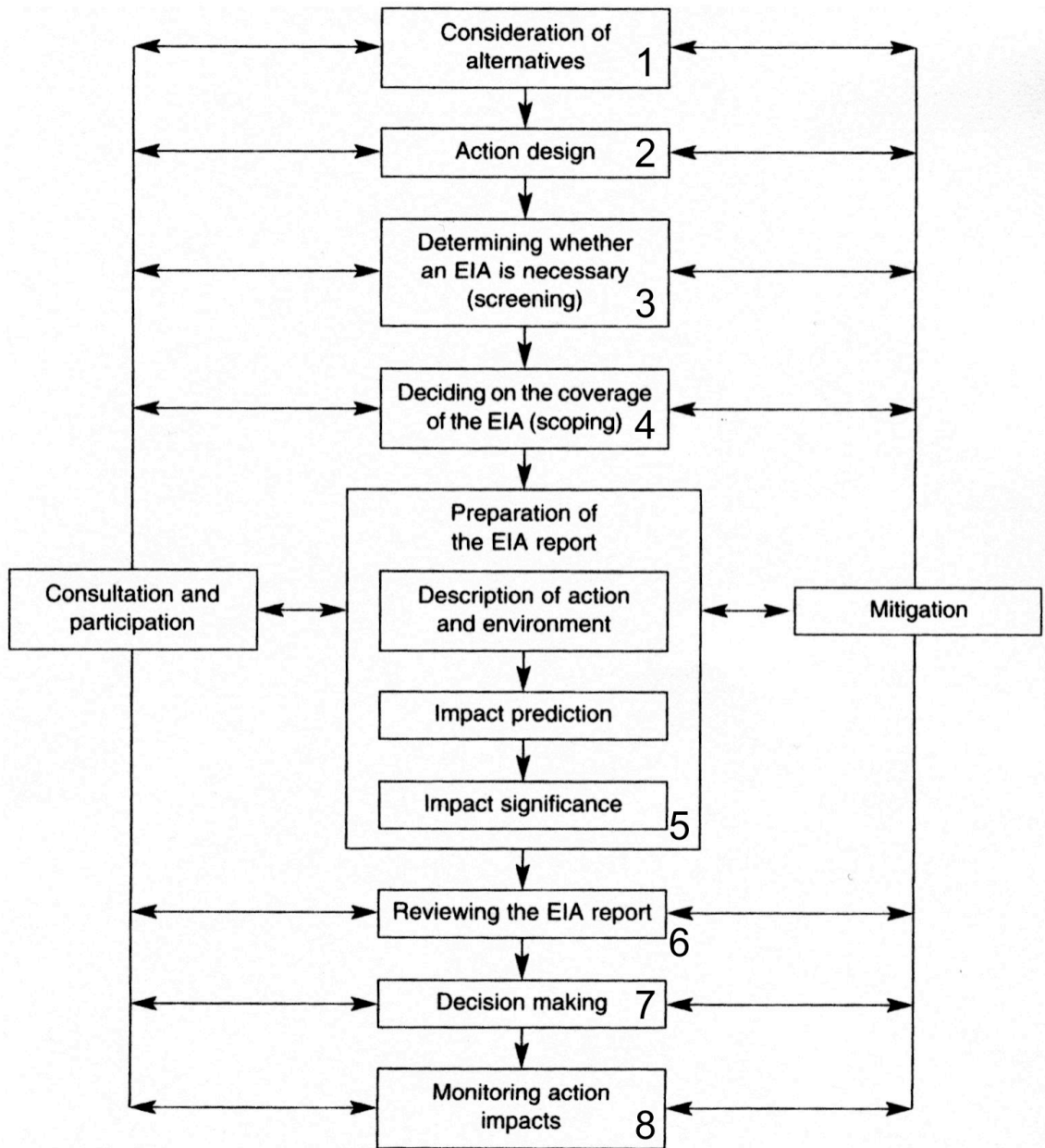
### 1.5.1 Evaluation Framework and Criteria

I began the study by reviewing evaluation frameworks and criteria from the EA and policy sciences literature. I chose Wood’s (2003) evaluation framework and criteria because they are comprehensive and designed for comparing EA processes. Additionally, other evaluators have used Wood’s (2003) framework and criteria, (e.g., Zeremariam and Quinn 2007, Annandale 2001, Ahmad and Wood 2002) and EA follow up experts have recognized the framework and criteria (Sadler 2004).

The framework divides the EA process into eight iterative steps, and establishes a common language useful for comparing EA systems (Figure 1.7). Wood's (2003) framework reminds evaluators to consider all environmental legislation and policies – EA is only one part of a system that is attempting to achieve environmental protection, and EA is influenced by other system components (Wood 2003).

In the present study, each step in the EA process is described and evaluated using 14 primary criteria from Wood (2003). Wood's (2003) criteria are written as research questions, which is beneficial; it is good practice to integrate criteria into the evaluation questions (Rossi et al 2004). The criteria are dominantly process-oriented and guide the assessment of the procedural purpose: "...the intention [of EA] is that actions are authorised in the full knowledge of their environmental consequence" (Wood 2003, p. 3).

Figure 1.7 Generic environmental assessment process



The numbers are added to show the eight iterative steps of EA.  
 Source: Modified from Wood (2003), with permission



Each primary evaluation criterion is described using sub-criteria which may be interpreted as characteristics of a well-functioning EA process.<sup>12</sup> I expanded the sub-criteria by including an additional 12 from Lasswell (1971) to increase the comprehensiveness of the evaluation framework. Eight of the additional 12 sub-criteria relate to primary criterion 12: Must the EIA system be monitored and, if necessary, be amended to incorporate feedback from experience? These additional eight sub-criteria articulate explicitly the characteristics of the process for monitoring and amending the EIA system that may be implied by Wood's (2003) sub-criteria, and add the democratic norms that any changes in the rules for society should be reasonable, fair, and timely.

### **Evaluation Criteria<sup>13</sup>**

1. Is the EIA system based on clear and specific legal provisions?
  - a) Is each step in the EIA process clearly specified in law or a regulation?
  - b) Are the legal provisions sufficiently unambiguous in application?
  - c) Is there a degree of discretion in the provisions which is acceptable to the participants in the EIA process?
  - d) Are the EIA requirements clearly differentiated from other legal provisions?
  - e) Is each step in the EIA process enforceable through the courts or by other means?
  - f) Are time limits for the various steps in the EIA process specified?
  - g) Does a clear outline of procedures and time limits exist for the EIA system as a whole?
  - h) Are opportunities for learning about the EIA process available to participants (Lasswell 1971)?
2. Must the relevant environmental impacts of all significant actions be assessed?
  - a) Does the EIA system apply to all public and private environmentally significant projects?
  - b) Are the provisions applied in practice to all the actions covered in principle?
  - c) Are all significant environmental impacts covered by the EIA system?

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<sup>12</sup> Evaluation criteria should be, as much as possible, specific, explicit, meaningful, consensual (among stakeholders and evaluator), and defensible (Rossi et al 2004, Fitzpatrick et al 2004). I did not involve stakeholders in the evaluation design because it was not practical to do so.

<sup>13</sup> From Wood (2003) unless otherwise indicated.

3. Must evidence of the consideration, by the proponent, of the environmental impacts of reasonable alternative actions be demonstrated in the EIA process?
  - a) Must clear evidence of the consideration of the environmental impacts of alternatives be apparent in preliminary EIA documentation?
  - b) Must the realistic consideration of the impacts of reasonable alternatives, including the no-action alternative, be evident in the EIA report?
  - c) Does published guidance on the treatment of the impacts of reasonable alternatives exist?
  - d) Does the treatment of alternatives take place effectively and efficiently?
4. Must screening of actions for environmental significance take place?
  - a) Is there a legal test of whether the action is likely to affect the environment significantly?
  - b) Is there a clear specification of the type of action to be subject to EIA?
  - c) Do clear criteria/thresholds exist (e.g., size, location)?
  - d) Do different types of EIA exist for different types of action?
  - e) Must documentation be submitted by the proponent to assist in screening?
  - f) Does published guidance about actions, criteria, thresholds and screening procedures exist?
  - g) Is the screening decision made by a publicly accountable body?
  - h) Does consultation and participation take place during screening?
  - i) Is there a right of appeal against screening decisions?
  - j) Does screening function effectively and efficiently?
5. Must scoping of the environmental impacts of actions take place and specific guidelines be produced?
  - a) Must the proponent consult the environmental authority early in the EIA process?
  - b) Must the proponent prepare information as a basis for scoping?
  - c) Is scoping mandatory in each case?
  - d) Must a general or generic set of impacts be addressed in the EIA?
  - e) Must action-specific scoping guidelines be prepared?
  - f) Are irrelevant impacts screened out?
  - g) Does published guidance on scoping procedures and methods exist?
  - h) Is consultation and participation required in scoping?
  - i) Is there a right of appeal against scoping decisions?
  - j) Does scoping function efficiently and effectively?

6. Must EIA reports meet prescribed content requirements and do checks to prevent the release of inadequate EIA reports exist?
  - a) Must EIA reports describe actions and environments affected, forecast impacts, indicate significance and contain a non-technical summary?
  - b) Must information held by the relevant authorities about the environment or type of action be made available to the proponent?
  - c) Does published guidance on EIA report preparation exist?
  - d) Must specified EIA methods or techniques be employed?
  - e) Does accreditation of EIA consultants exist?
  - f) Do checks on the content, form, objectivity, and accuracy of the information presented occur before publication of the EIA report?
  - g) Is consultation and participation required in the EIA report preparation?
  - h) Does the EIA process encourage creative fact finding (Lasswell 1971)?
  - i) Does EIA report preparation function efficiently and effectively?
7. Must EIA reports be publicly reviewed and the proponent respond to the points raised?
  - a) Must a review of the EIA report take place?
  - b) Do checks on the objectivity of the EIA report review exist?
  - c) Do review criteria to determine EIA report adequacy exist?
  - d) Does an independent review body with appropriate expertise exist?
  - e) Must the findings of the EIA report review be published?
  - f) Can the proponent be asked to respond to comments and to provide more information following review?
  - g) Must a draft and final EIA report be prepared?
  - h) Does published guidance on EIA review procedures and methods exist?
  - i) Is consultation and participation required in EIA report review?
  - j) Is consultation and participation required where further information is submitted?
  - k) Is there some form of appeal against review decisions?
  - l) Does EIA report review function effectively and efficiently?
8. Must the findings of the EIA report and the review be a central determinant of the decision on the action?
  - a) Must the decision be postponed until the EIA report has been prepared and reviewed?
  - b) Can permission be refused, conditions be imposed or modifications be demanded at the decision stage?
  - c) Is the decision made by a body other than the proponent?
  - d) Is any summary evaluation prepared prior to decision making made public?
  - e) Must the EIA report, and comments upon it, be used to frame the conditions attached to any consent?

- f) Are the decision, the reasons for it, and the conditions attached published?
  - g) Must these reasons include an explanation of how the EIA report and review influenced the decision?
  - h) Does published guidance on the factors to be considered in the decision exist?
  - i) Is consultation and participation required in decision making?
  - j) Is there a right of appeal against decisions?
  - k) Does decision making function effectively and efficiently?
9. Must monitoring of action impacts be undertaken and is it linked to the earlier stages of the EIA process?
- a) Must monitoring of the implementation of the action take place?
  - b) Must the monitoring of action impacts take place?
  - c) Is such monitoring linked to the earlier stages of the EIA process?
  - d) Must an action impact monitoring programme be specified in the EIA report?
  - e) Can the proponent be required to take ameliorative action if monitoring demonstrates the need for it?
  - f) Must the results of such monitoring be compared with the predictions in the EIA report?
  - g) Does published guidance on the monitoring and auditing of action implementation and impacts exist?
  - h) Must monitoring and auditing results be published?
  - i) Is there a public right of appeal if monitoring and auditing results are unsatisfactory?
  - j) Does action monitoring function effectively and efficiently?
10. Must the mitigation of action impacts be considered at the various stages of the EIA process?
- a) Must clear evidence of the mitigation/avoidance of environmental impacts be apparent in the initial action design described in preliminary EIA documentation?
  - b) Must a schedule of mitigation measures and their implementation be set down in the EIA report?
  - c) Must evidence of the consideration of mitigation be presented during screening, during scoping, during EIA report review and revision, during decision making and during monitoring?
  - d) Does published guidance on mitigation and modification exist?
  - e) Does the mitigation of action impacts take place effectively and efficiently?

11. Must consultation and participation take place prior to, and following EIA report publication?
  - a) Must consultation and participation take place prior to scoping, during scoping, during EIA report preparation, during review and following revision, during decision making and during monitoring?
  - b) Must a public participation strategy be initiated for each EIA?
  - c) Are copies of EIA documents made public at each stage of the EIA process?
  - d) Can copies of EIA documents be accessed free of charge or purchased at a reasonable price?
  - e) Do confidentiality/secrecy restrictions inhibit consultation and participation?
  - f) Are consultation and participation methods appropriate to the stage of the EIA process at which they are employed?
  - g) Is funding of public participants provided for?
  - h) Are obligatory consultees specified at various stages in the EIA process?
  - i) Must adjoining authorities/states/countries be consulted?
  - j) Does published guidance on consultation and participation exist?
  - k) Must the results of consultation and participation be published?
  - l) Do rights of appeal exist at the various stages of the EIA process?
  - m) Does consultation and participation function efficiently and effectively?
  
12. Must the EIA system be monitored and, if necessary, be amended to incorporate feedback from experience?
  - a) Is there a legal provision for periodic review of the EIA system?
  - b) Have reviews of the EIA system been carried out and changes made?
  - c) Is consultation and participation required in EIA system review?
  - d) Is a record of EIA reports for various types of action kept and made public?
  - e) Are records of other EIA documents kept and made public?
  - f) Are EIA reports and other EIA documents publicly available at one or more locations?
  - g) Are records of financial costs of EIA kept and made public?
  - h) Is information on the time required for EIA collected and made public?
  - i) Are the lessons from specific EIAs fed back into the system?
  - j) Does published guidance on monitoring and amending the EA process exist (Lasswell 1971)?
  - k) Are appraisals reviewed by a third party (Lasswell 1971)?
  - l) Are complaints about the EIA system documented and used to inform appraisal and termination (Lasswell 1971)?
  - m) Does the EIA system ensure changes are made at optimal times (Lasswell 1971)?
  - n) Does the EIA system ensure changes are made in a manner that minimizes harm to all groups affected by the change (Lasswell 1971)?

- o) Does the EIA system ensure changes result in the fair distribution of benefits and are losers compensated when there is a justified complaint about the distribution of benefits (Lasswell 1971)?
  - p) Is formal responsibility for success and failures of the EIA system attributed (Lasswell 1971)?
  - q) Are all components of the EIA system appraised (Lasswell 1971)?
  - r) Does the monitoring of the EIA system function efficiently and effectively?
13. Are the discernible environmental benefits of the EIA system believed to outweigh its financial costs and time requirements?
- a) Does empirical evidence exist that the EIA process has significantly altered the outcome of decisions?
  - b) Do the participants in the EIA process believe that the environmental quality and acceptability of decisions are improved by it?
  - c) Do the participants in the EIA process believe that it has altered the behaviour of the proponents, consultants, consultees, the public and the decision making authorities?
  - d) Do the financial costs of the EIA process to proponents, consultees, the public and the decision making authorities exceed those which would have been incurred in any event?
  - e) Do the times required to complete the various stages of the EIA process exceed those specified?
  - f) Do the participants in the EIA process believe there are enough resources to effectively implement the EIA process (Lasswell 1971)?
  - g) Is the time to complete the EIA process acceptable to the stakeholder groups (Lasswell 1971)?
14. Does the EIA system apply to significant programmes, plans and policies, as well as to projects?

These criteria were applied to the ARA process as well as the EA Act processes even though the ARA was not designed explicitly to enable the EA of pits and quarries. The Superior Aggregate case described above shows that the ARA is meant by the Ontario government to achieve at least the same level of environmental protection as the EA Act. By keeping the criteria consistent for all processes, I can compare the ARA to the EA processes and determine to what degree the ARA process is equivalent to an EA process. I can also consider whether the ARA is more effective than the EA processes.

### 1.5.2 Information Sources

The information involved in evaluation should provide an understanding of the evaluation context, the problem the program is meant to address, the stakeholders and their perspectives, the program under evaluation, and other programs designed to address the same problem (Lasswell 1971, Clark 2002). Information should be obtained from credible sources, qualified as necessary to indicate uncertainty, and be open to all parties during and after the evaluation (respecting any confidentiality agreements and laws) (Suvedi and Morford 2003, Lasswell 1971).

Evidence was gathered from previous evaluations of the EA processes, government documents, academic literature and key informant interviews. Key informants were asked questions to gather additional information that was not available in the written material; this information included details about how the EA processes are conducted in practice, and opinions about the effectiveness of the processes (Appendices A through E). Qualitative interviews allow knowledgeable and experienced people to use their own words to describe their experiences with the research subject and provide a more complete view of the situation (deMarrais 2004). Responses were digitally recorded, and are cited in this report as “Personal Communication.”

Potential informants were strategically chosen from the provincial and municipal governments of Ontario, the aggregate production industry, and environmental NGOs. People were invited to participate in an interview by email. A reminder of the request was emailed a week after the invitation to encourage informants to respond promptly. Seventeen potential informants were invited to participate: six people agreed to participate (see list below), seven did not respond, two parties responded but did not have

the time to participate, and one party would not agree to sign the Ethics Form that is required by Simon Fraser University and so was not interviewed.

**ARA Process**

- Member of Gravel Watch (NGO)
- Employee of The Ontario Aggregate Resources Corporation (private partner that helps administer the ARA)
- Employee of the Township of Puslinch (municipal government)

**MTO Class EA Process**

- Nil

**MEA Class EA process**

- Member of a municipal association

**Individual EA review process**

- Employee of the Government of Ontario
- Member of Environment Haliburton (NGO)

### **1.5.3 Assessment and Recommendations**

By definition, evaluation is subjective, requiring the evaluator to judge effectiveness with the best information that is available. After gathering evidence from the information sources listed above, I assessed the strengths and weaknesses of the processes and made comparisons among them (Chapter 6). This assessment was based on the detailed description of the processes and evaluation of the comprehensive sub-criteria (Chapters 2 through 5). For every process analysed, I assigned a rating to each of the 14 criteria as either “not met,” “partially met,” or “fully met.” “Fully met” means the EA process has all the characteristics of the criterion, meaning all sub-criteria are met. “Partially met” means only some of the sub-criteria are met or all of the sub-criteria are met but quite weakly, meaning there is much opportunity for improvement. A criterion is “not met” when an EA process does not have any of the characteristics of the criterion (i.e., the sub-criteria are not met) or when that particular component of the process is only weakly performed.



The comprehensiveness of the evaluation criteria makes it easy to get lost in the details. I assigned priorities to the problems I found in order to focus the discussion on the most important issues. An evaluation criterion that received a “not met” rating indicates a problem that is discussed in the Discussion and Recommendations section of this report (Chapter 7). A rating of “partially met” is problematic, but for brevity sake these problems are not specifically discussed in Chapter 7.

The policy sciences framework from Lasswell (1971) was beneficial during this stage of the study for exploring creative policy solutions that, when necessary, go beyond simple adjustments to the four processes studied. By focussing on the particular functions that a policy is supposed to perform, I was able to think beyond the structure of my evaluation framework and identify problems in Ontario’s approach to managing mineral aggregate resources that are unlikely due to weaknesses in the processes I studied. I also reviewed the EA and general environmental policy literature to support my recommendations for improving the policies concerning mineral aggregate resource development in Ontario.

#### **1.5.4 Qualifications**

This report evaluates the EA processes that existed on June 1, 2007. Any changes that may have occurred between that date and the time of publishing were not assessed unless otherwise specified.

Some researchers are critical of evaluations assessing the effectiveness of EA based primarily on process-oriented, rather than outcome-oriented criteria because “...the substantive criterion is the ultimate test of effectiveness” (Cashmore et al 2004 and

references within). I agree that outcome-oriented criteria may be better than process-oriented criteria when the sole focus of the evaluation is on whether the “ends” are being achieved, regardless of the “means” used to achieve the ends. A key challenge to performing outcome evaluations is measuring the outcome, which is sustainability in the case of EA. Sustainability is an outcome that needs to be measured over the long term, and Ontario’s assessment processes for aggregate have not been in place for long enough to determine the long term outcomes. Currently, there is no agreement in the published literature on a preferred method for measuring sustainability, another challenge to using outcome evaluation for this study.

On the other hand, process-oriented criteria allow evaluators to explore what parts of the EA process are functioning well or poorly, and whether the process is likely to achieve the intended outcome. In the absence of a preferred method for measuring sustainability, a process evaluation may be the better approach. I am using a well recognized evaluation framework and clearly stated criteria so readers are aware of the characteristics of an EA process that if present in an EA system, are expected to lead to sustainability. Criterion number 13 asks the question as to whether there is evidence that the desired outcome of EA is being achieved. By combining an outcome criterion with the process criteria, I can speculate on whether there are problems with specific aspects of the EA process itself that are hindering Ontario’s attempt to achieve sustainability.

Unfortunately, there is little information published about aggregate resources in Ontario, including government policies that may affect aggregate resources (Budney and Peel 2007). My evaluation results are primarily informed by legislation, other government documents (e.g., guidelines), and previous evaluations of the processes. I

could not rely heavily upon the key informant interviews because I was unable to gather opinions from a diverse stakeholder group for each process. An over-reliance on this data source could have introduced bias to the study.

## **1.6 Report Outline**

I document the evaluation results for each process in Chapters 2 through 5. I then summarize and compare the evaluation results for the four processes in Chapter 6. In Chapter 7, I discuss the problems with the assessment processes for assessing the merits and environmental impacts of mineral aggregate resource development. Potential solutions to each problem follow each problem statement. I conclude the report and identify future research opportunities in Chapter 8.

## **2. AGGREGATE RESOURCES ACT**

This chapter presents the results of my evaluation of the Aggregate Resources Act (ARA) process. I begin by describing generally the entire ARA process and the results of evaluations completed by other authors. Next, I assess each of the 14 primary evaluation criteria in 14 sub-sections. These 14 sub-sections elaborate on each component of the process that I described only generally in the first sub-section. I close the chapter with a summary of the evaluation results for the ARA process.

### **2.1 Overview**

The environmental and social impacts of extracting mineral aggregate in Ontario gained the public's attention in the 1950s and early 1960s (CONE 2005). People called for the regulation of mineral aggregate pits and quarries to mitigate these effects, and in response, municipalities enacted bylaws to control pits and quarries or prohibit their expansion (Winfield and Taylor 2005). Concerned about these new constraints and their ability to access mineral aggregate resources in the future, the mineral aggregate industry lobbied the provincial government to establish a uniform regulatory scheme that would ensure security for the industry (Winfield and Taylor 2005, Baker et al 1996). The *Pits and Quarries Control Act* was enacted in 1971 so the Province could better control mineral aggregate resource extraction, minimize the environmental impacts of pits and quarries, and ensure provincial mineral aggregate needs were met (OMAWP 1977). The Act established a process that required a mineral aggregate producer to submit to the OMNR for review and approval an application for a licence or permit to extract mineral

aggregate before they could begin to extract from lands that were designated under the Act. The Act also required the rehabilitation of pits and quarries. Some authors feel this Act was put in place, in part, to limit municipalities' ability to control mineral aggregate operations by enacting bylaws (CONE 2005, Winfield and Taylor 2005).

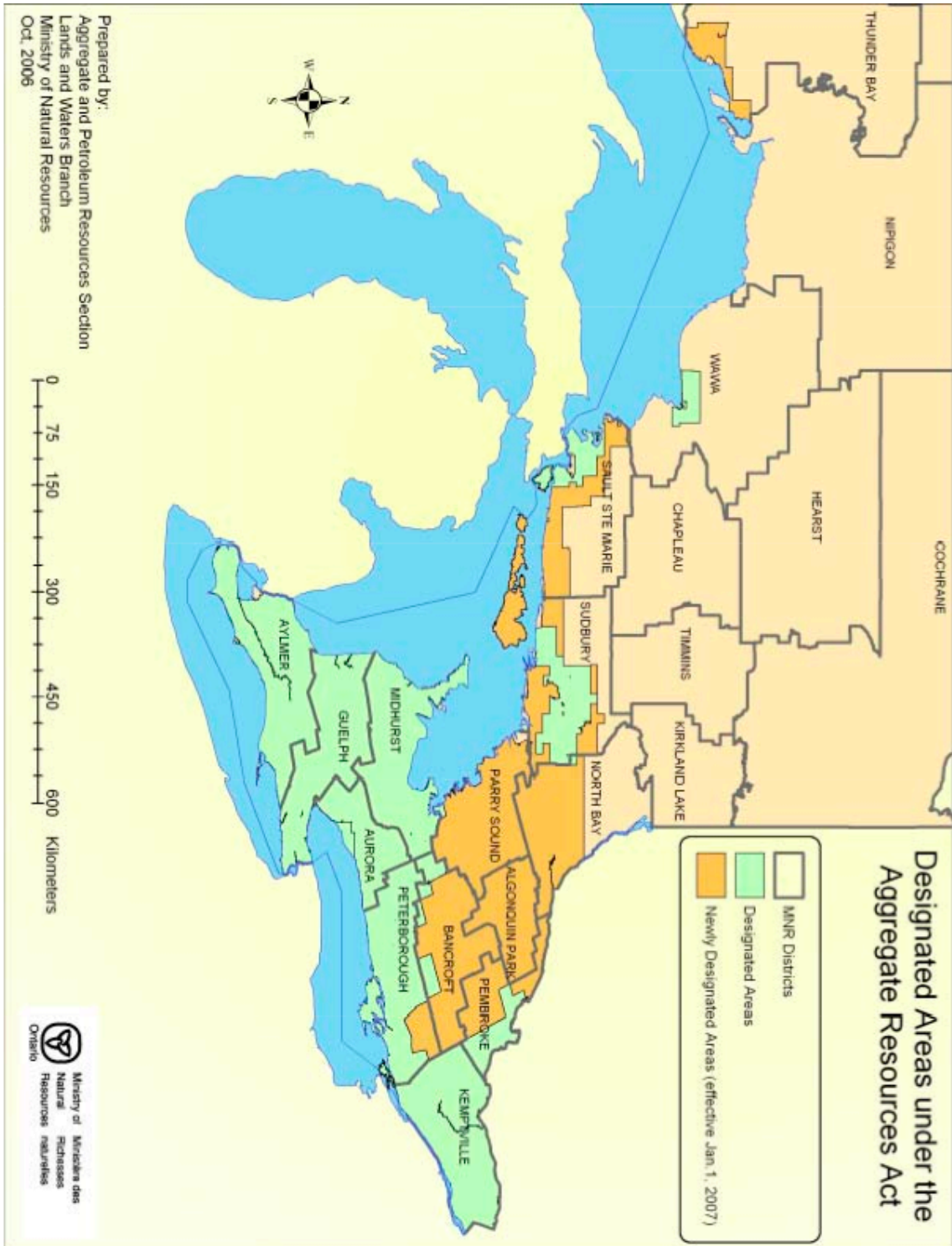
In 1989, the ARA replaced the *Pits and Quarries Control Act* and remains today as the primary statute directly affecting mineral aggregate resource extraction in Ontario. The ARA expanded the responsibilities of producers to mitigate environmental and social impacts of extraction and further restricted the power of municipalities over mineral aggregate resources (Winfield and Taylor 2005). In 1996, amidst cuts to the OMNR's budget and staff, the *Aggregate and Petroleum Resources Statute Law Amendment Act* shifted some responsibilities from the OMNR to the mineral aggregate resource industry, including compliance reporting, the rehabilitation of abandoned pits and quarries, and royalty and fee collection (Winfield and Taylor 2005). This transferring of duties from the OMNR to private industry was not confined to the mineral aggregate sector, but also occurred in the forestry, petroleum, brine, commercial fisheries and fur industries; self-regulation was increasing in Ontario in an attempt to compensate for the decreased ability of the OMNR to regulate natural resource industries in the face of cuts to government programs (Winfield and Jenish 1999). The ARA has remained largely unchanged since 1997.

The Aggregate Resources Act (ARA) has four purposes: (1) to provide for the management of the aggregate resources of Ontario, (2) to control and regulate aggregate operations on Crown and private lands, (3) to require the rehabilitation of land from which aggregate has been excavated, and (4) to minimize adverse impact on the

environment in respect of aggregate operations (ARA s. 2). The ARA applies to Crown land, all land under water, and private lands that are designated by regulation (Figure 2.1) (ARA s. 5). After the Act was brought into force the amount of private land designated under the ARA increased slowly with time until ON Reg. 244/97 was amended in January 2007. These amendments rapidly extended the coverage of the ARA and increased the fees that are paid by mineral aggregate producers.

Aggregate producers wishing to extract aggregate from lands prescribed under the ARA must apply to the OMNR to do so, according to three different review processes that are based primarily on land ownership: (1) the “licence” process applies to proposed pits and quarries on private land that is designated by regulation, (2) the “aggregate permit” process applies to proposed pits and quarries on Crown land, and land under water, and (3) the “wayside permit” process applies to proposed pits and quarries on all lands specified in the ARA that are not under licence or permit, from which aggregate will be extracted for use in a temporary project of road construction or maintenance (ARA s. 7, 23 and 34). These three approval processes are further subdivided into 15 categories of pits and quarries, and there are application requirements and mandatory approval conditions that are specific to each category (Table 2.1). The application process and mandatory approval conditions for each category are prescribed in the *Aggregate Resources of Ontario Provincial Standards* (Provincial Standards) that were published in 1997; applicants and aggregate producers are required by regulation to comply with these standards (ON Reg. 244/97).

Figure 2.1 Private lands designated under the Aggregate Resources Act



Source: OMNR (2006e)

**Table 2.1 Categories of pits and quarries prescribed in the Provincial Standards**

Category	Licence/ Aggregate Permit/ Wayside Permit	Land Ownership	Pit or Quarry*	Production Volume	Relationship of Extraction to the Water Table
1	Class A Licence	Private	Pit	> 20 000 tonnes/year	Below
2	Class A Licence	Private	Quarry	> 20 000 tonnes/year	Below
3	Class A Licence	Private	Pit	> 20 000 tonnes/year	Above
4	Class A Licence	Private	Quarry	> 20 000 tonnes/year	Above
5	Class B Licence	Private	Pit	≤ 20 000 tonnes/year	Below
6	Class B Licence	Private	Quarry	≤ 20 000 tonnes/year	Below
7	Class B Licence	Private	Pit	≤ 20 000 tonnes/year	Above
8	Class B Licence	Private	Quarry	≤ 20 000 tonnes/year	Above
9	Aggregate Permit	Public	Pit	Any volume	No closer than 1.5 m above
10	Aggregate Permit	Public	Pit	Any volume	Below
11	Aggregate Permit	Public	Quarry	Any volume	No closer than 2 m above
12	Aggregate Permit	Public	Quarry	Any volume	Below
13	Aggregate Permit (land under water)	Public	Pit and Quarry	Any volume	Below
14	Forest Industry- When Exempt from Aggregate Permit	Public	Pit	Volume for constructing road access	No closer than 1.5 m above
15	Wayside Permit	Private and Public	Pit and Quarry	Any volume	Above, Below

\* Sand and gravel from non-bedrock sources is produced in pits whereas crushed stone from bedrock sources is produced in quarries (see section 1.1.1 for additional details about the extraction and processing of mineral aggregate).  
Source: OMNR (1997)

The OMNR and a private partner, The Ontario Aggregate Resources Corporation (TOARC), are responsible for administering the ARA. The sole shareholder of TOARC is the Ontario Stone and Sand and Gravel Association (formerly the Aggregate Producers' Association of Ontario), an industry group representing the interests of the mineral aggregate sector. The Board of TOARC is comprised of a single representative from each of the following groups: the Ontario Stone and Sand and Gravel Association, the Conservation Council of Ontario, the Association of Municipalities of Ontario, the



aggregate industry at large, and the OMNR. Even though the Board has a diverse membership, Gravel Watch, a citizens group interested in mineral aggregate resource issues, has questioned whether TOARC is sufficiently separated from the sole share holder of TOARC: the mineral aggregate lobby group, Ontario Stone and Sand and Gravel Association) (Gravel Watch 2007a).

The duties and relationship of the OMNR and TOARC are outlined in a Memorandum of Understanding (OMNR 2006a). The OMNR processes applications for licenses, wayside permits, and aggregate permits, and may inspect aggregate operations and enforce the Act. TOARC manages the Aggregate Resources Trust (ARA s. 6.1(1) and 6.1(3)). This Trust includes three Funds:

1. **Rehabilitation Fund** contains rehabilitation security deposits collected from licensees and permittees, and pays for the rehabilitation of any unrehabilitated land when a licence or permit is revoked (ARA s. 50, TOARC 2005a)
2. **Abandoned Pits and Quarries Rehabilitation Fund** pays for the rehabilitation of historically abandoned pits and quarries that never operated under a permit or licence under the ARA, and research about rehabilitation (TOARC 2005a).
3. **Aggregate Resources Fund** is used by TOARC for collecting and distributing licence and permit fees among upper and lower tier municipalities, the Crown and the Abandoned Pits and Quarries Rehabilitation Fund; and royalties to the Crown (TOARC 2005a).

In the process of collecting and distributing fees, TOARC gathers and publishes annually information about the rates of aggregate production and rehabilitation, and approvals of licences and permits.

The ARA process is largely proponent driven (Figure 2.2). The proponent determines where and how they would like to extract aggregate, and then decides whether an application to the OMNR is required by reading the ARA and Provincial Standards, and referring to information on the OMNR website (OMNR 2007). If an application is

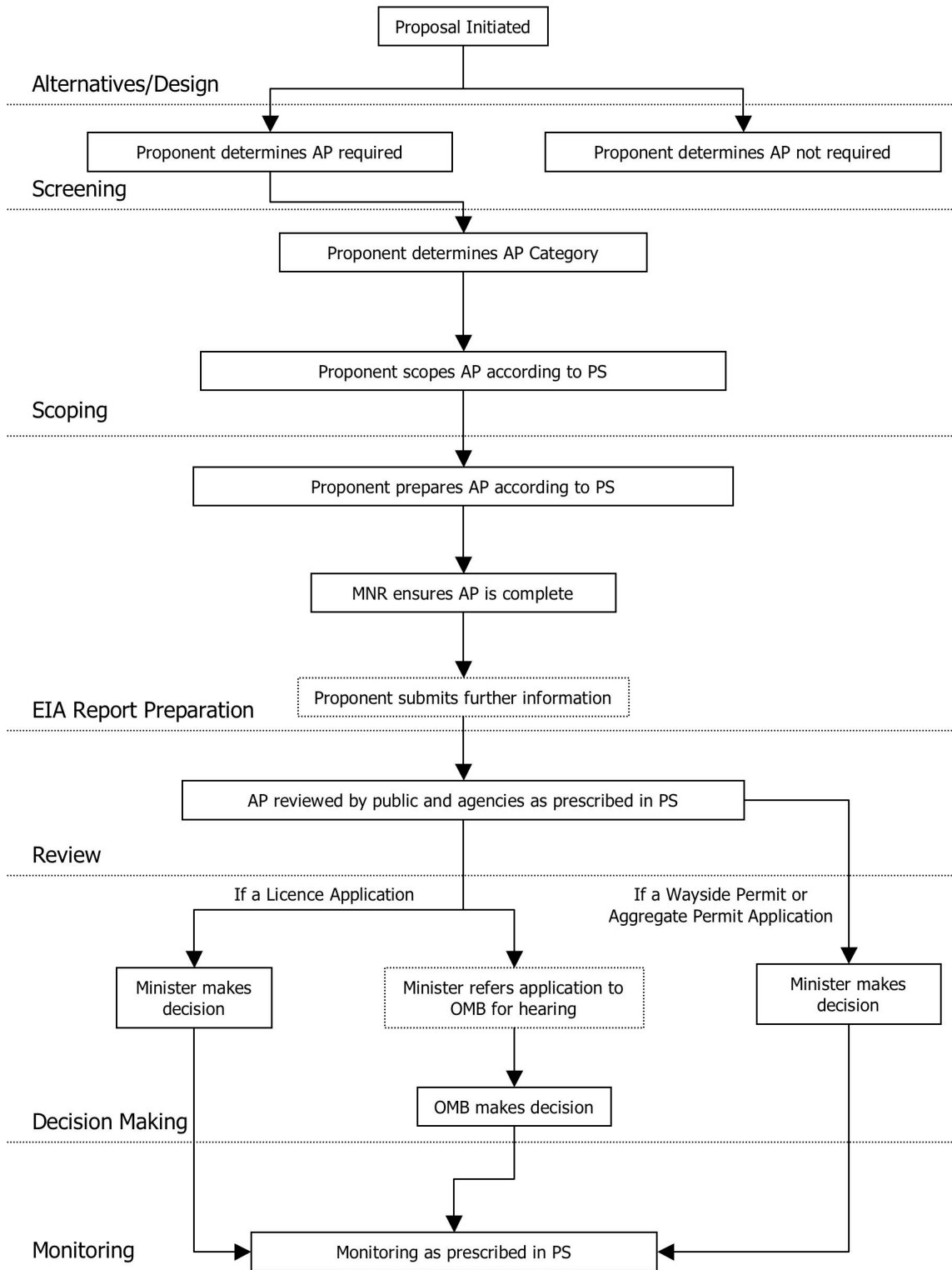
required, the proponent then follows the application process for the particular category to which the proposed pit or quarry belongs.

The proponent is not required to consider alternative locations for a pit or quarry, or alternative approaches to constructing, operating, or reclaiming the pit or quarry. In practise, proponents often assess alternative approaches informally during the application process to address the concerns of their potential neighbours, the municipality, environmental organizations, and government agencies (Personal Communication-employee of TOARC).

Application documents include site plans, summary statements and technical reports. The Provincial Standards require that proponents describe in these documents the activities associated with extracting, processing and hauling mineral aggregate, and rehabilitating the pit or quarry throughout the entire life of the project. Proponents must also provide details about the natural and social environments, and the potential for and significance of impacts of the proposed action on the environments. Mitigation measures for pits and quarries may result in three ways: 1) some mitigation measures are prescribed in the Provincial Standards, 2) the proponent may agree to additional measures (which would be documented on the site plan), and 3) other mitigation measures may be imposed at the decision stage as conditions of approval.

Once the proponent believes the application is complete (i.e., that the application documents meet the Provincial Standards), the proponent sends the application to the OMNR so the regulator can verify completeness. The OMNR may ask the proponent to submit additional information until the application meets the minimum requirements.

**Figure 2.2 Aggregate Resources Act process**



AP- application; PS- Provincial Standards; OMB- Ontario Municipal Board; Dashed lines mean the step is optional. Some responsibilities of the Minister of Natural Resources have been delegated to others (see text for details).

When the OMNR determines that the application is sufficient, the proponent is notified that it may proceed with the mandatory notification and consultation process, which varies by application category and may include notices in local newspapers and public meetings. The public and specified review agencies have at least 20 and 45 days to review and comment on applications for wayside and aggregate permits, and licences, respectively. The proponent must take reasonable measures to address and resolve any concerns expressed during the public review period. If someone opposes a licence application, they may file an objection with the OMNR that could result in a public hearing before the Ontario Municipal Board (OMB). The proponent notifies the OMNR when it feels that the notification and consultation process is complete (i.e., all concerns have been resolved and no objections remain, or the proponent has made a reasonable attempt to address all concerns and objections but some issues remain unresolved).

Once the OMNR accepts that the proponent has resolved all issues brought forth during the public review, or at least made a reasonable attempt to address all concerns, the decision to approve or refuse is made. The Minister of Natural Resources alone decides whether to approve applications for licences, whereas OMNR Area Supervisors have been delegated the authority to decide whether to approve applications for wayside permits or aggregate permits (ARA s. 9(9), OMNR 2006g A.R. 1.00.04).<sup>14</sup> The OMNR District Manager may refer all or part of the application for licences to the OMB for a public hearing and decision, but there are only limited opportunities for public hearings concerning wayside permits and aggregate permits (OMNR 2006g A.R. 1.00.04). The Head of the Geotechnical Section of the MTO has been delegated the authority to decide

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<sup>14</sup> A.R. \_\_\_\_ refers to the policy number in OMNR 2006g

whether to approve applications for wayside permits and aggregate permits for mineral aggregate supplies for provincial road projects (OMNR 2006g A.R. 1.00.08). The *Aggregate Resources Program: Policies and Procedures* document guides these decision makers (OMNR 2006g). Once applications are approved, proponents may proceed with constructing and operating pits and quarries according to the mandatory conditions of approval prescribed in the Provincial Standards, any additional conditions of approval determined by the Minister, the OMB, or the MTO, and any agreements the proponent documented in their application.

The ARA and Provincial Standards require the monitoring of compliance and of some impacts. Proponents must monitor compliance and submit annually to the OMNR Compliance Assessment Reports that describe whether they are complying with their approved applications and conditions of approval (ARA s. 15.1). Producers also must submit annual reports about production and rehabilitation rates to TOARC (ON Reg. 244/97 s. 1); TOARC forwards this information to the OMNR for enforcement purposes and publishes these rates in statistical reports annually. The OMNR's field staff conduct site visits to assess producers' compliance and enforce the ARA. Monitoring of environmental and social impacts may be conducted as prescribed in the Provincial Standards, as agreed to by the proponent during the application process, or as required by conditions of approval.

Monitoring of the ARA process, as a whole, is not legally required and there is no ongoing assessment of the ARA's effectiveness.

There is no legislation or policy in Ontario that specifically requires or encourages the EA of plans, policies or programs affecting mineral aggregate pits and quarries. The ARA applies strictly to individual pits and quarries.

## **2.2 Previous Evaluations of the ARA Process**

Few evaluations of Ontario's system for managing mineral aggregate resources exist. Ad hoc reports have been published and all have recommended improvements to Ontario's approach. Since the time that the Province took formal control over managing mineral aggregate, the earliest study of mineral aggregate resource management in Ontario was about the *Pits and Quarries Control Act*, the precursor to the ARA. In a time of increasing conflict among mineral aggregate producers, municipalities and residents, and climbing environmental and production costs, the Ontario Mineral Aggregate Working Party was commissioned by the Province in 1975 to assess the situation and form recommendations to resolve concerns and achieve "provincial objectives" (OMAWP 1977). This group included representatives from municipal governments, the Niagara Escarpment Commission, Conservation Council of Ontario, Ministry of Housing, Ministry of Transportation and Communications, OMNR, OMOE-EAAB, and the mineral aggregate industry.

In 1977, the Ontario Mineral Aggregate Working Party published 64 recommendations for improvement (OMAWP 1977) but no new legislation was put in place until the ARA was proclaimed in 1990. The Working Party found that the *Pits and Quarries Control Act* was not achieving its intended purpose because the priorities on which the Act was founded were reversed (OMAWP 1977). The Working Party

determined that the priorities for legislation controlling mineral aggregate extraction should be ordered as follows “...and must ensure” (OMAWP 1977):

Firstly – A commitment on the part of the municipalities, the aggregate industry, the Provincial Government and all segments of the community at large to ensure that the transgressions and unreasonable trespassing against our environment and our quality of life by the extraction industry in the past will cease, and that these operations will in the future be conducted under legislation that is broadly acceptable and enforced under regulations that are enforceable; and then

Secondly – That within the guidelines of this commitment, the provincial policy will be structured to ensure that adequate supplies of aggregate resources are made available in a competitive situation in the appropriate locations.

The order and content of these priorities imply that the Working Party recommended a more sustainable approach to managing mineral aggregate resources.

The first Mineral Aggregate Resources Policy Statement was a direct result of the Working Party recommendations. In 1979, the OMNR adopted twelve major policy guidelines from the Working Party to form a provincial policy for mineral aggregate resources, *Mineral Aggregate Policy for Official Plans* (Baker et al 1996). The *Mineral Aggregate Resource Planning Policy* replaced this policy in 1982 with the approval of Cabinet (Baker et al 1996). In 1986, the policy was incorporated into Section 3 of the *Planning Act*, and renamed the *Mineral Aggregate Resources Policy Statement* (MARPS) (Baker et al 1996). The MARPS, subsequently replaced by the Provincial Policy Statement (PPS), has directed the overall management of aggregate resources in Ontario ever since, even though the ARA does not refer to the policy.

Unfortunately, the order of priorities that the Ontario Mineral Aggregate Working Party recommended in 1977 (the protection of the environment and quality of life ahead of meeting the provincial need for mineral aggregate resources) is absent from the current

PPS (OMMAH 2005). Quite the contrary, the current provincial policy statements for mineral aggregate resources place supplying mineral aggregate ahead of environmental and social considerations. For example, policy statement 2.5.2.5 requires municipalities to justify how any land use decisions that might reduce the supply of mineral aggregate resources are in the greater public interest (OMMAH 2005):

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

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

Baker et al (1996) identified a lack of innovation and creativity in Ontario's scheme for managing mineral aggregate resources since the provincial government began regulating pits and quarries. These authors stressed the need to foster closer relationships among the provincial and municipal governments, the public, and the aggregate industry in order to resolve land use conflicts and ensure effective resource management. Increased collaboration was recommended, in part, to compensate for the downsizing of the provincial government during the 1990s.

Winfield and Taylor (2005) identified the following shortcomings of mineral aggregate resource policies in Ontario:

- The policy approach does not reflect a sustainable approach
- There is a failure to balance aggregate extraction against other land uses that may serve the greater public interest
- There are no incentives to use aggregate resources efficiently
- There is insufficient information to properly assess claims of a supply crisis in southern Ontario



The primary recommendation from Winfield and Taylor (2005) was to develop a comprehensive strategy for conserving and managing aggregate. According to the Environmental Commissioner of Ontario (ECO), an aggregate conservation strategy has been in development since 2005, but no details have ever been published about how the strategy will be drafted (ECO 2005).

The need for better involvement of all stakeholders in the managing of mineral aggregate has been partially addressed since the Baker et al (1996) evaluation, and some efforts have been made toward developing a conservation strategy for aggregate resources as called for by Winfield and Taylor (2005). Greater involvement of the aggregate resource industry itself was achieved by the creation of TOARC and the proponent driven annual compliance reporting program when the ARA was amended in 1997. In 1993, the Ontario *Environmental Bill of Rights, S.O. 1993, c. 28* (EBR) was enacted to provide additional opportunities for public involvement in provincial decisions affecting the environment. Unfortunately, the EBR has had little impact on decision making under the ARA because many of these decisions are exempt from the EBR. Lastly, the recent Aggregate Round Table (held January 26, 2006) was initiated by the ECO and brought together members of the public, aggregate industry, and government to discuss issues surrounding a long-term aggregate strategy for Ontario. However, there has been no publication to date of any follow-up activities (Table 2.2).

**Table 2.2 Understanding of aggregate resource issues in Ontario**

Areas of Broad Agreement	Areas of Disagreement
<ul style="list-style-type: none"> <li>→ Common understanding of what the existing regulations require</li> <li>→ Scale of current overall production rates</li> <li>→ Significant aggregate needs for Greater Toronto Area (GTA)</li> <li>→ We don't know enough about recycling rates, recycling potential</li> <li>→ Existing royalty regime is old</li> <li>→ Existing royalty and licence fees don't encourage resource conservation</li> <li>→ Aggregate extraction in Southern Ontario is an increasing source of conflict</li> <li>→ In the long run, sources close to demand areas will be depleted</li> </ul>	<ul style="list-style-type: none"> <li>→ Adequacy of publicly available data on production, demand, consumption</li> <li>→ Growth projections</li> <li>→ Environmental impacts of aggregate extraction (water impacts, rehabilitation)</li> <li>→ Capacity of Ministry of Natural Resources to regulate the resource</li> <li>→ Advantages of close-to-market sources</li> <li>→ Potential for northern Ontario sources</li> </ul>

Statements were drawn from a wide range of stakeholders including the OMNR, aggregate industry, municipal governments, and environmental non-governmental organizations.

Source: Lura Consulting (2006)

### 2.3 Is each step in the EIA process clearly specified in law or a regulation?

<ul style="list-style-type: none"> <li>a) Are the legal provisions sufficiently unambiguous in application?</li> <li>b) Is there a degree of discretion in the provisions which is acceptable to the participants in the EIA process?</li> <li>c) Are the EIA requirements clearly differentiated from other legal provisions?</li> <li>d) Is each step in the EIA process enforceable through the courts or by other means?</li> <li>e) Are time limits for the various steps in the EIA process specified?</li> <li>f) Does a clear outline of procedures and time limits exist for the EIA system as a whole?</li> <li>g) Are opportunities for learning about the EIA process available to participants (Lasswell 1971)?</li> </ul>
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The Aggregate Resources Act (ARA) and supporting regulations are the legal basis of the ARA process. Section seven of ON Reg. 244/97 also requires that applications and operations comply with the Provincial Standards. The Provincial Standards are minimum requirements only, and proponents have the discretion to go beyond the minima. During a recent meeting, a multi-stakeholder group broadly agreed that there is a common understanding of what the existing regulations require (Lura Consulting 2006).

The ARA process is largely distinct from other legal provisions affecting mineral aggregate resources in Ontario. The OMNR identified at least fourteen additional statutes that may be applicable during the ARA process (e.g., *Planning Act*, *Endangered Species Act*) (OMNR 2006c). These statutes may constrain the location of pits and quarries, and the methods of extracting, processing and hauling mineral aggregate, but they do not duplicate the ARA process. However, the OMNR Class EA applies to applications for mineral aggregate permits and may require for specific applications additional consultation and reporting than what is needed to satisfy the ARA (for details see Section 2.6). The guidance for the ARA process that is described below includes procedures for harmonizing the ARA and OMNR Class EA processes.

Proposals for mineral aggregate pits and quarries rarely trigger the *Canadian Environmental Assessment Act* (CEAA). A comprehensive study under the CEAA must be conducted for, “The proposed construction, decommissioning or abandonment, or an expansion that would result in an increase in production capacity of more than 35 per cent, of...a stone quarry or gravel or sand pit with a production capacity of 1 000 000 t/a or more” (*Inclusion List Regulations, S.O.R./94-637 s. 18(i)*). As of December 10, 2007 EAs for only four mineral aggregate pits and quarries (three comprehensive reviews and one review panel) were listed in the *Canadian Environmental Assessment Registry*, and all were outside of Ontario and involve the shipping of mineral aggregate by ocean transport (CEAA 2007).

The Provincial Standards are meant to guide proponents through the ARA process. “[The 15 application] categories were developed to provide more concise, user friendly and understandable minimum requirements for the delivery of the Aggregate

Resources Act” (OMNR 1997). The application process for each category of pit or quarry is described completely in separate chapters so proponents only have to refer to one chapter when completing an application for a particular pit or quarry. This format means that requirements common to all categories are repeated 15 times and that the differences between the categories are often hidden in between all the similarities. I found that there are some differences in the requirements that appear to have no rationale (see sections 2.4 and 2.8 for additional discussion). The Provincial Standards organize the application requirements into the following sections (OMNR 1997):

**Site Plan Standards** – describes the information that must be included on maps or cross-sections as part of the application; the OMNR will not ask proponents to provide information above what is listed in these Standards

**Report Standards** – describes the summary statement and technical reports that must accompany the site plan; in unique situations, the OMNR may ask proponents to submit more information than what is required by the Standards

**Prescribed Conditions** – describes the conditions that are mandatory upon approval of the pit or quarry; these conditions may not be varied or rescinded

**Notification and Consultation** – describes the minimum requirements for involving the public that proponents must follow once the OMNR determines that the application is complete

**Operational Standards** – describes the mandatory requirements for day-to-day operation of approved pits and quarries which are likely not included on Site Plans; if the Site Plan documents a variance from these Standards, the Site Plan prevails

**Annual Compliance Reporting** – requires proponents to document their compliance annually for review by the OMNR in Compliance Assessment Reports

In the past, OMNR has also held seminars for mineral aggregate producers to learn about the ARA process (Personal Communication- employee of TOARC).

The *Aggregate Resource Program: Policies and Procedures* (Manual) guides OMNR staff in administering the ARA process (OMNR 2006g). At 722 pages, the Manual is lengthy. A recent revision of the Manual was completed in April 2006 and included a 90 day public review period. Although a public document, the Manual is not

widely available; the Manual is not listed in OMNR's publications catalogue or referred to on OMNR's web site. Because the document is not readily available, there is a lost opportunity to increase the transparency of how OMNR reviews applications and enforces the ARA, and what the OMNR expects from mineral aggregate producers, the public and review agencies.

The ARA, Manual, and Provincial Standards are meant to guide proponents and OMNR staff through the ARA process. The language and format of these documents are highly technical and therefore insufficient for educating the public about the ARA process and opportunities for participation. From the public perspective, the information about the ARA process "...is difficult to access and it tends to be obtuse" (Personal Communication- member of Gravel Watch).

Until recently, no guidance existed to assist the public or review agencies during the ARA process. The OMNR website is a new initiative (it appeared online in the last few years) that presents information about the ARA process for a more general audience (OMNR 2007). The website describes mineral aggregate resource extraction and use in Ontario, the parties involved in administering the ARA (including the OMNR and TOARC) and the broad rules and regulations affecting pits and quarries, rehabilitation of sites, and enforcement actions. The website contains general information useful for gaining an understanding of the scope of the ARA but it is insufficient for informing the public and review agencies about their roles and rights during the ARA process.

To help fill the gap in information for the public, volunteers from Gravel Watch, an umbrella organization for citizen-based groups that are concerned with aggregate resource issues in Ontario, have voluntarily maintained a website about the ARA process

since 1999 (the Gravel Watch name was assumed in 2003) (Personal Communication-member of Gravel Watch). Gravel Watch recently published an *Information Guide for Citizens* (Information Guide) on their website (Gravel Watch 2007b):

The Gravel Watch Ontario Information Guide for Citizens has been prepared to provide essential information to assist the public in responding to proposed land use changes and pit and quarry applications in an appropriate, effective and timely manner.

The Information Guide describes the opportunities citizens have to involve themselves in the ARA process, recommends actions that citizens may take during these opportunities, the legal foundation for some statements made in the Information Guide, and identifies additional information sources that citizens may find useful (e.g., statutes, websites, contact information for government departments/agencies). The Information Guide also describes concerns and issues that may be associated with mineral aggregate resource extraction in Ontario (e.g., social and cultural impacts, water impacts). The opening to the list of issues is clearly biased toward opponents of pit and quarries, “The information provided on each issue may assist you in preparing and expressing your objections about a proposed pit or quarry” (Gravel Watch 2007b). This statement assumes that citizens are using this part of the guide to help them object to mineral aggregate development, rather than to consider the appropriateness and environmental impacts of a proposed aggregate pit or quarry.

The Information Guide lacks a description of Gravel Watch, “is for general information purposes only,” is not “legal advice or expert opinion,” and thus may be less credible than a document that was officially endorsed by the OMNR; Ontario Stone, Sand and Gravel Association; Ontario Ministry of Municipal Affairs and Housing; TOARC; the ECO; and other authorities. Gravel Watch released the Information Guide just in May

2007 and it will be telling to see whether mineral aggregate resource stakeholders in Ontario will accept the Guide and whether it will evolve into a more credible document that is updated in the future.

The proponent is largely in control of the amount of time it takes to complete an application. The only time limits that are prescribed by the government relate to the amount of time that the OMNR has to determine the completeness of an application, and the minimum length of the public notification and consultation period. The lack of time limits means that the ARA process may be lengthy. Some applications have taken up to 10 years to process, at costs of several million dollars to proponents (Clayton Research and MHBC 2004).

The ARA has provisions for enforcement. The OMNR may enforce the ARA by suspending or revoking licences or permits. Additionally, sections 57 through 59.1 make it an offence to operate a pit or quarry without a licence or permit, violate a condition of approval or a site plan, contravene or fail to comply with an inspector's order for compliance, or contravene the ARA or regulations. Upon conviction, the court may impose fines ranging from \$500 to \$30 000 for each day on which the offence occurs, and may order the convicted party to take actions necessary to bring the operation back into compliance.

Even though provisions for enforcement exist, over the past 10 years the ECO has repeatedly expressed concern that the OMNR has consistently missed its target for site inspections (only inspecting 10 to 14% of sites annually rather than 20%), and therefore may not be sufficiently enforcing the ARA (ECO 2006). The reason for this deficiency may be two-fold: 1) the OMNR lacks the number of staff necessary to inspect sites and

enforce the ARA (e.g., ECO 2006, Lura Consulting 2006) and 2) the OMNR may not always be willing to enforce the ARA, once they are made aware of issues of non-compliance (Personal Communication- employee of the Township of Puslinch):

...we did have one, kind of bad egg, you know, its just little things. But he kind of got away with it year after year, and so I mean...its not that the OMNR didn't know about it because we kept reminding, but they just kind of didn't do anything about it and so that was kind of aggravating and frustrating with Council at the time...the other part we find trouble, sometimes yeah, if they're not in compliance, they'll just get an amendment to their site plan...

In summary the ARA process is based on clear and specific legal provisions – the criterion is fully met. The ARA process is clear and understandable by diverse stakeholders and is not duplicated by other legislation. The only substantial weaknesses on this criterion may be that the ARA process lacks time limits (although it appears land use planning processes may be the chief factor in delays), and the OMNR may lack sufficient resources to monitor and enforce the ARA (although recent changes to the ARA fee structure may improve this situation).

## **2.4 Must the relevant environmental impacts of all significant actions be assessed?**

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| <ul style="list-style-type: none"><li>a) Does the EIA system apply to all public and private environmentally significant projects?</li><li>b) Are the provisions applied in practice to all the actions covered in principle?</li><li>c) Are all significant environmental impacts covered by the EIA system?</li></ul> |
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The Aggregate Resources Act applies to Crown land, all land under water, and private lands that are designated by regulation (Figure 2.1) (ARA s. 5). Amendments to ON Reg. 244/97 on January 1, 2007 mean that nearly all of the land in Ontario with significant mineral aggregate resources is designated under the ARA (OMNR 2006d).



Regrettably, there are no criteria to assist the Government of Ontario when deciding which land should be designated under the ARA.

The ARA also applies to both private and public proponents. According to Gravel Watch, there are pits and quarries operating illegally in Ontario, without a permit or licence (Personal Communication- member of Gravel Watch), but the magnitude of this problem is not publicly documented.

The Provincial Standards require that all applicants consider the natural environment and cultural heritage resources in their applications, even though the ARA has a vague definition of the “environment:” “ the air, land and water, or any combination or part thereof of the Province of Ontario” (ARA s. 1(1)). The Standards also outline the environmental and social impacts that proponents must consider and document in Summary Statements and Technical Reports. These requirements differ depending on the category of application; variations relate to the type of operation (pit or quarry), relationship of extraction to the water table (above or below water table) and type of application (licence, aggregate permit, wayside permit). The OMNR may request that applicants consider other impacts that are site specific (OMNR 1997). Finally, applicants are not required to assess cumulative effects.

Impact identification is a staged process. First, applicants identify the potential for significant environmental features and cultural heritage resources on the proposed site. Second, if the first level of investigation identifies significant environmental features, cultural heritage resources (or a medium to high potential for cultural heritage resources) applicants must conduct further studies to assess the impacts and devise mitigation measures to minimize the impacts.

In the Provincial Standards, the definition of the natural environment includes "... significant wetland, significant portions of the habitat of endangered or threatened species, fish habitat, significant woodlands (south and east of the Canadian Shield), significant valley lands (south and east of the Canadian Shield), significant wildlife habitat and significant areas of natural and scientific interest" (OMNR 1997). Cultural heritage resources are "... any known significant archaeological resources on the subject property and the potential of the site to have heritage resources" (OMNR 1997). Applicants are directed to the *Provincial Policy Statement* (1997) for more detailed definitions of the natural environment and archaeological resources. The reference to this version of the PPS is out of date and this is not a trivial problem. The current PPS (OMMAH 2005) defines the term "significant" relative to an environmental feature (e.g., woodlands, wetlands), and is more elaborate than the definition in the 1997 version of the PPS.

Some of the variations in the requirements for different types of pits and quarries are logical whereas others are not (Table 2.3). For example, blasting impacts are only considered for quarries and not for pits because explosives are not usually used in pits. But, it is unclear why the impacts that must be described in applications for Class A licences are more comprehensive than the impacts required in applications for Class B licences and aggregate permits. It seems reasonable that potential land use impacts, truck traffic, and noise would be important to consider regardless of whether the proposed operation is on private or public land, or the maximum quantity of mineral aggregate that may be extracted annually.

**Table 2.3 Examples of differences in the environmental and social impacts that must be considered by applicants for different types of pits and quarries**

Requirements Specific to an Application for a Class A Licence, Class B Licence, or an Aggregate Permit
<p><b>Pit below groundwater table</b></p> <p>Technical Report Hydrogeological Level 1: Preliminary hydrogeologic evaluation to determine the final extraction elevation relative to the established groundwater table, and the potential for adverse effects to groundwater and surface water resources and their uses.</p> <p>Technical Report Hydrogeological Level 2: Where the results of Level 1 have identified a potential for adverse effects of the operation on ground water and surface water resources and their uses, an impact assessment is required to determine the significance of the effect and feasibility of mitigation. The assessment should address the potential effects of the operation on the following features if located within the zone of influence for extraction below the groundwater table, where applicable; A technical report must be prepared by a person with appropriate training and/or experience in hydrogeology to include the following items:</p> <ul style="list-style-type: none"> <li>(a) water wells</li> <li>(b) springs</li> <li>(c) groundwater aquifers</li> <li>(d) surface water courses and bodies</li> <li>(e) discharge to surface water</li> <li>(f) proposed water diversion, storage and drainage facilities on site</li> <li>(g) methodology</li> <li>(h) description of the physical setting including local geology, hydrogeology, and surface water systems</li> <li>(i) water budget</li> <li>(j) impact assessment</li> <li>(k) mitigation measures including trigger mechanisms</li> <li>(l) contingency plan</li> <li>(m) monitoring plan</li> <li>(n) technical support data in the form of tables, graphs and figures, usually appended to the report.</li> </ul> <p><b>Pit above groundwater table</b></p> <p>Technical Reports Hydrogeological Levels 1 and 2 not required</p>
Requirements Specific to an Application for a Pit Above Groundwater Table
<p><b>Class A Licence</b></p> <p>Summary statement must include:</p> <ul style="list-style-type: none"> <li>2.1.1 any planning and land use considerations;</li> <li>2.1.2 the agricultural classification of the proposed site, using the Canada Land Inventory classes. For the lands being returned to agriculture, the proposed rehabilitation techniques must be identified;</li> <li>2.1.3 the quality and quantity of aggregate on site;</li> <li>2.1.4 the main haulage routes and proposed truck traffic to and from the site, and necessary entrance permits;</li> <li>2.1.5 the progressive and final rehabilitation and the suitability of the proposed rehabilitation having regard to the adjacent lands;</li> <li>2.1.6 any existing surface water on and surrounding the site and proposed water diversion, storage and drainage facilities on the site and points of discharge to surface waters; and</li> <li>2.1.7 determine the elevation of the established groundwater table within the site or demonstrate that the final depth of extraction is at least 1.5 metres above the water table;</li> </ul> <p>2.2.6 If extraction and/or processing facilities are within 150 metres of a sensitive receptor, a noise assessment report is required to determine whether or not provincial guidelines can be satisfied; and</p> <p><b>Class B Licence</b></p> <p>Summary statement must include:</p>

<p>2.1.1 determine the elevation of the established groundwater table within the site or demonstrate that the final depth of extraction is at least 1.5 metres above the water table; and</p> <p>2.1.2 the agricultural classification of the proposed site, using the Canada Land Inventory classes. For the lands being returned to agriculture the proposed rehabilitation techniques must be identified.</p> <p>A noise assessment is not required.</p> <p><b>Aggregate Permit</b> Summary statement must include:</p> <p>2.1.1 determine the elevation of the water table within the site or demonstrate that the final depth of extraction is at least 1.5 metres above the water table; and</p> <p>2.1.2 if the present land use is agriculture, the agricultural classification of the proposed site, using the Canada Land Inventory classes, must be identified. For the lands being returned to agriculture the proposed rehabilitation techniques must be identified.</p> <p>A noise assessment is not required.</p>
<p><b>Requirements Specific to an Application for a Licence or Aggregate Permit</b></p>
<p><b>Quarry</b> 2.2.9 A Blast Design report is required if a sensitive receptor is within 500 metres of the limit(s) of extraction to demonstrate that provincial guidelines can be satisfied;</p> <p><b>Pit</b> Blasting information is not required.</p>

See Table 2.1 for definitions of application types (e.g., Class A licence).  
Source: OMNR (1997)

In summary, the ARA process fully meets this criterion. The process uses a broad definition of the environment that covers environmental, social, and cultural elements. The ARA applies to both private and public proponents and covers nearly all areas with significant mineral aggregate resources. However, the ARA process would be improved if the ARA required that proponents consider the cumulative impacts of the proposed pit or quarry.

## **2.5 Must evidence of the consideration, by the proponent, of the environmental impacts of reasonable alternative actions be demonstrated in the EIA process?**

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| <ul style="list-style-type: none"> <li>a) Must clear evidence of the consideration of the environmental impacts of alternatives be apparent in preliminary EIA documentation?</li> <li>b) Must the realistic consideration of the impacts of reasonable alternatives, including the no-action alternative, be evident in the EIA report?</li> <li>c) Does published guidance on the treatment of the impacts of reasonable alternatives exist?</li> <li>d) Does the treatment of alternatives take place effectively and efficiently?</li> </ul> |
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The ARA, regulations, and Provincial Standards do not require proponents to consider and document “alternatives to” or “alternative methods of designing or operating” the proposed pit or quarry. The ARA process is proponent driven and begins after the proponent selects a site for their proposed pit or quarry. In Ontario, alternatives to the proposed pit or quarry (such as using substitutes for mineral aggregate like mine waste rock and recycled concrete or locating the proposed pit or quarry elsewhere) are irrelevant to the decision about whether the application for a new pit or quarry should be approved or refused.

The public review of site plans provides an opportunity for considering alternative methods of mining, including equipment type and location, and alternatives for mitigation (Personal Communication- employee of TOARC). Alternative methods are discussed when attempting to resolve objections and concerns during the prescribed public notification and consultation process (OMNR 1997). These alternatives and their consideration are not reported in the application documents as the site plan and technical reports are intended to record the applicant’s commitment to a particular design and operating procedures, and not the decision making process (OMNR 1997).

In summary, the ARA does not require that EA participants document the consideration of alternatives to the proposed pit or quarry – the ARA process does not meet this criterion. Alternative methods of operation may be considered in practice, but these methods are neither evaluated systematically nor documented.

## **2.6 Must screening of actions for environmental significance take place?**

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| <ul style="list-style-type: none"><li>a) Is there a legal test of whether the action is likely to affect the environment significantly?</li><li>b) Is there a clear specification of the type of action to be subject to EIA?</li><li>c) Do clear criteria/thresholds exist (e.g., size, location)?</li></ul> |
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| d) Do different types of EIA exist for different types of action?                              |
| e) Must documentation be submitted by the proponent to assist in screening?                    |
| f) Does published guidance about actions, criteria, thresholds and screening procedures exist? |
| g) Is the screening decision made by a publicly accountable body?                              |
| h) Does consultation and participation take place during screening?                            |
| i) Is there a right of appeal against screening decisions?                                     |
| j) Does screening function effectively and efficiently?  |

The applicant is responsible for determining whether an application is required and can easily make this decision because the ARA and regulations clearly prescribe the lands to which the ARA applies: all public land, lands underwater, and private lands designated by regulation (ARA s. 5). As of January 1, 2007, the ARA will apply to most significant aggregate resources in Ontario (OMNR 2006d).

The choice of application type (licence, aggregate permit, and wayside permit) is also easy to make as the ARA is divided into parts by application type, and each part begins with a description of the activity to which it applies. The three major types of application are divided into 15 different kinds of pits and quarries and each category has its own set of requirements for applications (Table 2.1). The OMNR website and Provincial Standards contain information that proponents may refer to when making the screening decision. If the applicant requests assistance from the OMNR in getting started with an application, the OMNR will offer advice during the preparation and pre-consultation stage (OMNR 2006g A.R. 2.01.02, 3.01.00, 4.01.01a).

In addition to the ARA and the Provincial Standards, the requirements prescribed in the OMNR Class EA must also be considered during the review of aggregate permits (OMNR 2006g A.R. 4.01.01a). The OMNR Class EA does not impose many more requirements on applicants but if the proposed pit or quarry is determined to be a Class B, C or D project (based on the potential for significant environmental effects), further

public consultation and reporting may be necessary. In 2005, only seven new pits and quarries underwent EA according to the OMNR Class EA (OMNR 2006h).

No provision in the ARA gives the public the opportunity to request that a proposed pit or quarry on non-designated private land be designated for approval under the ARA. The Minister of Environment can require a proposed pit or quarry to undergo a formal Individual EA Act review (EA Act s. 3b), but to this date, no aggregate pit or quarry has undergone formal EA.

In summary, the ARA process is effective at screening proposals for significance and meets this criterion. Recent changes mean that the ARA applies to almost all significant aggregate resources in Ontario. Therefore, the screening decision is simple. Additionally, the ARA process includes varying levels of EA that are customized to the potential environmental impacts of the proposed project.

## **2.7 Must scoping of the environmental impacts of actions take place and specific guidelines be produced?**

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| <ul style="list-style-type: none"><li>a) Must the proponent consult the environmental authority early in the EIA process?</li><li>b) Must the proponent prepare information as a basis for scoping?</li><li>c) Is scoping mandatory in each case?</li><li>d) Must a general or generic set of impacts be addressed in the EIA?</li><li>e) Must action-specific scoping guidelines be prepared?</li><li>f) Are irrelevant impacts screened out?</li><li>g) Does published guidance on scoping procedures and methods exist?</li><li>h) Is consultation and participation required in scoping?</li><li>i) Is there a right of appeal against scoping decisions?</li><li>j) Does scoping function efficiently and effectively?</li></ul> |
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Scoping is prescribed in the Provincial Standards. The environmental and social impacts that must be assessed differ by application category (see section 2.4, particularly Table 2.3). Different levels of impact assessment are described for hydrogeological, natural environment features and cultural heritage resources. Level 1 Technical Reports

document the existence of or potential for significant environmental features and cultural heritage resources. If the Level 1 assessment discovers significant environmental features, or significant cultural heritage resources, or a medium to high potential for cultural heritage resources, up to three more levels of assessment are performed to assess the impacts and determine mitigation measures. This prescribed approach provides the potential for unimportant impacts to be scoped out of the assessment and potentially focuses the attention of the applicant, public, and government on the most important impacts. Additionally, the approach ensures all applications are consistently assessed.

However, the Provincial Standards may not be focussing the applicants on all important impacts; potential land use impacts, truck traffic, and noise impacts are not considered for all application categories even though these impacts may be a concern for any pit or quarry. Another disadvantage to using a prescribed list of impacts is that the applicant may fail to consider significant environmental and social impacts that are site specific, unless they are brought up during the public review period. Unfortunately, applicants are not required to contact environmental authorities prior to the prescribed notification and consultation period, which occurs after the OMNR determines that an application is complete.

In practice, the scoping process is flawed. During the public review period, the proponent must make a reasonable attempt to respond to and alleviate any concerns expressed by the public or review agencies. Some people feel that the Conservation Authorities and the Ministry of the Environment are not ensuring that proponents consider enough impacts, which is leaving the role of the “complainer” to the public (Personal Communication- member of Gravel Watch):



Well what's happening right now is that people say, okay, if that's the way the rules are played, then we're going to complain about everything you could think of. And so they say, look, you haven't done this and this, there's an environmental rule about this, there's cancer caused by dust. What about all these things? You know, and not only that, you've got to come up with a reasonable attempt to solve my concern. So they produce this laundry list...and that's being used as a kind of strategy right now...but that invites bringing up issues which might be pretty small issues.

Any requests for the assessment of other impacts would be made after the application has been submitted to OMNR to determine if the application is complete. Requesting further assessment of impacts at this stage, late in the ARA process, may be more costly for the applicant than if the request had been made when the applicant was first scoping – it is possible that to satisfy a public request, a consultant that already conducted tests at the proposed site may have to return to the site to complete further testing that could have been done during the initial site visit.

During the public review period the public can object to scoping decisions for licences, which could lead to a hearing before the OMB. The public cannot object to proposals for aggregate permits or wayside permits.

The current PPS (OMMAH 2005) defines important terms such as “significant,” “natural heritage features and areas,” and “endangered species,” which are all used in the Provincial Standards. However, the Provincial Standards refer to an old version of the PPS (Revised February 1, 1997). The definitions in the PPS have since changed; notably the definition of “significant” has been elaborated upon – a key definition for scoping. The reference to the PPS is extremely useful but should be to the current version (OMMAH 2005) to help maintain relevancy and consistency with Ontario's environmental and social values.

The Manual is also useful for scoping because the Manual suggests potential sources of information for determining significant impacts. For example, the Heritage and Libraries Branch of the Ministry of Culture can help the proponent determine the potential for heritage resources (OMNR 2006g A.R. 2.01.08). As mentioned previously, the Manual is not widely available and it is unclear whether applicants are using this resource (see section 2.3).

In summary, the Provincial Standards scope the applications for pits and quarries under the ARA, but scoping is inefficient and ineffective. The ARA process does not require early consultation, therefore issues that become apparent during the public review period may be more expensive to address than if these were identified earlier in the ARA process. In some cases the public are delaying applications by requesting the proponent to address insignificant impacts. The ARA process does not meet this criterion.

## **2.8 Must EIA reports meet prescribed content requirements and do checks to prevent the release of inadequate EIA reports exist?**

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| <ul style="list-style-type: none"><li>a) Must EIA reports describe actions and environments affected, forecast impacts, indicate significance and contain a non-technical summary?</li><li>b) Must information held by the relevant authorities about the environment or type of action be made available to the proponent?</li><li>c) Does published guidance on EIA report preparation exist?</li><li>d) Must specified EIA methods or techniques be employed?</li><li>e) Does accreditation of EIA consultants exist?</li><li>f) Do checks on the content, form, objectivity, and accuracy of the information presented occur before publication of the EIA report?</li><li>g) Is consultation and participation required in the EIA report preparation?</li><li>h) Does the EIA process encourage creative fact finding (Lasswell 1971)?</li><li>i) Does EIA report preparation function efficiently and effectively?</li></ul> |
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The Provincial Standards require that applications describe the actions of extracting, processing, hauling and rehabilitation throughout the entire life of the project. These Standards also require that applicants describe the natural and social environments,

and impacts and their significance in site plans, summary statements, and technical reports (application documents). This information must be available for the public to review during the notification and consultation stage of the ARA process. The scope and detail of application documents vary by application category, with Class A licences requiring the greatest effort and wayside permits requiring the least effort.

The formatting of the application documents also differs by application category. Site plans for Class A licences must show the required information on at least three separate drawings using these headings: existing features, progressive rehabilitation, final rehabilitation, and cross sections. In contrast, the site plan requirements for all other application categories are not structured under headings and the applicant is not required to present information on three separate drawings. This lack of structure (i.e., consistent headings) to the site plan requirements combined with minor word changes to seemingly identical provisions makes it difficult to determine the similarities and differences among site plan requirements for different categories of applications. For example, for Category 3 applications there are two requirements under two separate headings dealing with site topography whereas there is only one requirement dealing with site topography for Category 9 applications (Table 2.4). Why are the initial and final elevations of the site important for pits on private land (Category 3) but not for pits on public land (Category 9)? Is the OMNR not interested in the elevation of the site following rehabilitation for pits on public land? Why are there different requirements for the contour interval and benchmark? The inconsistent formatting of applications would seemingly make it more challenging and time consuming for OMNR staff to determine if all of the requirements are met and more difficult for proponents to develop repeated applications.

**Table 2.4 Examples of differences in site plan requirements**

Category 3	Category 9
<p><b>1.1 Existing Features</b> 1.1.15 the topography of the site, illustrated by a one or two metre contour interval, expressed as metres above mean sea level</p> <p><b>1.4 Final Rehabilitation</b> 1.4.7 the final elevations of the rehabilitated areas of the site illustrated by a one or two metre contour interval, expressed as metres above mean sea level</p>	<p>1.16 the topography of the site, illustrated by two metre contour intervals or spot elevations referenced to a permanent benchmark on the site</p>

See Table 2.1 for a summary of application categories.  
Source: OMNR (1997)

The required credentials for the people qualified to prepare the site plan, summary statement and technical reports depend on the application category. For Class A licences (ARA s. 8(4)):

... a site plan... must be prepared under the direction of and certified by a professional engineer who is a member of the Association of Professional Engineers of Ontario, a land surveyor who is a member of the Association of Ontario Land Surveyors, a landscape architect who is a member of the Ontario Association of Landscape Architects, or any other qualified person approved in writing by the Minister [delegated to the Manager of the APRS (OMNR 2006g A.R. 2.00.01)]

A list of names of people who are approved by the Manager of the Aggregate and Petroleum Resources Section (APRS) is available in the Manual (OMNR 2006g A.R. 2.00.01). Site plans for all other application types can be prepared by the applicant or any other person (OMNR 1997). The applicant may prepare the summary statement for all application types, whereas "...technical reports must be prepared by a person with appropriate training and/or experience" (OMNR 1997). "Appropriate training and/or experience" is not defined in the Provincial Standards or the Manual, except that professional geoscientists or engineers must prepare the hydrogeological reports.

The OMNR checks that the application is complete and meets the information requirements of the ARA prior to the notification and consultation period. The Manual includes the checklists that the OMNR uses to determine completeness. These forms are used in conjunction with policies specific to the application category (OMNR 2006g A.R. 2.01.04-2.01.09, A.R. 3.01.02-3.01.07, A.R. 4.01.03-4.01.08).

There is no guidance about assessing the accuracy or objectivity of the information in application documents outside of the suggestion in the Manual that a site visit should be conducted if there is time; however, the regulator has a maximum of twenty days to assess completeness. In practice, it seems that the people with “appropriate training and/or experience” are relied on to provide quality information, while the regulator determines if there is “enough” information to qualify the application as complete. The focus on complete rather than quality information is a concern as the Manual leaves much in the hands of individual government personnel to determine the appropriateness of information for decision making.

Only the Minister of Natural Resources may request that licence applicants prepare more information for application documents than is required by the Provincial Standards (ARA s.7(5)). This ability has not been delegated to OMNR staff (OMNR 2006g A.R. 2.00.00). In contrast, for aggregate permit applications, the ability to request additional information has been delegated from the Minister of Natural Resources to the Manager of the APRS (OMNR 2006g A.R. 4.00.00).

The MTO has been delegated the ability to approve and manage wayside permits and aggregate permits for provincial road projects and there is no “overseer” to request that the MTO consider other impacts (OMNR 2006g A.R. 1.00.08, 3.01.01). The MTO

has a conflict of interest as the MTO is both the proponent for provincial road projects, and the reviewer of wayside and aggregate permits for the mineral aggregate supply for provincial road projects. That said, if the MTO makes a reasonable attempt to address concerns during the public review period as required, the MTO likely generates additional information to satisfy the public's concerns. Therefore, the policies and provisions that allow the MTO to operate with a conflict of interest may not compromise the assessment process; but this conclusion would be invalid if the public review period is not working properly.

There is no requirement for consultation or public participation when the proponent is preparing the application, although some proponents may involve the public voluntarily (Personal Communication- employee of TOARC). The Provincial Standards list potential information sources that proponents may refer to when completing the application process, but most of the sources are statutes or guidelines for complying with the statutes. Consultation with other government departments is encouraged during the report preparation stage, but proponents are only required to notify the government agencies specified in the Provincial Standards after the OMNR determines the application is complete (OMNR 2006g).

The Manual also provides potential information sources and clarifies that the OMNR will provide information as freely as possible unless there is a conservation, legal, or policy reason for not doing so (OMNR 2006g A.R. 2.01.07). The *Freedom of Information and Protection of Privacy Act* is also referred to as a key piece of legislation governing access to information, of which applicants should be made aware (OMNR 2006g A.R. 2.01.07). The Manual is well organized, and although is written for OMNR

staff, would provide useful information for applicants when preparing applications, in the absence of a more “applicant friendly” guidance document. Not only is the Manual useful because it lists potential sources of information, it clearly outlines the role of OMNR in the proponent driven ARA process. Without better advertising of the Manual however, it is unclear how proponents are expected to learn about the information sources it contains, unless they contact OMNR staff and specifically ask.

In summary, the ARA process partially meets this criterion. The ARA and Provincial Standards require that professionals with specific credentials author certain reports and provincial staff assess the completeness of EA reports as described in the Manual. However, the ARA process does not prescribe specific methods for assessing the accuracy and objectivity of the EA reports, or a range of EA methods and techniques that proponents could employ. Moreover, the ARA does not require consultation when proponents for pits and quarries are preparing application documents.

## **2.9 Must EIA reports be publicly reviewed and the proponent respond to the points raised?**

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| <ul style="list-style-type: none"><li>a) Must a review of the EIA report take place?</li><li>b) Do checks on the objectivity of the EIA report review exist?</li><li>c) Do review criteria to determine EIA report adequacy exist?</li><li>d) Does an independent review body with appropriate expertise exist?</li><li>e) Must the findings of the EIA report review be published?</li><li>f) Can the proponent be asked to respond to comments and to provide more information following review?</li><li>g) Must a draft and final EIA report be prepared?</li><li>h) Does published guidance on EIA review procedures and methods exist?</li><li>i) Is consultation and participation required in EIA report review?</li><li>j) Is consultation and participation required where further information is submitted?</li><li>k) Is there some form of appeal against review decisions?</li><li>l) Does EIA report review function effectively and efficiently?</li></ul> |
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The public notification and consultation period provides the opportunity for the public and review agencies to critique the information contained within applications and

express their concerns about the impacts of the proposed pit or quarry. New information can come to light, and in response, the applicant may amend their application. The applicant must demonstrate a reasonable attempt to resolve concerns and objections.

Applicants for licences and Aggregate Permits cannot complete the prescribed public notification and consultation procedures prior to the OMNR determining whether the application is complete whereas applicants for Wayside Permits can perform the prescribed public notification procedure up to 30 months in advance of submitting their application to the OMNR, to "...facilitate planning of potential wayside permit sites" (OMNR 1997). The OMNR can request additional information from the proponent after the notification and consultation period to ensure that the application is complete (OMNR 2006g A.R. 2.01.02) but this request does not extend the notification and consultation period for the public and review agencies to provide comment on the new information.

Minimum requirements for the public review period are prescribed in the Provincial Standards and these differ somewhat depending on the application category (Table 2.5). In short, the minimum requirements for Class A and B licences provide for a more rigorous public review than the minimum requirements for Aggregate Permits and Wayside Permits. However, the requirements for a "meaningful" public review are not discussed in the ARA or the Provincial Standards; instead time frames and the format for public notice are presented as minimum requirements. Moreover, there is no published guidance for the public review period to help applicants create meaningful opportunities for involving the public and review agencies. Meaningful opportunities for involving the public are important to fostering good relationships (Personal Communication- employee of the Township of Puslinch):



...we had a new application and they had their public meeting for the aggregate licence, but they had it over at our community centre. But they only rented the little committee room. Like, they should have had the whole big hall and it was only in the little committee room. So people were standing outside the door and they couldn't hear...so then if they can't get in the room, then they just, oh you know, they're trying to hide stuff from us. They don't want us to see anything. So you get those bad feelings. So if they stop and think about it for a minute, you know, maybe just having it in the big room would have...

Another interview participant had the following to say about how proponents respond to comments and requests for information during the notification and consultation period

(Personal Communication- member of Gravel Watch):

Whole spectrum- from they drag their feet, to they don't understand, or they really don't want to tell it to you because you're opposing them, to being quite helpful. It should be an open information process.

Concern has been expressed that some applicants are not even meeting the low level of public participation known as consultation but are just making token efforts (Personal Communication- member of Gravel Watch).

**Table 2.5 Summary of requirements for notification and consultation prescribed in the Provincial Standards**

<b>Consultation Component</b>	<b>Class A and B Licences</b>	<b>Aggregate Permit</b>	<b>Wayside Permit</b>
<b>Presentation to Public?</b>	Yes (information session, open house, or community meeting)	No (unless requested by OMNR to satisfy requirements in the OMNR Class EA)	No
<b>Public Notice Period</b>	45 days	20 days	20 days
<b>Public Notice</b>	<p><b>Written notice</b> including Forms 1 and 2 to landowners within 120 m of site</p> <p><b>Signage</b> at site boundary visible to public with info on type of application, applicant information, date, time and location of public information session, application is on file at local OMNR office</p> <p><b>Newspaper</b> publish Form 1 and 2 concurrently</p>	<p><b>Written notice</b> applicant information, proposed site location, operation description (i.e., pit or quarry), ask landowners to respond in writing to applicant and copy to OMNR with concerns regarding proposal</p> <p><b>Signage</b> not required</p> <p><b>Newspaper</b> not required</p>	<p><b>Written notice</b> applicant information, proposed site location, operation description (i.e., pit or quarry), type of project (e.g., road sanding, road construction), type and quantity of material required, ask landowners to respond in writing to applicant and copy to OMNR with concerns regarding proposal</p> <p><b>Signage</b> not required</p> <p><b>Newspaper</b> not required</p>
<b>Stakeholders and Review Agencies</b>	<p>Form 2 and application package provided to:</p> <ul style="list-style-type: none"> <li>→ Local OMNR office</li> <li>→ Local municipality in which site located</li> <li>→ Region/county in which site located</li> <li>→ Local Conservation Authority (if site in their jurisdiction)</li> <li>→ Ministry of Agriculture, Food and Rural Affairs (only if prime agricultural land not being restored to the same average soil quality)</li> <li>→ Niagara Escarpment Commission (if site within their jurisdiction)</li> <li>→ Utility corporations (if easement exists on site or within 120 m of boundary)</li> <li>→ Ministry of Environment and Energy</li> </ul>	<p>Application package and information on proposed consultation process (if required) to:</p> <ul style="list-style-type: none"> <li>→ Local municipality in which the site is located</li> <li>→ Region/county in which the site is located</li> <li>→ Ministry of Transportation</li> <li>→ Ministry of Agriculture, Food and Rural Affairs (only if prime agricultural land is not being restored to the same average soil quality)</li> <li>→ Ministry of Northern Development and Mines</li> <li>→ Aboriginal organizations, as directed by</li> </ul>	<p>Application package and information on notification process to:</p> <ul style="list-style-type: none"> <li>→ Local OMNR office</li> <li>→ Local municipality in which the site is located</li> <li>→ Region/county in which the site is located</li> <li>→ Ministry of Agriculture, Food and Rural Affairs (only if prime agricultural land is not being restored to the same average soil quality)</li> <li>→ Utility corporations (if an easement exists on site or within 120 metres)</li> <li>→ Niagara Escarpment Commission if within their jurisdiction</li> </ul>

	(only in the following cases- for Class A and B pits below water only if hydrogeological Level 2 was required; Class A and B quarries below water)	<p>the OMNR;</p> <ul style="list-style-type: none"> <li>→ Forest companies, as directed by the OMNR</li> <li>→ Utility corporations (if an easement exists on site or within 120 metres)</li> <li>→ Ministry of Environment and Energy (only in the following cases- for Aggregate Permit pits below water based on hydrogeological Level 1 recommendations; for Aggregate Permit quarries below water)</li> </ul>	→ Ministry of Environment and Energy (only if a Hydrogeological Level 2 is required)
<b>Time to resolve objections</b>	2 years from day public notice published in newspaper	6 months from date application accepted as complete by OMNR or another time approved by OMNR	Not specified

Source: OMNR (1997)

It is unclear why the public and review agencies are given 50% less time to review aggregate permit and wayside permit applications (20 days) than they are given to review licence applications (45 days). It is also unclear why applicants for licences on private land must make public presentations whereas applicants for aggregate permits on public land are not required to do so. Both applicants and the public are being treated differently based solely on land ownership. This unequal treatment is neither justified nor helpful in encouraging effective public review of applications; although it is possible that there are less social impacts on public land because there are no permanent residents there.

Neither the ARA nor the Provincial Standards prescribe how or where application documents should be made available to the public. Applicants have posted application documents in municipal offices, although there have been some instances when the public has been unable to copy the documents for review, and some proponents have made applications available to download from the Internet (Personal Communication-employee of TOARC, member of Gravel Watch, and employee of the Township of Puslinch).

The public and review agencies, including the OMNR, must submit any objections or concerns to the applicant and the OMNR within the consultation and notification period to be considered in decision making. The public do not have the ability to influence a hearing by objecting to wayside permits and aggregate permits. The public may object to applications for licences and the OMNR District Manager may refer licence applications and objections to the OMB for a hearing. The OMNR has 30 days to

refer the application to the OMB from the date that the OMNR receives notice that the applicant has completed the notification and consultation procedures.

Applicants for all licence and permit types must make a reasonable attempt to resolve all objections and concerns during the notification and consultation period (OMNR 1997). Unfortunately, “reasonable attempt” is not defined in the Manual so the OMNR staff must use their judgement in determining reasonableness. Objections and concerns may be settled by amending the application, site plan, and technical reports, in consultation with OMNR (OMNR 1997). No further guidance is provided on how to work out conflicts (e.g., negotiation, mediation, facilitation, or other appropriate dispute resolution). If all objections are resolved during the prescribed time period, proponents are required to collect written letters of withdrawal from objectors and submit these to the OMNR as evidence that no objections remain. But if objections remain after the prescribed time period, the applicant must give notice to the objectors that they have 20 days to provide to the applicant and OMNR written recommendations that might resolve their objections, or else their objections will be deemed resolved.

For licence applications, once the prescribed notification and consultation procedure is complete and the OMNR decides a referral to the OMB is unnecessary, the OMNR prepares the form entitled *Matters to be Considered by the Minister*. This form documents the OMNR’s assessment of whether the licence application should be approved or refused, and is not prepared when an application is referred to the OMB. The “Matters” are specified in the ARA (s. 12(1)):

- In considering whether a licence should be issued or refused, the Minister or the Board, as the case may be, shall have regard to,
- (a) The effect of the operation of the pit or quarry on the environment;

- (b) The effect of the operation of the pit or quarry on nearby communities;
- (c) Any comments provided by a municipality in which the site is located;
- (d) The suitability of the progressive rehabilitation and final rehabilitation plans for the site;
- (e) Any possible effects on ground and surface water resources;
- (f) Any possible effects of the operation of the pit or quarry on agricultural resources;
- (g) Any planning and land use considerations;
- (h) The main haulage routes and proposed truck traffic to and from the site;
- (i) The quality and quantity of the aggregate on the site;
- (j) The applicant's history of compliance with this Act and the regulations, if a licence or permit has previously been issued to the applicant under this Act or a predecessor of this Act; and
- (k) Such other matters as are considered appropriate.

The OMNR fills out a similar form when reviewing applications for wayside permits, that addresses the following *Matters to be Considered by the Minister* (ARA s. 26):

- The Minister in considering whether to issue or refuse a wayside permit shall have regard to,
- (a) Any comments provided by the municipalities in which the site is located;
  - (b) The effect of the operation of the pit or quarry on the environment and nearby communities;
  - (c) The amount of aggregate estimated to be removed from the site;
  - (d) The estimated cost of the aggregate for the project as compared with that from any alternative source of supply;
  - (e) The proper management of the aggregate resources of the area;
  - (f) Any previous wayside permits for the site and adjacent lands;
  - (g) The rehabilitation of the site and its compatibility with adjacent land;
  - (h) Any possible effects on ground and surface water resources;
  - (i) Any proposed aesthetic improvements to the landscape;

- (j) The main haulage routes and proposed truck traffic to and from the site;
- (k) Such other matters as are considered appropriate.

The ARA does not specify the “Matters to be Considered” when processing applications for aggregate permits, and there is no form filled out when the OMNR reviews these applications (OMNR 2006g).

“Objectivity” is not mentioned in the Manual, but site visits by OMNR staff are encouraged to assess accuracy. As mentioned earlier, the focus of the regulator is on whether the applicant has met the minimum requirements of the ARA and the Provincial Standards. Moreover, the minimum requirements in the ARA, the Provincial Standards, and the Manual do not assist OMNR staff in determining what information is appropriate and necessary for decision making – this challenging task is in the hands of individual staff members with their own unique values for protecting the environment, conserving mineral aggregate resources and encouraging development. There is no specified form of appeal of review decisions unless the application is for a licence, and the OMNR recommends an OMB hearing (ARA s. 11(5)). The OMNR has the discretion to scope the issues that the OMB hearing will address (ARA s. 11(5)) and the OMB is to consider the same “Matters,” as specified in the ARA, as the Minister of Natural Resources (ARA s. 12(1)).

In summary, the ARA process only partially meets this criterion. The process requires the public review of EA reports and proponents must respond to the concerns raised over a particular time frame. Unfortunately, the ARA process does not describe clearly what a reasonable response by the proponent would constitute. The process

prescribes public notification and consultation as the minimum level of public involvement during public review.

## **2.10 Must the findings of the EIA report and the review be a central determinant of the decision on the action?**

- a) Must the decision be postponed until the EIA report has been prepared and reviewed?
- b) Can permission be refused, conditions be imposed or modifications be demanded at the decision stage?
- c) Is the decision made by a body other than the proponent?
- d) Is any summary evaluation prepared prior to decision making made public?
- e) Must the EIA report, and comments upon it, be used to frame the conditions attached to any consent?
- f) Are the decision, the reasons for it, and the conditions attached published?
- g) Must these reasons include an explanation of how the EIA report and review influenced the decision?
- h) Does published guidance on the factors to be considered in the decision exist?
- i) Is consultation and participation required in decision making?
- j) Is there a right of appeal against decisions?
- k) Does decision making function effectively and efficiently?

Decision making occurs after the application documents, and consultation and notification period, are complete (OMNR 1997). In most cases, the OMNR makes the decision to issue or refuse to issue licences (Minister of OMNR), and wayside permits and aggregate permits (OMNR Area Supervisors) (ARA s. 11(9), s. 26, s. 42(a)). The Head of the Geotechnical Section of the MTO has the ability to issue or refuse to issue wayside permits and aggregate permits for provincial road projects (ARA s. 32.1, s. 46.1, OMNR 2006g A.R. 1.00.08). However, the MTO is both the proponent for provincial road projects and the decision maker for wayside and aggregate permits to support these road projects; this dual role of the MTO is a conflict of interest.

The Provincial Standards prescribe mandatory conditions of approval for all licence and permit types. These mandatory conditions vary depending on the application category and cannot be varied or rescinded. Both the OMNR and MTO may impose additional conditions on licences, and wayside and aggregate permits at the time of issuance (ARA s. 13(1), s. 30(1), s. 37(1), OMNR 2006g A.R. 1.00.08) and these



additional conditions may be added to, rescinded or varied by the OMNR and MTO at any time (ARA s. 13(2), s. 30(2), s. 37(6), OMNR 2006g A.R. 1.00.08). The guidance for imposing conditions on wayside permits encourages the OMNR/MTO to negotiate improvements to the site plan during the application process rather than imposing conditions at the time of approval; when conditions of approval are imposed, the rationale should be to regulate the site better and minimize environmental impacts of the operation (OMNR 2006g A.R. 3.00.03). Moreover, the decision to impose additional conditions should be based on recommendations resulting from any hearings, technical reports, agency and public concerns, and conditions proposed by the proponent to resolve issues/concerns (OMNR 2006g A.R. 2.00.03, 4.00.02).

The Policy Manual provides detailed guidance on how to assess the merits of an application. The form entitled *Matters to be Considered by the Minister* is completed after the OMNR/MTO reviews an application for a licence or wayside permit, however no form is filled out for aggregate permits (see section 2.9 for details). This form documents the OMNR's/MTO's recommendation as to whether the licence or wayside permit should be issued or refused and the reasons for the recommendation (see section 2.9 for details).

The following types of decisions are published on the Environmental Bill of Rights Registry (Govt. of ON 2007):

- Whether a Class A and B licence, or aggregate permit on private land underwater is approved or refused,
- When conditions and site plans for licenses are added, rescinded, or varied

A brief review of recent decisions on the Environmental Bill of Rights Registry was done to determine the content of postings.<sup>15</sup> These decisions do not list the reasons for approval or refusal but describe the following: the consultation opportunities that took place, a brief summary of the comments/objections that were received during the consultation process, and how the comments/objections affected the decision. The ability of the public to appeal the decision according to the EBR is also indicated, and the process for beginning an appeal is provided to assist the public in the appeal process.

Decisions other than those posted on the Environmental Bill of Rights Registry are not published in a readily accessible manner, but instead are filed on paper at OMNR district/area offices and the office of the Aggregate and Petroleum Resources Section. The Aggregate and Petroleum Resources Section tracks applications and decisions internally in an electronic database called the Aggregate Licence and Permit System (OMNR 2006g).

The ARA provides unequal opportunities for hearings of decisions. Opportunities differ depending on the application type and the person (i.e., the proponent versus the public). Applicants or holders of licences and aggregate permits are entitled to hearings at four decision points if they so request, and anyone disagreeing with an inspector's order of compliance can also appeal to the Minister (Table 2.6). The public has only one opportunity to request a hearing for a licence application, by sending an objection to the OMNR during the prescribed notification and consultation period (Table 2.6). When an objection is received, the OMNR District Manager has the discretion to choose whether to send the application to the OMB for hearing and may limit the matters on which the

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<sup>15</sup> EBR numbers IBE03E2048, IB02E3077, IB05E2818, IB04E3084, and IB03E3044.

OMB may make a decision (Table 2.6). As mentioned previously, for wayside and most aggregate permits the public does not have the right to request a hearing of an objection because there is no provision in the ARA to “object” to these proposals. Judicial review is the only recourse available for these decisions.

In addition to the appeal opportunities prescribed in the ARA, the EBR provides four opportunities for the public (defined as any resident of Ontario that has an interest in the decision) to appeal specific decisions resulting from the ARA: three of these decisions relate to licences and one relates to a very specific type of aggregate permit (Table 2.6).

**Table 2.6 Opportunities for hearings and appeals, organized by opportunity type and the people that may request the hearing or appeal**

<b>Hearing – Applicants or Holders of Licences and Aggregate Permits (entitled)</b>
<ul style="list-style-type: none"> <li>→ If the minister refuses an application for a licence/aggregate permit (ARA s. 11(11), s. 44(1))</li> <li>→ If the minister proposes to add, rescind, or vary a condition of a licence/aggregate permit after the licence/aggregate permit has been issued (ARA s. 13(6), s. 44(1))</li> <li>→ If the minister proposes to require an amendment to the site plan after the licence/aggregate permit has been issued (ARA s. 16(8), s. 44(1)).</li> <li>→ If the minister revokes a licence/aggregate permit for any reason other than if the licensee does not pay the required annual fees (ARA s. 20(4 and 5), s. 44(1 and 1.1))</li> </ul>
<b>Appeal – Any person who considers himself, herself or itself aggrieved by an order of an inspector (heard unless appeal is frivolous or vexatious or is commenced in bad faith)</b>
<ul style="list-style-type: none"> <li>→ If the person disagrees with the order of compliance given by an inspector (ARA s. 63.1(1))</li> </ul>
<b>Hearing – Public (at the Minister of OMNR’s discretion)</b>
<ul style="list-style-type: none"> <li>→ If the minister receives objections during the prescribed notification and consultation process for licences (ARA s. 11(5))</li> </ul>
<b>Appeal – Public (if appellate body determines leave test is met (EBR s. 41*))</b>
<ul style="list-style-type: none"> <li>→ If the minister issues a Class A licence to remove &gt;20 000 tonnes of aggregate annually (EBR s. 38, OMNR 2006g A.R. 5.00.16)</li> <li>→ If the minister issues a Class B licence to remove 20 000 tonnes or less of aggregate annually (EBR s. 38, OMNR 2006g A.R. 5.00.16)</li> <li>→ If the minister revokes a licence other than for a failure to pay an annual fee (EBR s. 38, OMNR 2006g A.R. 5.00.16)</li> <li>→ If the minister issues an aggregate permit to extract aggregate from private land under water (EBR s. 38, OMNR 2006g A.R. 5.00.16)</li> </ul>

\* “Leave to appeal a decision shall not be granted unless it appears to the appellate body that, (a) there is good reason to believe that no reasonable person, having regard to the relevant law and to any government policies developed to guide decisions of that kind, could have made the decision; and (b) the decision in respect of which an appeal is sought could result in significant harm to the environment” (EBR s. 41).

In summary, the ARA process partially meets this criterion. The decision resulting from the ARA process can be an approval, approval with conditions, or refusal. The decisions that are posted by the OMNR and the OMOE on the Web do not include reasons for the decision or any conditions for approval, although these may be available by request from the Province of Ontario. There are few appeal opportunities for the ARA process, and the ARA provides the most appeal opportunities to proponents on private land.

### **2.11 Must monitoring of action impacts be undertaken and is it linked to the earlier stages of the EIA process?**

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| <ul style="list-style-type: none"><li>a) Must monitoring of the implementation of the action take place?</li><li>b) Must the monitoring of action impacts take place?</li><li>c) Is such monitoring linked to the earlier stages of the EIA process?</li><li>d) Must an action impact monitoring programme be specified in the EIA report?</li><li>e) Can the proponent be required to take ameliorative action if monitoring demonstrates the need for it?</li><li>f) Must the results of such monitoring be compared with the predictions in the EIA report?</li><li>g) Does published guidance on the monitoring and auditing of action implementation and impacts exist?</li><li>h) Must monitoring and auditing results be published?</li><li>i) Is there a public right of appeal if monitoring and auditing results are unsatisfactory?</li><li>j) Does action monitoring function effectively and efficiently?</li></ul> |
|--|

There is no independent monitoring of the impacts and compliance of mineral aggregate pits and quarries in Ontario unless a condition of approval requires such monitoring. However, the ARA requires that licence and aggregate permit holders submit Compliance Assessment Reports annually to the OMNR and the municipality in which the site is located. These reports state whether the pit or quarry is complying with the ARA, regulations, site plan, and approval conditions; the OMNR can investigate compliance by conducting site visits and auditing documents (ARA s.4, s. 15.1, s. 40.1). Compliance Assessment Reporting is timed with the annual submission of taxes and fees.

This timing streamlines the reporting process for proponents and the government.

Compliance with wayside permits is not monitored.

The ARA requires that proponents correct items of non-compliance discovered during Compliance Assessment Reporting or field audits and inspections. The OMNR may suspend or revoke the licence or aggregate permit to enforce compliance, and additionally, the Minister of the OMNR can order a proponent to conduct progressive or final rehabilitation to bring the operation back into compliance (ARA s. 15.1, s. 20, s. 22 s. 40.1, s. 42, s. 45, s. 48(2)). The OMNR will make Notices of Inspection and Compliance Assessment Reports available to the public on request (ARA s. 15.1, s. 40.1, OMNR 2006g A.R. 5.00.22).

Published guidance exists for compliance monitoring. The following two documents are for pit and quarry operators: *Aggregate Licensee's Guide to the Completion of the Compliance Assessment Report* and *Aggregate Permittee's Guide to the Completion of the Compliance Assessment Report* (OMNR 2006g). The Manual includes published guidance for OMNR inspectors completing audits.

Impact monitoring may be required for pits and quarries if monitoring is committed to on site plans; any monitoring programs recommended in the technical reports must be documented on the site plan (OMNR 1997). Monitoring commitments must be met, and monitoring records must be maintained and made available to the OMNR for audit purposes (OMNR 1997). Unfortunately, the actual impacts of pits and quarries are not compared with the impacts predicted in application documents.

The OMNR prioritizes pits and quarries for auditing and inspection. This is a good approach as it focuses the attention of the government on operations with the

greatest risk for environmental or social harm. The OMNR attempts to audit and site inspect every licence in a 5 year period and every aggregate permit in a 10 year period (OMNR 2006g A.R. 2.04.00, A.R. 4.05.00). It is unclear why the audit cycle differs for pits and quarries on private and public lands, with pit and quarries on public land being inspected less frequently. From an environmental and community protection point of view, the audit cycle should be the same regardless of who owns the land; although it is possible that the social impacts on public land will be less because there are no permanent residents on public land. A 5 year cycle seems reasonable since there is an annual compliance reporting program and a priority approach to auditing that would see historically poor operators or high risk sites visited more than once in a 5 year period. Regrettably, the OMNR has consistently failed to meet its monitoring targets due to a lack of resources (ECO 2006). Moreover, concern has been expressed that the OMNR may sometimes be unwilling to enforce the ARA (Personal Communication- employee of the Township of Puslinch). These failures mean that enforcement is inconsistent and likely ineffective.

In summary, the ARA process requires that proponents monitor environmental impacts. Proponents are also responsible for reporting compliance annually to the OMNR; published guidance exists to assist proponents when reporting compliance. Key weaknesses are that the OMNR may have insufficient funding to effectively monitor compliance, and no party is comparing the impact monitoring results with projections in application documents to improve impact forecasting. The ARA process only partially meets this criterion.

## 2.12 Must the mitigation of action impacts be considered at the various stages of the EIA process?

- a) Must clear evidence of the mitigation/avoidance of environmental impacts be apparent in the initial action design described in preliminary EIA documentation?
- b) Must a schedule of mitigation measures and their implementation be set down in the EIA report?
- c) Must evidence of the consideration of mitigation be presented during screening, during scoping, during EIA report review and revision, during decision making and during monitoring?
- d) Does published guidance on mitigation and modification exist?
- e) Does the mitigation of action impacts take place effectively and efficiently?

“Mitigate” is defined in the Provincial Standards as follows: “To alleviate, moderate or reduce the severity of impacts” (OMNR 1997). This definition does not include avoidance or compensation. Some mitigation measures are prescribed as operational standards or mandatory conditions of approval (Table 2.7, Table 2.8). Proponents must comply with the mandatory conditions of approval and operational standards, unless variances to the standards are approved during the application process (OMNR 1997). Proponents must also conduct progressive and final rehabilitation (ARA s. 48).

Additional measures to mitigate the negative impacts that are identified during scoping (Level 1 study) are considered if a Level 2 technical report is required. For all pits and quarries, any mitigation recommendations included in the technical reports must be described on the site plan (OMNR 1997). Mitigation may also be considered when resolving objections and concerns during the public review period and any agreements for mitigation that are reached must be documented on the site plan (OMNR 1997). Unfortunately, no published guidance about mitigation measures exists for proponents. Moreover, the Policy Manual guides OMNR staff in determining the impacts that may require mitigation but does not provide information to help staff determine if the proposed mitigation measures are appropriate.

**Table 2.7 Mitigation prescribed in the Provincial Standards as operational standards**

<b>Impact</b>	<b>Operational Standards</b>
<b>Dust</b>	<p><b>All pits and quarries</b></p> <ul style="list-style-type: none"> <li>→ Stabilize and vegetate topsoil and overburden piles</li> <li>→ Stabilize excavation faces to prevent erosion into excavation setback</li> <li>→ Vegetate berms to control erosion</li> <li>→ No excavation within excavation setback (15 m site boundary, 30 m from site boundary when abutting a highway, land in use or restricted to residential at time of approval, body of water not resulting from excavation below water table)</li> <li>→ Vegetate rehabilitated areas</li> </ul>
<b>Noise</b>	<p><b>All pits and quarries</b></p> <ul style="list-style-type: none"> <li>→ No excavation within excavation setback</li> <li>→ No piling of aggregate, topsoil or overburden, or locating equipment or buildings within 30 m of site boundary or 90 m of site boundary when abutting land in use or restricted to residential at time of approval</li> </ul> <p><b>Aggregate Permits, Licences</b></p> <ul style="list-style-type: none"> <li>→ No person may detonate any explosives on the site on a holiday or between 6 p.m. on any day and 8 a.m. on the following day</li> </ul>
<b>Water Quality</b>	<p><b>All pits and quarries</b></p> <ul style="list-style-type: none"> <li>→ Keep scrap/waste at least 30 m from bodies of water</li> </ul>
<b>Public Safety</b>	<p><b>All pits and quarries</b></p> <ul style="list-style-type: none"> <li>→ Gate- close when not operating mine</li> <li>→ Access to site- position where clear view of highway</li> <li>→ Excavation faces must be sloped (1/3 pits, 1/2 quarries) when rehabilitation is final</li> </ul> <p><b>Licences</b></p> <ul style="list-style-type: none"> <li>→ Fence, at least 1.2 m high, along site boundary</li> <li>→ No person may detonate any explosives on the site on a holiday or between 6 p.m. on any day and 8 a.m. on the following day</li> </ul> <p><b>Aggregate Permits</b></p> <ul style="list-style-type: none"> <li>→ Identify and maintain all boundaries of the site including all corners (e.g. flagging tape, etc.)</li> <li>→ No person may detonate any explosives on the site on a holiday or between 6 p.m. on any day and 8 a.m. on the following day</li> </ul>
<b>Soil Quality</b>	<p><b>All pits and quarries</b></p> <ul style="list-style-type: none"> <li>→ Strip soil sequentially prior to extraction</li> <li>→ Topsoil and overburden stored separately on site in vegetated stable piles and use for rehabilitation</li> <li>→ No removal of topsoil from site</li> </ul>
<b>Visual Disturbance</b>	<p><b>All pits and quarries</b></p> <ul style="list-style-type: none"> <li>→ Keep site orderly</li> <li>→ Remove scrap/waste ongoingly</li> <li>→ Keep scrap/waste at least 30 m from site boundary</li> <li>→ No excavation within excavation setback</li> <li>→ No piling of aggregate, topsoil or overburden, or locating equipment or buildings within 30 m of site boundary or 90 m of site boundary when abutting land in use or restricted to residential at time of approval</li> </ul>
<b>Land Surface</b>	<p><b>All pits and quarries</b></p> <ul style="list-style-type: none"> <li>→ Final rehabilitation must provide adequate drainage and compaction must be alleviated</li> <li>→ Site must be vegetated at final rehabilitation</li> <li>→ Excavation faces must be sloped (1/3 pits, 1/2 quarries) when rehabilitation is final</li> </ul>

Source: OMNR (1997)



**Table 2.8 Mitigation prescribed in the Provincial Standards as conditions of approval**

<b>Impact</b>	<b>Conditions of Approval</b>
<b>Dust</b>	<p><b>Wayside Permits</b></p> <ul style="list-style-type: none"> <li>→ Dust will be mitigated on site, if a sensitive receptor is within 300 metres</li> <li>→ Water or another provincially approved dust suppressant will be applied to internal haul roads and processing area(s) as often as required to mitigate dust</li> <li>→ Processing equipment will be equipped with dust suppressing or collection devices, where the equipment creates dust and is being operated within 300 metres of a sensitive receptor</li> </ul> <p><b>Aggregate Permits</b></p> <ul style="list-style-type: none"> <li>→ Dust will be mitigated on site if a sensitive receptor is within 2000 metres of the permitted boundary</li> <li>→ Water or another provincially approved dust suppressant will be applied to internal haul roads and processing areas as often as required to mitigate dust, if a sensitive receptor is within 500 metres of the site</li> <li>→ Processing equipment will be equipped with dust suppressing or collection devices, where the equipment creates dust and is being operated within 500 metres of a sensitive receptor</li> </ul> <p><b>Licences</b></p> <ul style="list-style-type: none"> <li>→ Dust will be mitigated on site</li> <li>→ Water or another provincially approved dust suppressant will be applied to internal haul roads and processing areas as often as required to mitigate dust</li> <li>→ Processing equipment will be equipped with dust suppressing or collection devices, where the equipment creates dust and is being operated within 300 metres of a sensitive receptor</li> </ul>
<b>Noise</b>	<p><b>Wayside Permits</b></p> <ul style="list-style-type: none"> <li>→ Noise will be mitigated at source with appropriate noise attenuation devices in addition to appropriate site design, if a sensitive receptor is within 150 metres</li> </ul> <p><b>Aggregate Permits</b></p> <ul style="list-style-type: none"> <li>→ Noise will be mitigated at source with appropriate noise attenuation devices in addition to appropriate site design when a sensitive receptor is within 2000 metres of the permitted boundary</li> </ul> <p><b>Category 5 through 8</b></p> <ul style="list-style-type: none"> <li>→ Noise will be mitigated at source with appropriate noise attenuation devices in addition to appropriate site design</li> </ul> <p><b>Quarries</b></p> <ul style="list-style-type: none"> <li>→ Blasting will not occur on a holiday or between the hours of 6 p.m. on any day and 8 a.m. on the following day</li> </ul>
<b>Water Quality</b>	<p><b>Aggregate Permits, Licences</b></p> <ul style="list-style-type: none"> <li>→ Fuel storage tanks will be installed and maintained in accordance with the Gasoline Handling Act</li> <li>→ A Spills Contingency Program will be developed prior to site preparation</li> </ul>
<b>Public Safety</b>	No conditions
<b>Soil Quality</b>	No conditions
<b>Visual Disturbance</b>	No conditions
<b>Land Surface</b>	No conditions

Source: OMNR (1997)

Proponents must comply with approved site plans, therefore compliance with mitigation commitments should be monitored by proponents annually when they

complete their Compliance Assessment Reports. The OMNR is supposed to be assessing compliance, including mitigation measures, during field inspections. But, the previously mentioned problems with enforcement, in general, mean that the legal provisions in ARA are likely ineffective in ensuring that proponents meet their mitigation commitments.

In summary, the ARA process partially meets this criterion. The ARA process requires the consideration of mitigation measures but there is little guidance to assist proponents through this step of the EA process. The ARA and Provincial Standards require specific mitigation measures which increases the efficiency of the mitigation stage, although there has been no auditing of the specified mitigation measures to determine whether the requirements are adequate. Also, mitigation measures must be determined for any significant impacts that are identified during scoping (i.e., during the preparation of technical reports).

### **2.13 Must consultation and participation take place prior to, and following EIA report publication?**

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| <ul style="list-style-type: none"><li>a) Must consultation and participation take place prior to scoping, during scoping, during EIA report preparation, during review and following revision, during decision making and during monitoring?</li><li>b) Must a public participation strategy be initiated for each EIA?</li><li>c) Are copies of EIA documents made public at each stage of the EIA process?</li><li>d) Can copies of EIA documents be accessed free of charge or purchased at a reasonable price?</li><li>e) Do confidentiality/secretcy restrictions inhibit consultation and participation?</li><li>f) Are consultation and participation methods appropriate to the stage of the EIA process at which they are employed?</li><li>g) Is funding of public participants provided for?</li><li>h) Are obligatory consultees specified at various stages in the EIA process?</li><li>i) Must adjoining authorities/states/countries be consulted?</li><li>j) Does published guidance on consultation and participation exist?</li><li>k) Must the results of consultation and participation be published?</li><li>l) Do rights of appeal exist at the various stages of the EIA process?</li><li>m) Does consultation and participation function efficiently and effectively?</li></ul> |
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Applicants are not required to make application documents public until the public review period (OMNR 2006g), which is the only prescribed opportunity for public

consultation (Table 2.9). Applicants are not required to prepare consultation plans but must meet the minimum requirements for “Notification and Consultation” (OMNR 1997). Although applicants may choose to go beyond the minimum requirements, there is no encouragement in the Provincial Standards to do so and no additional published guidance exists about public consultation.

Minimum requirements for public consultation differ by application type (Table 2.5). Licence applications require a public presentation about the proposed pit or quarry and a longer public review period than aggregate permit and wayside permit applications. For aggregate permits, the OMNR can require additional opportunities for consultation and participation if significant impacts are identified (OMNR 1997). It is unclear why the length of the public review period and method of communication with the public differs based on land ownership (i.e., Crown land or private land); but as mentioned previously, there are no permanent residents on public land so the social impacts may be less for these proposals. A number of ARA records are available to the public from the OMNR (Table 2.10).

**Table 2.9 Opportunities for public consultation prescribed in the Aggregate Resources Act**

EA Process Step	Public Consultation Prescribed in ARA	
	Yes?	No?
Alternatives	NA*	NA
Screening		✓
Scoping		✓
Report Preparation		✓
Public Review	✓	
Decision Making		✓
Monitoring		✓

\* NA means process step is not prescribed in the ARA.

The proponent must contact specified government departments/agencies, energy companies, aboriginal groups and other organizations during the public review period (Table 2.5). The specified consultees include departments/agencies of the provincial and municipal governments but not the federal government. The Department of Fisheries and Oceans is a surprising omission considering that sand and gravel deposits are usually associated with water, and aggregate operations use water during processing and may have detrimental effects on fish.

**Table 2.10 Aggregate Resources Act documents that are available to the public**

<b>Application Documents</b>		
<b>Record</b>	<b>Public?</b>	<b>Method to Access</b>
Application Forms for Licences, Aggregate Permits, Wayside Permits	Yes	<b>Prior to Approval</b> For licences- local OMNR office; free to view <b>After Approval</b> Request from OMNR; SEE ARA FOR LOCATIONS
Site Plans	Yes	Request from OMNR
Summary Statement and Technical Reports	Yes	Request from OMNR
Documents Requested by OMNR in Support of an Application	Yes	Request from OMNR
Letters of Objection to a Licence	Yes (unless authors ask that the letters be withheld)	Request from OMNR
Recommendations of OMNR and Other Ministries	Yes	Request from OMNR
Approvals and Conditions for Licences, Aggregate Permits, Wayside Permits	Yes	Request from OMNR
Refusals for Licences, Aggregate Permits, Wayside Permits		
<b>Monitoring Documents</b>		
<b>Record</b>	<b>Public?</b>	<b>Method to Access</b>
Notice of Inspection (Licence)	Yes	Request from OMNR
Annual Compliance Assessment Reports	Yes	Request from OMNR
Written Complaints or Records of Verbal Complaints from the Public	Partial (may be denied for certain legal reasons)	Request from OMNR
<b>Guidance Documents</b>		
<b>Record</b>	<b>Public?</b>	<b>Method to Access</b>
Aggregate Resources Act Policies and Procedures Manual	Yes	Request from OMNR

Source: OMNR (1997), OMNR (2006g A.R. 5.00.22)

The public review period is late in the process, after the applicant determines a preferred site plan and mitigation measures, and the OMNR determines the application is complete. Without earlier public involvement, the applicant may fail to identify all important historical, environmental, or cultural impacts that should be considered during the application process. The discovery of an important impact during the public review phase may also be costly for the applicant as additional testing may be required that may extend the time to complete the application process.

The public is also adversely affected by the lack of earlier opportunities for consultation. During the public review period, the public is put in a position where they must justify their concerns about what the applicant's preferred plan does not address. The public may be disadvantaged, as they may not have the time, money, or expertise necessary to collect evidence to support their arguments (Personal Communication-member of Gravel Watch).

At the end of the public review period, the applicant must notify the OMNR as to whether all concerns and objections were resolved. The proponent can use letters from the public stating that their objections are withdrawn to support the notice to the OMNR. For licence applications, if any objections remain at the end of the public review period, the proponent must give notice to objectors of a 20 day period in which they may submit to the OMNR and proponent recommendations that may resolve their objection. If the objector does not respond to the proponent's request for recommendations, their objection is deemed withdrawn. The second notification period to solicit recommendations to resolve remaining concerns is not required for aggregate and

wayside permit applications. This is yet another example of a difference between requirements for pits and quarries on public and private land.

The Provincial Standards do not include recommendations for resolving conflicts (e.g., mediation, facilitation). The public have few opportunities for appeals or hearings during the ARA process and these opportunities are mostly for licence proposals (Table 2.6).

In summary, the ARA process does not meet this criterion because the Provincial Standards prescribe only one opportunity for public involvement, late in the EA process, and do not encourage proponents to customize the consultation and participation strategy to best meet the needs of the community and review agencies.

#### **2.14 Must the EIA system be monitored and, if necessary, be amended to incorporate feedback from experience?**

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| <ul style="list-style-type: none"><li>a) Is there a legal provision for periodic review of the EIA system?</li><li>b) Have reviews of the EIA system been carried out and changes made?</li><li>c) Is consultation and participation required in EIA system review?</li><li>d) Is a record of EIA reports for various types of action kept and made public?</li><li>e) Are records of other EIA documents kept and made public?</li><li>f) Are EIA reports and other EIA documents publicly available at one or more locations?</li><li>g) Are records of financial costs of EIA kept and made public?</li><li>h) Is information on the time required for EIA collected and made public?</li><li>i) Are the lessons from specific EIAs fed back into the system?</li><li>j) Does published guidance on monitoring and amending the EA process exist (Lasswell 1971)?</li><li>k) Are appraisals reviewed by a third party (Lasswell 1971)?</li><li>l) Are complaints about the EIA system documented and used to inform appraisal and termination (Lasswell 1971)?</li><li>m) Does the EIA system ensure changes are made at optimal times (Lasswell 1971)?</li><li>n) Does the EIA system ensure changes are made in a manner that minimizes harm to all groups affected by the change (Lasswell 1971)?</li><li>o) Does the EIA system ensure changes result in the fair distribution of benefits and are losers compensated when there is a justified complaint about the distribution of benefits (Lasswell 1971)?</li><li>p) Is formal responsibility for success and failures of the EIA system attributed (Lasswell 1971)?</li><li>q) Are all components of the EIA system appraised (Lasswell 1971)?</li><li>r) Does the monitoring of the EIA system function efficiently and effectively?</li></ul> |
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There is no provision in ARA requiring the monitoring or evaluation of the application review and approval process, or the compliance monitoring program. Few studies of the ARA exist (Table 2.11). Apparently evaluations have been performed each time the Act has been amended (e.g., Govt. of ON 2006), but these reviews are not readily available to the public. Application documents, public complaints, and other documents are kept on record and made available to the public (Table 2.10). Although complaints about the ARA system are collected, there is no process to incorporate these complaints into improvements. The monitoring of the ARA process is ad hoc and does not ensure changes are made at optimal times, or in a manner that minimizes harm to all groups affected by any changes.

**Table 2.11 Evaluations of the Aggregate Resources Act organized by authors' affiliation**

<b>Community</b>
→ Baker, D., Poulin, R., and McLellen, A.G. 1996. An analysis of mineral aggregate resource policies in Ontario and British Columbia. Queen's University, Centre for Resource Studies, Kingston, Ontario.
→ Winfield, M.S. and Taylor, A. 2005. Rebalancing the load: The need for an aggregate conservation strategy for Ontario. Pembina Institute for Appropriate Development.
<b>Government</b>
→ OMNR. July 2006. Review of the Aggregate Resources Act with respect to "Rehabilitation of land from which aggregate has been excavated."
→ Environmental Commissioner of Ontario. 1994-1995 through 2005-2006. Annual Reports (various titles).
→ Ontario Mineral Aggregate Working Party. 1977. A policy for mineral aggregate resource management in Ontario.

The OMNR does not publish annual financial reports or report the time required to complete regulatory activities and there is no record of the amount of time it takes proponents to complete the ARA process. TOARC is required to publish annual financial reports but does not document the time it requires to complete tasks. Municipalities also have financial records that would record expenses of consultants hired to review applications and municipal council minutes would record the time the councils formally

spend on mineral aggregate resource issues (Personal Communication- employee of the Township of Puslinch). Every municipality has its own system for the public to access these records. The most recent government evaluations have been conducted according to provisions in the EBR. The Environmental Commissioner Of Ontario (ECO) evaluates annually the provincial government's compliance with the EBR. The purposes of the EBR are threefold (EBR s. 2(1)):

- To protect, conserve and, where reasonable, restore the integrity of the environment by the means provided in this Act;
- To provide sustainability of the environment by the means provided in this Act;
- To protect the right to a healthful environment by the means provided in this Act.

The ECO's criticisms of the ARA are summarized in the most recent annual report (ECO 2006, p.39):

The ECO has warned repeatedly in past annual reports that the existing regulatory and policy framework for pits and quarries do not adequately protect the environment. Key shortcomings include erratic compliance, poor enforcement, unacceptably low rates of rehabilitation of disturbed lands, and a policy vacuum on resource conservation. As well, in northern Ontario, the ARA does not apply to most pits and quarries on private lands, so these operations have fewer environmental rules.

Over the past ten years, the OMNR has consistently responded to the ECO's criticisms by claiming that improvements are ongoing. There was little evidence to support this claim until 2006, when the OMNR redrafted its policies and procedures manual (April 2006), amended the ARA to include an additional enforcement tool (inspector's order for compliance, June 2006), and amended regulations to designate more land under ARA (January 2007).

Any person can apply to the ECO for a review of the need for a new policy or legislation, or request the review of existing policy or legislation to protect the



environment (EBR s. 62). The EBR empowers the public to recommend policy evaluations and investigations for compliance but the ECO has consistently been disappointed with the response of Ministries, including the OMNR, to these requests: ministries do not respond to public requests within a reasonable time frame, and deny most requests for reviews based on poor arguments (ECO 2005, ECO 2006).

The OMNR completed (in July 2006) one review under EBR s. 62 related to mineral aggregate (OMNR 2006c) – the OMNR reviewed the provisions for rehabilitation in the ARA at the request of Gravel Watch, without involving Gravel Watch in the design of the evaluation framework (Personal Communication- member of Gravel Watch). This evaluation is available through the Gravel Watch website (OMNR 2006c), but not the OMNR’s own website.

The review took two and a half years to complete, and resulted in 25 recommendations. The majority of the recommendations relate to improving the accuracy of rehabilitation information, the sharing of information about rehabilitation and the requirements of ARA among TOARC, the OMNR, aggregate producers, and the public, and conducting more research about rehabilitation.<sup>16</sup> Six recommendations went into effect immediately. These six improvements did not result in legislative or policy changes, but simply instructed OMNR staff to pay greater attention to their obligations under ARA when reviewing applications and conducting compliance audits. One recommendation was supposed to result by December 2006 in the listing on the OMNR website of sites where rehabilitation orders have been issued. However, as of November

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<sup>16</sup> The TOARC administered program “Management of Abandoned Aggregate Properties” (MAAP) has funded research about rehabilitation since 1997.

2007, the list was not posted on the website. The final recommendation, to designate more land under ARA was accomplished and made effective January 1, 2007. This recommendation was promoted in earlier ECO evaluations (e.g., ECO 2005) so it is unlikely a direct result of the OMNR's evaluation.

In summary, the ARA process does not require ongoing monitoring. It also lacks amending procedures, the ability to identify and solve problems on an ongoing basis, and evidence of public accountability. The community has largely authored evaluations of the ARA process, and reviews completed by the OMNR are not consistently published. Thus the ARA process does not meet this criterion.

### **2.15 Are the discernible environmental benefits of the EIA system believed to outweigh its financial costs and time requirements?**

- |   |
|---|
| <ul style="list-style-type: none"><li>a) Does empirical evidence exist that the EIA process has significantly altered the outcome of decisions?</li><li>b) Do the participants in the EIA process believe that the environmental quality and acceptability of decisions are improved by it?</li><li>c) Do the participants in the EIA process believe that it has altered the behaviour of the proponents, consultants, consultees, the public and the decision making authorities?</li><li>d) Do the financial costs of the EIA process to proponents, consultees, the public and the decision making authorities exceed those which would have been incurred in any event?</li><li>e) Do the times required to complete the various stages of the EIA process exceed those specified?</li><li>f) Do the participants in the EIA process believe there are enough resources to effectively implement the EIA process (Lasswell 1971)?</li><li>g) Is the time to complete the EIA process acceptable to the stakeholder groups (Lasswell 1971)?</li></ul> |
|---|

There are no comprehensive and systematic evaluations of the ARA process to draw from when assessing benefits and costs. Cost information may be extracted from municipal, provincial, and TOARC financial records, but this has not been done, perhaps because it would be challenging to separate ARA process costs from costs of associated activities (Wood 2003).

Winfield and Taylor (2005) concluded that the current legislation and policies for managing aggregate resources in Ontario do not employ a sustainable approach, and do not promote conservation of mineral aggregate resources, or the use of alternative materials. The Aggregate Round Table, held by the ECO in 2006, and attended by a wide range of stakeholders, also agreed that there are some problems with the existing system (Table 2.2). That said, no author has suggested that the ARA should be terminated and therefore the statute must be resulting in perceived benefits.

Stakeholders agree that the notification and consultation requirements should improve working relationships, if the proponent conducts these processes well (Personal Communication- member of Gravel Watch, employee of TOARC, and employee of the Township of Puslinch). But, if the proponent is not respectful of the public's concerns and does not provide meaningful opportunities for public involvement, the ARA process can become a "vehicle for discontent" (Personal Communication- member of Gravel Watch).

I found that there are mixed opinions on whether the application process itself improves working relationships, and improvement likely varies depending on the proponent and their consultant's approach to the public and the ARA process. There is a sense that the aggregate industry's behaviour toward the public and municipal governments has improved over the past 20 years (Personal Communication- employee of the Township of Puslinch).

The willingness of the public to accept a pit or quarry in their neighbourhood is also a factor affecting working relationships, and is often a problem when proposing a new pit or quarry (Personal Communication- employee of TOARC). It is unclear whether

this problem is resolving itself as more people have been settling in areas of historic aggregate production in southern Ontario at the same time as greater restrictions are being placed on lands that may be used for mineral aggregate development. In any event, stakeholders generally agree that, “Aggregate extraction in Southern Ontario is an increasing source of conflict” (Lura Consulting 2006).

The lack of opportunities for the public to learn about mineral aggregate resource extraction, the ARA process and their opportunities to participate in the process, is another barrier to improving working relationships and increasing trust among the public and aggregate producers (Personal Communication- member of Gravel Watch).

The OMNR’s continued inability to meet their monitoring and enforcement commitments is inhibiting the success of the ARA process, and does not inspire trust or credibility of the regulator among all stakeholders (Personal Communication- member of Gravel Watch and employee of the Township of Puslinch). The ECO has drawn attention to the fact that the OMNR has insufficient funding to properly regulate the mineral aggregate resource industry. The transfer of some of the OMNR’s duties to TOARC in 1997 did not remedy this situation, and it will be intriguing to see if the recent increases (January 2007) in aggregate resource fees will raise sufficient funds for the OMNR.

It seems that the Provincial Policy Statement (PPS), enabled by the *Planning Act*, is having a strong impact on the decisions resulting from the ARA. Some authors point to the province’s mineral aggregate policy, that as much aggregate as possible should be made available as close to market as possible to keep the cost of aggregate low, as a main cause of the shortcomings of ARA (e.g., Winfield and Taylor 2005).

One interviewee expressed the problem this way (Personal Communication- member of Gravel Watch):

The Provincial Policy Statement tries to frame the whole situation and to a certain extent it's the 'lets exploit it now' philosophy of the world. It's the, with regards to what they said, this is the anti-sustainability statement. This says lets go get it guys 'cause its there, and lets get it quick, and lets get it cheap! Let's encourage its use!' So that's one of the concerns of environmental impact. That's one of the things that's happening, and it stands in stark disagreement with things like, well we better watch about the endangered species and provincially significant wetlands, and things like that. The philosophy seems to be dramatically opposed to other philosophies that have to be considered in the process.

The fact that about 60% of all aggregate is utilized in the construction and maintenance of public infrastructure, means that the provincial government also has an economic incentive to approve the extraction of as much aggregate as close as possible to markets to keep costs low. This economic driver and the PPS likely means that the decisions resulting from ARA are not intended to limit the extraction of non-renewable aggregate supplies, but ARA and the PPS may be decreasing the environmental and social impacts of the pits and quarries by requiring the assessment of impacts and mitigation. The ARA process may resemble EA, but it certainly is not designed to alter the outcomes of decisions to achieve sustainability better, as a well-designed EA process should.

The aggregate industry and the aggregate are a foundational resource in modern society. They build roads. They build the houses...as such, by building better roads and houses, they encourage cars and pollution, which is one of our main concerns right now. They encourage covering farmland and the forests with parking lots. All of these things, if we were more serious about sustainable resources and sustainability, this wouldn't happen the same way (Personal communication- member of Gravel Watch)

The ARA and PPS also do not encourage the investigation by private industry of the validity of alternative materials, or even different sites for developing mineral aggregate (e.g., would it be better to build a super quarry in a carefully chosen location in northern Ontario and ship the aggregate by rail to market, rather than continuing to extract mineral aggregate in the Greenbelt area?). The lack of innovation in Ontario since the ARA came into force, first noticed by Baker et al (1996), still exists and it is likely restricting the province's ability to sustainably manage aggregate resources.

The only deadlines prescribed in the ARA and Provincial Standards relate to notification and consultation, meaning that the ARA may not be facilitating the quick assessment of applications. "The approval process can take up to 10 years and costs several million dollars. This is a barrier for small companies and discourages investment from medium to large companies" (Clayton Research and MHBC 2004). These authors do not point to the ARA process as the main cause of lengthy approval times, but state that planning policies, including the *Niagara Escarpment Plan*, *Oak Ridges Conservation Plan*, and local planning initiatives, are the primary cause of the high time and money costs (i.e., these plans have greatly restricted the number of potential locations for aggregate extraction).

In summary, no previous evaluation has called for the termination of the ARA process (but these reports call for improvements) and stakeholders have noted that the relationships among the mineral aggregate industry and the public have been improving over the past couple of decades (although no interviewees could attribute this improvement directly to the process). Despite these strengths, the ARA process only partially meets this criterion because the OMNR may lack the necessary resources to

enforce compliance, and there are insufficient provisions, guidance, and funding to ensure that the public can effectively participate in the EA process.

## **2.16 Does the EIA system apply to significant programmes, plans and policies, as well as to projects?**

The criterion is not met. The ARA applies only to individual pits and quarries. There is no provision for the EA of plans, policies or programs for managing mineral aggregate resources in Ontario.

## **2.17 Summary**

Overall, the ARA process is moderately effective (Table 2.12). The following are the key strengths and weaknesses of the ARA process:

### **Strengths**

- Based on clear and specific legal provisions
- Applies to nearly all areas of significant mineral aggregate resources in Ontario

### **Weaknesses**

- Alternatives are not considered
- Environmental impacts are not properly scoped
- Public are inadequately involved

**Table 2.12 Summary of evaluation results for the Aggregate Resources Act process**

Evaluation Criteria	ARA
1. Is the EIA system based on clear and specific legal provisions?	●
2. Must the relevant environmental impacts of all significant actions be assessed?	●
3. Must evidence of the consideration, by the proponent, of the environmental impacts of reasonable alternative actions be demonstrated in the EIA process?	○
4. Must screening of actions for environmental significance take place?	●
5. Must scoping of the environmental impacts of actions take place and specific guidelines be produced?	○
6. Must EIA reports meet prescribed content requirements and do checks to prevent the release of inadequate EIA reports exist?	◐
7. Must EIA reports be publicly reviewed and the proponent respond to the points raised?	◐
8. Must the findings of the EIA report and the review be a central determinant of the decision on the action?	◐
9. Must monitoring of action impacts be undertaken and is it linked to the earlier stages of the EIA process?	◐
10. Must the mitigation of action impacts be considered at the various stages of the EIA process?	◐
11. Must consultation and participation take place prior to, and following EIA report publication?	○
12. Must the EIA system be monitored and, if necessary, be amended to incorporate feedback from experience?	○
13. Are the discernible environmental benefits of the EIA system believed to outweigh its financial costs and time requirements?	◐
14. Does the EIA system apply to significant programmes, plans and policies, as well as to projects?	○

○ criterion is not met; ◐ criterion is partially met; ● criterion is fully met



### **3. CLASS EA FOR PROVINCIAL TRANSPORTATION FACILITIES**

This chapter presents the results of my evaluation of the Class EA for Provincial Transportation Facilities (MTO Class EA) process. I begin by describing generally the entire MTO Class EA process and the results of evaluations completed by other authors. Next, I assess each of the 14 primary evaluation criteria in 14 sub-sections. These 14 sub-sections elaborate on each component of the process that I described only generally in the first sub-section. I close the chapter with a summary of the evaluation results for the MTO Class EA process.

#### **3.1 Overview**

Undertakings for provincial transportation facilities in Ontario undergo EA as described in the *Class Environmental Assessment for Provincial Transportation Facilities* (MTO Class EA). Provincial transportation facilities include provincial highways and freeways, transitways, and ferry boats. Transportation plans, policies and programs do not undergo EA. The first MTO Class EA was published in 1979, even though the EA Act did not formally authorize Class EAs until the statute was amended in 1996. The current MTO Class EA, approved in 1999, is a revision of the 1992 document. The MTO Class EA process is a self-assessment process; the MTO Class EA outlines what the specified proponents must do to avoid the need to prepare formal Individual EAs for approval under the EA Act.

The purpose of the EA Act is to enable, "...the betterment of the people of ... Ontario by providing for the protection, conservation and wise management ... of the

environment” (EA Act s. 2). Consistent with the EA Act, the goal of all of the projects and activities that proceed according to the MTO Class EA is, “to provide a safe and effective transportation system while avoiding or minimizing negative environmental effects” (MTO 2000). It is reasonable to suggest that if the MTO Class EA meets the requirements of the EA Act then the MTO Class EA will further the EA Act’s purpose. The MTO Class EA describes how it meets the requirements of the EA Act, although my evaluation shows that there are deficiencies in the MTO process, meaning some requirements are inadequately met.

In contrast to the ARA process, the MTO Class EA is principle based – it describes the outcomes the EA process should achieve without prescribing in detail how the outcomes should be accomplished. The following types of principles guide the EA process (MTO 2000):

- Transportation engineering
- Environmental protection
- External consultation
- Evaluation principles that are intended to achieve the best overall balance of these principles
- Documentation
- Bump-up
- Environmental clearance principles to proceed

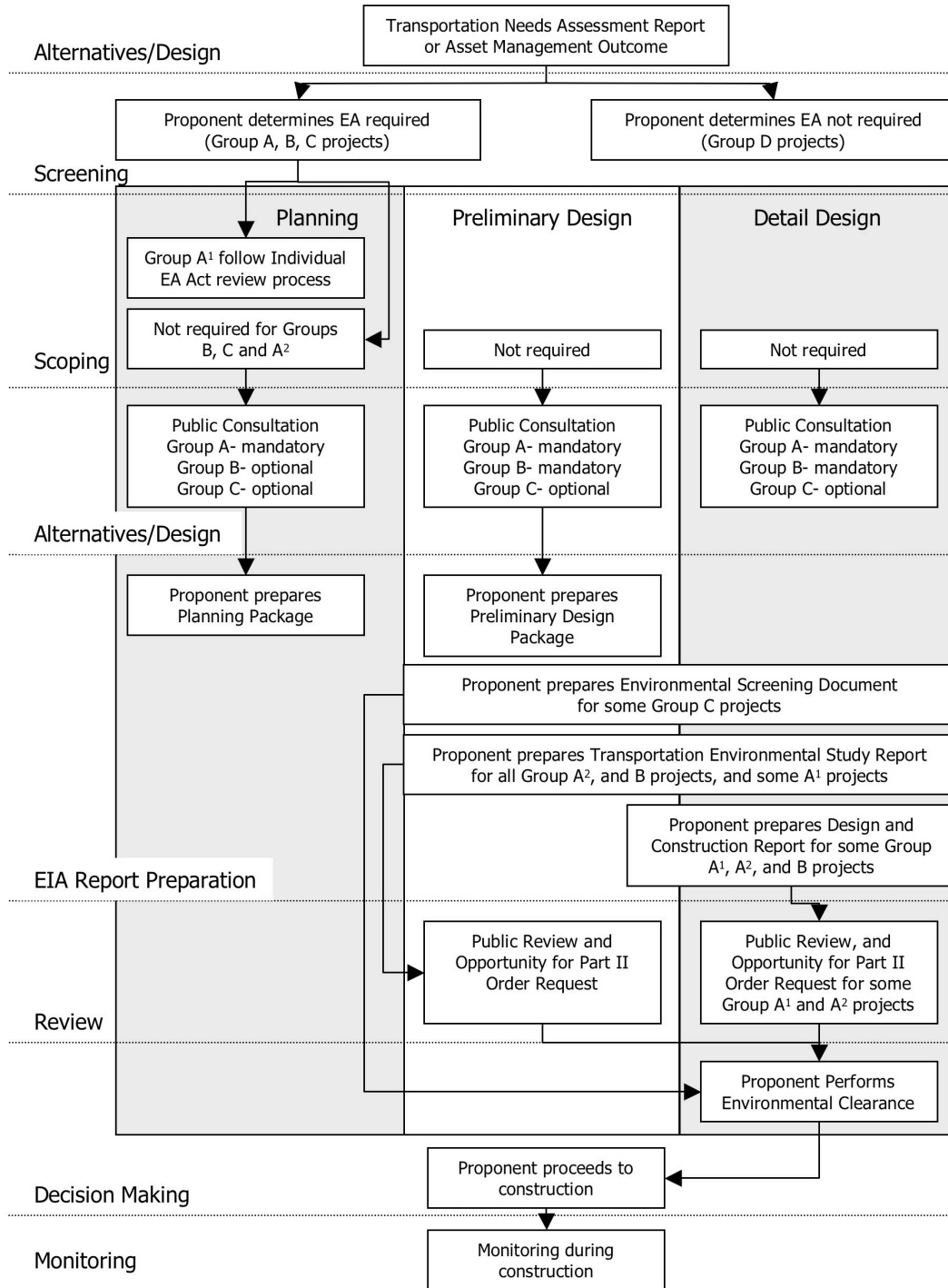
Specific principles will be discussed when they are relevant to the evaluation.

The MTO Class EA recommends a staged process for all undertakings. The four stages are consistent with the generic phases of project development: 1) planning, 2) preliminary design, 3) detailed design, and 4) construction. Generally, the first three stages involve three activities: 1) generating and assessing alternatives, 2) evaluating and selecting a preferred alternative, and 3) developing the preferred alternative.

The MTO Class EA divides projects into five categories, and each category has its own EA requirements: 1) Group A – new facilities excluding new freeways, 2) Group A – new freeways, 3) Group B – major improvements to existing facilities, 4) Group C – minor improvements to existing facilities, and 5) Group D – activities of an operational, maintenance, or administrative nature. The rigor of the EA process increases with the complexity of the undertaking (i.e., the EA process is most rigorous for Group A and least rigorous for Group D). For some transportation facility projects, mineral aggregate extraction is considered a Group B project, whereas for other transportation facility projects, mineral aggregate extraction is considered a Group D project (see section 3.4).

The principle-based nature of the MTO Class EA makes it challenging to describe the EA process because proponents have a lot of flexibility when designing EAs, and the EA process is “intertwined with the engineering process” (Figure 3.1). In general, projects arise from two “internal” MTO processes: 1) Transportation Needs Assessment and 2) Asset Management (Personal Communication- the MTO). These processes are themselves considered to be research and therefore do not need to meet EA requirements (MTO 2000); little information about the “internal” MTO processes is readily available to the public, although some outputs are published (e.g., *Transportation Tomorrow Survey* MTO 2007b). Once a project is identified, the proponent determines the category to which the project belongs. Planning for new freeways may require a more rigorous Individual EA Act Review (this process is described in section 5). Group D activities, including facility operation, routine maintenance, and administration, are exempt from EA.

**Figure 3.1 MTO Class EA process**



Group A<sup>1</sup> – New freeways only; Group A<sup>2</sup> – Group A projects excluding new freeways  
 See text for detailed explanation.

“Alternative approaches” to conducting the project are assessed during the EA process, but “alternatives to” the project are not.

Scoping is not discussed as a particular step in the MTO Class EA but likely occurs in practice. The MTO Class EA offers some guidance for proponents when gathering information about the environment that may be affected by a project, and predicting impacts.

There are a number of documents that may be prepared as part of the MTO Class EA process: information packages at the conclusions of the Planning phase and the Preliminary Design phase, Environmental Screening Documents, Transportation Environmental Study Reports (TESRs), and Design and Construction Reports (DCRs). The proponent has much flexibility as to when during the EA process these documents should be prepared, and the rules as to which projects require these documents are complex. The public is invited to review and comment on all TESRs and DCRs. If the public is not satisfied with the EA process, during the public review period they may request a Part II Order (also called a bump up) that, if approved by the Ministry of the Environment, would bump the project up to a more formal Individual EA Act review (see section 5). The rules defining the TESRs and DCRs for which the public may request a Part II Order are complex (see Chapter 6 in MTO 2000) and it is unnecessary to describe these intricacies for this evaluation.

The proponent makes the decision to proceed with a project prior to beginning the EA process. The EA process is a self-assessment, and the proponent has much power in its design, meaning the proponent’s interest in proceeding with the project will likely dominate during the EA. Conditions of approval cannot be imposed at the decision stage

and there are no specific options to appeal the decisions made during the MTO Class EA process, except the screening decision, which is the subject of a Part II Order request (i.e., the project is screened out of the MTO Class EA process and into the more rigorous Individual EA Act review process).

The MTO Class EA requires that the proponent consider the mitigation of impacts during the EA process. The proponent is supposed to monitor compliance during the construction stage, and the MTO monitors mitigation measures on an ongoing basis (although the results of this monitoring are not readily available to the public) (MTO 2000). The proponent is not required to monitor the impacts of the project after construction, unless they agreed to do so during the MTO Class EA process. The ECO has expressed concern that mitigation and monitoring for some projects have not been effective (ECO 2005).

The consultation principles focus the proponent's attention on involving the parties that are most affected by the undertaking, rather than all interested parties. This constraint may inhibit the proponent's full understanding of the values, expectations, knowledge, and information concerning an undertaking. The MTO Class EA describes the information that the proponent may collect from other parties but there is little description of how parties should interact with each other. The MTO Class EA also provides little guidance to other parties so that they may contribute effectively to the EA process.

The MTO is required by Conditions of Approval to monitor the overall MTO Class EA process. The monitoring reports are not available electronically, and the

Monitoring Program, approved by the OMOE-EAAB in 2000 (and amended in 2003), does not appear to meet all the requirements of the Conditions of Approval.

### **3.2 Previous Evaluations of the MTO Class EA Process**

I could find no independent comprehensive studies of the current MTO Class EA process. No potential key informants agreed to an interview with me, therefore I could not verify if any evaluations exist in the gray literature. The MTO studied the precursor to the current version of the MTO Class EA. This study involved a diverse stakeholder group and resulted in recommendations for improvement (MTO 2000).

The ECO has been critical of the quality of the MTO Class EA process, and its ability to protect the environment. The ECO's concerns are summarized below (ECO 2005):

#### **Process Documents and Guidance**

- The guidance document *Environmental Protection Requirements for Transportation Planning and Highway Design, Construction, Operation and Maintenance* contradicts the MTO Class EA document. The guide suggests that MTO "...considers the environmental assessment approval process to have primacy over virtually all other environmental legislation and policy," whereas the MTO Class EA document states clearly that it does not supersede any other legislated requirements (p. 111).
- The Class EA document is long, and uses language and a format that "...can be quite confusing and overwhelming for the general public" (p. 113).

#### **Environmental Protection**

- "The 10 'environmental protection principles' are, in fact, mainly a mixture of process steps and qualifying advice offering MTO planners a great deal of discretion on how to 'balance' environmental protection against engineering issues. Moreover, the principles convey a very strong sense that in any given case, the transportation project deserves first consideration over other factors such as the environment" (p. 114).
- The current transportation planning approach appears to promote construction on natural heritage lands because there are inadequate policies to protect these lands.
- The MTO Class EA process "...is strongly biased toward roads and highways, and gives short shrift to other options such as rail, transit or demand management (strategies for more efficient use of transportation resources)" (p. 113).

### **Public Consultation**

- There is no guide to assist the public in understanding the MTO Class EA process and their opportunities to participate in the process.
- When requesting information about the MTO Class EA process from the OMOE, the public is referred back to MTO.
- “Under the Class EA process, there is no mechanism for formal hearings that might allow individuals or groups to challenge the proponent’s information or project directions” (p. 113).
- The “...Minister of the Environment has not granted any such bump-up request in the last five years, even though members of the public have requested bump-ups on about 25 per cent of eligible projects” (p. 114).

### **EA System Monitoring**

- “MTO’s Class EA has no expiry date, so there is no trigger for the Ministry of the Environment (or any other regulatory agency) to undertake a formal periodic review of how well the environment is being protected under this process” (p. 116).
- “Annual reports show that regulatory agencies do have substantive concerns. OMNR and MOE staff have similarly described their frustrated efforts to have adequate weight assigned to environmental considerations and have noted weaknesses in public consultation” (p. 115).
- “Conservation Ontario (representing Conservation Authorities) raised similar concerns about the timing and value of public comment opportunities” (p. 115).
- “It is unclear how or even whether MTO or MOE are following up on these clearly stated concerns of experienced field staff, voiced repeatedly in three successive monitoring reports” (p. 115).

## **3.3 Is the EIA system based on clear and specific legal provisions?**

- a) Is each step in the EIA process clearly specified in law or a regulation?
- b) Are the legal provisions sufficiently unambiguous in application?
- c) Is there a degree of discretion in the provisions which is acceptable to the participants in the EIA process?
- d) Are the EIA requirements clearly differentiated from other legal provisions?
- e) Is each step in the EIA process enforceable through the courts or by other means?
- f) Are time limits for the various steps in the EIA process specified?
- g) Does a clear outline of procedures and time limits exist for the EIA system as a whole?
- h) Are opportunities for learning about the EIA process available to participants (Lasswell 1971)?

Proponents for projects defined in the MTO Class EA must abide the requirements in the MTO Class EA, or may opt to conduct a formal Individual EA Act review, unless an exemption is made by regulation (EA Act s. 13(3)). It is possible that the CEAA might also be triggered by projects that fall under the MTO Class EA. The federal and Ontario government have an agreement for harmonizing EA requirements,



but proponents, in general, have found that the guidance provided by this agreement is insufficient (EAAP 2005).

In my opinion, the MTO Class EA process is not clearly described. The MTO Class EA is supposed to be for the use of regulatory agencies, the public and other affected interests, as well as the proponent, but I agree with the ECO that it is long, and uses language and a format that "...can be quite confusing and overwhelming for the general public" (ECO 2005, p. 113). There are no guides accompanying the MTO Class EA and no references are made to EA guides published by independent parties that could help the proponent, public, and review agencies to participate more effectively in the EA process.

Comparing the diagram of the MTO Class EA process to the three other processes under evaluation (Figure 2.2, Figure 3.1, Figure 4.1, Figure 5.1) reveals the relatively high complexity of the MTO Class EA process and discretion of the proponent. The MTO Class EA is principle based and non-prescriptive, thus it is flexible and adaptable to diverse undertakings and environmental conditions, and could potentially inspire creative EA processes and solutions to environmental problems. That said, the MTO Class EA provides the proponent with so much discretion that the public and review agencies have few assurances as to what the process will be like, and there has been insufficient follow up to assess whether proponents are actually meeting the EA principles (evidence is provided below).

EA procedures are laid out in diagram format and generally described in the MTO Class EA, but some details are missing. For example, the MTO Class EA states that EA reports are "submitted" but it does not say to whom (in practice, the documents are not

“submitted” outside the MTO because the MTO is the proponent and custodian of all documentation (Personal Communication- the MTO). It is also unclear who inspects construction activities and whether information packages that are prepared at the end of the Planning and Preliminary Development stages are published for review by the public. Vague language is also a problem. For example, “All relevant factors, including transportation engineering and environmental protection, will be given *due consideration.*” Vague language such as “due consideration” and “balance transportation engineering principles with environmental protection principles” provides much freedom for readers to interpret the evaluation principles and process, potentially resulting in understandings that are different than the MTO intended.

There are also few time limits in the MTO Class EA; the only time limits are for non-proponents during the public review period. That said, the timeliness of the MTO Class EA process does not seem to be a problem (see section 3.15).

The MTO Class EA is enforceable through the EA Act (EA Act s. 38):

Every person, whether as principal or agent, or an employee of either of them, who contravenes any provision of this Act or the regulations or fails to comply with an order or a term or condition of an approval issued or given under this Act is guilty of an offence and on conviction is liable on a first conviction to a fine of not more than \$10,000 and on a subsequent conviction to a fine of not more than \$25,000 for every day or part thereof upon which the offence occurs or continues.

The MTO Class EA monitoring program does not require the MTO to document enforcement actions in annual monitoring reports, even though enforcement actions could potentially measure compliance (MTO 2003). The ECO has expressed concern that there may be insufficient follow up on MTO Class EAs when deficiencies have been identified

through the MTO Class EA monitoring program (ECO 2005). Thus, the provisions in the EA Act may be ineffective to enforce the MTO Class EA requirements.

In summary, the MTO process is specified in law but the requirements of the MTO Class EA process lack clarity and transparency, give the proponent too much discretion in how it complies with the rules, and is poorly monitored and enforced. The MTO Class EA process does not meet the criterion.

### **3.4 Must the relevant environmental impacts of all significant actions be assessed?**

- |  |
|--|
| a) Does the EIA system apply to all public and private environmentally significant projects? |
| b) Are the provisions applied in practice to all the actions covered in principle?           |
| c) Are all significant environmental impacts covered by the EIA system?                      |

The MTO Class EA applies to the building, servicing, maintenance and operation of provincial transportation facility projects (MTO 2000). These projects include provincial highways and freeways, provincial transitways, and provincial ferryboats. In certain circumstances the action of extracting mineral aggregate for use in provincial transportation facility projects is considered a project under the MTO Class EA. Mineral aggregate extraction is a Group B project if the proponent specifies the aggregate pits or quarries that the contractor must use. But if the proponent does not indicate the pits or quarries that the contractor must get aggregate from, mineral aggregate extraction is considered a Group D project, and is therefore exempt from the MTO Class EA process. The rationale for this distinction is not explained and it seems unreasonable.

The proponents subject to the MTO Class EA include the MTO and private or municipal entities in certain circumstances: "...other proponents (in their own right, and under their own responsibility) of work on the Provincial Transportation system for

which there is no current MTO need and/or construction commitment, and where that work is defined under the terms of this Class EA (e.g. new freeway interchange needed by a municipality or developer for access to a new development)” (MTO 2000).

The MTO Class EA refers to the comprehensive definition of the environment in the EA Act, which includes environmental, social and cultural elements (EA Act s. 1(1)):

“environment” means,

- (a) air, land or water,
- (b) plant and animal life, including human life,
- (c) the social, economic and cultural conditions that influence the life of humans or a community,
- (d) any building, structure, machine or other device or thing made by humans,
- (e) any solid, liquid, gas, odour, heat, sound, vibration or radiation resulting directly or indirectly from human activities, or
- (f) any part or combination of the foregoing and the interrelationships between any two or more of them, in or of Ontario

The MTO Class EA does not prescribe the specific environmental impacts that must be considered during the EA process. Instead, it provides that the impacts considered should be specific to the project type, size and complexity, and the existing conditions of the environment (MTO 2000). Examples of environmental factors (natural, social, and cultural) that may be affected by projects are listed to guide proponents when determining environmental impacts (Table 3.1). The MTO Class EA categorizes impacts into five groups, and notes that impacts may be a combination from multiple groups and either positive or negative (Table 3.2). Cumulative impacts are not discussed in the MTO Class EA.

**Table 3.1 Examples of environmental factors that may be addressed during the MTO Class EA process**

Natural Environment	Social Environment	Cultural Environment
<ul style="list-style-type: none"> <li>→ Wildlife</li> <li>→ Soils</li> <li>→ Ecosystem</li> <li>→ Vegetation</li> <li>→ Open space linkages</li> <li>→ Fisheries and aquatic habitat</li> <li>→ Ground water, surface water</li> <li>→ Air quality</li> </ul>	<ul style="list-style-type: none"> <li>→ Community and recreation</li> <li>→ Aesthetics</li> <li>→ Highway and construction noise</li> </ul>	<ul style="list-style-type: none"> <li>→ Archaeology</li> <li>→ Heritage</li> </ul>

Source: MTO (2000)

**Table 3.2 Categories of potential environmental impacts listed in the MTO Class EA document**

Category of Impacts	What is affected?	What causes the impact?
<b>Footprint</b>	Landscape and its features	Physical intrusion of the proposed project
<b>Interference</b>	Fish, wildlife, and pedestrian pathways, water flow, light transmission, etc.	Obstruction by the proposed project
<b>Traffic Access Modification</b>	Access to property, neighbourhoods, commercial areas	Closure of vehicular traffic to/from an area
<b>Emissions</b>	Air, water, soil, and use of these resources	Release/escape of noise, dust, sediment, chemicals, odours, light, etc. from proposed project
<b>Timing</b>	All the above	Timing of action(s) causing the impact(s) differentially affects the environment based on season, week, hour, duration of action(s)
<b>Combinations of Above</b>	All or portion of the above	Multiple causes listed above

Source: MTO (2000)

In summary, the MTO Class EA process meets this criterion. The process uses a broad definition of the environment that covers environmental, social, and cultural elements but does not require assessment of cumulative impacts. Together, the MTO Class EA, MEA Class EA, and Individual EA Act review processes apply to public infrastructure projects that consume approximately 60% of all mineral aggregate resources in Ontario.

### **3.5 Must evidence of the consideration, by the proponent, of the environmental impacts of reasonable alternative actions be demonstrated in the EIA process?**

- a) Must clear evidence of the consideration of the environmental impacts of alternatives be apparent in preliminary EIA documentation?
- b) Must the realistic consideration of the impacts of reasonable alternatives, including the no-action alternative, be evident in the EIA report?
- c) Does published guidance on the treatment of the impacts of reasonable alternatives exist?
- d) Does the treatment of alternatives take place effectively and efficiently?

“Alternatives to” the project are considered during the “Transportation Needs Assessment” stage (TNA), and in the Study Design Report (SDR). The TNA is not part of the MTO Class EA process, but if the proposed project results from a TNA, the TNA will be reviewed early in the EA process to determine its relevance and acceptability. The following “alternatives to” are suggested as options to consider during a TNA: do nothing; new and/or improved provincial transportation facility; new and/or improved air, rail, transit, and water based alternatives; new and/or improved municipal and private road alternatives; or transportation demand management options. The MTO Class EA biases the discussion of “alternatives to” towards more traditional engineering alternatives, like constructing new roads, by disfavouring demand management alternatives, “Since this is a much broader public policy issue, it is typically not a reasonable project-specific ‘alternative to’ for addressing transportation problems/opportunities” (MTO 2000).

The SDR is mandatory for Group A projects (other than new freeways), and optional for Group B projects. This report is prepared by the proponent early in the Planning Stage in consultation with government agencies and potentially affected parties. The SDR is to document need and justification for the project, the study area, alternatives to the undertaking, and the commitments the proponent will meet up to the submission of

the TESR (e.g., consultation methods, documentation). The SDR is only mentioned in the “Documentation...” chapter of the MTO Class EA and is afforded a meagre half a page of text. How the proponent and other parties should determine need and justification, the study area, and alternatives to the undertaking are not discussed in the MTO Class EA.

“Alternative methods” for designing and constructing projects are generated and assessed during the Planning, Preliminary Design, Detail Design, and Construction stages. Principles for generating alternatives are specified in the MTO Class EA for all but the Construction Stage (Table 3.3); constructability (i.e., “the ease and practicality of implementing the project”) is the key consideration during construction (MTO 2000).

**Table 3.3 Principles for generating alternatives during the MTO Class EA process**

<b>Planning Stage</b>
→ to capitalize on significant transportation engineering opportunities while protecting significant environmental features as much as possible.
<b>Preliminary Design Alternatives</b>
→ to capitalize on significant transportation engineering opportunities, and avoid significant transportation engineering and environmental constraints (as is the case with Planning)
→ to minimize the design-related impacts caused where significant transportation engineering and environmental constraints cannot be avoided.
<b>Detail Design Alternatives</b>
→ to capitalize on significant transportation engineering opportunities and avoid significant transportation engineering and environmental constraints (this typically would be largely accomplished during the Planning and Preliminary Design stages)
→ to minimize the design-related impacts caused where significant transportation engineering and environmental constraints cannot be avoided (as is the case with Preliminary Design)
→ to minimize anticipated construction-related impacts caused where significant transportation engineering and environmental constraints cannot be avoided.

Source: MTO (2000)

A preferred alternative is selected and developed in greater detail during each stage in accordance with the following evaluation principles (MTO 2000):

- The evaluation process must be traceable, replicable, and must be understandable by those who may be affected by the decisions.
- All relevant factors, including transportation engineering and environmental protection, will be given due consideration.

- The evaluation may be subjective (based on reasoned argument) or objective (using quantifiable data).
- For Group A projects, the proposed evaluation process in planning will be established through consultation with external stakeholders
- Factors may be refined from one stage of a project to the next.

The MTO Class EA provides examples of evaluation processes that proponents may use for assessing “alternative methods” for typical Group A, B, and C projects, and requires that proponents follow these steps when selecting the preferred alternative method:

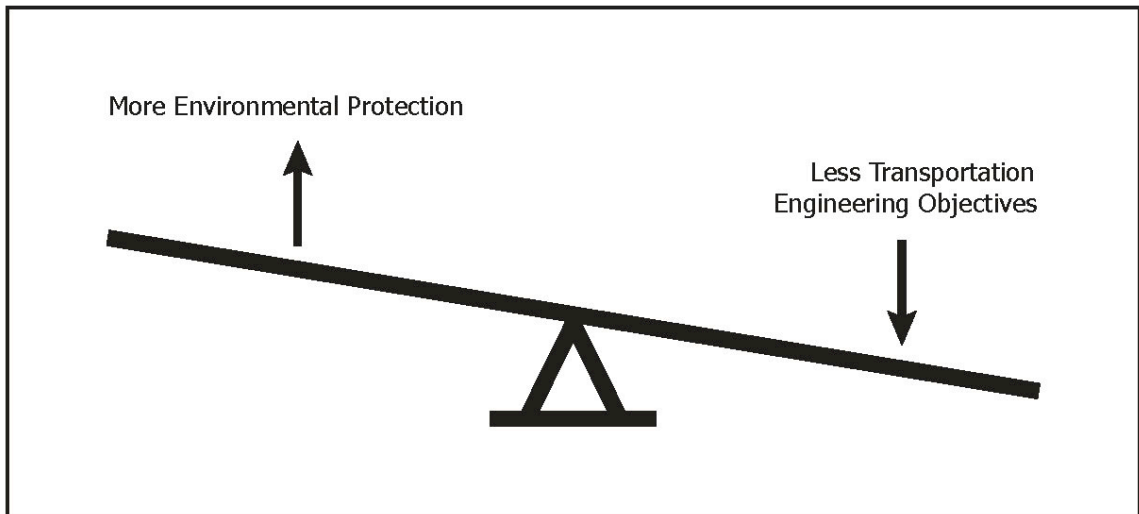
1. Alternatives that have significant detrimental environmental effects but no significant transportation engineering advantages will be screened out first.
2. The remaining alternatives will be assessed to determine their ability to address the study transportation objectives and to identify their environmental impacts after reasonable mitigating measures are applied.
3. The net environmental effects (i.e. after applying the conceptual mitigation measures for significant effects) will be used as a basis to compare alternatives.

The best alternative method achieves the “...best overall balance of transportation engineering objectives, individual environmental factor impacts, and overall environmental impact, including input that has been received through consultation on those issues” (MTO 2000).

This balancing approach combined with the use of the phrase “transportation engineering objectives” is a concern. The use of the phrase “transportation engineering objectives” provides further evidence that the MTO is biased towards traditional “engineering” solutions rather than innovative transportation demand management solutions. The MTO makes an unsubstantiated assumption that there is a direct trade-off relationship between environmental protection and achieving transportation objectives (i.e., to protect the environment, we must forego achieving some transportation objectives) (Figure 3.2).



**Figure 3.2 MTO's balance of transportation engineering objectives and environmental protection**



The generation and assessment of alternative methods are documented inconsistently throughout the EA process. The earliest documentation is called the “Planning Package.” The Planning Package describes the preferred alternative, major transportation engineering and environmental protection concepts, how the preferred alternative has achieved engineering and environmental protection objectives, and includes recommendations for the Preliminary Design Stage; the Planning Package does not describe the range of alternatives that were evaluated (MTO 2000). In contrast, Transportation Environmental Study Reports (TESRs) and Design and Construction Reports (DCRs) must include the transportation engineering and environmental protection alternatives developed and evaluated during the EA process (MTO 2000).

A “Transportation Engineering Principle” is to minimize environmental impacts and the use of non-renewable natural resources such as mineral aggregate. A good EA would assess alternatives based on their ability to achieve this principle. But it is unlikely that this principle is being achieved because the MTO biases proponents towards

traditional engineering solutions, and does not provide guidance about either substitutes for mineral aggregate, or conservation technologies (e.g., aggregate reclaimers, reduced gravel pavements).

In summary, the MTO Class EA process requires the consideration of alternative methods of designing actions. However, it does not require consideration of the “no action” alternative and there is little guidance about how to evaluate alternatives. Moreover, the MTO Class EA is clearly biased against demand management alternatives and towards traditional engineering solutions. The process partially meets this criterion.

### **3.6 Must screening of actions for environmental significance take place?**

- |   |
|---|
| <ul style="list-style-type: none"><li>a) Is there a legal test of whether the action is likely to affect the environment significantly?</li><li>b) Is there a clear specification of the type of action to be subject to EIA?</li><li>c) Do clear criteria/thresholds exist (e.g., size, location)?</li><li>d) Do different types of EIA exist for different types of action?</li><li>e) Must documentation be submitted by the proponent to assist in screening?</li><li>f) Does published guidance about actions, criteria, thresholds and screening procedures exist?</li><li>g) Is the screening decision made by a publicly accountable body?</li><li>h) Does consultation and participation take place during screening?</li><li>i) Is there a right of appeal against screening decisions?</li><li>j) Does screening function effectively and efficiently?</li></ul> |
|---|

The proponent determines whether the MTO Class EA applies. This decision is easy to make because the MTO Class EA applies to all provincial transportation facilities, including new projects, and operations, maintenance, administration and emergency procedures related to the facilities. Deciding whether the MTO Class EA applies to a proposal is easy for proponents, but determining the Group to which the proposed action belongs could be challenging due to the use of vague language. For example, Group B projects are “major” improvements to transportation facilities whereas Group C projects are “minor” improvements to transportation facilities. To assist the proponent in making the determination, examples of projects are provided for each group. Some of these

examples also use subjective terms like “major,” “minor,” “significant” and “insignificant,” and, therefore, are of limited value to proponents who are responsible for selecting the right Group for their proposal.

The term “significant” is used liberally throughout the MTO Class EA to describe a variety of entities including environmental features and impacts, transportation opportunities, decisions and changes to a proposed project, to name a few. Unfortunately there is no definition of significant to guide proponents, the public, and government agencies. Without this definition, proponents make screening decisions based on their understanding of significance, which may differ considerably from other Ontarians.

The proponent may make the decision to “step-down” a project that would normally fall into Group B, to Group C “...at anytime prior to the submission of the TESR” (MTO 2000, p. 7-1). The step-down process differs depending on whether a notice is published stating that a TESR will be completed for the project. If a notice has been published, the step down process begins by the proponent publishing a notice that the project has been stepped down and providing a 30 day review period during which affected parties and review agencies may ask the proponent to reconsider its decision. If the proponent and objector cannot come to agreement, the objector may ask the Minister of Environment to rule on the request. If the step-down decision is made prior to publishing a notice that commits to a TESR, the proponent may make the step-down decision without publishing a step-down notice, and then there is no potential for an appeal to the Minister of the Environment. This is unfair and inconsistent with the EA Act’s purpose.

The proponent is not required to involve the public and review agencies in the screening decision. The only recourse the public and review agencies have against poor screening decisions is the Part II Order request, which only applies to Group A and B projects. The proponent provides public notice for this opportunity when the TESR is submitted, near the end of the EA process. If the OMOE approves a Part II Order request, the project must undergo a formal Individual EA Act review. If a Group B project is successfully stepped down to Group C, then the Part II Order request is not available to the public and review agencies.

In summary, the MTO Class EA process includes different levels of EA but the use of vague language may make it difficult for the proponent to choose the appropriate EA category for a particular project and for the public and OMOE to assess whether the proponent's choice was reasonable. The MTO Class EA also does not clearly indicate the importance of reconsidering the screening decision after public consultation periods. However the public can appeal to the Minister of the Environment to have a project bumped up to an Individual EA Act review. This criterion is partially met.

### **3.7 Must scoping of the environmental impacts of actions take place and specific guidelines be produced?**

- |   |
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| <ul style="list-style-type: none"><li>a) Must the proponent consult the environmental authority early in the EIA process?</li><li>b) Must the proponent prepare information as a basis for scoping?</li><li>c) Is scoping mandatory in each case?</li><li>d) Must a general or generic set of impacts be addressed in the EIA?</li><li>e) Must action-specific scoping guidelines be prepared?</li><li>f) Are irrelevant impacts screened out?</li><li>g) Does published guidance on scoping procedures and methods exist?</li><li>h) Is consultation and participation required in scoping?</li><li>i) Is there a right of appeal against scoping decisions?</li><li>j) Does scoping function efficiently and effectively?</li></ul> |
|---|

The proponent is not required to prepare scoping guidelines for the proposed project. The term “scope” is not used in the MTO Class EA document but the concept of focussing the attention of proponents on the important environmental and social issues during design, construction, maintenance, operation, and use of the proposed project is apparent. A documentation principle provides evidence that scoping is a part of the MTO Class EA process: documentation should focus on project specific details and issues (MTO 2000). Furthermore, the factors that should be considered during the different stages of the proposed project should be appropriate for the particular stages (MTO 2000). In deciding what factors should be studied at a particular stage, the MTO Class EA document specifies that the following items should be kept in mind: the character of the alternatives under review, the level of detail of the analysis, the character of the potentially affected environment, the types of potential effects of the alternatives, consistency with other decision points in the process, the purpose of the decision point, and EA process goals, objectives and principles (MTO 2000).

The environmental factors that will be studied may depend on the existing conditions of the area, the significance of potential effects, and the degree of concern expressed by government agencies and the public (MTO 2000). Assessments and evaluations should be based on the following: sensitivities identified; significance of expected condition changes/effects, level of effect, duration and certainty of effects; degree to which condition changes/effects can be mitigated (based on previous and concurrent experience); and degree of initial mitigation incorporated in the generation of alternatives (MTO 2000).

General categories of impacts are presented in the MTO Class EA to guide proponents when selecting environmental factors for study: footprint impacts, interference impacts, traffic access modification impacts, emissions impacts, timing impacts, and combinations of these impacts (MTO 2000). Some examples of environmental factors are also provided for the natural environment, social environment, economic environment, and cultural environment (MTO 2000).

Consultation is required during the development of the SDR and should be performed during the rest of the EA process to identify public concerns and values, and determine data requirements (MTO 2000). A consultation principle suggests that the environmental authority should be consulted early in the EA process: “external stakeholders, including external agencies and the public will be notified of the proponent’s intention to carry out a study at the beginning of the study, before the proponent becomes committed to a particular solution” (MTO 2000).

There is no specific right of appeal for scoping decisions, but Part II Order requests can be made by the public and review agencies. In deciding the request, the Minister of Environment should consider any reasons that are provided by the person making the request (EA Act s. 16 (4)(4)), which could include scoping issues.

In summary, the MTO Class EA process is relatively clear about the need to focus the EA on important, project specific impacts; this criterion is fully met. Early consultation and participation during the development of the Study Design Report (SDR) represents an opportunity for scoping to take place. General environmental impacts are listed in the MTO Class EA to guide the scoping process. The main weakness is that the

proponent is not required to document scoping results, so in practice, the SDR may not properly scope the project.

### **3.8 Must EIA reports meet prescribed content requirements and do checks to prevent the release of inadequate EIA reports exist?**

- a) Must EIA reports describe actions and environments affected, forecast impacts, indicate significance and contain a non-technical summary?
- b) Must information held by the relevant authorities about the environment or type of action be made available to the proponent?
- c) Does published guidance on EIA report preparation exist?
- d) Must specified EIA methods or techniques be employed?
- e) Does accreditation of EIA consultants exist?
- f) Do checks on the content, form, objectivity, and accuracy of the information presented occur before publication of the EIA report?
- g) Is consultation and participation required in the EIA report preparation?
- h) Does the EIA process encourage creative fact finding (Lasswell 1971)?
- i) Does EIA report preparation function efficiently and effectively?

The MTO Class EA document prescribes principles for documentation and content requirements for TESRs and DCRs (MTO 2000):

- The document content requirements will be fulfilled.
- Documentation will deal with project-specific details and issues. Information presented in this Class EA will not be repeated.
- Documentation will cover the results of the study to date.
- A TESR and DCR must cover full phases.
- Where a Study Design Report, TESR or DCR is required, an opportunity to review the documentation and provide comments will be provided.
- The review period for Study Design Reports, TESRs and DCRs will be at least 30 days.

The content requirements for TESRs and DCRs are as follows (MTO 2000):

- Study objectives
- Project-specific earlier and related work
- Significant transportation engineering issues
- Significant environmental issues
- Transportation engineering and environmental protection alternatives developed and evaluated
- Project-specific external consultation
- Changes made as a result of external consultation

- Recommended plan (selected transportation alternative incorporating environmental protection measures)
- Commitments to future action, including external approvals known to be required

These content requirements require the proponents to describe actions (i.e., the recommended plan), and indicate significant transportation engineering and environmental issues. The content requirements do not include explicitly a description of the environment affected, forecasts of impacts, or a non-technical summary. I believe this is merely a fault of poorly stated content requirements and that the MTO intends that the EA reports include these descriptions. Samples of Table of Contents in the MTO Class EA document have headings including “Summary Description of the Undertaking,” and “Summary of Environmental Effects.” Furthermore, one environmental principle suggests proponents should, “identify existing environmental conditions and potential impacts.”

EA documentation is supposed to outline the application of all the principles specified in the MTO Class EA document (MTO 2000). The documentation principles and content requirements do not refer directly to the principles, so individual principles, such as minimizing aggregate resource use, may not be addressed in all documentation. I reviewed the only TESR currently posted on the MTO website to explore this potential problem (MTO 2007a). The terms “aggregate” and “gravel” do not appear in the recently published TESR for changes to Highway 417 (Ottawa Queensway) (MTO and TSH 2007). Regarding Transportation Engineering Principles (the category that includes the principle of minimizing the use of aggregate) the TESR makes the following statement:

The Transportation Engineering Principles ensure that a project provides for an effective and safe transportation system. This study examined the operations of the existing road network and documented problems and opportunities. The Recommended Plan was developed based on MTO



standards with consideration for the existing and future environmental conditions, while minimizing property requirements.

Some Transportation Engineering Principles seem to be missing from this passage; there is no mention of minimizing environmental impacts and the use of non-renewable natural resources such as mineral aggregate, or the net energy usage of the transportation system (all of these are Transportation Engineering Principles according to the MTO Class EA; the term “energy” only appears twice in the TESR).

The documentation principles and content requirements listed above do not apply to Group C projects. For Group C projects, the Environmental Screening Document is only “...prepared if environmental impacts are anticipated and mitigation will be considered and/or provided” (MTO 2000). This document is considered an “internal reference” but is available upon request (MTO 2000). The Environmental Screening Document may guide designers and contractors, or will report investigations and mitigation measures which have been selected, depending on when the document is completed (MTO 2000). An example of a Table of Contents for the Environmental Screening Document lists the following headings: summary description of the undertaking, consultation process, major features of the recommended plan, and environmental issues and commitments (MTO 2000). The comprehensiveness and content of the Environmental Screening Document varies depending on the “environmental sensitivities” of a project (MTO 2000).

The MTO Class EA recommends the following sources of information: environmental inventories, databases, studies, reports, and other information held by government agencies, interest groups, and other proponents; environmental work

conducted by other proponents in the area; knowledgeable members of the general public; owners of properties adjacent to the project; and field investigation and inventory conducted by the proponent (MTO 2000). The MTO does not discuss the legal responsibilities of the environmental authorities to make available information about the environment or action-specific impacts that may be established by the *Freedom of Information and Privacy Act*.

Specific EA methods or techniques are not required during EA as the MTO Class EA is principle based and gives proponents flexibility to choose the methods and techniques that they feel are best for a given proposed project; this flexibility could allow for the use and development of creative methods. The MTO makes no reference to guidance documents to assist proponents in preparing an EA report, outside of the MTO Class EA.

Public consultation during EA report preparation differs depending on the Group to which the proposed project belongs (Table 3.4). Consultation should occur prior to publishing the TESR and DCR for Group A and B projects at the prescribed mandatory opportunities (Table 3.4). Group C projects may never be publicized for public scrutiny as consultation is optional. Consultation for Group C projects will be undertaken to do the following: to make contacts with “external” agencies in order to obtain legislative or regulatory approvals, to make contacts with “external” agencies for pertinent technical information, to make contacts with adjacent property owners where work proposed is likely to have an impact on their property, and to make contacts with affected property owners where purchase of property is required (MTO 2000). It is unclear whether the MTO has internal processes for verifying the adequacy of EA reports.

**Table 3.4 Opportunities for public consultation during the MTO Class EA process**

Stage	Group A Except New Freeways	Group B	Group C
<b>Planning</b>	→ During review of TNA → During preparation and review of SDR → No later than end of "Generation and Assessment of Alternatives" → No later than end of "Evaluating and Selecting Preferred Alternative"	→ Optional	→ Optional
<b>Preliminary Design</b>	→ During the development of design concepts	→ During the development of design concepts	→ Optional
<b>Detailed Design</b>	→ During the development of design concepts	→ During the development of design concepts	→ Optional
<b>Construction</b>	→ Optional	→ Optional	→ Optional

Source: MTO (2000)

In summary, the MTO Class EA process requires the documentation of actions, the environments affected, forecasted impacts, and a non-technical summary, but does not prescribe specific methods for assessing the accuracy and objectivity of the EA reports. Consultation is required during the development of the EA reports, however, Class EAs do not specify the professionals that may author EA reports, and non-proponents do not assess the EA reports for completeness prior to the public review period. The process partially meets the criterion.

### **3.9 Must EIA reports be publicly reviewed and the proponent respond to the points raised?**

a) Must a review of the EIA report take place?
b) Do checks on the objectivity of the EIA report review exist?
c) Do review criteria to determine EIA report adequacy exist?
d) Does an independent review body with appropriate expertise exist?
e) Must the findings of the EIA report review be published?
f) Can the proponent be asked to respond to comments and to provide more information following review?
g) Must a draft and final EIA report be prepared?
h) Does published guidance on EIA review procedures and methods exist?
i) Is consultation and participation required in EIA report review?
j) Is consultation and participation required where further information is submitted?

- |    |  |
|----|--|
| k) | Is there some form of appeal against review decisions?       |
| l) | Does EIA report review function effectively and efficiently? |

The public and review agencies must be given at least 30 days to review and comment on TESRs and DCRs (MTO 2000). No guidance is provided on how the public review should be performed, outside of the brief advice in the MTO Class EA. The methods for informing the public and review agencies of the public review period are project specific and may include newspaper advertisements, brochures, posters, letters, or electronic means (MTO 2000). Proponents are not required to document and/or publish the findings of the public review period.

During the public review period, proponents should “constructively address” public input and make reasonable efforts to resolve concerns (MTO 2000). The purposes for public review are not specifically defined in the MTO Class EA document but the general purposes of consultation are as follows (MTO 2000):

- To identify public concerns and values
- To identify agency mandates and concerns
- To collect information about the existing environment
- To involve review agencies and the public in the development of solutions to complex environmental issues
- To provide information to agencies and the public about potential decisions and the related effects
- To provide information to agencies and the public about the Class EA process, including opportunities for formal challenge

Most of the discussion on consultation is focussed on using consultation as a tool for resolving concerns rather than achieving the other purposes, like problem solving, or providing information about the Class EA process. This narrow focus is a disservice to the MTO Class EA process because there are potential benefits of the public review that are likely not being realized, including improvements to the objectivity and accuracy of

the information within the EA report. The concept of objectivity is not discussed in the MTO Class EA document at all – this is an important deficiency since a goal of EA is to produce quality information for decision making.

The decision to proceed with a project is made first, then the EA is conducted. The public review period appears to be merely one last opportunity for proponents and the public to resolve concerns, and if unsuccessful, then for the public to submit bump-up requests. The bump-up request is the only specified form of appeal and it is really an appeal of the screening decision, and not the results of public review of EA documentation. The MTO Class EA process is largely complaint based – but the assumption that a lack of public complaint means that the project is appropriate is unfounded.

In summary, the MTO Class EA process requires public review of EA reports and proponents must respond to the concerns raised over a particular time frame.

Unfortunately, it is unclear what constitutes a reasonable response and little guidance exists about how to conduct public reviews. Public involvement is, as a minimum, notification and consultation. This criterion is partially met.

### **3.10 Must the findings of the EIA report and the review be a central determinant of the decision on the action?**

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| <ul style="list-style-type: none"><li>a) Must the decision be postponed until the EIA report has been prepared and reviewed?</li><li>b) Can permission be refused, conditions be imposed or modifications be demanded at the decision stage?</li><li>c) Is the decision made by a body other than the proponent?</li><li>d) Is any summary evaluation prepared prior to decision making made public?</li><li>e) Must the EIA report, and comments upon it, be used to frame the conditions attached to any consent?</li><li>f) Are the decision, the reasons for it, and the conditions attached published?</li><li>g) Must these reasons include an explanation of how the EIA report and review influenced the decision?</li><li>h) Does published guidance on the factors to be considered in the decision exist?</li><li>i) Is consultation and participation required in decision making?</li><li>j) Is there a right of appeal against decisions?</li><li>k) Does decision making function effectively and efficiently?</li></ul> |
|---|

As mentioned previously, Group D projects are exempt from EA and Group A (new freeways) proceed through EA according to the Individual EA Act review process – the proponent does not make the decision to proceed for new freeway projects (see chapter 5). In contrast, the decision to proceed with a Group A (except new freeways), B or C project is made by the proponent prior to conducting an EA. The MTO Class EA process is self assessment, so there is no approval or refusal to issue, no conditions to impose, or modifications to be demanded at the decision stage. The MTO Class EA process is primarily to determine the best design for the project.

The environmental clearance process is described as the “...proponent’s internal process of ensuring that the EA requirements have been met before construction begins” (MTO 2000). The proponent should assess the following “Environmental Clearance Principles” (MTO 2000):

- The study principles for transportation engineering, environmental protection, evaluation, consultation, documentation, and bump-up set out in this Class EA have been applied to the project
- The study process set out in this Class EA has been applied.

No further guidance is provided to assist proponents through the environmental clearance process.

Information is not readily available to determine how decisions are documented. I cannot even report how many projects have been through the MTO Class EA process. The environmental clearance process is described as an “internal process” although the projects are conducted on behalf of the public of Ontario. These examples demonstrate that the decision making process for provincial transportation projects lacks transparency.

There are few ways to halt a project once the proponent decides to proceed. Barring the voluntary halting of a project by the proponent, the only way a proposed project can be stopped is if it is bumped-up to an Individual EA Act review as a result of a successful public objection (i.e., the approval of a Part II Order request), and the EA approval is denied. The opportunity to request a bump-up is restricted to Group A and B projects.

In summary, the MTO Class EA assumes that the project will proceed unless the proponent is stopped and therefore does not meet this criterion. The preparation and review of EA reports function mainly to identify and mitigate environmental impacts, and to determine the alternative design with the highest net benefit. The Part II Order is the only remedy the public or review agencies have if they disagree with the EA process that the proponent followed or the results of the EA.

### **3.11 Must monitoring of action impacts be undertaken and is it linked to the earlier stages of the EIA process?**

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| a) | Must monitoring of the implementation of the action take place?                                       |
| b) | Must the monitoring of action impacts take place?   |
| c) | Is such monitoring linked to the earlier stages of the EIA process?                                   |
| d) | Must an action impact monitoring programme be specified in the EIA report?                            |
| e) | Can the proponent be required to take ameliorative action if monitoring demonstrates the need for it? |
| f) | Must the results of such monitoring be compared with the predictions in the EIA report?               |
| g) | Does published guidance on the monitoring and auditing of action implementation and impacts exist?    |
| h) | Must monitoring and auditing results be published?  |
| i) | Is there a public right of appeal if monitoring and auditing results are unsatisfactory?              |
| j) | Does action monitoring function effectively and efficiently?  |

Little information is available about the monitoring of implementation and impacts of projects. The MTO Class EA document includes one page about monitoring.

Environmental monitoring during construction is listed as an environmental protection principle (MTO 2000). Before construction, the proponent may collect

baseline information that may be required for environmental monitoring (MTO 2000). During construction, the proponent is responsible for monitoring implementation of the project design and the performance of mitigation measures (MTO 2000). The proponent must construct the project as specified in the construction contract and meet any commitments made to “external” parties during the EA process (MTO 2000). If deficiencies are identified, the proponent must take action as necessary to correct the problems (MTO 2000). Periodic site-inspections are performed to ensure compliance and correct problems (MTO 2000). The person or department responsible for conducting inspections is not specified in the MTO Class EA but it is likely the MTO itself.

The ECO has documented failures in the monitoring of highway projects during construction. An audit of one highway expansion project determined the following (ECO 2005):

- Numerous instances where highway contractors ignored rules for the location of waste sites, neglected to install silt fences or used them incorrectly, failed to install riprap (rocks used for erosion control), failed to vegetate designated sites properly, and allowed water to back up onto private property, killing trees and damaging private property
- “...apparent lack of training and knowledge by all staff of the Contractor and Contract Administrator,” including a lack of understanding of erosion control techniques (p. 69)
- “...environmental inspectors on the job do not really understand the environmental conditions” (p.69)
- Checks and balances were not used as required: the contract administrator allowed the contractor to ignore a variety of environmental requirements, and did not appear to reduce payments to the contractor for ignoring these aspects.

I was unable to determine whether these problems are unique to the specific project audited or are common to many projects completed according to the MTO Class EA process.



It is possible that ongoing monitoring will occur after a project is completed. This may involve, "...follow-up monitoring of significant measures and/or significant concerns or significant environmental monitoring to address new technologies, specific mitigating measures and/or significant concerns (e.g., water quality monitoring)" (MTO 2000). The MTO evaluates the effectiveness of mitigation measures on an ongoing basis in order to inform improvements to mitigation (MTO 2000). I was unable to gather further information on this evaluation program – neither the program nor the results are described in a document that is readily available to the public.

In summary, proponents are supposed to monitor and respond to monitoring results during the construction phase, and after if the proponent agreed to do so during the EA process. The MTO may monitor the effectiveness of mitigation measures and conduct site visits during construction to identify and remedy problems, although the ECO has reported that the MTO may be ineffectively monitoring impacts and compliance. This criterion is partially met.

### **3.12 Must the mitigation of action impacts be considered at the various stages of the EIA process?**

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| <ul style="list-style-type: none"><li>a) Must clear evidence of the mitigation/avoidance of environmental impacts be apparent in the initial action design described in preliminary EIA documentation?</li><li>b) Must a schedule of mitigation measures and their implementation be set down in the EIA report?</li><li>c) Must evidence of the consideration of mitigation be presented during screening, during scoping, during EIA report review and revision, during decision making and during monitoring?</li><li>d) Does published guidance on mitigation and modification exist?</li><li>e) Does the mitigation of action impacts take place effectively and efficiently?</li></ul> |
|--|

Mitigation of environmental impacts is discussed throughout the MTO Class EA process, from Planning through to the Construction stage, and it is clearly a key goal of

the EA process. Four of the ten environmental principles refer to mitigation of impacts (MTO 2000):

- Conduct studies and/or projects with an inherent approach of avoiding or minimizing overall environmental impacts through consideration of alternatives
- Recognize that environmental mitigation measures themselves may have environmental impacts which offset their benefit
- Provide mitigation effort in proportion to environmental significance and ability to reasonably mitigate
- Monitor the implementation of environmental protection and mitigation measures during construction

The following mitigation measures are listed in order of decreasing preference, to help guide proponents when making choices about environmental protection

(MTO 2000):

- Avoidance/prevention
- Control/mitigation (reducing the severity of environmental impacts)
- Compensation (provision of “equivalent” or countervailing environmental features)
- Enhancement (improvement over previous environmental conditions)
- Environmental monitoring during construction
- Combinations of the above

Mitigation measures should be considered during the generation of alternatives, and the selection and further development of a preferred alternative during each stage of

EA (MTO 2000):

1. Alternatives that have significant detrimental environmental effects but no significant transportation engineering advantages will be screened out first.
2. The remaining alternatives will be assessed to determine their ability to address the study transportation objectives and to identify their environmental impacts after reasonable mitigating measures are applied.
3. The net environmental effects (i.e. after applying the conceptual mitigation measures for significant effects) will be used as a basis to compare alternatives.

Avoiding areas of high environmental sensitivity to the extent reasonably possible is highlighted as a key mitigation measure during the generation of planning alternatives.

During the development of the preferred alternative, mitigation should be determined in greater detail to reduce environmental impacts (MTO 2000). Mitigation during the construction stage involves complying with mitigation commitments determined earlier in the EA process, meeting legislative requirements, as well as anticipating and addressing environmental problems as they occur during construction (MTO 2000).

Requirements for the SDR do not include documentation of mitigation measures but mitigation measures must be documented in TESRs and DCRs (MTO 2000). The “Packages” created at the end of the Planning and Preliminary Design stages should also include discussions of mitigation measures (MTO 2000).

The MTO Class EA includes 27 pages of examples of environmental protection and mitigation measures for proponents to consider during the EA process (MTO 2000). According to the ECO (2006), the MTO is preparing additional guidance, including the following documents:

- *Environmental Reference for Highway Design*
- *Environmental Guide for Wildlife and Transportation in the Oak Ridges Moraine*
- *Environmental Guide for Noise*
- *Environmental Guide for Built Heritage and Cultural Heritage Landscapes*
- *Environmental Guide for Patrol Yard Design*
- *Environmental Guide for Fish and Fish Habitat, for*
- *Environmental Guide for Contaminated Property Management, and for*
- *Environmental Guide for Erosion and Sediment Control.*
- *Environmental Reference for Contract Preparation*
- *Environmental Inspectors Field Guide*

Once these documents are finalized, the MTO will be providing training for staff, contractors and consultants, and introducing an Environmental Management System for the Ministry (ECO 2006). As mentioned above, the ECO has criticized the MTO for not

mitigating impacts during construction (ECO 2005). Perhaps the additional guidance, training, and an Environmental Management System are in response to this criticism. These additional efforts are encouraging but they do not include any additional requirements for mitigation during the EA review process itself.

In summary, the MTO Class EA process clearly requires EA participants to consider mitigation measures throughout the EA process; the criterion is fully met. However, in practice, mitigation may not be occurring for all projects during construction. The MTO Class EA document includes guidance about mitigation (including a preferred order of mitigation beginning with avoidance), additional guidance documents are being finalized, and the MTO has committed to train their staff and consultants to better mitigate.

### **3.13 Must consultation and participation take place prior to, and following EIA report publication?**

- |   |
|---|
| <ul style="list-style-type: none"><li>a) Must consultation and participation take place prior to scoping, during scoping, during EIA report preparation, during review and following revision, during decision making and during monitoring?</li><li>b) Must a public participation strategy be initiated for each EIA?</li><li>c) Are copies of EIA documents made public at each stage of the EIA process?</li><li>d) Can copies of EIA documents be accessed free of charge or purchased at a reasonable price?</li><li>e) Do confidentiality/secretcy restrictions inhibit consultation and participation?</li><li>f) Are consultation and participation methods appropriate to the stage of the EIA process at which they are employed?</li><li>g) Is funding of public participants provided for?</li><li>h) Are obligatory consultees specified at various stages in the EIA process?</li><li>i) Must adjoining authorities/states/countries be consulted?</li><li>j) Does published guidance on consultation and participation exist?</li><li>k) Must the results of consultation and participation be published?</li><li>l) Do rights of appeal exist at the various stages of the EIA process?</li><li>m) Does consultation and participation function efficiently and effectively?</li></ul> |
|---|

The MTO Class EA process is based on the following consultation principles

(MTO 2000):

- External stakeholders, including external agencies and the public will be notified of the proponent's intention to carry out a study at the beginning of the study, before the proponent becomes committed to a particular solution.
- In all cases, the consultation plan will be developed to place emphasis on consultation with the stakeholders most directly affected.
- The consultation plan will provide timely, user-friendly opportunities for input by the public and the agencies whose mandates are most directly affected.
- Consultation will be used to assist in the identification of data requirements.
- The proponent will constructively address input received during the consultation process.
- During later planning and design phases, the proponent will show how the input received in earlier stages affected the project.
- The amount, extent and timing of consultation will vary according to the complexity of a specific project, the nature of the specific environmental issues, and the concerns expressed by the public and external agencies.
- For each study, appropriate methods of notification will be selected based on the nature of the study area, the external parties to be contacted, the stage of the study, and the issues to be addressed.
- The proponent will make reasonable efforts to resolve concerns. Mediation will be considered for major issues, at key decision points.

The actual frequency and type of consultation should be project specific (MTO 2000). As a minimum, consultation must occur when considering alternative methods and during the public review period for Group A and B projects (Table 3.4, Table 3.5). Consultation is optional for Group C projects and should be conducted when “external stakeholders” are identified (MTO 2000).

A “Consultation Plan” should be drafted at the beginning of the EA process. The plan will include the proposed frequency and timing of consultation, methods of notification, key stakeholders, and any “...transportation and/or environmental issues and/or factors which may require special consultation effort” (MTO 2000). In practice, the MTO typically follows a “baseline consultation plan” for all Group A, B and

sometimes C projects (Personal Communication- the MTO). The public information centre, meetings with groups and individuals, newsletters, formal presentations, and mediation are listed as optional methods for public consultation (MTO 2000). The party responsible for preparing the Consultation Plan is not stated in the MTO Class EA document, neither is it clear whether a Plan should be drafted for all projects to document the decision about consultation, regardless of whether consultation and participation will occur.

**Table 3.5 Opportunities for public consultation prescribed in the MTO Class EA document**

EA Process Step	Public Consultation Prescribed in the MTO Class EA	
	Yes?	No?
Alternatives	✓	
Screening		✓
Scoping		✓
Report Preparation		✓
Public Review	✓	
Decision Making		✓
Monitoring		✓

Source: MTO (2000)

Outside of the MTO Class EA document, there is no published guidance about consultation and participation. There is no funding for public participants, and no specific people or organizations are required to be notified of consultation and participation opportunities. There is a focus on consulting the most affected members of the public and review agencies but there is no guidance about how the proponent should identify the most affected members of the public.

Proponents should document in TESRs and DCRs “project-specific external consultation” and the “changes made as a result of external consultation.” The proponent should make available Study Design Reports, TESRs, and DCRs during the EA process,

but Environmental Screening Documents are only available on request; the MTO Class EA document does not guide proponents as to how and where TESRs and DCRs should be made available (MTO 2000). Although it is clear that the TESR and DCR must be made public during the public review period, it is unclear whether the Packages prepared at the end of each stage are made public.

The terms “internal” and “external” are used to describe stakeholders and purposes. For example, public consultation should be done for Group C projects when external stakeholders are identified (MTO 2000). For a second example, Environmental Screening Documents for Group C projects are available upon request but are prepared primarily for “internal reference” (MTO 2000). The use of “internal” and “external” separates proponents from all other stakeholders and these terms also imply exclusiveness (i.e., proponents are inside the process and everyone else is outside the process). By focussing consultation effort on the parties most affected by the undertaking rather than all interested parties, the problem of exclusiveness is compounded. An exclusive consultation and participation process means the proponent may not fully understand the values, expectations, knowledge and information held by the public about the potential impacts of the undertaking.

There are no appeal opportunities for the public but a Part II Order request could be used to bump a Group A or B project up to a more formal Individual EA Act review.

The MTO Class EA recommends early consultation to best accommodate the concerns of the public in the EA process and the proponent has flexibility to design a consultation and participation process that matches the significance and complexity of a

project. These characteristics of the MTO Class EA process are beneficial to achieving an efficient and effective EA process. The purposes of consultation during the EA process are ambitious (see list in section 3.9) and it is unlikely that the MTO Class EA process achieves all of these purposes, due to the lack of clear minimum requirements, published guidance about consultation and participation, and the exclusive nature of the EA process.

In summary, this criterion is partially met. The MTO Class EA process requires the preparation of a consultation plan for each project/plan, but in practice, the MTO has been using a generic consultation plan. The process involves the public early and throughout the EA process but does not offer sufficient guidance to ensure quality participation. The process is exclusive as it focuses on involving those affected by the proposal rather than all interested parties.

### **3.14 Must the EIA system be monitored and, if necessary, be amended to incorporate feedback from experience?**

- |  |
|--|
| <ul style="list-style-type: none"> <li>a) Is there a legal provision for periodic review of the EIA system?</li> <li>b) Have reviews of the EIA system been carried out and changes made?</li> <li>c) Is consultation and participation required in EIA system review?</li> <li>d) Is a record of EIA reports for various types of action kept and made public?</li> <li>e) Are records of other EIA documents kept and made public?</li> <li>f) Are EIA reports and other EIA documents publicly available at one or more locations?</li> <li>g) Are records of financial costs of EIA kept and made public?</li> <li>h) Is information on the time required for EIA collected and made public?</li> <li>i) Are the lessons from specific EIAs fed back into the system?</li> <li>j) Does published guidance on monitoring and amending the EA process exist (Lasswell 1971)?</li> <li>k) Are appraisals reviewed by a third party (Lasswell 1971)?</li> <li>l) Are complaints about the EIA system documented and used to inform appraisal and termination (Lasswell 1971)?</li> <li>m) Does the EIA system ensure changes are made at optimal times (Lasswell 1971)?</li> <li>n) Does the EIA system ensure changes are made in a manner that minimizes harm to all groups affected by the change (Lasswell 1971)?</li> <li>o) Does the EIA system ensure changes result in the fair distribution of benefits and are losers compensated when there is a justified complaint about the distribution of benefits (Lasswell 1971)?</li> <li>p) Is formal responsibility for success and failures of the EIA system attributed (Lasswell 1971)?</li> <li>q) Are all components of the EIA system appraised (Lasswell 1971)?</li> <li>r) Does the monitoring of the EIA system function efficiently and effectively?</li> </ul> |
|--|



Monitoring of the overall MTO Class EA process is required by the Conditions of Approval (*Order in Council No. 1653/99*), and a Monitoring Program is described briefly (three paragraphs) in the MTO Class EA document. The MTO and OMOE-EAAB developed and agreed to a more comprehensive Monitoring Program in 2000; the Monitoring Program was amended in 2003 and the MTO is currently reviewing the Program, and is expecting to pilot a revised procedure in 2007 (Personal Communication- the MTO). The document outlining the existing Monitoring Program is not listed on the MTO website or in any publication catalogue; MTO provided me with a copy of the document at my request (MTO 2003).

The existing Monitoring Program document describes an annual monitoring process. The document mentions a 5-year review but no details about this process are provided. The annual monitoring is timed well. Annual reporting is the norm for government and personal finances and provides for the continual accumulation of monitoring data. The 5-year review of the MTO Class EA process is also reasonably timed as five years allows the Class EA process to mature, the implementation processes to improve through the Monitoring Program, and for any trends to appear in the monitoring data.

The annual reports and 5-year review are not available on the MTO website or in the MTO publication catalogue. The OMOE-EAAB is responsible for placing the monitoring reports on the public record and has paper copies available for viewing at their office in Toronto (Personal Communication- employee of the Government of Ontario, MTO 2003). I requested electronic copies of the monitoring reports from both the MTO and the OMOE-EAAB but neither organization complied with my request,

although both confirmed that the documents exist in electronic format. Without these monitoring reports, I am unable to address all the evaluation criteria for EA system monitoring.

The goal of the Monitoring Program is "...to determine ways of making the process better while ensuring that Class EA commitments are met. The objectives are to:

- Evaluate the overall effectiveness of the process described in the Class EA document;
- Identify specific problems with the process; and
- Suggest improvements to the process" (MTO 2003).

The Monitoring Program document outlines the following framework for monitoring:

- What will be monitored?
- What indicators will be used to measure compliance and effectiveness?
- How will compliance and effectiveness be measured?
- How will the data be collected?
- What will be reported to OMOE?

The Program is intended to monitor the overall Class EA process and "...not to undertake either scientific or project EA compliance monitoring" (MTO 2003). The principles on which the EA process is based (e.g., consultation, evaluation, and documentation) are identified as measures of compliance and effectiveness. Generic feedback collected on questionnaires MTO sends to key stakeholders, and information from the following sources, will inform the evaluation of compliance and effectiveness (MTO 2003):

- Public information centre comment sheets
- Project correspondence
- Media reports
- Bump-up requests
- Public complaints
- Investigations/charges
- Stop work orders

- Remedial instructions by Regulatory agencies
- Construction initiated design changes

The key stakeholders that are asked to complete questionnaires include government agencies, the Consulting Engineers of Ontario, and the MTO and consultant design and construction administrator staff. The MTO, and consultant design and construction administrator staff are responsible for compiling concerns expressed by the public during public meetings, in written bump-up requests, correspondence, and etc. This method is efficient but may be ineffective, as the MTO and consultants may not comprehensively report the public's concerns in order to present a more positive image of the Class EA process.

The Conditions of Approval specifically require the MTO to monitor compliance and effectiveness, and also to "...determine selected impacts of the undertaking on the surrounding environment" (OC 1653/99). However, the Monitoring Program, approved by the OMOE-EAAB, does not discuss monitoring of environmental impacts – its strict focus is on the Class EA process. Thus, it appears that the current Monitoring Program is not meeting all the requirements of the Conditions of Approval (but I cannot confirm this conclusion without seeing the monitoring reports).

Although the MTO has identified improvements to the MTO Class EA process as a purpose of their evaluations, and an amendment process exists in the MTO Class EA document, the process for implementing improvements from monitoring results is not clear in the Monitoring Program document. It is not apparent whether MTO has made any improvements to the MTO Class EA process in response to monitoring results.

The public is effectively excluded from the Monitoring Program because there is so little publicly available information about the program and its results. Currently, the only way a person could find out about the existence of the annual reports is by reading the Conditions of Approval (which are not included in the MTO Class EA document), or by reading the brief paragraphs in the MTO Class EA document and then contacting either the MTO or OMOE-EAAB for further information. The interested person would still have to travel to Toronto to read the annual reports during OMOE-EAAB office hours. Having annual reports in paper format in one office is inadequate for ensuring the public is informed about the quality of the MTO Class EA process. Moreover, there is no list, readily available to the public, of undertakings that are completed according to the MTO Class EA process. It may, however, be possible to see the documentation for past EAs by contacting a regional MTO office and speaking to an environmental supervisor or manager, or perhaps by visiting the legislative library at Queen's Park, Toronto (Personal Communication- the MTO).

In summary, the MTO Class EA process require annual monitoring of the EA processes, and the MTO and OMOE-EAAB have agreed to review the MTO Class EA every five years; amendment procedures exist. Unfortunately, the EA system monitoring program lacks transparency and excludes the public. Another concern is that the MTO Class EA Monitoring Program does not appear to meet its own Conditions of Approval for monitoring (although the evaluation framework is currently under revision). Thus, the criterion is partially met.

### 3.15 Are the discernible environmental benefits of the EIA system believed to outweigh its financial costs and time requirements?

- a) Does empirical evidence exist that the EIA process has significantly altered the outcome of decisions?
- b) Do the participants in the EIA process believe that the environmental quality and acceptability of decisions are improved by it?
- c) Do the participants in the EIA process believe that it has altered the behaviour of the proponents, consultants, consultees, the public and the decision making authorities?
- d) Do the financial costs of the EIA process to proponents, consultees, the public and the decision making authorities exceed those which would have been incurred in any event?
- e) Do the times required to complete the various stages of the EIA process exceed those specified?
- f) Do the participants in the EIA process believe there are enough resources to effectively implement the EIA process (Lasswell 1971)?
- g) Is the time to complete the EIA process acceptable to the stakeholder groups (Lasswell 1971)?

The ECO has been critical of the MTO Class EA's ability to ensure that the environment is considered in decisions about public infrastructure (ECO 2005, p. 114):

The 10 "environmental protection principles" are, in fact, mainly a mixture of process steps and qualifying advice offering MTO planners a great deal of discretion on how to "balance" environmental protection against engineering issues. Moreover, the principles convey a very strong sense that in any given case, the transportation project deserves first consideration over other factors such as the environment.

The recent review by the Minister's Environmental Assessment Advisory Panel also expresses concerns about the Class EA system, in general (EAAP 2005, p. 92):

Under the EA program, without regular oversight analysis or mechanisms for transparency and accountability, there is a diminished ability of the public, the Minister, EAAB or the ERT to cause proponents to act on perceived problems. Accordingly, legitimate concern exists that proponents using the Class EA process can effectively ignore the intent and objective of the EA Act by paying only lip service to the process, and thus deprive the public and environment of discernable public benefits that EA is meant to achieve.

This concern is exacerbated in the absence of any cogent, published analysis of whether the intent of the EA Act, to ensure appropriate consideration of alternatives and the selection of a preferred alternative having regard for predicted environmental impacts, is being achieved through the Class EA process.

There is little evidence to draw on to assess the benefits of the MTO Class EA process, but it is clear that the self-assessment process is timely. The MTO reported that

approximately 32 projects per year were completed in accordance with the 1992 MTO Class EA between 1992 and 1998. A recent evaluation commissioned by the OMOE recorded only one complaint regarding timeliness of Class EA processes, in general: the OMOE does not always complete Part II Order requests in the designated time period (EAAP 2005). This evaluation did not result in any suggestions to improve the MTO Class EA specifically, likely because no member of the MTO was directly involved in the process.

Unlike in the ARA case, the ECO has not found that the government department responsible for the process (i.e., OMNR for ARA, and MTO for the MTO Class EA) lacks the funding necessary to perform all its duties. Instead, the ECO suggests that the MTO may lack the organizational culture necessary to conduct quality EA (ECO 2005, p. 111):

But some of the project's bolder promises (such as a healthier environment and greater transparency) can be realized only if the ministry is open to real internal change. At a minimum, MTO would need to be willing to change some of its own internal processes, including its EA processes, and would need to provide intensive training for its planning and design staff and its construction engineers

The lack of transparency, the focus on traditional transportation solutions, and the use of language that excludes people from the EA process supports the ECO's conclusion that internal factors may be restricting the ability of EA to positively affect decision making. In short, evidence suggests that the costs of the MTO Class EA process (monetary and time) may be low, but the environmental and social costs may be high. Therefore, the criterion is not met.

### **3.16 Does the EIA system apply to significant programmes, plans and policies, as well as to projects?**

This criterion is not met. The MTO Class EA does not apply to transportation plans, policies or programs. The MTO Class EA only applies to the construction, operation, and maintenance of provincial transportation facilities.

### **3.17 Summary**

Overall, the MTO Class EA process is ineffective (Table 3.6). The following are the key strengths and weaknesses of the process:

#### **Strengths**

- Environmental impacts are adequately scoped
- Mitigation measures are considered throughout the process

#### **Weaknesses**

- The process is unclear and not specific
- The decision to proceed is made prior to writing the EA report
- Environmental benefits of the process do not outweigh the financial and time costs

**Table 3.6 Summary of evaluation results for the MTO Class EA process**

Evaluation Criteria	MTO
1. Is the EIA system based on clear and specific legal provisions?	○
2. Must the relevant environmental impacts of all significant actions be assessed?	●
3. Must evidence of the consideration, by the proponent, of the environmental impacts of reasonable alternative actions be demonstrated in the EIA process?	◐
4. Must screening of actions for environmental significance take place?	◐
5. Must scoping of the environmental impacts of actions take place and specific guidelines be produced?	●
6. Must EIA reports meet prescribed content requirements and do checks to prevent the release of inadequate EIA reports exist?	◐
7. Must EIA reports be publicly reviewed and the proponent respond to the points raised?	◐
8. Must the findings of the EIA report and the review be a central determinant of the decision on the action?	○
9. Must monitoring of action impacts be undertaken and is it linked to the earlier stages of the EIA process?	◐
10. Must the mitigation of action impacts be considered at the various stages of the EIA process?	●
11. Must consultation and participation take place prior to, and following EIA report publication?	◐
12. Must the EIA system be monitored and, if necessary, be amended to incorporate feedback from experience?	◐
13. Are the discernible environmental benefits of the EIA system believed to outweigh its financial costs and time requirements?	○
14. Does the EIA system apply to significant programmes, plans and policies, as well as to projects?	○

○ criterion is not met; ◐ criterion is partially met; ● criterion is fully met



## 4. MUNICIPAL CLASS EA

This chapter presents the results of my evaluation of the Municipal Class EA (MEA Class EA) process. I begin by describing generally the entire MEA Class EA process and the results of evaluations completed by other authors. Next, I assess each of the 14 primary evaluation criteria in 14 sub-sections. These 14 sub-sections elaborate on each component of the process that I described only generally in the first sub-section. I close the chapter with a summary of the evaluation results for the MEA Class EA process.

### 4.1 Overview

Prior to 1979, municipal infrastructure projects (including road construction and maintenance) valued at less than \$2 million dollars were exempt from the EA Act (Personal Communication- member of a municipal association). This exemption ended when the first MTO Class EA process was approved in 1979. In order to avoid having to conduct Individual EA Act reviews for common public infrastructure projects (including road construction and maintenance), municipalities developed two Class EAs (approved in 1987): 1) *Class EA for Municipal Roads* and 2) *Class EA for Municipal Water and Wastewater Projects* (Personal Communication- member of a municipal association). In 1993, the two Class EAs were reviewed and amended, and an expiry date of 1998 was included in the Conditions of Approval. An amendment in 1994 added certain private projects to the Class EAs. The Class EAs were legally extended beyond the 1998 expiry

date until the current *Municipal Class Environmental Assessment* (MEA Class EA) was approved in 2000.

The MEA Class EA resulted from the “Municipal Class EAs Renewal Project” (Renewal Project) in 1997, which involved multiple stakeholders (Table 4.1). The Renewal Project determined that the two existing Class EAs were working well, and that only minor changes were necessary to improve the EA process and to remain in compliance with the EA Act.<sup>17</sup>

**Table 4.1 Stakeholders involved in the 1997 Municipal Class EAs Renewal Project**

Involved in Committees or Teams	Received Questionnaires
→ MEA	→ Review agencies
→ OMOE- EAAB	→ Ontario municipalities
→ Ministry of Municipal Affairs and Housing	→ Waste management coordinators
→ Ministry of Natural Resources	→ Consulting firms working with the Class EAs
→ Ministry of Transportation	→ Canadian Environmental Law Association
→ City of Toronto	→ Association of Municipalities in Ontario
→ Regional Municipality of Niagara	→ Ontario Waste Managers Associations
→ Regional Municipality of Ottawa-Carleton	→ Professional Engineers of Ontario
→ Town of Carleton Place	→ Ontario Society of Environmental Management
→ Regional Planning Commissioners	→ Urban Development Institute
→ Urban Development Institute	
→ Ontario Professional Planners Institute	
→ EA practitioners	

Source: MEA (2000)

The MEA Class EA takes the purpose of the EA Act as its own, “...the betterment of the people of the whole or any part of Ontario by providing for the protection, conservation and wise management of the environment” (EA Act s. 2). “Whether carrying out individual or class EAs, the key principles of successful [EA] planning under the EA Act include [the following]” (MEA 2000):

- Consultation with affected parties early in and throughout the process, such that the planning process is a cooperative venture.

<sup>17</sup> A summary of issues that were addressed during the Renewal Project is included in the MEA Class EA (MEA 2000, Table A.1).

- Consideration of a reasonable range of alternatives, both the functionally different “alternatives to” and the “alternative methods” of implementing the solution.
- Identification and consideration of the effects of each alternative on all aspects of the environment.
- Systematic evaluation of alternatives in terms of their advantages and disadvantages, to determine their net environmental effects.
- Provision of clear and complete documentation of the planning process followed, to allow “traceability” of decision-making with respect to the project.

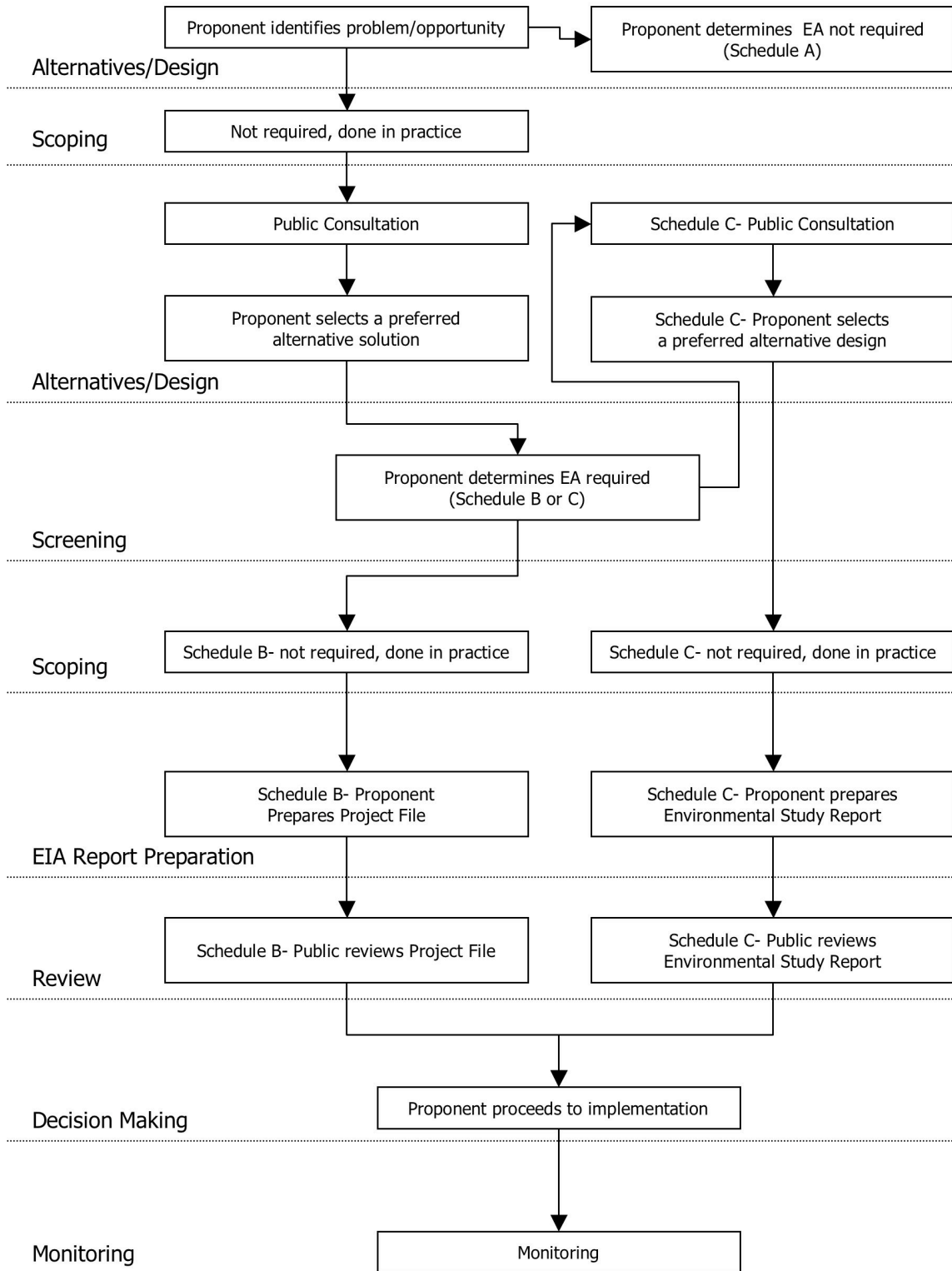
The Municipal Engineers Association (MEA) wrote the first version of the MEA Class EA, subsequent amendments, and has continued to represent proponent municipalities during the Class EA review and approval process. The MEA, largely a volunteer organization, offers training to proponents and monitors the MEA Class EA process.

Like the MTO Class EA, the MEA Class EA sets up a self-assessment process. The MEA Class EA process asks proponents to “look before they leap” (Personal Communication- member of a municipal association). The proponent is responsible for the bulk of the EA process, and the public and review agencies must be consulted at mandatory times. The MEA Class EA divides projects into three categories:

1. **Schedule A** – have minimal impacts; limited in scale, include normal and emergency maintenance and operational activities
2. **Schedule B** – have the potential for some negative environmental impacts; generally include minor expansions and improvements to existing facilities
3. **Schedule C** – have the potential for significant environmental impacts; generally include major expansions to existing facilities and construction of new facilities

Schedule A projects are pre-approved, and the EA process for Schedule B projects is less rigorous than the EA process for Schedule C projects (Figure 4.1).

**Figure 4.1 MEA Class EA process**



The MEA Class EA process has five phases that a proposal may be required to go through: 1) problem or opportunity, 2) alternative solutions, 3) alternative design concepts for preferred solution, 4) environmental study report, and 5) implementation. Phase 1 includes the identification of the problem or opportunity and a discretionary public consultation period. Phase 2 involves the identification of alternative solutions to the problem or opportunity, the evaluation and selection of a preferred solution and a mandatory public consultation period. Phase 3 is similar to Phase 2 but applies to alternative design concepts for the preferred solution rather than alternative solutions to the problem or opportunity. Phase 4 sees the documentation of the EA process and results in an Environmental Study Report (ESR); it is mandatory for the ESR to be reviewed by the public. The MEA Class EA process concludes when the proponent completes the detailed contract drawing and tender documents, constructs and operates the project, and monitors the project according to environmental approvals or commitments made during the EA process.

Schedule C projects are the only projects that must follow the entire MEA Class EA process. Schedule A projects proceed through Phase 1, and are exempted from the MEA Class EA early during Phase 2. A Schedule B project goes through Phases 1 and 2, and if no Part II Order is approved at this point, jumps to implementation (Phase 5).

Both “alternatives to” and the “alternative methods” of conducting a project are part of the MEA Class EA process. The process for assessing alternatives includes public consultation, and the proponent must evaluate the net environmental effect of each alternative on the environment after mitigation measures have been applied. The ultimate decision in the MEA Class EA process is the choice of the preferred alternative.

Scoping was an issue identified during the Renewal Project. Scoping of alternatives, and the level of effort to complete an EA, was being done in practice even though there were no formal mechanisms for scoping in the Class EAs. The current MEA Class EA discusses the need to customize the level of EA effort to meet the specific needs of the project and environment rather than including specific scoping criteria.

The documentation for Schedule B projects, called Project Files, must be kept in a manner that allows them to be reviewed by the public, upon request, at any time during the EA project. Each municipality has its own documentation procedures that must meet the requirements of the MEA Class EA. Project files document the proponent's choice of the preferred "alternative to" the action, and the process that was used to reach that decision. Once the Project File is complete, a Notice of Completion is published and review agencies and the public have a minimum of 30 days to peruse the Project File, raise any concerns with the proponent, and/or make a Part II Order Request.

The EA document for Schedule C projects is called the Environmental Study Report (ESR). It is similar to the Project File in content but the ESR is more detailed and includes the process for assessing "alternative methods" of conducting a project. Once an ESR is complete, a Notice of Completion is published and a public review period commences, during which a Part II Order request may be made.

The Part II Order request is the only appeal that the EA Act provides the public for projects conducted according to Class EAs. When a Part II Order request is made, the Minister of the Environment may approve the request, deny the request, or deny the request with conditions. An approved request would require the project to undergo a formal Individual EA Act review (see section 5).

Similar to the MTO Class EA process, monitoring is only briefly mentioned. Public complaints are relied on to monitor the compliance of proponents with the MEA Class EA, the commitments proponents made during the EA process, conditions imposed by the OMOE, and the environmental impacts of the actions. Other environmental legislation in Ontario may require monitoring of environmental impacts.

Mitigation is a key component of the MEA Class EA. The evaluation of alternatives requires the proponent to consider the net environmental effects after mitigation is applied. The MEA Class EA includes fairly extensive guidance on mitigation options.

The MEA Class EA process itself must be monitored annually and a review must be conducted every five years (*Order in Council No. 1923/2000*). The OMOE-EAAB approved the Monitoring Program, which is focussed on describing the annual monitoring process. The MEA has authored all monitoring reports.

The MEA Class EA provides a process for planning groups of projects, or overall systems, and even integrated systems (e.g., road networks, infrastructure master plans). “Master Plans are long range plans which integrate infrastructure requirements for existing and future land use with EA planning principles” (MEA 2000). As a minimum, Master Plans must complete Phases 1 and 2 of the MEA Class EA process (MEA 2000).

The MEA Class EA also includes a process for integrating the EA process with municipal planning processes that are legislated by the *Planning Act* of Ontario. The goal is to streamline the planning process while ensuring that the intent and requirements of both the EA Act and *Planning Act* are met. Annual MEA Class EA monitoring reports show that the “integrated approach” to planning is rarely used.

## 4.2 Previous Evaluations of the MEA Class EA Process

Since the Renewal Project, there has not been a comprehensive review of the MEA Class EA. The MEA 5-year review completed in 2005 is brief and contains much less explanation than the annual monitoring reports; the rationale for the review and evaluation methods span half a page, improvements to the MEA Class EA that the monitoring committee intends to pursue extend over eight and half pages, and the questionnaire used to gather stakeholders' input occupies 19 pages. The MEA concludes that the "...Municipal Class EA is still compliant with legislative requirements, planning practices and continues to satisfy the purpose of the Environmental Assessment Act" (MEA 2005).

The recent evaluation of EA in Ontario, commissioned by the Ministry of the Environment, and conducted by the Environmental Assessment Advisory Panel (EAAP) in 2005, included recommendations for improving the MEA Class EA, and Class EAs in general (see section 5.14 for a detailed discussion of the evaluation results).

The ECO expressed the following concerns about the MEA Class EA, and Class EAs in general in Ontario (ECO 2004):

### **Public Participation**

- The Municipal Class EA must be ordered for \$75.00 from the Ontario Good Roads Association. This obstacle will deter many members of the public (and even some municipal staff) from trying to understand the approval process governing municipal water, sewer and road projects.
- Under Class EAs, public comments and concerns are submitted to the proponent, rather than to an independent arbiter. The proponent can decide how (or whether) to respond to the concerns. OMOE also tends to bounce commenters' procedural concerns about a project back to the proponent.
- Under Class EAs, the public does have certain time-limited opportunities to request more detailed environmental studies (termed "Part II Orders" or, previously, "bump-up requests"). But in practice, there is a very low likelihood that such requests will be granted by OMOE.



→ In some cases, members of the public are frustrated when proponents operating under Class EAs change their projects in a significant way after most of the public consultation opportunities are over. The ECO has observed that concerned residents have very few options of redress in such situations.

#### **EA Documentation**

→ OMOE staff have observed that some proponents under the Municipal Class EA submit inadequate environmental studies, and have incomplete or missing project files at key review stages of projects.

#### **EA System Monitoring**

→ Most new Class EAs are “evergreen:” they have no expiry date. Although proponents have to review their implementation periodically, there is no guaranteed mechanism for public input into such a review. Nor is there a trigger for OMOE to review the effectiveness of Class EAs on a regular basis.

→ In 2002, OMOE reviewed a number of Municipal Class EA planning processes and found examples where the proper process was not used and required documentation was incomplete. OMOE staff noted at the time that proponents should give more attention to compliance with EA commitments, and should carry those commitments through into project-specific environmental permits.

The annual monitoring program, conducted by the MEA, has not identified similar concerns to those expressed by the ECO (Table 4.2), likely because proponents and review agencies largely informed the monitoring program; the public is effectively excluded from monitoring.

**Table 4.2 Comments from proponents and technical agencies about the MEA Class EA process**

<b>Proponent Municipalities</b>
<p><b>General</b></p> <ul style="list-style-type: none"> <li>→ The Municipal Class EA is easy to follow.</li> <li>→ Proponents are satisfied that Class EA process continues to be effective.</li> <li>→ The most popular topics for training are coordination with Federal EA, Updates and Interpretations and Applying schedules.</li> <li>→ Training should be offered every 2 years.</li> </ul>
<p><b>Screening</b></p> <ul style="list-style-type: none"> <li>→ Only the largest municipalities carry out many Schedule B or C projects each year. Municipalities are filing a Notice of Study Commencement with the Regional EA Coordinator at OMOE's Regional Offices and Municipalities are filing Notices of Completion.</li> <li>→ Most municipalities feel that the project schedules are appropriate.</li> <li>→ Some municipalities sometimes have difficulty determining the appropriate schedule but once it is determined the choice is not challenged.</li> <li>→ Interpretation of project schedules is consistent.</li> <li>→ Some amendments are suggested to clarify project schedules and to increase the number of projects to which the MEA Class EA applies.</li> <li>→ Only some proponents have received a Part II Order request in the past year. OMOE's review of Part II Order requests has been timely in some cases but in others there have been significant delays with no apparent reason for the delay.</li> <li>→ The "Integrated Approach" is not commonly used.</li> </ul>
<p><b>EA Report</b></p> <ul style="list-style-type: none"> <li>→ The Municipal Class EA provides for the appropriate level of documentation.</li> <li>→ Although some proponents have, at times, been requested for additional information, generally stakeholders are satisfied with the level of documentation.</li> </ul>
<p><b>Public Participation</b></p> <ul style="list-style-type: none"> <li>→ Technical agencies generally participate in a timely manner.</li> </ul>
<p><b>Monitoring of EA System</b></p> <ul style="list-style-type: none"> <li>→ Administration costs are generally 5-10% of total budget. Schedule A projects represent 25-90% of the total budget. A single large Schedule B or C project can shift this percentage dramatically for a given year especially in a small municipality.</li> </ul>
<b>Technical Agencies</b>
<p><b>General</b></p> <ul style="list-style-type: none"> <li>→ Training should be provided in all areas annually.</li> </ul>
<p><b>Screening</b></p> <ul style="list-style-type: none"> <li>→ Several respondents participated in more than 50 Schedule B or C projects. Master Plans are becoming more common.</li> <li>→ There are no concerns with the selection of the proper schedule.</li> <li>→ Agencies almost never request a Part II Order.</li> <li>→ Integrated Approach is not common.</li> </ul>
<p><b>Public Participation</b></p> <ul style="list-style-type: none"> <li>→ The OMOE Regional EA Coordinators are not satisfied with their opportunities for input but other agencies are generally satisfied.</li> </ul>
<p><b>Monitoring of Impacts</b></p> <ul style="list-style-type: none"> <li>→ There should be a follow up process to ensure compliance with EA commitments.</li> </ul>
<p><b>Monitoring of EA System</b></p> <ul style="list-style-type: none"> <li>→ Agencies suggested additional information be gathered related to Part II Orders and that a central registry for information be established.</li> </ul>

Source: MEA (2002), MEA (2004)

### 4.3 Is the EIA system based on clear and specific legal provisions?

- |    |   |
|----|---|
| a) | Is each step in the EIA process clearly specified in law or a regulation?                                     |
| b) | Are the legal provisions sufficiently unambiguous in application?   |
| c) | Is there a degree of discretion in the provisions which is acceptable to the participants in the EIA process? |
| d) | Are the EIA requirements clearly differentiated from other legal provisions?                                  |
| e) | Is each step in the EIA process enforceable through the courts or by other means?                             |
| f) | Are time limits for the various steps in the EIA process specified?   |
| g) | Does a clear outline of procedures and time limits exist for the EIA system as a whole?                       |
| h) | Are opportunities for learning about the EIA process available to participants (Lasswell 1971)?               |

Proponents of projects/plans defined in the MEA Class EA must abide by that process, or may opt to conduct a formal Individual EA Act review, unless an exemption is made by regulation (EA Act s. 13(3)). In the mid 1990s and during the Renewal Project, the MEA found that there were different opinions about the level of detail and amount of direction that should be provided in the parent document (MEA 2000). The MEA Class EA lists minimum requirements and provides suggestions for meeting the intent of the Class EA. Compared to the MTO Class EA, I found the MEA Class EA straightforward and easy to understand. Comments from proponents in the MEA annual monitoring reports support the conclusion that the MEA Class EA is now easy to understand and follow, although some minor clarifications would improve the document (Table 4.2).

The MEA Class EA process has much flexibility within it and could therefore foster creativity. Proponents are free to scope the project as they see fit, select methods and techniques to best meet their needs, and involve the public as often as they feel is necessary. The MEA Class EA outlines minimum requirements, simply setting out what is “good enough,” for an EA (Personal Communication- member of a municipal association). The question is whether there is too much flexibility in the MEA Class EA. Without having more interviews and reviewing ESRs and Project Files, this question

cannot be answered conclusively. My evaluation shows that although the MEA Class EA process has its strengths, there are weaknesses in the process that can be attributed to too much discretion in the hands of proponents.

Similar to the MTO process, proponents may have to comply with the requirements of both CEEA and the MEA Class EA. Although the federal and provincial government have attempted to provide clear direction to proponents regarding a harmonized EA process, the EAAP found that this guidance is insufficient (EAAP 2005).

Provisions in the *Planning Act* and the MEA Class EA overlap, and the MEA Monitoring Program has found that the “integrated approach” is not commonly applied. Comments from government review agencies indicate that both proponents and government staff do not fully understand the “integrated approach” (MEA 2004). Perhaps the integrated approach is rarely used because proponents do not know how to apply the process. Members of the transportation sector that participated in the EAAP evaluation recommended that this planning approach should be used more often to save the time and work of the public, proponents, councils and consultants, but they did not give any details on what must be done to ensure the approach is used (EAAP 2005).

The MEA provides Class EA training to municipal staff, but the MEA and transportation sector believe more opportunities for learning by the public and EA practitioners should be provided by the OMOE (MEA 2002-2004, EAAP 2005). The MEA training courses have been well attended by EA practitioners, which confirms that there is interest in learning more about the MEA Class EA process – 450 EA practitioners attended training sessions in 2004, and 129 junior staff attended an EA course in the spring of 2005 (MEA 2005). Members of the MEA also share information with each

other about the EA process on an informal basis (Personal Communication- member of a municipal association).

Similar to the MTO Class EA, the MEA Class EA is enforceable through the EA Act (EA Act s. 38) (see section 3.3 for the law). The enforcement system is complaint based and relies on the public to notify the OMOE when they believe proponents are in non-compliance. The ECO has pointed out that proponents under Class EAs have on occasion changed their projects significantly after most public consultation is completed and that concerned citizens have few ways to remedy the problem (ECO 2004). The enforcement strategy is unfair and ineffective as the public does not have the resources to audit the actions of proponents and likely only the most visible deficiencies are ever noticed and reported.

There are few time limits in the MEA Class EA; the public review period has a minimum time limit, and the review of Part II Order requests has a maximum time limit. That said, proponents have not expressed concern about the overall length of the EA process, but have noted that the OMOE has taken longer than specified to review Part II Order requests.

In summary, the MEA Class EA process is based in law, clear, and training is available for EA practitioners. The only weaknesses for this criterion may be that the EA process is integrating poorly with other municipal planning processes (under the *Planning Act*) and it lacks time limits (although timeliness does not appear to be a major issue, except for the Part II Order request process). Therefore, this criterion is fully met.

#### 4.4 Must the relevant environmental impacts of all significant actions be assessed?

- |  |
|--|
| a) Does the EIA system apply to all public and private environmentally significant projects? |
| b) Are the provisions applied in practice to all the actions covered in principle?           |
| c) Are all significant environmental impacts covered by the EIA system?                      |

The MEA Class EA document applies to municipal road, water and wastewater projects. Road projects include new roads, road widenings, adjustments and operational improvements, interchanges, grade separations and water crossings, and service facilities. Water and wastewater projects include new water systems, or expansion or upgrading of existing water systems, sanitary sewage projects, and storm water management projects. The MEA Class EA provides a process for planning groups of projects, or overall systems, and even integrated systems (e.g., road networks, infrastructure master plans) (see section 4.16 for details).

Proponents subject to the MEA Class EA include “proponent municipalities,” “other municipalities,” and private developers in specific circumstances (MEA 2000, *General, R.R.O. 1990, Ontario Regulation 334 s. 5(4), Designation and Exemption-Private Sector Developers, Ontario Regulation 345/93*). The proponent municipalities are the cities of Barrie, Guelph, London, Sault Ste. Marie, Thunder Bay, and Toronto, the Regional Municipalities of Durham, Niagara, Ottawa-Carleton and Waterloo, the Town of Carleton Place and the County of Lanark. The only difference between proponent municipalities and other municipalities relates to Schedule A projects; Schedule A projects proposed by proponent municipalities cannot be bumped up to an Individual EA Act review whereas Schedule A projects proposed by other municipalities can be bumped up (MEA 2000). The rationale for this difference in bump up opportunities is not explained in the MEA Class EA document. Private developers must follow the MEA

Class EA process when proposing Schedule C projects that service residential developments (MEA 2000).

The MEA Class EA uses the broad definition of environment in the EA Act that covers environmental, social, and cultural elements (see section 3.4 for definition of “environment”). There is no list of environmental features or impacts that proponents must consider. Instead, the MEA Class EA guides the proponents’ choices of impacts by describing typical environmental impacts of projects, whether the impact is likely positive or negative, and whether it is probable or not probable. These descriptions span five pages in the MEA Class EA document. Cumulative effects, resulting from multiple projects, are not discussed in the MEA Class EA document.

Unlike the MTO Class EA process, the MEA Class EA process does not explicitly state whether proponents must consider the impacts of the proposed project/plan on mineral aggregate resources or the potential environmental impacts from extracting, processing, and transporting mineral aggregate for the proposed project(s). There may be rare cases in which aggregate issues enter into the MEA Class EA process. An interviewee described the following example (Personal Communication- member of a municipal association):

There was never any debate with regard to highway work until the extraction issue came into play. So I rehabbed a historic bridge one time. And I had a heck of a problem in that EA process because they assumed that the County was in league with the aggregate industry and we were going to bring trucks, aggregate trucks, down over this 1904 concrete historic structure. And I had a heck of a time telling these folks it wasn’t going to happen. And finally we resolved the issue by volunteering as part of our EA to post a load limit on the bridge permanently.

In summary, this criterion is fully met. The MEA Class EA process uses a broad definition of the environment that covers environmental, social, and cultural elements. However, the process does not require the assessment of cumulative effects. Together, the MTO Class EA, MEA Class EA, and Individual EA Act review processes apply to public infrastructure projects that consume approximately 60% of all mineral aggregate resources in Ontario.

#### **4.5 Must evidence of the consideration, by the proponent, of the environmental impacts of reasonable alternative actions be demonstrated in the EIA process?**

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|---|
| <ul style="list-style-type: none"><li>a) Must clear evidence of the consideration of the environmental impacts of alternatives be apparent in preliminary EIA documentation?</li><li>b) Must the realistic consideration of the impacts of reasonable alternatives, including the no-action alternative, be evident in the EIA report?</li><li>c) Does published guidance on the treatment of the impacts of reasonable alternatives exist?</li><li>d) Does the treatment of alternatives take place effectively and efficiently?</li></ul> |
|---|

Alternatives to the proposed project/plan are generated and evaluated, and a preferred alternative is selected during Phase 2 of the EA process. Alternative methods for designing and operating the proposed project are generated and evaluated, and a preferred alternative is selected during Phase 3 of the EA process.

The MEA Class EA does not dictate the alternatives to or alternative measures for designing and operating projects, but the MEA provides a detailed list of potential alternatives for various project types to help guide proponents (MEA 2000, Parts B and C). Of particular interest is the promotion of non-structural alternatives to reduce negative environmental impacts (e.g., transportation demand management solutions, removing parking from roadways rather than widening existing roads). “Consideration of such alternatives would serve to **focus a municipality’s responsibility for the wise**



**management of the resources under its jurisdiction**, in a manner which would avoid the development of infrastructure problems **through preventative or non-structural measures**” (MEA 2000). [Emphasis is as written in the MEA Class EA.] The “do nothing” alternative is also suggested. The decision to pursue the “do nothing” alternative would likely be made when the financial and environmental costs of all other alternatives significantly outweigh the benefits (MEA 2000).

The MEA Class EA document does not discuss the importance of aggregate resources or list any alternatives to mineral aggregate resources. The MEA Class EA promotes conservation of aggregate resources by emphasizing non-structural alternatives for solving transportation and water/waste water problems.

The process for evaluating “alternatives to” and “alternative measures” are similar, but the process in Phase 3 is a more detailed analysis. The first step is to document all reasonable and feasible alternatives. The second step is to inventory the natural, social and economic environments that will be considered when reviewing the effects of the project. The third step is identifying the magnitude of the net positive and negative effects of each alternative on the environments, and mitigation measures for the environmental impacts. The proponent then evaluates the alternative solutions considering the impacts and mitigation measures.

The MEA Class EA document provides sufficient guidance on identifying potential alternatives but not on the evaluation of alternatives. Proponents are reminded that alternative solutions may resolve more than one problem and “the feasibility of alternative solutions will depend, in part, on the nature and location of the transportation system, the nature and location of the problem(s), the comparative cost of the alternative

solutions, the pressures for growth, and the municipality's capacity to finance the extension of services" (MEA 2000). No advice is provided about different methods for evaluating alternatives (e.g., ranking approaches, risk assessment).

The "Project File" for Schedule B projects should document the alternative solutions that were considered, and the evaluation process used to select the preferred alternative (MEA 2000). For Schedule C projects, the ESR should provide a complete description of the planning process for the project. The suggested outline for an ESR includes a chapter on alternative solutions and a chapter on alternative designs.

In summary, if proponents follow the MEA Class EA process and the guidance within the MEA Class EA document, the consideration of alternatives to and alternative methods could be effective. A key strength of the MEA Class EA process is the clear promotion of the no action and non-structural alternatives. However, better guidance could be provided to help EA participants assess alternatives. This criterion is fully met.

#### **4.6 Must screening of actions for environmental significance take place?**

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|---|
| <ul style="list-style-type: none"><li>a) Is there a legal test of whether the action is likely to affect the environment significantly?</li><li>b) Is there a clear specification of the type of action to be subject to EIA?</li><li>c) Do clear criteria/thresholds exist (e.g., size, location)?</li><li>d) Do different types of EIA exist for different types of action?</li><li>e) Must documentation be submitted by the proponent to assist in screening?</li><li>f) Does published guidance about actions, criteria, thresholds and screening procedures exist?</li><li>g) Is the screening decision made by a publicly accountable body?</li><li>h) Does consultation and participation take place during screening?</li><li>i) Is there a right of appeal against screening decisions?</li><li>j) Does screening function effectively and efficiently?</li></ul> |
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The proponent determines whether the project/plan must proceed according to the MEA Class EA. This decision is straightforward as the projects/plans to which the Class EA applies are described well in the MEA Class EA document: municipal road, and

water and wastewater projects. Detailed descriptions of projects with examples are included in the MEA Class EA document, spanning more than 20 pages. Additionally, an amendment to the EA Act in 2006 excludes traffic calming measures (to control traffic speeds and encourage appropriate driving behaviour) from EA (EA Act s. 3.3(1)).

The more challenging decision is the level of EA to which the project should be subject. There are three levels of EA ranging from Schedule A, pre-approved activities requiring no EA, to Schedule C, projects requiring the most rigorous EA (see section 4.1).

Assignment to a particular Schedule is flexible depending on estimates of the potential environmental impacts of the proposed project. Screening decisions are based on the potential for significant impacts but the term “significance” is not defined in the MEA Class EA document. Monetary limits are suggested to help guide the proponent when classifying a project but project specific environmental considerations should inform the screening decision (MEA 2000). The MEA Class EA lists numerous examples of projects, categorized by the Schedule to which the projects most likely belong, to guide the proponents’ through the screening decision; there are 42 examples of road projects and 85 examples of water and wastewater projects. The MEA Class EA document also lists the names of federal, provincial, municipal and private agencies/people that proponents may consider contacting when particular environments may be affected by the proposed project (e.g., fish habitat, ornamental and street trees, First Nations Lands). The proponent is not required, but is “encouraged” to document their rationale behind the screening decision.

The proponent should reconsider their screening decision after the mandatory consultation points in Phases 2 and 3 (MEA 2000). This is a key advantage to the MEA Class EA process as public input can increase the proponents' understanding of the significance of environmental features and impacts, likely resulting in a better screening decision, and subsequently avoiding confrontational bump-up requests.

Similar to the MTO process, the only form of appeal is for screening decisions. A screening decision made by a proponent is subject to a bump-up request unless a specified proponent municipality decides the project belongs to Schedule A.

In summary, the MEA Class EA effectively screens proposals for significance and fully meets this criterion. The MEA Class EA includes numerous examples of actions (with monetary thresholds) to guide proponents during the screening decision, and the MEA Class EA has checkpoints after public consultation periods when the proponent should reconsider the screening choice. The process includes varying levels of EA and the Part II Order request gives the public and review agencies the ability to appeal to the Minister of the Environment to have a project bumped up to an Individual EA Act review.

#### **4.7 Must scoping of the environmental impacts of actions take place and specific guidelines be produced?**

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| <ul style="list-style-type: none"><li>a) Must the proponent consult the environmental authority early in the EIA process?</li><li>b) Must the proponent prepare information as a basis for scoping?</li><li>c) Is scoping mandatory in each case?</li><li>d) Must a general or generic set of impacts be addressed in the EIA?</li><li>e) Must action-specific scoping guidelines be prepared?</li><li>f) Are irrelevant impacts screened out?</li><li>g) Does published guidance on scoping procedures and methods exist?</li><li>h) Is consultation and participation required in scoping?</li><li>i) Is there a right of appeal against scoping decisions?</li><li>j) Does scoping function efficiently and effectively?</li></ul> |
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Scoping is not discussed as a formal activity in the MEA Class EA process. Proponents are not required to assess a prescribed list of impacts. Instead, in Phases 2 and 3, the proponent describes the area and an inventory of the natural, social, and economic environments which are to be considered when assessing the project impacts. The idea of focussing the attention of proponents, review agencies, and the public on the important environmental features and impacts is implicit. The MEA recommends that the level of detail of information collected during the EA process should reflect the potential severity of the impacts predicted and the proponent should only collect information which is likely to have a direct bearing on impacts and mitigating measures.

The MEA Class EA lists the Ministry of the Environment and other directly affected municipalities as review agencies that must be contacted at all mandatory consultation times for Schedule B and C projects. Other provincial ministries are listed as agencies that should be contacted when deemed appropriate. Additionally, the MEA Class EA describes environmental situations (e.g., proposed activities that may affect First Nations Land, prime agricultural land, groundwater, etc.) and suggests the Federal and Provincial government agencies that should be contacted regarding each environmental issue (MEA 2000 Appendix 3). Proponents are also advised to refer to the PPS that came into effect on May 22, 1996 and associated reference manuals when scoping.

Public consultation is not mandatory during scoping but the MEA Class EA promotes early and ongoing consultation during the EA process as a means for information exchange. The first mandatory point of contact during Phase 2 provides an opportunity to discuss “potential impacts and local sensitivities.”

Similar to the MTO Class EA process, scoping issues may form the reason for a bump-up request, the only form of appeal for Class EA decisions other than judicial review.

In summary, although the MEA Class EAs Renewal Project identified scoping as an issue that needed to be addressed, the current MEA Class EA does not explicitly discuss the scoping step and proponents are not required to document the results of scoping. It is advantageous that the OMOE is listed as a mandatory consultee for all consultation and participation periods, and the MEA Class EA includes some guidance about identifying potential impacts. This criterion is partially met.

#### **4.8 Must EIA reports meet prescribed content requirements and do checks to prevent the release of inadequate EIA reports exist?**

- a) Must EIA reports describe actions and environments affected, forecast impacts, indicate significance and contain a non-technical summary?
- b) Must information held by the relevant authorities about the environment or type of action be made available to the proponent?
- c) Does published guidance on EIA report preparation exist?
- d) Must specified EIA methods or techniques be employed?
- e) Does accreditation of EIA consultants exist?
- f) Do checks on the content, form, objectivity, and accuracy of the information presented occur before publication of the EIA report?
- g) Is consultation and participation required in the EIA report preparation?
- h) Does the EIA process encourage creative fact finding (Lasswell 1971)?
- i) Does EIA report preparation function efficiently and effectively?

The proponent prepares Project Files for Schedule B projects, and ESRs for Schedule C projects. These documents must clearly show how the required EA steps were followed (MEA 2000). Project Files must explain the following items:

- Background to the project and earlier studies
- The nature and extent of the problem or opportunity, to explain the source of the concern or issue and the need for a solution
- Description/inventory of the environment

- The alternative solutions considered and the evaluation process followed to select the preferred solution
- Follow-up commitments, including any monitoring necessary
- The public consultation program employed and how concerns raised have been addressed

The Project File should include all correspondence, copies of notices, letters, bulletins relating to public consultation, memoranda explaining the proponent's rationale in developing stages of the project, and copies of reports prepared by consultants and others (MEA 2000). A short summary of the proposed project and EA activities may be included in the File for ease of distribution to review agencies and other interested parties (MEA 2000).

ESRs are also meant to document the EA process that was conducted through Phases 1 to 3. The content of the report is project specific but the MEA provides an outline to guide proponents on the information that would, "make the ESR meaningful and which the public and government reviewers are likely to expect to have included: executive summary, introduction and background, problem statement, alternative solutions, alternative designs, project description, monitoring and appendices (for maps and plans, correspondence, environmental studies, etc.)" (MEA 2000). The MEA describes each section's purpose and typical contents: "...the proponent shall ensure that the language and terminology used, and explanations given of technical matters considered, are readily understood by a reasonable lay person" (MEA 2000).

Similar to the MTO Class EA content requirements, the MEA Class EA lacks specificity regarding environmental impacts and their significance. These requirements are implicit, as the evaluation process for assessing alternatives, and environmental impacts and their "magnitude," must be documented (MEA 2000).

Proponents are not required to use specific EA methods or techniques; this could inspire creativity during the EA process. There is no published guidance to assist proponents when preparing EA reports, outside of what is provided in the MEA Class EA document. It is unknown whether proponents have methods for verifying the content, form, and accuracy of EA reports prior to public review. It is good practice for the proponent to send draft ESRs to review agencies for their comments prior to publishing the report for the public review period (MEA 2000).

Consultation is required at least once prior to the publication of ESRs and Project Files for public review (MEA 2000). The MEA Class EA includes the names of many agencies that the proponent may consult for information on the environment and proposed action, but the necessity for environmental authorities to provide information is not discussed.

There is no discussion about objectivity of information or bias in the MEA Class EA document, as was the case with the MTO Class EA. I speculate that this may be due to the proponent driven nature of Class EAs. Proponents that write the Class EA documents are also the proponents that will be subject to the approved Class EAs. By explicitly acknowledging the potential for bias or poor information in EA reports, and documenting procedures to minimize these problems, the proponents would be implying that municipal and provincial governments may not be credible. Credibility is a key goal for any evaluation process and therefore the Class EAs should have provisions to minimize bias and poor information in the process.

In summary, the MEA Class EA requires that proponents document actions, the environments affected, forecasted impacts, and a non-technical summary. However, the



process does not prescribe specific methods for assessing the accuracy and objectivity of the EA reports, or the range of EA methods and techniques that proponents could employ. Although the MEA Class EA does not specify the professionals that may author EA reports, it recommends that proponents send draft EA reports to review agencies for their initial comments prior to publishing reports for public review. This criterion is partially met.

#### **4.9 Must EIA reports be publicly reviewed and the proponent respond to the points raised?**

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| <ul style="list-style-type: none"><li>a) Must a review of the EIA report take place?</li><li>b) Do checks on the objectivity of the EIA report review exist?</li><li>c) Do review criteria to determine EIA report adequacy exist?</li><li>d) Does an independent review body with appropriate expertise exist?</li><li>e) Must the findings of the EIA report review be published?</li><li>f) Can the proponent be asked to respond to comments and to provide more information following review?</li><li>g) Must a draft and final EIA report be prepared?</li><li>h) Does published guidance on EIA review procedures and methods exist?</li><li>i) Is consultation and participation required in EIA report review?</li><li>j) Is consultation and participation required where further information is submitted?</li><li>k) Is there some form of appeal against review decisions?</li><li>l) Does EIA report review function effectively and efficiently?</li></ul> |
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Public review of the Project Files and ESRs is mandatory (MEA 2000). Review agencies and the public have at least 30 days to review and provide comments on the EA reports. Review agencies' responses should be documented in the Project File or ESR, and comments made by the public may be included in correspondence and meeting notes in the EA reports (MEA 2000, Personal Communication- member of a municipal association).

Minimum mandatory notice requirements are prescribed and examples are provided in the appendices to guide the proponents through the notice process (MEA 2000):

- Name and address of the proponent
- A brief description of the project which outlines the nature of the problem or opportunity and the need for a solution
- Reference to the project following the requirements of the MEA Class EA
- Details of when and where information is available to the public
- Name or title of a contact person to whom comment should be directed
- In the case of Notices of Completion for both Schedule B and C projects:
  - Date by which comment/input is to be received by the proponent
  - Advice of the public's right with regard to the provisions to request a Part II order, with date by which the request must be received by the Minister and the address of the Minister

The MEA Class EA also refers proponents to a draft consultation guide prepared by the OMOE.

In most municipalities, the ESR will be placed with the Municipal Clerk or the Municipal Project Manager for review during normal office hours (MEA 2000). To make it more convenient for members of the public, the MEA Class EA specifies that the ESR should be placed at public libraries, community centres or other places of easy public access where the document can be viewed for longer periods of time and outside normal office hours (MEA 2000). "The public should not be placed in a position of having insufficient time in which to review the ESR in order to make meaningful and informed comment to the municipality on the project" (MEA 2000). It is the public's responsibility to share their "...concerns about the potential environmental effects of a project or the planning process being followed..." (MEA 2000).

The proponent must tell the public that they have the right to request a Part II Order for a Schedule B or C project during the public review period by including this information in the Notice of Completion (MEA 2000). These Notices are distributed according to the Public Consultation Plan which is prepared earlier in the EA process (see section 4.13 for details). Once again, the Part II Order request is an appeal of the screening decision and not an appeal of the public review.

In summary, the MEA Class EA process requires the public review of EA reports and proponents must respond to the concerns raised over a particular time frame. However it is unclear what a reasonable response by the proponent would constitute. Public notification and consultation are the minimum level of public involvement and there is little guidance for the public review period. This criterion is partially met.

#### **4.10 Must the findings of the EIA report and the review be a central determinant of the decision on the action?**

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| <ul style="list-style-type: none"><li>a) Must the decision be postponed until the EIA report has been prepared and reviewed?</li><li>b) Can permission be refused, conditions be imposed or modifications be demanded at the decision stage?</li><li>c) Is the decision made by a body other than the proponent?</li><li>d) Is any summary evaluation prepared prior to decision making made public?</li><li>e) Must the EIA report, and comments upon it, be used to frame the conditions attached to any consent?</li><li>f) Are the decision, the reasons for it, and the conditions attached published?</li><li>g) Must these reasons include an explanation of how the EIA report and review influenced the decision?</li><li>h) Does published guidance on the factors to be considered in the decision exist?</li><li>i) Is consultation and participation required in decision making?</li><li>j) Is there a right of appeal against decisions?</li><li>k) Does decision making function effectively and efficiently?</li></ul> |
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Similar to the MTO Class EA process, the proponent makes the key decision in the MEA Class EA process, the choice among alternatives. The decision should be based on the net benefits of the alternatives. The proponent may proceed with a project after the minimum 30 day public review period if the proponent feels that it has met the requirements of the MEA Class EA, and if all Part II Order requests are denied. “The

original concept was that if you followed this process you were approved to move forward unless you were stopped by somebody. So there is no approval process, there is a disapproval process” (Personal Communication- member of a municipal association). Whether this is still the intent of the MEA Class EA process is debatable – proponents must evaluate alternatives to the proposed project or plan, re-evaluate whether the proposal should be dropped after the public is consulted, and proponents are advised to consider the “no action” alternative (MEA 2000).

Because the MEA Class EA is a self-assessment, conditions are only imposed if the Minister of the Environment denies a Part II Order request with conditions (EA Act s. 16(3)). Proponents may choose to modify their proposal or make commitments for social or environmental protection measures during the public review stage to avoid Part II Order requests (Personal Communication- member of a municipal association).

For Schedule B and C projects the proponent sends a Notice of Completion to the EAAB when the EA report is placed on the public record for review (MEA 2000). This Notice indicates that the proponent is proceeding with the project but provides no rationale for the decision, and would be incorrect if the project is successfully bumped-up to an Individual EA Act review, and the EA approval is subsequently refused. Documentation of Schedule A activities is not required (MEA 2000).

The only option the public has when they disagree with the decision to proceed is the Part II Order request, which if approved, results in the more formal review of a project under the EA Act. The Part II Order request applies to Schedule B and C projects proposed by all proponents, and Schedule A projects proposed by municipalities other than the specified proponent municipalities (MEA 2000). Outside of the EA process, the

public may take decisions of municipal councils to the Ontario Municipal Board for hearing (Personal Communication- member of a municipal association).

In summary, the MEA Class EA process requires that proponents decide among alternatives based on their net benefits. Conditions are rarely imposed but proponents may voluntarily agree to mitigation during the EA to avoid Part II Order requests. Notices of Completion document when an EA is complete but do not provide much information about the decisions to proceed, and would be false if a Part II Order request was successful. Greater guidance about how to choose among alternatives would be beneficial. This criterion is partially met.

#### **4.11 Must monitoring of action impacts be undertaken and is it linked to the earlier stages of the EIA process?**

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| <ul style="list-style-type: none"><li>a) Must monitoring of the implementation of the action take place?</li><li>b) Must the monitoring of action impacts take place?</li><li>c) Is such monitoring linked to the earlier stages of the EIA process?</li><li>d) Must an action impact monitoring programme be specified in the EIA report?</li><li>e) Can the proponent be required to take ameliorative action if monitoring demonstrates the need for it?</li><li>f) Must the results of such monitoring be compared with the predictions in the EIA report?</li><li>g) Does published guidance on the monitoring and auditing of action implementation and impacts exist?</li><li>h) Must monitoring and auditing results be published?</li><li>i) Is there a public right of appeal if monitoring and auditing results are unsatisfactory?</li><li>j) Does action monitoring function effectively and efficiently?</li></ul> |
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The Municipal Class EAs Renewal Project (led by the MEA) identified project specific monitoring as an issue that needed addressing (MEA 2000). The MEA addressed this issue by including one paragraph in the MEA Class EA (MEA 2000):

The monitoring program outlined in the ESR shall be undertaken to ensure that the environmental provisions and commitments made in the ESR are fulfilled and are effective. Monitoring of project operation may be necessary to ensure effectiveness of the selected solution in resolving the problem. The results of the monitoring program shall be communicated to the public and review agencies, if requested.

The MEA Class EA does not ensure monitoring occurs for all Schedules of projects. Monitoring will only occur if environmental provisions from other approval processes require it, or if the proponent agrees to monitor during the EA process (MEA 2000).

In summary, the MEA Class EA process is weak regarding monitoring of compliance and impacts. The lack of minimum requirements for monitoring may mean that monitoring only occurs if it is required by other legislation or if the proponent agrees to monitor to avoid a Part II Order request. This criterion is not met.

#### **4.12 Must the mitigation of action impacts be considered at the various stages of the EIA process?**

- a) Must clear evidence of the mitigation/avoidance of environmental impacts be apparent in the initial action design described in preliminary EIA documentation?
- b) Must a schedule of mitigation measures and their implementation be set down in the EIA report?
- c) Must evidence of the consideration of mitigation be presented during screening, during scoping, during EIA report review and revision, during decision making and during monitoring?
- d) Does published guidance on mitigation and modification exist?
- e) Does the mitigation of action impacts take place effectively and efficiently?

“The class EA process is intended to identify potential impacts and where possible, to avoid them” (MEA 2000). If impacts cannot be avoided, mitigation measures should be employed to reduce the impacts (MEA 2000).

Mitigation is first considered during the screening decision; although the potential for environmental impacts determines the Schedule to which the project belongs, if there is potential for significant environmental effects that are not mitigable, the proponent may decide to abandon the proposed project (MEA 2000). Therefore, evidence of the consideration of mitigation measures should be available for the public at the first mandatory point for public consultation. The proponent considers mitigation again when

it determines the net positive and negative effects of alternative solutions and alternative designs, in order to maximize positive effects and minimize negative effects (MEA 2000). Proponents may commit to additional mitigation measures during the public review of Project Files and ESRs to avoid Part II Order requests. All mitigation measures should be documented in Project Files and ESRs (MEA 2000).

Mitigation is also the proponent's responsibility during the construction phase. This should be accomplished by specifying mitigation in contract documents to meet commitments made in the ESR or Project File, and by requiring the mitigation of unforeseen impacts that may arise during construction (MEA 2000).

Eight pages of examples of mitigation measures are provided in the MEA Class EA document, organized by the following environmental effects:

- Surface drainage system
- Groundwater
- Fish, aquatic wildlife and vegetation
- Terrestrial vegetation and wildlife
- Heritage resources
- Agricultural
- Residential, institutional, commercial, and industrial
- Outdoor recreation
- Soils geology
- Topography/landforms
- Climatic features
- Public health
- Operational and construction noise

The MEA Class EA document does not include designing a project to limit aggregate resource use as a mitigation measure. It is important to note, however, that mitigation measures are specifically suggested for the loss of aggregate resources: avoid site of aggregate reserves, and/or extract aggregate and minerals prior to construction.

Outside of these mitigation measures, there is no mention of aggregate in the MEA Class EA document.

The following documents are also recommended for mitigation guidance (MEA 2000):

- *Environmental Construction Guidelines for Municipal Road, Sewage and Water Projects* MEA, January 1987.
- *Environmental Guidelines for Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario* 4<sup>th</sup> edition, Ontario Energy Board, 1995.
- *Environmental Guidelines for Access Roads and Water Crossings* OMNR.
- *Storm water Management Practices Planning and Design Manual* OMOE, June 1994.
- *A Guide to the Conservation of Municipal Sewage and Waterworks*, Ontario Ministry of Culture and Communications with MEA, 1990.
- PPS and associated reference manuals

In summary, the MEA Class EA process clearly requires that EA participants consider mitigation measures throughout the EA process. The MEA Class EA also includes a fair amount of guidance about mitigation but some references to other documents may be out of date. This criterion is fully met.

#### **4.13 Must consultation and participation take place prior to, and following EIA report publication?**

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| <ul style="list-style-type: none"><li>a) Must consultation and participation take place prior to scoping, during scoping, during EIA report preparation, during review and following revision, during decision making and during monitoring?</li><li>b) Must a public participation strategy be initiated for each EIA?</li><li>c) Are copies of EIA documents made public at each stage of the EIA process?</li><li>d) Can copies of EIA documents be accessed free of charge or purchased at a reasonable price?</li><li>e) Do confidentiality/secretcy restrictions inhibit consultation and participation?</li><li>f) Are consultation and participation methods appropriate to the stage of the EIA process at which they are employed?</li><li>g) Is funding of public participants provided for?</li><li>h) Are obligatory consultees specified at various stages in the EIA process?</li><li>i) Must adjoining authorities/states/countries be consulted?</li><li>j) Does published guidance on consultation and participation exist?</li><li>k) Must the results of consultation and participation be published?</li><li>l) Do rights of appeal exist at the various stages of the EIA process?</li><li>m) Does consultation and participation function efficiently and effectively?</li></ul> |
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**“Consultation early and throughout the process is a key feature of environmental assessment planning”** (MEA 2000). [Emphasis is as in the original text.]

The purpose of consultation and participation is to provide opportunities for “meaningful dialogue” through which information is exchanged between the proponent and affected and interested parties and “...for those consulted to influence decision making” (MEA 2000). Another benefit of consultation is the involvement of review agencies, which ensures that the proponent becomes aware of all policy and regulatory requirements (MEA 2000). Part II Order requests may be avoided through consultation, as differing perspectives can be resolved and concerns addressed (MEA 2000). The main types of conflict resolution are stated and briefly described in the MEA Class EA to assist proponents in resolving conflicts and disputes: facilitation, negotiation, mediation, and arbitration.

The MEA Class EA document specifies minimum requirements for consultation. Beyond the minimum requirements, the proponent is responsible for determining appropriate consultation methods and timing to meet the needs of the project and stakeholders. The following people should be included during consultation and be contacted at the same times during the EA process: project planners, general public, property owners, community representatives, interest groups, review agencies and other municipalities (MEA 2000). The proponent should keep the municipal council informed during the EA process, as determined through discussion with the municipal council (MEA 2000). Other directly affected municipalities and the OMOE must be contacted in all cases. In determining other review agencies that should be contacted, the proponent can refer to a list of potential review agencies and an appendix that organizes potential

contacts based on the particular situation (e.g., First Nations land, woodlots, fish habitat) (MEA 2000).

The proponent should prepare a Public Consultation Plan at the beginning of the EA process. The Plan can be a formal document but may be simply an approach included in meeting minutes, memos or a report (MEA 2000). The Public Consultation Plan should include the following (MEA 2000):

- Who is to be consulted
- What they will be consulted about
- Where they will be contacted in the process
- How they will be consulted (i.e., what methods will be used)
- How input from the public will be integrated in the study and the decision making
- The manner in which comments and concerns will be responded to
- How the plan will be monitored to determine its effectiveness

When determining the appropriate Consultation Plan, the proponent should consider the following factors (MEA 2000):

- The scope of the problem or opportunity being addressed
- The level of complexity and sensitivity
- Potential environmental issues and impacts
- Specific community characteristics and needs
- Available resources
- Approaches used in other similar studies in the community
- Appropriate methods for the specific project

To help guide the proponent when determining the Public Consultation Plan, the MEA Class EA document describes different methods for achieving the purposes of notification, provision of study information, and information collection/exchange. When determining the appropriate methods, the proponent should consider the following factors (MEA 2000):

- Potential audience size

- Level of involvement (i.e., the potential for information exchange and input)
- Degree of information exchange that can be expected
- Potential to identify issues
- Potential to resolve contentious or outstanding issues
- Special needs of the participant

It is clear from the above description of the Public Consultation Plan, that the MEA intends that consultation meet both the needs of the proponent, and those parties interested and affected by the potential undertaking.

There are mandatory points of public contact for all projects, except Schedule A projects, which are pre-approved. These mandatory contact points occur during four of the seven EA process steps (Table 4.3). The first mandatory public contact point for Schedule B and C projects is to provide the opportunity for the public and review agencies to have input on the identification of the problem or opportunity, alternative solutions, and the selection of a preferred alternative solution. At this time, the proponent and affected and interested parties can discuss environmental impacts and mitigation measures. Proponents should also explain the Class EA process and inform the public of their roles and responsibilities during the EA process, and their rights to participation including their ability to request a Part II Order (MEA 2000). After this public contact point, the proponent can verify its preferred alternative solution and confirm the Schedule to which the project belongs, considering comments received from the public and review agencies.

The second, and final, mandatory public contact point for Schedule B projects provides the opportunity for the public and review agencies to have input in the proponent's choice of the preferred solution by reviewing and commenting on the Project

File, over a minimum 30 day period. This contact is accomplished by issuing a Notice of Completion.

**Table 4.3 Opportunities for public consultation prescribed in the MEA Class EA document**

EA Process Step	Public Consultation Prescribed in the MEA Class EA	
	Yes?	No?
Alternatives	✓	
Screening	✓	
Scoping	✓	
Report Preparation		✓
Public Review	✓	
Decision Making		✓
Monitoring		✓

Source: MEA (2000)

The second mandatory public contact point for Schedule C projects is during Phase 3, after the proponent has evaluated alternative designs and has determined a preliminary preferred alternative design. Only Schedule C projects require consultation with the public when the proponent is selecting a preferred alternative design (which includes more details about the project than the preferred solution). The MEA Class EA document cautions a proponent to avoid presenting their preferred alternative design as a decision and instead to present their preference as a “preliminary preference” based on the EA process to date.

The third and final mandatory public contact point for Schedule C projects occurs when the ESR is published for public review, over a minimum 30 day period. Similar to Schedule B projects, a Notice of Completion is used at this stage.

More consultation points may be necessary for controversial, lengthy or complicated projects (MEA 2000). The MEA Class EA document includes the following discretionary points of contact:

- During Phase 1 – To review and develop a clear problem statement
- Between Phases 3 and 4 – To review the preferred design prior to finalization of the ESR

Sample Notices for consultation opportunities at each mandatory contact point are included in the MEA Class EA document to guide the proponent in communicating these opportunities. Proponents shall also mail or deliver copies of notices to all those that have expressed interest in the project at the second and third mandatory points of contact.

Both Project Files and ESRs should include a description of the consultation program and how concerns raised were addressed (MEA 2000). The language used in all notices, Project Files, ESRs, and other EA materials presented to the public should be plain and simple so a lay person may understand the content (MEA 2000).

To assist in the public's understanding of the MEA Class EA process, the proponent is responsible for explaining the process and EA requirements as fully as possible (MEA 2000). "The proponent should consider making copies of the OMOE's most current consultation guides and the [MEA Class EA] available to the public at convenient locations" (MEA 2000). The MEA Class EA refers to a sample handout describing the MEA Class EA for the public, but the sample is missing from my copy and an additional copy the Ontario Good Roads Association (distributor of the MEA Class EA) checked in their office for me on June 11, 2007. Funding is not provided for public participants. Unfortunately, the MEA Class EA document must be purchased from the MEA for \$75.00. This charge may be prohibitive for some members of the public.

The only form of appeal is the Part II Order Request. For Schedule B and C projects, this request should be made during the last opportunity for public review, after the proponent publishes the Notice of Completion. As mentioned previously, the Part II Order Request only applies to Schedule A projects proposed by non-proponent municipalities.

In summary, the MEA Class EA process requires that proponents prepare a consultation plan for each project/plan. The process involves the public early and throughout the EA process but it does not offer sufficient guidance to proponents or EA participants to ensure quality participation (although the MEA refers to the OMOE draft consultation document). Regrettably, the cost to obtain a copy of the MEA Class EA document may inhibit the ability of the public to learn about how the EA process is meant to work. This criterion is partially met.

#### **4.14 Must the EIA system be monitored and, if necessary, be amended to incorporate feedback from experience?**

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| <ul style="list-style-type: none"><li>a) Is there a legal provision for periodic review of the EIA system?</li><li>b) Have reviews of the EIA system been carried out and changes made?</li><li>c) Is consultation and participation required in EIA system review?</li><li>d) Is a record of EIA reports for various types of action kept and made public?</li><li>e) Are records of other EIA documents kept and made public?</li><li>f) Are EIA reports and other EIA documents publicly available at one or more locations?</li><li>g) Are records of financial costs of EIA kept and made public?</li><li>h) Is information on the time required for EIA collected and made public?</li><li>i) Are the lessons from specific EIAs fed back into the system?</li><li>j) Does published guidance on monitoring and amending the EA process exist (Lasswell 1971)?</li><li>k) Are appraisals reviewed by a third party (Lasswell 1971)?</li><li>l) Are complaints about the EIA system documented and used to inform appraisal and termination (Lasswell 1971)?</li><li>m) Does the EIA system ensure changes are made at optimal times (Lasswell 1971)?</li><li>n) Does the EIA system ensure changes are made in a manner that minimizes harm to all groups affected by the change (Lasswell 1971)?</li><li>o) Does the EIA system ensure changes result in the fair distribution of benefits and are losers compensated when there is a justified complaint about the distribution of benefits (Lasswell 1971)?</li><li>p) Is formal responsibility for success and failures of the EIA system attributed (Lasswell 1971)?</li><li>q) Are all components of the EIA system appraised (Lasswell 1971)?</li><li>r) Does the monitoring of the EIA system function efficiently and effectively?</li></ul> |
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Conditions of approval for the current MEA Class EA document require overall EA process monitoring on an annual basis, and full reviews every five years (OC 1923/2000); the MEA has completed these annual reports and one 5-year review (MEA 2002-2005). Annual reporting is the norm for government and personal finances and provides for the continual accumulation of monitoring data. The 5-year review for the MEA is also reasonably timed as 5 years allows the Class EA process to mature, the implementation processes to improve through the annual monitoring program, and for any trends to appear in the monitoring data. The timing of the reporting (annually and every 5-years) is appropriate and beneficial.

The Monitoring Program for the MEA Class EA process is described in the 2004 Annual Monitoring Report. “The purpose of the Monitoring Program is to monitor the overall parent Class EA process in the broad sense and not to audit specific projects for compliance in terms of process or technical issues... The purpose, therefore, is to monitor the use, compliance and effectiveness of the Municipal Class EA process as outlined in the parent document” (MEA 2004). The framework for the Monitoring Program is presented clearly in a table describing what indicators will be used to judge use, compliance and effectiveness, how the indicators will be measured, and how data will be collected. The table is a good communication tool as it shows the relationships between the different components of the evaluation framework.

The evaluation methods for assessing use, compliance and effectiveness are clearly described, but some evaluation criteria are vague. For example, the criteria for judging the effectiveness of the Municipal Class EA process in meeting Class EA program objectives are explicit but not specific or defensible; the list of objectives (e.g.,

consultation, assessment of environmental effects) is provided as the “indicators” but these objectives are so briefly stated that there is no way to judge what is “good.”

Government agencies and proponents have the opportunity to respond to the questionnaires the MEA uses to obtain information. Only a select portion of the public are invited to answer questionnaires: EA and planning practitioners. No EA and planning practitioners submitted comments to the MEA for inclusion in the 2002 through 2004 annual monitoring reports. It is positive that some stakeholders have the ability to inform the evaluation, but the evaluation is biased as the perspectives of the regulators and proponents are the only ones directly represented. There is only indirect input of public comments into the Monitoring Framework, by the qualitative review of Part II Order requests by the MEA.

The MEA refers to the amendment process outlined in the MEA Class EA document as the mechanism for implementing improvements (MEA 2004). The following reasons might support amendments: to clarify ambiguities in the document and procedure, to streamline the planning process, and extend the Class EA to projects that were previously excluded (MEA 2000). The amendment procedure does not include a discussion about how improvements to the process may better achieve the purpose of the EA Act: “...the betterment of the people of the whole or any part of Ontario by providing for the protection, conservation and wise management in Ontario of the environment” (EA Act s. 2). In fact, the health of the environment and wellbeing of the community are not discussed much in the monitoring reports at all; more text is afforded to describing the benefits of using a Class EA process versus the more formal Individual EA Act review.



Amendments are divided into two categories (minor and major) depending on how much the Class EA would be changed if the amendment was approved. The Director of the MOE-EAAB may approve minor amendments, if the Director believes that there are no significant environmental concerns, after a 30 day public comment period. The Minister or the Minister's delegate may approve major amendments, if the Minister or delegate believes there are no significant environmental concerns. The language in the MEA Class EA document is discretionary concerning whether the public must be consulted during the major amendment process, "...the Minister, or his/her delegate, may conduct a public consultation process..." It is clear that the public is notified of proposed minor amendments, and it would be unfair if the public does not have the opportunity to review major amendments because these amendments may have the potential for greater environmental and social impacts.

The focus of the annual monitoring reports is on "successes" rather than areas requiring improvement; improvements are listed under the heading "Success of Municipal Class EA." Although amendments are included in all monitoring reports, recommendations are not suggested for all potential weaknesses. For example, "The new provisions for an 'Integrated Approach' for planning projects is not yet well used" (MEA 2004). Why not? Should they be used more? What could be done to make them better used? Improvements should also be described in greater detail to make them more understandable. For example: "TTC's request for a minor amendment to include transit or bus lanes as Schedule C projects" (MEA 2004). Does this mean go forward with TTC's request? Deny TTC's request? A second example: "After the consultation - public notice requirements to provide flexibility for advertising" (MEA 2004). What kind of

flexibility? Timing? The type of advertisement? Perhaps the improvements are lacking clarity because the discussion of the evaluation results is not detailed enough to inform and justify improvements.

The 5-year review is also brief, consisting of half a page describing the review process, and eight and a half pages listing amendments that are proposed to improve the Class EA process. The brevity of the 5-year review and the weaknesses in the annual monitoring process described above do not inspire confidence in the monitoring program.

The policy for retaining and distributing EA documents after projects are completed is not described in the MEA Class EA document, or the EA Act. The municipalities that prepared the ESRs and Project files retain these documents and only Notices of Completion are sent to the OMOE for compilation. In order to see the EA records, the public would have to contact specific municipalities or the OMOE and follow their procedures for viewing specific EA records.

There is no requirement to track the time and costs that are related to the MEA Class EA process. Individual municipalities may have this information available, especially if council has asked for the costs of EA (Personal Communication- member of a municipal association).

Although the intent of the MEA Class EA may be to ensure that the benefits and costs of projects and plans that proceed through the process are distributed equally (Personal Communication- member of a municipal association), it is unclear how this is accomplished during the amendment process without actively involving the public in the monitoring program. Changes are not being made at optimal times because amendments are only made periodically, although simply changing the timing of the amending

procedures would be unlikely to improve the situation because consultation is also necessary, “When you’re affecting everybody in Ontario, you should tell everybody in Ontario that you are doing it” (Personal Communication- member of a municipal association).

In summary, the MEA Class EA process requires that the EA system be monitored annually and reviewed every five years. The MEA Class EA includes amendment procedures to incorporate changes; reports are published online. Key flaws of the MEA Class EA Monitoring Program include generally poor evaluation criteria, a focus on successes rather than weaknesses, a lack of public involvement, and short and poorly justified and explained evaluation reports. Unfortunately, the evaluation framework does not clearly indicate that the monitoring program is meant to improve the Class EAs so that they will better achieve the purpose of the EA Act. This criterion is partially met.

#### **4.15 Are the discernible environmental benefits of the EIA system believed to outweigh its financial costs and time requirements?**

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| <ul style="list-style-type: none"><li>a) Does empirical evidence exist that the EIA process has significantly altered the outcome of decisions?</li><li>b) Do the participants in the EIA process believe that the environmental quality and acceptability of decisions are improved by it?</li><li>c) Do the participants in the EIA process believe that it has altered the behaviour of the proponents, consultants, consultees, the public and the decision making authorities?</li><li>d) Do the financial costs of the EIA process to proponents, consultees, the public and the decision making authorities exceed those which would have been incurred in any event?</li><li>e) Do the times required to complete the various stages of the EIA process exceed those specified?</li><li>f) Do the participants in the EIA process believe there are enough resources to effectively implement the EIA process (Lasswell 1971)?</li><li>g) Is the time to complete the EIA process acceptable to the stakeholder groups (Lasswell 1971)?</li></ul> |
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Proponents believe that the MEA Class EA process is less costly (time and money) than, and equally effective to, the alternative (the Individual EA Act review of all public infrastructure projects) (MEA 2004). There is no empirical evidence to show that

Ontario Class EAs are as effective as individual reviews, even though most EAs in Ontario are completed according to parent Class EAs (EAAP 2005, Levy 2002).

The ECO has been critical of the MEA Class EA process as it does not involve the public as much as the ECO believes it should, the OMOE has found some situations in which EA documentation is deficient, and EA commitments are not always adequately met (ECO 2004). The OMOE has also expressed concern about the lack of consultation that is occurring between OMOE-EAAB staff and proponents for public infrastructure projects (MEA 2004).

The EAAP report also documents concerns about the Class EA system, in general, including the potential that proponents may proceed through self-assessments without paying the necessary attention to the "...intent and objective of the EA Act... and thus deprive the public and environment of discernable public benefits that EA is meant to achieve" (see section 3.15 for more) (EAAP 2005).

Similar to the MTO Class EA process, there is little evidence to draw on to assess the benefits of the MEA Class EA process, but it is clear that the self-assessment process is timely; 306 projects/plans were completed between September 1, 2000 and December 31, 2003 (Table 4.4). The data may be showing that the number of projects/plans being completed according to the MEA process is increasing, or perhaps the numbers are increasing because more municipalities are filing Notices of Completion with the OMOE as they are required, remedying a problem the MEA noted in the 2002 Monitoring Report that all municipalities were not reporting to OMOE consistently.

Proponents spend approximately five to ten percent of their total budget on administration costs relating to the MEA Class EA process, and 25 to 90% of their total budget on Schedule A projects (MEA 2004). “A single large Schedule B or C project can shift this percentage dramatically for a given year especially in a small municipality” (MEA 2004). Proponents have not expressed concern over the cost of conducting EAs but are concerned with the delays that have occurred when the OMOE reviews Part II Order requests; in 2003, it took between three to eighteen months for the Minister of the Environment to issue a decision about Part II Order requests (6.5 months on average). This average response time is well beyond the 66 days required by the MEA Class EA (the OMOE-EAAB should forward to the Minister a report about the Part II Order request within 45 days of the end of the last public review period, and the Minister should issue a decision within 21 days of receiving the report from the OMOE-EAAB) (MEA 2000).

**Table 4.4 Notices of Completion filed with the OMOE-EAAB**

Type	Year		
	2000-2001	2002	2003
Integrated Master Plan	2	3	2
Master Plan	2	1	12
Road Projects	24	50	58
Wastewater Projects	9	7	29
Water or Water Works Projects	16	33	54
Other Projects	0	3	1
<b>Total</b>	<b>53</b>	<b>97</b>	<b>156</b>
<b>Number of Municipalities Reporting</b>	<b>37</b>	<b>51</b>	<b>&gt; 90</b>

Source: MEA (2002-2004)

There may be additional environmental and social benefits occurring because of the legal requirement to consider the environment during the planning process (Personal Communication- member of a municipal association):

My association back in the 70s wrote a document that was environmental considerations during the planning process. And it was a guideline. And we wrote it, circulated it, and everybody filed it and forgot it...Our document provides some comfort zone to all of the players, both for and against [municipal projects/plans] that there is a process in place...There is that sense of we're [the municipality] doing what we think is right, but if you don't think we're right, there is this appeal process.

If the MEA Class EA did not exist and if proponents of municipal infrastructure had to follow the lengthier Individual EA Act review process, it is possible that public infrastructure would not be maintained as well, and proponents might look for ways to shortcut the EA process (Personal Communication- member of a municipal association):

I don't know what you would do. Would you continue to patch potholes on a road rather than resurfacing it if the resurfacing took a year and a half process? At some points you'd bite the bullet and you'd do the year and a half approval process...It [individual EAs] would either consume a considerable amount of money or you would write an internal document that was xeroxable and you'd just insert place names, etc. etc. etc.

In summary, no previous evaluation has called for the termination of the MEA Class EA process in Ontario, but the process could be improved. An interview participant reported that compared to an earlier initiative that established guidelines to encourage municipal infrastructure proponents to consider the environment, the MEA Class EA is much more effective in changing proponent's behaviour because there are mandatory requirements to do so. Thus, this criterion is partially met.

#### **4.16 Does the EIA system apply to significant programmes, plans and policies, as well as to projects?**

The MEA Class EA provides a process for planning groups of projects, or overall systems, and even integrated systems (e.g., road networks, infrastructure master plans). “Master Plans are long range plans which integrate infrastructure requirements for existing and future land use with EA planning principles” (MEA 2000). As a minimum, Master Plans must complete Phases 1 and 2 of the MEA Class EA process (MEA 2000 A.2.7): Phase 1 – problem or opportunity, and Phase 2 – alternative solutions. The Master Plan informs the EA process for individual projects and limits the alternatives that may be considered during the EA of individual projects (MEA 2000). Depending on the depth of the Master Plan, the Plan may satisfy Phases 1 and 2 for individual projects (MEA 2000).

The benefits of Master Planning include better definition of need and justification for individual projects, a better understanding of the planning context, and broader infrastructure options (MEA 2000). This planning approach is also a mechanism for assessing impacts at the regional scale, and perhaps cumulative effects.

The MEA Class EA also defines a planning approach to integrate the requirements for municipal planning in the *Planning Act* with the planning requirements in the Class EA. This “integrated approach” is rarely used (MEA 2004).

In 2004, the OMOE-EAAB was notified that twelve Master Plans and two Integrated Master Plans were completed according to the MEA Class EA process (MEA 2004). Some people find the wording of these two EA processes in the MEA Class EA

document unclear, so there is room to improve the clarity of these two particular processes (Personal Communication- member of a municipal association).

In summary, the MEA Class EA applies to Master Plans, although the process could use some clarification. This criterion is partially met.

## 4.17 Summary

Overall, the MEA Class EA process is moderately effective (Table 4.5). The following are the key strengths and weaknesses of the process:

### Strengths

- Based on clear and specific legal provisions
- Alternatives are well considered
- Applies to Master Plans

### Weaknesses

- Environmental impacts and compliance are not adequately monitored

**Table 4.5 Summary of evaluation results for the MEA Class EA process**

Evaluation Criteria	MEA
1. Is the EIA system based on clear and specific legal provisions?	●
2. Must the relevant environmental impacts of all significant actions be assessed?	●
3. Must evidence of the consideration, by the proponent, of the environmental impacts of reasonable alternative actions be demonstrated in the EIA process?	●
4. Must screening of actions for environmental significance take place?	●
5. Must scoping of the environmental impacts of actions take place and specific guidelines be produced?	◐
6. Must EIA reports meet prescribed content requirements and do checks to prevent the release of inadequate EIA reports exist?	◐
7. Must EIA reports be publicly reviewed and the proponent respond to the points raised?	◐
8. Must the findings of the EIA report and the review be a central determinant of the decision on the action?	◐
9. Must monitoring of action impacts be undertaken and is it linked to the earlier stages of the EIA process?	○
10. Must the mitigation of action impacts be considered at the various stages of the EIA process?	●
11. Must consultation and participation take place prior to, and following EIA report publication?	◐
12. Must the EIA system be monitored and, if necessary, be amended to incorporate feedback from experience?	◐
13. Are the discernible environmental benefits of the EIA system believed to outweigh its financial costs and time requirements?	◐
14. Does the EIA system apply to significant programmes, plans and policies, as well as to projects?	◐

○ criterion is not met; ◐ criterion is partially met; ● criterion is fully met



## 5. INDIVIDUAL ENVIRONMENTAL ASSESSMENT ACT REVIEW

This chapter presents the results of my evaluation of the Individual EA Act review process. I begin by describing generally the entire Individual EA Act review process and the results of evaluations completed by other authors. Next, I assess each of the 14 primary evaluation criteria in 14 sub-sections. These 14 sub-sections elaborate on each component of the process that I described only generally in the first sub-section. I close the chapter with a summary of the evaluation results for the Individual EA Act review process.

### 5.1 Overview

Ontario's EA Act came into force in 1976. The design of the EA process was largely based on the United States' *National Environmental Policy Act* (EAAP 2005). "The purpose of [the EA Act] is the betterment of the people of the whole or any part of Ontario by providing for the protection, conservation and wise management in Ontario of the environment" (EA Act s. 2). The EA process is focussed on identifying and selecting a preferred alternative from among a range of reasonable alternatives and having regard for the environmental advantages and disadvantages of the proposed undertaking and the alternatives (EAAP 2005). The OMOE-EAAB administers the EA Act.

Aside from some administrative changes in 1993, the EA Act remained largely unchanged until 1997. The *Environmental Assessment and Consultation Improvement Act*, 1996 (EACIA) amended the EA Act with the intent of reducing the cost of EA, and increasing the timeliness and effectiveness of the process (EAAP 2005). The EACIA

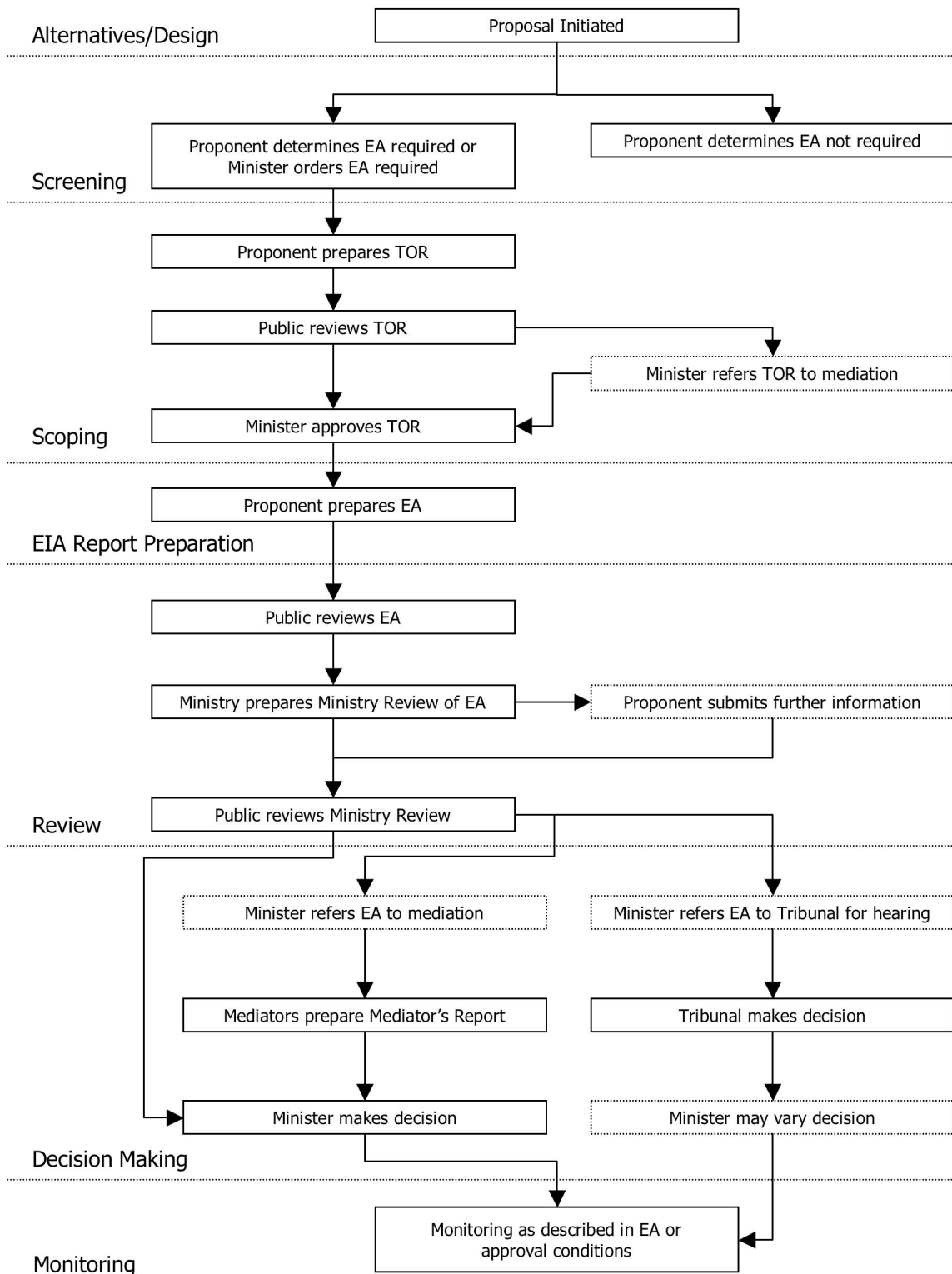
created the requirement for Terms of Reference (TOR) for a proposal, legislated the need for proponents to consult with the public, and formalized a process for approving Class EA documents.

The EA process begins when a proponent proposes an undertaking (Figure 5.1). The following undertakings must undergo EA (EA Act s. 3): projects or proposals, plans or programs by or for the crown or a municipality; major projects or proposals, plans or programs by private parties, designated by regulation; and any projects or proposals, plans or programs by a private party if the party and the Minister of the Environment agree that the Act should apply. Regulations may either designate or exclude individual or groups of projects from EA (EA Act s. 39). Nearly all private undertakings (including mines and large industrial projects), plans, and programs are excluded from the EA process. EA is primarily required for road, transit, and waste (solid and liquid) projects.

Proponents must assess and describe in EA reports the “alternatives to” the undertaking and “alternative methods” of carrying out the undertaking (EA Act s. 6(2), 6.1 (2)(b)).

The proponent must prepare, in consultation with the public, a Terms of Reference document (TOR) for the proposed EA and submit it to the Minister of Environment for approval (EA Act s. 6(1)). The public can review the draft TOR and submit comments to the Minister for consideration during the approval decision. Prior to making an approval decision, the Minister has discretion to refer the draft TOR to mediation. Once the TOR is approved, the proponent must assess the potential impacts of the undertaking on all environmental components, in accordance with the approved TOR (EA Act s. 6.1(1), MOE 2006c).

**Figure 5.1 Individual EA Act review process**



Dashed lines signify an optional step in the EA process.

The proponent prepares the EA report in consultation with the public as described in the TOR. All potential environmental impacts must be assessed by the proponent (EA Act s. 6.1(1), MOE 2006c). The EA must document mitigation measures to alleviate impacts on the environment (EA Act 6.1(2)(c)(iii)). After the proponent completes the EA, the public reviews the EA report and may submit comments to the OMOE-EAAB for consideration during the Ministry Review. The OMOE-EAAB subsequently reviews the EA report and makes a recommendation as to whether the Minister should approve the EA. At this time, the OMOE-EAAB may request additional information from the proponent to ensure that the EA meets legal requirements.

Once the Ministry Review is completed, the public can review the Ministry Review and submit comments to the Minister for consideration during the approval decision. The Minister has three options at the decision stage (EA Act s. 8, 9, 9.1, 9.2): 1) approve or refuse the EA, 2) forward the EA or parts of it to mediation, or 3) refer the EA or parts of it to the Environmental Review Tribunal (ERT) for public hearing. If the EA is referred to mediation, the Minister still makes the approval decision but must consider the results of mediation. If the EA is referred to the ERT, the ERT makes the approval decision but the Minister, with the approval of the Lieutenant Governor in Council, has the power to vary or substitute the ERT's decision (EA Act s. 11.2(2)). Once approved, the proponent may proceed with the undertaking according to the EA report and any conditions of approval that are imposed at the decision stage.

The EA Act does not explicitly require monitoring, but it is common for proponents to commit to compliance and impact monitoring in EA reports, and/or for the Minister to impose monitoring as a condition of approval. The OMOE-EAAB is

empowered by the EA Act to assess proponents' compliance (EA Act s. 25).

Unfortunately, an ad hoc approach to EA system monitoring has resulted in few comprehensive assessments of the EA Act.

## **5.2 Previous Evaluations of the Individual EA Act Review Process**

Both Valiente (1999) and Levy (2002) concluded that the EA program in Ontario has worsened with time (see more details in section 5.14). In response to ongoing debate about the EA Act, the Minister of the Environment brought together the Environmental Assessment and Advisory Panel (EAAP) to address the following (EAAP 2005):

After Bill 76 came into effect, it appears that many long-standing concerns about Ontario's EA program have not been addressed adequately or at all.

These concerns include the following issues and questions:

- What is the overall purpose of the Ontario EA program: to simply mitigate environmental impacts or to secure environmentally sustainable benefits?
- Should the nature and extent of EA requirements be dependent upon the degree of environmental risks and benefits posed by undertakings?
- Should prescriptive regulations, siting standards, policy guidelines or other instruments be developed under the EA Act to direct the planning and decision-making process?
- When and how should undertakings get exempted from the EA Act?
- When and how should the EA Act apply to private sector undertakings?
- When and how should EA planning and decision-making become integrated with other land use planning or resource management regimes?
- Should individual EAs delve into technical design or operational details that are traditionally addressed under other regulatory statutes?
- Is it possible to shorten (or extend) timelines under the EA process without compromising environmental protection and public consultation requirements?
- How can First Nations, communities, and stakeholders access the required technical or legal expertise to participate meaningfully in the EA process?
- When is it appropriate to refer an individual EA matter to mediation or a public hearing?
- When is it appropriate to “bump-up” a Class EA project to individual EA?
- Who should decide requests related to mediation, hearings, or bump-ups?

- Should Class EAs be restricted to small-scale projects that recur frequently, pose relatively minor environmental impacts, and are generally amenable to well-established mitigation measures?
- What is the appropriate role and function of the Environmental Assessment and Approvals Branch?

The EAAP report addresses many of the issues documented by the ECO and it “does echo and reinforce” a number of the ECO’s recommendations (ECO 2005, p. 164).

### 5.3 Is the EIA system based on clear and specific legal provisions?

<ul style="list-style-type: none"> <li>a) Is each step in the EIA process clearly specified in law or a regulation?</li> <li>b) Are the legal provisions sufficiently unambiguous in application?</li> <li>c) Is there a degree of discretion in the provisions which is acceptable to the participants in the EIA process?</li> <li>d) Are the EIA requirements clearly differentiated from other legal provisions?</li> <li>e) Is each step in the EIA process enforceable through the courts or by other means?</li> <li>f) Are time limits for the various steps in the EIA process specified?</li> <li>g) Does a clear outline of procedures and time limits exist for the EIA system as a whole?</li> <li>h) Are opportunities for learning about the EIA process available to participants (Lasswell 1971)?</li> </ul>
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The legal basis for the individual review process is in the EA Act and supporting regulations. All steps of the EA process, except monitoring, are specified in the EA Act:

- Alternatives (s. 6.1(2)(b)(ii and iii))
- Screening (s. 3, 3.0.1, 3.2, 5(1))
- Scoping (s. 6)
- Report Preparation (s. 6.1)
- Report Review (s. 6.4, 7)
- Decision making (s. 5(3), 9, 9.1, 9.2)
- Monitoring (nil)

Many of the EAAP’s recommendations are focussed on increasing the clarity of the EA Act’s purpose and provisions (EAAP 2005):

...MOE has not articulated explicit EA principles to ensure that EA planning or decision-making actually achieves the purpose of the Act. The ongoing absence of overarching EA principles promotes uncertainty, undermines accountability, unduly politicizes the process, and subverts the potential effectiveness of the EA Act in securing societal benefits and environmental protection.

Consistent among the Sectoral Tables was the identified need for the Ontario government to develop sector-specific policy to help guide the EA planning and decision-making process for each sector.

...all three sectors strongly argued that the absence of, and lack of clarity in, provincial policy and sectoral priorities have caused significant delays and confusion for proponents and other EA participants.

Put another way, EA in Ontario is “muddy” and “extremely difficult to understand” (Personal Communication- member of Environment Haliburton).

The EA Act is not overly prescriptive so the EA process is fairly flexible. This flexibility means that the EA Act could accommodate unique undertakings and environmental conditions. But the EA Act may provide too much flexibility; Levy (2002) found that the Act provides little guidance to decision makers that have the power to make discretionary decisions, notably the cabinet, Minister of the Environment, and the OMOE-EAAB director.

The EAAP also identified the need for EA training and educational programs for both EA practitioners and government staff. “The success of Ontario’s EA program is greatly dependent upon the competence of EA consultants and governmental EA reviewers. Education and experience are important components of ensuring such competence” (EAAP 2005). The government has committed to developing codes of practice for preparing TORs, Individual EAs and Class EAs; public consultation and mediation; and federal-provincial coordination (MOE 2006b). All of the codes of practice, except for the preparation of Individual EAs and Class EAs, are in draft form (MOE 2007b).

The EAAP identified opportunities to better integrate the EA process with the *Planning Act*, CEAA, and the EBR. Although there are guidelines for harmonizing the

EA Act and CEAA processes under the *Canada-Ontario Agreement on Environmental Assessment Cooperation* (2004), the EAAP (2005) found this guidance to be largely ineffective. To clear up the EA process for undertakings that are subject to both federal and provincial processes, the EAAP (2005) calls for the OMOE to develop new guidelines with input from proponents and other EA participants. The ECO has repeatedly called for the amendment of s. 32 of the EBR so that the public may have greater opportunities to participate in the EA process. Currently s. 32 "...means, among other things, that instruments issued for EA-approved (or exempted) projects or undertakings are not subject to: (a) public notice through EBR Registry postings; (b) mandatory public comment under the EBR; or (c) third-party appeal provisions under the EBR" (EAAP 2005). By requiring EA decision makers to ensure their decisions are consistent with the PPS, greater provincial direction could guide the EA process (EAAP 2005).

It is an offence to contravene any provision of the EA Act or regulations, or fail to comply with an order or term or condition of an approval (EA Act s. 38). A person convicted of an offence "...is liable on a first conviction to a fine of not more than \$10,000 and on a subsequent conviction to a fine of not more than \$25,000 for every day or part thereof upon which the offence occurs or continues" (EA Act s. 38). However, some stakeholders have questioned the OMOE's willingness and ability to monitor and enforce compliance (EAAP 2005):

The EAAB recently audited ...EA files (1988 to 1998) to assess the level of proponent compliance with conditions of approval under the EA Act. Significantly, this study found that "only about 50% of the proponents audited were in full compliance with conditions of EA approval, which indicated a need for a better compliance and monitoring plan (EAAP and references within)."



...Traditionally, Ontario's EA program has been characterized by an ad hoc approach to monitoring, inspection and enforcement activities...Where MOE follow up did occur, it was likely to be complaints-driven rather than an integral part of annual work plan inspections by MOE staff.

The Deadlines Regulation under the EA Act outlines deadlines for only a few parts of the EA process (*Deadlines, Ontario Regulation 616/98*):

**Scoping** – The deadline under subsection 6(6) of the Act for the Minister to notify the proponent whether or not the proposed terms of reference are approved.

**Report Review** – The deadline under subsection 6.3(1) of the Act for the proponent to give public notice of the submission of the environmental assessment.

The deadline under subsection 6.4(2) of the Act for a person to comment to the Ministry, if the person wishes the comments to be considered during the preparation of the Ministry Review.

The deadline under subsection 7(2) of the Act for the completion of the [Ministry] review.

The deadline under subsection 7.2(2) of the Act for a person to comment to the Ministry, if the person wishes the comments to be considered when the Minister decides on the proponent's application.

**Decision making** – The deadline under subsection 10(1) of the Act for the Minister to determine whether to refer a matter in connection with an application to mediation or to the Board under section 9.2.

The deadline under subsection 10(2) of the Act for the Minister to decide the application under section 9 of the Act or refer it to the Board for a decision under section 9.1 of the Act.

The Deadlines Regulation is focused on the performance of government (EAAP 2005); there are four deadlines for the government to meet, two for the public, and only one for the proponent. The proponent and its consultants are largely in control of the EA process but proponents are concerned that the EA process is not timely enough, and that the government has not always met the deadlines (EAAP 2005). The EAAP (2005) determined that the OMOE-EAAB may have inadequate funding and staffing levels to meet the prescribed deadlines.

In summary, the EA process is based in law but is weak when it comes to providing guidance and learning opportunities for proponents and other participants (although this problem may be rectified through the development of the Codes of Practice that is currently taking place), integrating with other legislation including CEAA, and monitoring and enforcement. This criterion is partially met.

#### **5.4 Must the relevant environmental impacts of all significant actions be assessed?**

- |  |
|--|
| a) Does the EIA system apply to all public and private environmentally significant projects? |
| b) Are the provisions applied in practice to all the actions covered in principle?           |
| c) Are all significant environmental impacts covered by the EIA system?                      |

The EA Act applies almost exclusively to public projects. Although eight road projects have undergone Individual EA Act review since 1996, in this time only one plan directly affecting aggregate resources was reviewed and approved under the EA Act (Bolton Arterial Roads Plan); plans and programs are effectively screened out of the EA Act process (see section 5.16 for details).

Group A new freeways, as defined in the MTO Class EA, and any project or plan that is successfully bumped-up by an approved Part II Order request must undergo a formal Individual EA Act review. Even without a Part II Order request, a proponent of a project or plan described in a Class EA may elect to complete an Individual EA Act review instead, especially for controversial proposals.

The environment is defined broadly and includes air, land and water, human built structures, and social, economic and cultural components that affect life (see section 3.4 for definition). The EA must describe the "...effects that will be caused or that might reasonably be expected to be caused to the environment" (EA Act s. 6.1 (2)(c)(ii)). Both

the advantages and disadvantages to the environment must be described in the EA report (EA Act s. 6.1 (2)(d)). There is no list of impacts that proponents must consider during EA, or help to guide proponents when determining important impacts. Proponents are not required to consider cumulative impacts.

The EA Act does not list mineral aggregate resources, or any other geological resource except for subsoil, in the definition of “environment.”<sup>18</sup> This means that proponents are not explicitly required to document the impacts of proposed undertakings on mineral aggregate resources.

In summary, the Individual EA Act review process utilizes a broad definition of the environment that covers environmental, social, and cultural elements; the process does not require the assessment of cumulative impacts. Together, the MTO Class EA, MEA Class EA, and Individual EA Act review processes apply to public infrastructure projects that consume approximately 60% of all mineral aggregate resources in Ontario. However, the majority of private projects that consume aggregate are excluded from the EA Act and the Act has effectively screened out plans, policies, and programs. This criterion is partially met.

## **5.5 Must evidence of the consideration, by the proponent, of the environmental impacts of reasonable alternative actions be demonstrated in the EIA process?**

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|---|
| <ul style="list-style-type: none"><li>a) Must clear evidence of the consideration of the environmental impacts of alternatives be apparent in preliminary EIA documentation?</li><li>b) Must the realistic consideration of the impacts of reasonable alternatives, including the no-action alternative, be evident in the EIA report?</li><li>c) Does published guidance on the treatment of the impacts of reasonable alternatives exist?</li><li>d) Does the treatment of alternatives take place effectively and efficiently?</li></ul> |
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<sup>18</sup> Subsoil is not defined in the EA Act.

Proponents are not required to document in the TOR the alternatives that will be considered during the EA, but must commit to assessing alternatives (EA Act s. 6(2)). Proponents must consider and document in the EA report the environmental impacts of the proposed undertaking, alternative methods of carrying out the undertaking, and alternatives to the undertaking (EA Act s. 6.1 (2)(b)). The proponent is not required to consider the “no action” alternative.

An interviewee reported that there is a guide for preparing TORs on the Web, but I did not find any guidance documents online until a draft “Code of Practice” (Code) for preparing and reviewing TORs was posted in late October 2006 (Personal Communication- employee of the Government of Ontario, MOE 2006c). The Code “...outlines the legislative requirements and the Ministry of the Environment’s (ministry) expectations for the preparation and review of a terms of reference.”

The Code identifies the consideration of alternatives as “the heart” of EA in Ontario, with the following purpose: “...to ensure that the most appropriate means of addressing the identified problem or opportunity is selected” (MOE 2006c). The Code elaborates on the meaning of “alternatives to” and “alternative methods,” explains what is meant by “a range of reasonable alternatives,” and describes how the treatment of alternatives in the TOR may affect subsequent EA activities. Consideration and documentation of the “do nothing” alternative is promoted as a “good environmental assessment practice” (MOE 2006c).

Additionally, the Code describes a generic method for evaluating alternatives (MOE 2006c):

1. Identify alternatives to.

2. Collect data (criteria/indicators/data sources).
3. Evaluate alternatives to (potential effects, impact management, net effects, advantages/disadvantages).
4. Identify preferred alternative to (one or more could be selected).
5. Identify alternative methods for the preferred alternative to.
6. Collect data (criteria/indicators/data sources).
7. Evaluate alternative methods (potential effects, impact management, net effects, advantages/disadvantages).
8. Identify preferred alternative method (one or more could be selected).
9. Identify the proposed undertaking.

Proponents are responsible for determining the best evaluation strategy for their particular undertaking.

The requirements for generating and assessing alternatives are so few and brief that the proper treatment of alternatives during EA is suspect. Although the consideration of alternatives is meant to be the “heart of the EA Act,” it is unclear how proponents are expected to develop a quality assessment of alternatives with so few minimum requirements for the alternatives step of the EA process. The draft Code of Practice for TORs is certainly a step in the right direction. Unfortunately, the promotion of better practices will have limited impact for proponents that will draw their guidance from the EA Act, as the wording of the Act prevails over the meaning of the Code (MOE 2006c).

In summary, the Individual EA Act review process requires the consideration of alternative methods of designing actions and alternatives to the action. However, the process does not require consideration of the “no action” alternative and it does not give sufficient guidance to proponents on how to evaluate alternatives. This criterion is partially met.

## 5.6 Must screening of actions for environmental significance take place?

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|----|--|
| a) | Is there a legal test of whether the action is likely to affect the environment significantly? |
| b) | Is there a clear specification of the type of action to be subject to EIA?                     |
| c) | Do clear criteria/thresholds exist (e.g., size, location)?                                     |
| d) | Do different types of EIA exist for different types of action?                                 |
| e) | Must documentation be submitted by the proponent to assist in screening?                       |
| f) | Does published guidance about actions, criteria, thresholds and screening procedures exist?    |
| g) | Is the screening decision made by a publicly accountable body?                                 |
| h) | Does consultation and participation take place during screening?                               |
| i) | Is there a right of appeal against screening decisions?  |
| j) | Does screening function effectively and efficiently?   |

All undertakings by or for the provincial or a municipal government must undergo Individual EA Act review as prescribed in the EA Act (Part II) unless the undertakings are exempted by regulation (Declaration Order) or are subject to a Class EA (EA Act s. 3, s. 5, s. 13(3)). “Declaration Orders are usually considered in cases of emergency or where the proposal is in the public interest and potential environmental impacts are minimal or where environmental impacts are being addressed adequately” (MOE 2007c).

Undertakings by private parties must be designated by regulation, or a private party may enter into an agreement with the OMOE so that the EA Act applies to a particular undertaking (EA Act s. 3). Between 1996 and 2006 only 17 private projects were designated by regulation, and 15 of these were landfill or waste facility projects; and only four proponents for private projects entered into agreements with the OMOE so the EA Act would apply to the projects, and two of these were landfills (MOE 2007a). There are no criteria/thresholds to guide the OMOE through the decisions to exempt or designate undertakings. Consultation is not required during the screening process but a public and agency review is commonly performed when making decisions to exempt an undertaking (MOE 2007c).

Few mineral aggregate resource developments undergo Individual EA Act review. In the past ten years, only nine road projects and one road plan were reviewed and approved as Individual EA Act reviews; the Bolton Arterial Roads Plan and the Wonderland Road and Bayview Avenue Extension projects were bumped-up from the *Class EA from Municipal Road Projects* (the precursor to the MEA Class EA) (MOE 2007a). In fact, few projects of any sort are subject to Individual EA Act review. Between 1996 and 2006, just 57 EAs were approved, two refused, and two withdrawn (MOE 2007a).

Appeal procedures for the screening decision are not prescribed in the EA Act, however, the EBR provides the public the opportunity to request the review of decisions for Declaration Orders under the EA Act (ECO 1998b). If a Ministry accepts a request for review, the Ministry will review and report on the merits of the decision. The only other remedy for screening decisions is judicial review, but the public has had limited success during judicial review (Levy 2002).

In summary, the EA Act and supporting regulations are quite clear on the projects to which the Individual EA Act review process applies. Clarity could be improved by increasing the transparency of the decision making process for designating and exempting actions. The EA Act does not provide an appeal for screening decisions for Individual EA Act reviews. This criterion is partially met.

## **5.7 Must scoping of the environmental impacts of actions take place and specific guidelines be produced?**

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|--|
| <ul style="list-style-type: none"><li>a) Must the proponent consult the environmental authority early in the EIA process?</li><li>b) Must the proponent prepare information as a basis for scoping?</li><li>c) Is scoping mandatory in each case?</li><li>d) Must a general or generic set of impacts be addressed in the EIA?</li></ul> |
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| e) | Must action-specific scoping guidelines be prepared?             |
| f) | Are irrelevant impacts screened out?                             |
| g) | Does published guidance on scoping procedures and methods exist? |
| h) | Is consultation and participation required in scoping?           |
| i) | Is there a right of appeal against scoping decisions?            |
| j) | Does scoping function efficiently and effectively?               |

The proponent must prepare a TOR for the proposed EA and submit it to the Minister of Environment for approval (EA Act s. 6(1)). The TOR could be a scoping mechanism, but new guidance shows that during the EA the proponent must assess the potential impacts of the undertaking on all environmental components in accordance with the approved TOR (EA Act s. 6.1(1), MOE 2006c). This means that the TOR should include all aspects of the environment that are included in the EA Act's definition of "environment" (MOE 2006c).

Based on available information, the TOR is not meant to focus the attention of parties on the important environmental impacts, but instead, on all potential environmental impacts, regardless of their magnitude or probability. In practise, proponents may choose to narrow their evaluation of impacts before or after the TOR is approved (Personal Communication- employee of the Government of Ontario).

The proponent must consult with interested persons when drafting the TOR (EA Act s. 5.1). The Code lists and describes the people that should be consulted: Aboriginal Peoples, the Government Review Team, and other public and interested people (e.g., neighbourhood associations, environmental groups). The Government Review Team consists of staff from government ministries and agencies that can comment on subjects according to their mandates.

The TOR must document consultation activities and results, including the people that were consulted, any issues or concerns raised, and how the proponent considered



these issues and concerns when preparing the TOR (EA Act s. 6(3), MOE 2006c). The proposed TOR must undergo a public review period of 30 days, during which the public may submit comments on the proposed TOR directly to the Ministry of the Environment for consideration during the decision to approve the proposed TOR (EA Act s. 6(3.6), MOE 2006c). The public may request that the Minister refer an application or matter regarding the application to the ERT for a hearing and decision (EA Act s. 7.2(3)). The Minister shall refer the application or matter to the ERT unless the Minister considers the request to be frivolous or vexatious, a hearing to be unnecessary, or that a hearing may cause undue delay in determining the application (EA Act s. 9.3).

TORs cannot be amended once approved. Therefore, proponents are encouraged to build flexibility into the TOR to avoid the need to submit a new TOR that would have to go through the entire approval process again (MOE 2006c). The lack of an amendment provision provides a perverse incentive for proponents to be vague and overly general in TORs. Vague TORs are likely ineffective for scoping, and would do little to guide the proponent during the EA process.

In summary, the Individual EA Act review process does not require, or clearly recommend scoping; this criterion is not met. Although a TOR is prepared for each project, the proponent controls when, if, and how the EA will focus on specific environmental issues. Consultation and participation are required when developing the TOR, which is beneficial for those proponents that want to use the TOR process to scope EAs. The absence of a TOR amendment process may discourage proponents from tight scoping as the OMOE recommends that flexibility be built into the TOR to avoid the need to process the revised TOR as if it were for a brand new project.

## 5.8 Must EIA reports meet prescribed content requirements and do checks to prevent the release of inadequate EIA reports exist?

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| <ul style="list-style-type: none"><li>a) Must EIA reports describe actions and environments affected, forecast impacts, indicate significance and contain a non-technical summary?</li><li>b) Must information held by the relevant authorities about the environment or type of action be made available to the proponent?</li><li>c) Does published guidance on EIA report preparation exist?</li><li>d) Must specified EIA methods or techniques be employed?</li><li>e) Does accreditation of EIA consultants exist?</li><li>f) Do checks on the content, form, objectivity, and accuracy of the information presented occur before publication of the EIA report?</li><li>g) Is consultation and participation required in the EIA report preparation?</li><li>h) Does the EIA process encourage creative fact finding (Lasswell 1971)?</li><li>i) Does EIA report preparation function efficiently and effectively?</li></ul> |
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The proponent must prepare the EA report according to the approved TOR (EA Act s. 6.1 (1)). The EA Act provides details of what should be included in an EA report (EA Act s. 6.1 (2)):

- (a) A description of the purpose of the undertaking;
- (b) A description of and a statement of the rationale for,
  - (i) The undertaking,
  - (ii) The alternative methods of carrying out the undertaking, and
  - (iii) The alternatives to the undertaking;
- (c) A description of,
  - (i) The environment that will be affected or that might reasonably be expected to be affected, directly or indirectly,
  - (ii) The effects that will be caused or that might reasonably be expected to be caused to the environment, and
  - (iii) The actions necessary or that may reasonably be expected to be necessary to prevent, change, mitigate or remedy the effects upon or the effects that might reasonably be expected upon the environment, by the undertaking, the alternative methods of carrying out the undertaking and the alternatives to the undertaking;
- (d) An evaluation of the advantages and disadvantages to the environment of the undertaking, the alternative methods of carrying out the undertaking and the alternatives to the undertaking; and
- (e) A description of any consultation about the undertaking by the proponent and the results of the consultation.

Regulations provide further content requirements for EA reports (ON Reg. 334 s.

2(1 and 2)):

- (a) A brief summary of the environmental assessment organized in accordance with the matters set out in subsection 5 (3) of the Act;
- (b) A list of studies and reports which are under the control of the proponent and which were done in connection with the undertaking or matters related to the undertaking;
- (c) A list of studies and reports done in connection with the undertaking or matters related to the undertaking of which the proponent is aware and that are not under the control of the proponent;
- (d) Where the environmental assessment is for an undertaking with a fixed location, at least two unbound well marked and legible maps about 210 millimetres in size by 297 millimetres in size showing the location of the undertaking and the area to be affected by it ... (one shall be a simplified base map suitable for reproduction in any notices that may be published and the other may include more detail such as a 1:10,000 scale Ontario Base Map).

There is no published guidance on how to prepare EA reports but there is a draft Code of Practice for preparing TORs (the Code). Proponents are not required to use specific EA methods or techniques when preparing EAs and this flexibility may enable creativity during the EA process. That said, the TOR approval process could potentially limit the proponents to particular EA methods.

When preparing the EA report, the proponent must consult with such “persons as may be interested” (EA Act s. 5.1). The TOR should include a consultation plan that the proponent will follow during the EA (see section 5.13 for details). There is no provision in the EA Act that requires environmental authorities to share information with the proponent.

It is unclear whether proponents have methods to verify the information presented in the EA report prior to publication. The EAs that are submitted to the OMOE-EAAB are commonly missing substantive information (Personal Communication- employee of

the Government of Ontario), meaning the EA process up to this point may not provide sufficient guidance.

In summary, the Individual EA Act process requires the documentation of actions, the environments affected, forecasted impacts, and a non-technical summary. However, the process does not prescribe specific methods for assessing the accuracy and objectivity of the EA reports or the range of EA methods and techniques that proponents could employ. An advantage is that the Individual EA Act review process involve provincial staff in assessing the completeness of EA reports, but they do not require that particular professionals author EA reports, though there is supposed to be a new guidance document being developed to assist proponents in meeting EA Act requirements for EA reports. This requirement is partially met.

## **5.9 Must EIA reports be publicly reviewed and the proponent respond to the points raised?**

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| <ul style="list-style-type: none"><li>a) Must a review of the EIA report take place?</li><li>b) Do checks on the objectivity of the EIA report review exist?</li><li>c) Do review criteria to determine EIA report adequacy exist?</li><li>d) Does an independent review body with appropriate expertise exist?</li><li>e) Must the findings of the EIA report review be published?</li><li>f) Can the proponent be asked to respond to comments and to provide more information following review?</li><li>g) Must a draft and final EIA report be prepared?</li><li>h) Does published guidance on EIA review procedures and methods exist?</li><li>i) Is consultation and participation required in EIA report review?</li><li>j) Is consultation and participation required where further information is submitted?</li><li>k) Is there some form of appeal against review decisions?</li><li>l) Does EIA report review function effectively and efficiently?</li></ul> |
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The proponent publishes a public notice when the EA report is submitted to the OMOE to invite public review and comment on the EA report (EA Act s. 6.3(1)). Notice must be given specifically to the Municipal Clerk of the municipality in which the undertaking is located and to any other people that may be required by the OMOE-EAAB

(EA Act s. 6.3 (3 and 4)). The public has seven weeks to review the EA report and submit their comments to the OMOE-EAAB for consideration during the Ministry Review (EA Act s. 6.4(2), ON Reg. 616/98). These comments and the responses of the proponent to any concerns raised by the public are attached to the Ministry Review (Personal Communication- employee of the Government of Ontario).

The OMOE conducts the Ministry Review of the EA report and requires the proponent to respond to the public's concerns (Personal Communication- employee of the Government of Ontario). If the EA report is deemed deficient, meaning the report does not meet the commitments specified in the approved TOR or the purpose of the EA Act, the proponent will be notified of the deficiencies and provided with an opportunity to remedy the problems (EA Act s. 7(4 and 5)). The Minister may reject the EA if the proponent does not correct the deficiencies (EA Act s. 7(6)). The OMOE-EAAB has internal policies and procedures for determining whether the EA report meets the requirements of the EA Act and supporting regulations, which are not readily available to the public (Personal Communication- employee of the Government of Ontario). Only two EAs were refused between 1996 and 2007, one for a waste project and one for a Waste Management Master Plan.

The OMOE notifies the public where and when they may review and comment on the completed Ministry Review and EA report (EA Act s. 7.1(2)). The public has five weeks to review the Ministry Review and submit comments to the OMOE for consideration by the Minister during the decision making stage (EA Act s. 7.2(2), ON Reg. 616/98). The public may also request that the Minister refer the proponent's

application or a matter that relates to it to the ERT for hearing and decision (EA Act s. 7.2(3)).

Prior to the posting in October 2006 of a draft *Code of Practice: Consultation in Ontario's Environmental Assessment Process*, there was no published guidance for the public review period available online, although there has been a draft guide for public consultation available for some time (MEA 2000).

In summary, the Individual EA Act review process requires the public review of EA reports and proponents must respond to the concerns raised over a particular time frame. However, it is not clear what a reasonable response by the proponent would constitute. A key strength of the Individual EA Act review process is that public comments and responses by proponents are published with the Ministry Review, so that this new information may be reviewed and commented on by the public prior to the Minister's decision on the EA. A key weakness is that there is no guidance specifically written for the public that want to participate in this step of the EA process, although a revised guide for public consultation is being finalized. This criterion is fully met.

#### **5.10 Must the findings of the EIA report and the review be a central determinant of the decision on the action?**

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| <ul style="list-style-type: none"><li>a) Must the decision be postponed until the EIA report has been prepared and reviewed?</li><li>b) Can permission be refused, conditions be imposed or modifications be demanded at the decision stage?</li><li>c) Is the decision made by a body other than the proponent?</li><li>d) Is any summary evaluation prepared prior to decision making made public?</li><li>e) Must the EIA report, and comments upon it, be used to frame the conditions attached to any consent?</li><li>f) Are the decision, the reasons for it, and the conditions attached published?</li><li>g) Must these reasons include an explanation of how the EIA report and review influenced the decision?</li><li>h) Does published guidance on the factors to be considered in the decision exist?</li><li>i) Is consultation and participation required in decision making?</li><li>j) Is there a right of appeal against decisions?</li><li>k) Does decision making function effectively and efficiently?</li></ul> |
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The Minister, or the ERT, may give approval to proceed with an undertaking, with or without conditions, or refuse to approve to proceed with an undertaking (EA Act s. 9(1), 9.1(2)). No published guidance exists to assist decision makers, outside of the EA Act. The Minister must consider the following when making a decision (EA Act s. 9(2)):

1. The purpose of the Act.
2. The approved TOR.
3. The EA.
4. The Ministry Review.
5. The comments submitted during public review periods.
6. The mediators' report, if it was provided to the Minister.
7. Such other matters as the Minister considers relevant.

If the ERT makes the decision on the application, it must consider the above factors except for number seven, and if the EA goes to mediation, the ERT can only view the portions of the mediator's report that are made public (EA Act s. 9.1(3)). The Minister, with approval of the Lieutenant Governor in Council, may by order vary the decision of the ERT, substitute the Minister's own decision for the ERT's decision, or by notice to the ERT, require the ERT to hold a new hearing regarding the entire or a part of the application (EA Act s. 11.2).

If the ERT is only deciding on certain matters referred by the Minister, "...the Tribunal shall consider the following things to the extent that the Tribunal considers them relevant" (EA Act s. 9.2(5)):

1. The purpose of the EA Act.
2. The approved TOR.
3. The Ministry Review of the EA.
4. The comments submitted during public review periods.
5. If a mediators' report has been given to the Minister under section 8, any portion of the report that has been made public.

6. The decisions the Minister proposes to make on matters not referred to the Tribunal in connection with the application.

Note that the ERT is not explicitly required to consider the EA report.

The Minister will give notice of the decision with reasons to the proponent and every person that submitted comments to the Ministry during the public review of the Ministry Review (EA Act s. 9(2)). The public record includes all decisions that are made by the Minister and the ERT, and the reasons for the decisions (EA Act s. 30(1)(1.1)(5)). The OMOE maintains the public record for the EA Act (EA Act s. 30(1)) and although the OMOE posts a summary of each EA on their website, including the Minister's decision, the reasons for the decision are not included (MOE 2007a).

The EA Act does not provide the public with an appeal opportunity. Judicial review is an option for the public but "...parties have had very limited success in seeking judicial review..." of decisions resulting from the EA Act (Levy 2002). Decisions made by the ERT cannot be appealed unless the decision is patently unreasonable (EA Act s. 23.1).

In summary, the decision resulting from the Individual EA Act review process may be an approval, approval with conditions, or refusal. There are few appeal opportunities for the Individual EA Act review process and the Minister of the Environment can vary or substitute her or his decision for the ERT, which leaves the Individual EA Act review process open to political interference. This criterion is partially met.



## 5.11 Must monitoring of action impacts be undertaken and is it linked to the earlier stages of the EIA process?

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|----|---|
| a) | Must monitoring of the implementation of the action take place?                                       |
| b) | Must the monitoring of action impacts take place?   |
| c) | Is such monitoring linked to the earlier stages of the EIA process?                                   |
| d) | Must an action impact monitoring programme be specified in the EIA report?                            |
| e) | Can the proponent be required to take ameliorative action if monitoring demonstrates the need for it? |
| f) | Must the results of such monitoring be compared with the predictions in the EIA report?               |
| g) | Does published guidance on the monitoring and auditing of action implementation and impacts exist?    |
| h) | Must monitoring and auditing results be published?  |
| i) | Is there a public right of appeal if monitoring and auditing results are unsatisfactory?              |
| j) | Does action monitoring function effectively and efficiently?  |

Similar to the ARA, the EA Act provides for the designation of provincial officers that may conduct site inspections and examine records (EA Act s. 25). But unlike the ARA, the EA Act has no provision requiring proponents to monitor projects. Conditions of approval may require monitoring, and it is an offence if proponents do not comply with these conditions (EA Act s. 9(1)(b)(iii), s. 38).

The draft Code of Practice for TORs advises that the proponent should document its commitment to developing a monitoring program in the TOR (MOE 2006c). The monitoring program should address detailed design, tendering, construction, operation, closure and decommissioning of the undertaking (MOE 2006c).

Outside of the recommendations in the Code for TORs, I found only three brief paragraphs describing the monitoring of impacts and compliance of projects/plans under the EA Act, including the following statements (MOE 2007d):

An EA document will provide a plan/program that sets out how and when all the commitments and conditions in an EA will be fulfilled and how the proponent will report to the Ministry on compliance. The plan/program will include providing annual compliance monitoring reports to the Ministry as the major method of demonstrating compliance.

The ECO (2004) has criticized the MOE for not meeting their obligations for monitoring the compliance of individual projects/plans.

In summary, the monitoring program for the Individual EA Act review process lacks transparency. Annual compliance monitoring is commonly required as a condition of approval, and the OMOE is supposed to monitor compliance by conducting site visits but the OMOE may lack sufficient resources to effectively monitor compliance. The monitoring of environmental impacts is not required unless monitoring is included in the EA report or demanded as a condition of approval. A key weakness is that no party is comparing the impact monitoring results with projections in application documents to improve impact forecasting, and no one has audited compliance results over time to identify and remedy problems with the compliance reporting process. This criterion is partially met.

### **5.12 Must the mitigation of action impacts be considered at the various stages of the EIA process?**

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|--|
| <ul style="list-style-type: none"><li>a) Must clear evidence of the mitigation/avoidance of environmental impacts be apparent in the initial action design described in preliminary EIA documentation?</li><li>b) Must a schedule of mitigation measures and their implementation be set down in the EIA report?</li><li>c) Must evidence of the consideration of mitigation be presented during screening, during scoping, during EIA report review and revision, during decision making and during monitoring?</li><li>d) Does published guidance on mitigation and modification exist?</li><li>e) Does the mitigation of action impacts take place effectively and efficiently?</li></ul> |
|--|

The EA Act requires proponents to describe “the actions necessary or that may reasonably be expected to be necessary to prevent, change, mitigate or remedy the effects upon or the effects that might reasonably be expected upon the environment, by the undertaking, the alternative methods of carrying out the undertaking and the alternatives to the undertaking” (EA Act s. 6.1(2)(c)(iii)). The TOR may include commitments to

mitigation that are made during the TOR review and approval process, and must include the proponent's commitment to document mitigation measures in the EA report (MOE 2006c). The Minister may impose conditions on the approval to proceed that require or specify, "the works or actions to prevent, mitigate, or remedy effects of the undertaking on the environment" (EA Act s. 9(1)(b)(ii)).

Aside from the above, there is no further information readily available to the proponent or the public regarding mitigation during the EA process. This lack of information and guidance is a concern considering that the OMOE identifies mitigation of potential environmental effects as a key component of an EA (MOE 2006c).

In summary, the Individual EA Act review process requires the consideration of mitigation measures but there is little guidance to assist proponents through this step of the EA process. As a minimum, proponents must in the TOR commit to consider mitigation during the EA and document the results in the EA report. This criterion is partially met.

### **5.13 Must consultation and participation take place prior to, and following EIA report publication?**

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|---|
| <ul style="list-style-type: none"><li>a) Must consultation and participation take place prior to scoping, during scoping, during EIA report preparation, during review and following revision, during decision making and during monitoring?</li><li>b) Must a public participation strategy be initiated for each EIA?</li><li>c) Are copies of EIA documents made public at each stage of the EIA process?</li><li>d) Can copies of EIA documents be accessed free of charge or purchased at a reasonable price?</li><li>e) Do confidentiality/secretcy restrictions inhibit consultation and participation?</li><li>f) Are consultation and participation methods appropriate to the stage of the EIA process at which they are employed?</li><li>g) Is funding of public participants provided for?</li><li>h) Are obligatory consultees specified at various stages in the EIA process?</li><li>i) Must adjoining authorities/states/countries be consulted?</li><li>j) Does published guidance on consultation and participation exist?</li><li>k) Must the results of consultation and participation be published?</li><li>l) Do rights of appeal exist at the various stages of the EIA process?</li><li>m) Does consultation and participation function efficiently and effectively?</li></ul> |
|---|

The proponent is required to consult with interested persons during the preparation of the TOR and EA report (Table 5.1) (EA Act s. 5.1); no other provisions in the EA Act or regulations clarify what the proponent must do to satisfactorily meet consultation requirements, although the draft Code of Practice for Consultation (discussed below) offers some advice. The public is also notified of their right to review TORs, EA reports, and the Ministry Review, and make comments to the OMOE for consideration during decision making (see sections 5.7 and 5.9 for details). The proponent must provide a notice as follows: either deliver the notice by mail or hand to affected parties, aboriginal communities adjacent to the site and parties that have already expressed interest in the EA, and publish the notice in a local newspaper (MOE 2006a). The draft Code of Practice for Consultation is less specific about the requirements for how the OMOE-EAAB gives notice: the OMOE-EAAB usually publishes notices in local newspapers (MOE 2006a).

**Table 5.1 Opportunities for public consultation prescribed in the EA Act**

EA Process Step	Public Consultation Prescribed in the EA Act	
	Yes?	No?
Alternatives		✓
Screening		✓
Scoping	✓	
Report Preparation	✓	
Public Review	✓	
Decision Making		✓
Monitoring		✓

Source: EA Act

The OMOE has had guidelines for consultation since 1982, but Valiante (1999) found that these guidelines have failed to ensure effective consultation. As previously mentioned, the OMOE is currently revising a new guidance document which could apply

to both Class EAs and Individual EA Act reviews: *Code of Practice: Consultation in Ontario's Environmental Assessment Process* (MOE 2006a).

The draft Code of Practice describes how consultation and participation should affect the EA process and guides proponents in determining what is appropriate consultation. The following topics are discussed in the draft Code (MOE 2006a):

- How the ministry uses information gathered from consultation
- Obligations of proponents and OMOE
- Minimum consultation requirements for individual EAs and Class EAs
- Range of consultation methods, from low to high interaction
- How to develop a Consultation Plan
- Roles and responsibilities of proponents, the Crown, Government Review Team, OMOE, aboriginal peoples, public, and interested persons

The draft Code of Practice defines consultation as "...a two-way communication process to involve interested persons in the planning, implementation and monitoring of a proposed undertaking. Consultation is intended to..." (MOE 2006a, p. iii):

- Identify concerns;
- Identify relevant information;
- Identify relevant guidelines, policies and standards;
- Facilitate the development of a list of all required approvals, licences or permits;
- Provide guidance to the proponent about the preparation of the terms of reference and environmental assessment;
- Ensure that relevant information is shared about the proposed undertaking;
- Encourage the submission of requests for further information and analysis early in the environmental assessment process;
- Enable the ministry to make a fair and balanced decision.

The phrase "interested persons" is also defined in the draft Code of Practice (MOE 2006a):

...individuals or organizations with an interest in a particular undertaking. Persons with an interest in a particular undertaking often include neighbours and individuals, environmental groups or clubs, naturalist

organizations, agricultural organizations, sports or recreational groups, organizations from the local community, ratepayers associations, cottage associations and businesses. Interested persons are not required to demonstrate that they will personally be affected by a particular undertaking.

The OMOE expects that the consultation effort will increase with the complexity and environmental sensitivity of a proposed undertaking (MOE 2006a). That said, the only mandatory consultation is in the form of providing Notices of Commencement and Submission; sample notices are provided in the draft Code of Practice to guide proponents. Additional consultation and participation must be specified in a Consultation Plan, which is part of the TOR. The OMOE expects that proponents will provide an opportunity for interested parties to review the analysis and methodology of the TOR prior to publishing the Notice of TOR Submission (MOE 2006a); if done in practice, this consultation opportunity gives interested parties the chance to have input into the Consultation Plan.

The only mandatory consultees, enshrined in law, are the municipality or municipalities in which the undertaking is proposed, but the Director of the OMOE-EAAB may require the proponent to consult with other parties (EA Act s. 6(3.3 and 3.4), s. 6.3 (3 and 4)).

Funding for participants throughout the EA process has never been provided. But, between 1988 and 1996, the *Intervenor Funding Project Act* provided funding to the public for participation in EA Board Hearings. The Environmental Assessment Advisory Committee (EAAC) believed funding at the hearing stage, which is late in the EA process, likely increased the inefficiency and adversarial quality of the EA process (Valiante 1999). The EAAC suggested that funding should be available to the public

early in the EA process so the public may hire independent experts to assist them throughout the full EA process (Valiante 1999).

The OMOE maintains the public record of EA Act documentation (EA Act s. 30):

- Proposed and approved TORs
- EAs
- Ministry Review of the EA
- All comments submitted during public review periods
- All decisions with reasons of the Director, the Minister and the Tribunal
- All notices given in respect of the application
- Orders issued by the Minister

Most of these documents must be requested from the OMOE. The OMOE website includes summaries of all TORs and EAs, approved, under review and withdrawn, since 1997. All summaries include contact information, including the name of the person that can provide additional information about the TOR/EA. Nine out of the ten summaries of TORs under review as of February 19, 2007, include links to project websites and documents supporting the TOR, which are maintained by the proponent (MOE 2007a). A review of summaries of EAs currently under review, approved and refused since 2004, indicates that proponents and the MOE-EAAB inconsistently disseminate information other than TORs under review via the World Wide Web (e.g., EA reports, Notices of Completion).

The only legal remedy for people that disagree with EA decisions is judicial review through the *Judicial Review Procedures Act*. Decisions of the ERT cannot be appealed unless the decisions are patently unreasonable (EA Act s. 23.1). Applicants for judicial review have had “very limited success” in seeking judicial review (Levy 2002). Levy (2002) refers to the following example:

Applicants sought review of the Minister’s decision to approve an EA for a road in *Save the Rouge Valley System Inc. v. Ontario (Attorney General)* (2001). Justice McRae stated “It is not however for the court on judicial review to analyze and test the adequacy or otherwise of the assessment... The decision of the Minister to approve the project was an exercise of his discretion. The courts will not review the decision of a Minister unless it is made in bad faith, was in excess of his jurisdiction or was patently wrong.”

Levy (2002) is critical of the stringent tests applied to applications for judicial review, and suggests that these tests make it nearly impossible to get an independent examination of EA decisions; therefore, “effective accountability is lost” (Levy 2002).

In summary, the Individual EA Act review process requires consultation with affected and interested parties during the preparation of the TOR, EA report, and Ministry Review. The TOR should include a consultation plan and there has been guidance in draft form for some time. There is a general provision in the EA Act that enables the public to request a hearing at any time in the EA process but few requests have been granted. The termination of the intervenor funding program in 1996 has decreased the public’s ability to participate effectively during hearings. In brief, the individual EA process could provide more meaningful opportunities for involving the public in environmental decisions. This criterion is partially met.

#### **5.14 Must the EIA system be monitored and, if necessary, be amended to incorporate feedback from experience?**

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| a) | Is there a legal provision for periodic review of the EIA system?                        |
| b) | Have reviews of the EIA system been carried out and changes made?                        |
| c) | Is consultation and participation required in EIA system review?                         |
| d) | Is a record of EIA reports for various types of action kept and made public?             |
| e) | Are records of other EIA documents kept and made public?                                 |
| f) | Are EIA reports and other EIA documents publicly available at one or more locations?     |
| g) | Are records of financial costs of EIA kept and made public?                              |
| h) | Is information on the time required for EIA collected and made public?                   |
| i) | Are the lessons from specific EIAs fed back into the system?                             |
| j) | Does published guidance on monitoring and amending the EA process exist (Lasswell 1971)? |



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| k) | Are appraisals reviewed by a third party (Lasswell 1971)?   |
| l) | Are complaints about the EIA system documented and used to inform appraisal and termination (Lasswell 1971)?  |
| m) | Does the EIA system ensure changes are made at optimal times (Lasswell 1971)?   |
| n) | Does the EIA system ensure changes are made in a manner that minimizes harm to all groups affected by the change (Lasswell 1971)?   |
| o) | Does the EIA system ensure changes result in the fair distribution of benefits and are losers compensated when there is a justified complaint about the distribution of benefits (Lasswell 1971)? |
| p) | Is formal responsibility for success and failures of the EIA system attributed (Lasswell 1971)?   |
| q) | Are all components of the EIA system appraised (Lasswell 1971)?   |
| r) | Does the monitoring of the EIA system function efficiently and effectively?   |

There is no legal requirement for periodic assessment of the EA Act. The government and members of the community have authored few evaluations over the Act's 30 year history (Table 5.2); these reviews are described below to show how monitoring of the EA process was performed and how it has and has not influenced EA in Ontario.

**Table 5.2 Evaluations of the EA Act organized by author's affiliation**

<b>Community</b>	
→	Gibson, R. and Savan, B. 1986. Environmental assessment in Ontario. Canadian Environmental Law Research Foundation (CELRF).
→	Levy, A.D. 2002. A review of environmental assessment in Ontario, <i>Journal of Environmental Law and Practice</i> , 11: 173-283. Canadian Environmental Law Association (CELA).
→	Valiante, M. 1999. Evaluating Ontario's environmental assessment reforms, <i>Journal of Environmental Law and Practice</i> , 8: 215.
<b>Government</b>	
→	Minister's Environmental Assessment Advisory Panel. 2005. Improving environmental assessment in Ontario: A framework for reform.
→	Environmental Commissioner of Ontario. 1994-1995 through 2004-2005. Various titles.
→	Environmental Assessment Advisory Committee. 1991 and 1992. Reforms to the Environmental Assessment Program. Report No. 47 (Parts 1 and 2) (EAAC).
→	Environmental Assessment Program Improvement Project Task Force. 1990. Toward improving the environmental assessment program in Ontario (Task Force).
→	Ministry of the Environment. 1989. Environmental Assessment Program Improvement Project: Phase 1, Recommendations for Improvements to the Current Program (EAPIP).

Valiante's (1999) study evaluated the effectiveness of the reforms that occurred to the EA program when the *Environmental Assessment and Consultation Improvement Act, 1996* (EACIA) was enacted. Her study includes a detailed discussion of the

comprehensive reviews of the EA program that preceded the EACIA, and she assessed whether the recommendations resulting from this work were evident in the new legislation. The next two paragraphs are summarized from Valiante (1999).

The period from 1986 to 1992 saw four comprehensive studies of the EA program by the following groups: 1) Canadian Environmental Law Research Foundation (CELRF) (Gibson and Savan 1986), 2) Environmental Assessment Program Improvement Project (EAPIP) (MOE 1989), 3) Ministry of Environment Task Force (Task Force) (MOE 1990), and 4) Environmental Assessment Advisory Committee (EAAC) (EAAC 1991 and 1992). The CELRF study, concerned with the effectiveness, efficiency and fairness of the EA program, was partially funded by the OMOE, and spurred the creation of the EAPIP. The EAPIP included OMOE staff that consulted with an interministerial committee and a public advisory committee. EAPIP was similarly concerned with effectiveness and efficiency of the EA program but also the understanding and acceptance of EA. The EAPIP was a two-phase study that was undermined when the Provincial Treasurer released, during the public review period, a “secret document” that outlined a plan to create a new sustainable development statute by merging all the land use planning and environmental assessment programs. The OMOE dismantled EAPIP due to strong concerns about the secret plan and the EAAC’s concern about the two-phase approach. An internal Ministry Task Force replaced the EAPIP, and was charged with reviewing the previous work, consultation, and making recommendations that would ensure that the EA process is effective, fair and efficient.

When enacting the EACIA, the government said the changes to the EA program were based on findings and recommendations in the earlier EA program reviews. Most

changes “echo” the earlier recommendations but the “core” of many recommendations were not included in EACIA and several “key” recommendations were excluded. Of particular concern (to Valiante) was the continued exclusion of private undertakings from the EA Act, and lack of compliance and effects monitoring. Valiante (1999) predicted that the improvements that were legislated in the EACIA “...may mean that EA in Ontario becomes increasingly ineffective as its full scope will apply to ever fewer proposals, the public will be less able to participate effectively and decisions will be made in isolation from related decisions.”

A study by the Canadian Environmental Law Association (CELA) includes details of the legislative, policy, and administrative changes that have occurred since the EACIA was enacted (Levy 2002). The changes are grouped into 13 categories:

1. Increased direct involvement of the political branch of government.
2. Decreased scope of EAs.
3. Expansion of Class EAs.
4. Relaxed standards for approval.
5. Reduced technical scrutiny of EAs
6. Reduced public participation.
7. Refusal of hearing requests.
8. More discretionary decision points for cabinet, minister, branch director.
9. Compliance and effects-effectiveness monitoring are not mandatory, terms and conditions of approval are not enforced, and the compliance program is weak.
10. Reduced independence of tribunal.
11. Increased discretion of tribunal.
12. Budgetary restrictions.
13. Reduced opportunity for judicial review.

Similar to Valiante (1999), the CELA study is critical of the reforms to the EA program and concludes that EA in Ontario has worsened rather than improved (Levy 2002):

It appears that EA in this province has, after years of development and evolution, reverted from a progressive, open and environmentally enlightened planning and decision making process to a narrow approach, one that focuses solely on identifying and mitigating the adverse biophysical effects of individual projects. . . .the package of reforms implemented by the Government was not designed with the goal of enhancing environmental protection...evidence suggests that its [the Government's] purpose appears to have been the removal of perceived barriers to economic growth, financial prosperity and individual liberty and autonomy. Paradoxically, it is questionable whether these values have been advanced as a result.

It is positive to see that the OMOE is currently undergoing an extensive review of the EA Act (MOE 2007b). The Environmental Assessment Advisory Panel (EAAP) was convened in 2004 to determine recommendations for improving Ontario's environmental assessment program, particularly as it relates to three sectors: waste, energy and transit/transportation. This is the first time a review process has focussed on three priority sectors. The EAAP report, issued in 2005, includes a comprehensive discussion of EA issues in Ontario in which multiple and conflicting viewpoints are expressed in an attempt to present a balanced assessment of the issues. The mission of the EAAP was threefold (EAAP 2005):

1. **“To revitalize** the EA program providing clear, prescriptive rules for appropriate environmental planning and decision-making.
2. **To rebalance** EA decision-making by setting out clear roles for all participants.
3. **To refocus** the EA process such that the level of assessment/review of proposed undertakings reflects the potential that proposals have to positively or negatively impact the environment as defined by the EA Act.”

The EAAP identified a challenge statement that elaborated on the problem that it was attempting to solve during the review process (EAAP 2005):

...the challenge is...how to improve the [EA] regime of Ontario in order to ensure fair, balanced, comprehensive, transparent, accessible, inclusive and participatory environmental planning and decision making for all

undertakings (plans, policies, programs, and projects) governed by the [EA Act], resulting in outcomes that maximize sustainability —

While at the same time providing for the benefit of all proponents and other participants, particularly in priority sectors (waste management, clean energy and transportation-transit), an effective process that is reasonably

- Efficient (with respect to cost)
- Timely (with respect to speed)
- Clear (with respect to rules)
- Disciplined (with respect to process)
- Independent (non-biased and apolitical)
- Flexible (adjustable where appropriate to time constraints, size of undertaking, level of potential environmental impacts, etc.) and
- Sensitive to specific context (including individual sectoral needs and differences)

The EAAP review was the first government initiated comprehensive study of the EA program that included maximizing sustainability as a desired outcome of EA.

The EAAP consisted of an Executive Group and three Sectoral Tables. The Executive Group consisted of four environmental law experts (including the author of the CELA study) and was chaired by an environmental scientist with experience in government, media, and academia. The Sectoral Table of particular interest to my study was the transportation-transit table (TTT). Six of seven members on the TTT were professional engineers. The TTT included four employees of municipal governments that had transportation planning/development and EA experience, one employee of GO Transit, one employee of a municipal government that previously worked for the MTO for 30 years and represented the Ontario Good Roads Association at the TTT, and one employee from a transportation consulting firm that worked for the Ontario Department of Highways in the early 1970s. All of these people either worked directly or indirectly for proponents of Class EAs. It is surprising that no current employees of the MTO were

members of the TTT, considering that the MTO Class EA is the oldest Class EA in Ontario and that the process had been the subject of considerable criticism in recent annual reports by the ECO. Also very surprising that other interested parties were not involved (e.g., environmental non-governmental organizations).

EAAP did not enable the public to play a significant role in the review process. Neither the Executive Group nor the TTT included members of the public. The public was invited to submit comments through the EBR registry and to some extent was represented by 15 people from umbrella organizations that attended the 4 hour long workshop held by the TTT. However, the EAAP recommendations are largely a product of environmental law experts and proponents.

EAAP concluded that the EA Act is fundamentally sound but that there exists “...a significant ‘disconnect’ between the provisions of the EA Act (especially the statement of purpose), and the actual ‘on the ground delivery of Ontario’s EA program ...there are significant policy gaps, procedural inconsistencies, and administrative shortcomings that must be addressed as soon as possible” (EAAP 2005). The EAAP process resulted in 38 recommendations, in the form of regulatory, policy and administrative changes, and three additional recommendations requiring further consultation/review (EAAP 2005):

[The] ...primary recommendations articulate the need for: 1) overarching general EA principles; 2) sector-specific EA policies; and, 3) sectoral EA procedures which are predicated upon the nature and extent of the anticipated benefits and negative impacts of the undertakings in each sector, and which prescribe an appropriate EA planning and decision-making process in order to evaluate the significance of those outcomes.

The TTT determined 17 recommendations and two “quick fixes” (EAAP 2005). Over half of these recommendations are specific to the MEA Class EA process. This focus is not surprising considering that the majority of the TTT members were employed by municipalities and were therefore most concerned with the municipal process. There were no recommendations specific to the MTO Class EA process, which is also not surprising considering the MTO’s absence from the TTT.

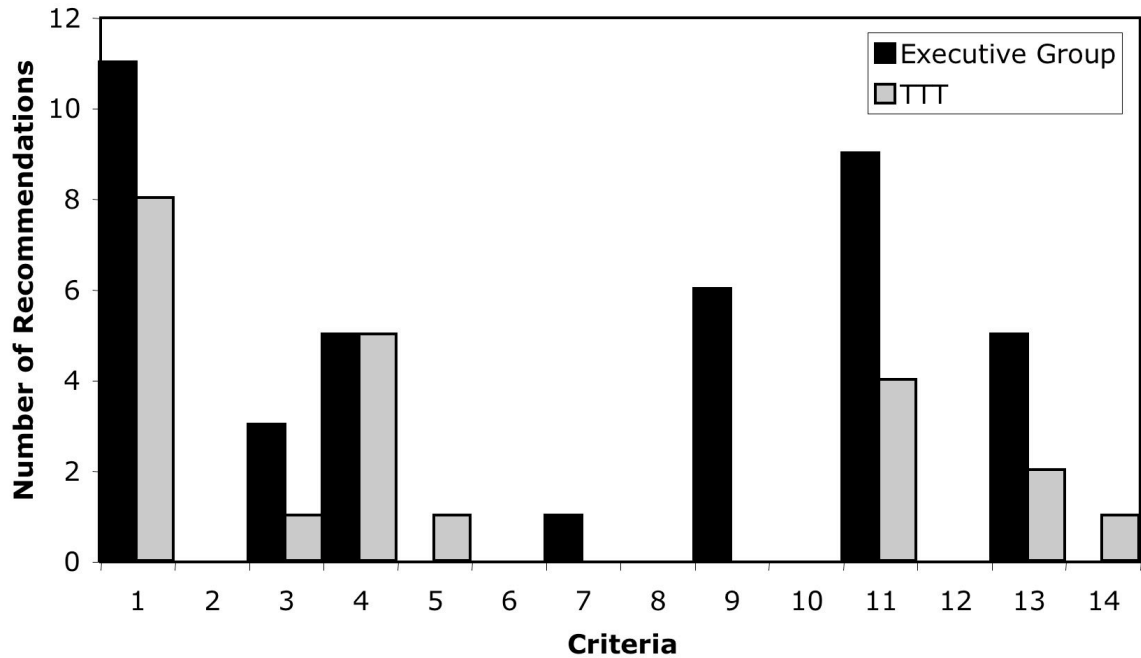
I categorized the EAAP’s recommendations according to my 14 primary evaluation criteria (from Wood 2003) to explore which components of the general EA process the EAAP and TTT felt could use improvement (Figure 5.2). I discuss these observations in the next few paragraphs.

The majority of recommendations from the Executive Group and TTT related to improving proponents’ understanding of the EA process by creating guiding principles for proponents, OMOE staff and decision makers. These recommendations targeted the current ambiguity of the EA process, excessive discretion held by proponents and government officials, and lack of opportunities to learn about EA Act requirements, and EA in general. To improve everyone’s understanding of what the EA Act is meant to achieve, the EAAP recommended that Ontario adopt the following overarching general EA principles, which it also called “goals, objectives and values” (EAAP 2005):

- Sustainability benefits
- Clear, consistent, predictable and timely
- Transparent
- Public participation
- One project, one integrated process
- The precautionary principle
- The ecosystem approach

- Based on good data, good science and sound engineering
- Environmental protection
- ‘Avoidance first’

**Figure 5.2 Recommendations for improving EA in Ontario from EAAP (2005)**



Criteria are the 14 primary evaluation criteria from Wood (2003): 1) Is the EIA system based on clear and specific legal provisions? 2) Must the relevant environmental impacts of all significant actions be assessed? 3) Must evidence of the consideration, by the proponent, of the environmental impacts of reasonable alternative actions be demonstrated in the EIA process? 4) Must screening of actions for environmental significance take place? 5) Must scoping of the environmental impacts of actions take place and specific guidelines be produced? 6) Must EIA reports meet prescribed content requirements and do checks to prevent the release of inadequate EIA reports exist? 7) Must EIA reports be publicly reviewed and the proponent respond to the points raised? 8) Must the findings of the EIA report and the review be a central determinant of the decision on the action? 9) Must monitoring of action impacts be undertaken and is it linked to the earlier stages of the EIA process? 10) Must the mitigation of action impacts be considered at the various stages of the EIA process? 11) Must consultation and participation take place prior to, and following EIA report publication? 12) Must the EIA system be monitored and, if necessary, be amended to incorporate feedback from experience? 13) Are the discernible environmental benefits of the EIA system believed to outweigh its financial costs and time requirements? 14) Does the EIA system apply to significant programmes, plans and policies, as well as to projects? Recommendations requiring further review and “quick fixes” were excluded from the chart. In the cases where a single recommendation addressed more than one aspect of EA, the recommendation was counted multiple times.

Both the Executive Group and TTT are recommending improvements to the public consultation and participation components of the Individual EA Act review and Class EA processes. The recommendations call for minimum standards for public



consultation and participation, greater guidance for both proponents and the public concerning their respective roles and rights in the EA process, and specific to Class EAs, expediting the Part II Order request process. A key recommendation from the Executive Group is the development of processes and procedures that are specific to improving participation of First Nations and aboriginal communities.

The Executive Group and TTT also focused on the screening step of EA. These recommendations call for giving priority during the EA review and approval process to “green projects” over other undertakings with less environmental and social benefits, in order to expedite the development of green projects and decrease the rate of constructing less sustainable projects. Improvements to EA triggers for the three priority sectors are also recommended so that the rigour of the EA progress is consistent with the potential risks and benefits of the projects. A significant recommendation from both the Executive Group and TTT is to amend the MEA Class EA to include public transit projects – transit projects must currently undergo more rigorous Individual EA Act reviews whereas most other transportation alternatives undergo less intense reviews through the MEA and MTO Class EA processes.

The Executive Group also recommends improvements to the compliance and effects monitoring aspect of EA. These recommendations include the need for proponents and the OMOE to conduct monitoring, the importance of publicizing monitoring results, and for the OMOE to take enforcement actions when necessary to correct issues of non-compliance. There are also recommendations calling for increased funding for the OMOE through the collection of fees.

It is enlightening to consider the components of the EA process that received few or no recommendations for improvement: coverage of the EA system, scoping, quality of EA reports, public review of EA reports, mitigation of impacts, monitoring of the EA system and strategic environmental assessment. The focus of the EAAP report on three sectors effectively steered the EAAP away from considering the need to extend the EA program to undertakings other than waste, transportation-transit, and electricity; these types of undertaking are historically and currently the most common projects requiring Individual EA Act reviews. The recommendations also do not address the extension of EA to the private sector although this has been a primary concern of independent evaluators (e.g., Valiante 1999, Levy 2002).

The lack of recommendations specific to scoping, the quality of EA reports, public review of EA reports, and the mitigation of impacts should not be interpreted to mean that these components of the EA process are working perfectly. The call for increased guidance and learning opportunities spans the entire EA process. Moreover, the recommendations concerning public consultation and participation could have ramifications for the entire EA process.

The only recommendation for strategic environmental assessment (SEA) came from the TTT, although the Executive Group lists this recommendation as one that requires further review. The TTT recommends that transportation Master Plans be approved through the MEA Class EA process.

Finally, neither the Executive Group nor the TTT recommended improvements that would see the EA system independently monitored and improved on an ongoing

basis. The current EAAP process is not without political direction – the Minister of the Environment focussed the review on three “priority” sectors. The lack of a monitoring program for the EA system, however, means the Government of Ontario will remain unable to quickly identify and remedy problems with EA. Since the EA Act was enacted, the Government of Ontario has relied on the recommendations of ad hoc committees enabled sporadically, and at the discretion of the OMOE. The OMOE does not have the benefit of continuous monitoring results like those being collecting under the Monitoring Programs for the MTO and MEA Class EA processes. This means that the OMOE is bearing data collection costs all at once rather than incrementally.

The Government of Ontario is developing Codes of Practice to better guide the EA process, and has committed to educating and training proponents and government staff, along with developing a “comprehensive EA website” (MOE 2006b). In regards to Class EAs, an OMOE press release dated June 2006 has committed the OMOE to the following actions (MOE 2006b):

The [MOE] is committed to **reviewing Class EAs** by working with proponents to ensure that projects covered by the Class EA process undergo an appropriate level of assessment.

The ministry has initiated this effort by working with the Ministry of Municipal Affairs and Housing to remove speed-bumps from the EA process. There could be other similar opportunities, but there may also be instances where science dictates that a higher level of review is required.

It is unclear what “reviewing Class EAs” means and there is no additional information about how the MOE will be improving the Class EA process. To achieve “faster decisions to protect the environment,” the OMOE commits to working with other provincial and federal departments to better integrate planning processes and reduce overlap, shortening the time for decision making by reviewing and amending the

deadlines regulation, developing protocols to ensure consistent and efficient government reviews, and delegating the authority to make bump-up decisions to the Director. The only improvement that is specific to the transportation-transit sector (which is called the transit sector in the press release) is the shortening of the EA process for transit undertakings.

The Government of Ontario has focussed its attention on implementing improvements that do not push the envelope of EA reform. The more innovative recommendations, such as developing participation mechanisms specific to First Nations and aboriginal communities, and detailing sector specific policies for EA, are absent from the initial list of improvements on which the government will take action (MOE 2006b). Writing Codes of Practice, changing the EA website and offering EA training, do not require legislative changes and will not force the OMOE or proponents to take any actions that are not already required by the EA Act. Similarly, developing protocols and committing to additional work with other government departments, and decreasing the time for decision making without addressing the current lack of resources the government has to perform EAs reviews, may speed up the EA process but will not improve its effectiveness. If the Ontario government implements the recommendations suggested in its press releases from June 2006, the EA process may become more transparent, but it will continue to exclude environmentally significant private undertakings, the bulk of EA will be done through proponent-driven Class EA processes (which have never been proven effective by an independent reviewer), and the public will continue to lack meaningful opportunities for involvement.

As previously mentioned, the OMOE maintains the public record of EA Act documentation (see section 5.13). The OMOE website includes summaries of all TORs and EAs, approved, under review and withdrawn, since 1997. Most summaries of TORs under review as of February 19, 2007 include links to project websites and documents supporting the TOR, but proponents and the OMOE-EAAB are inconsistent in posting documents other than TORs under review (e.g., EA reports, Notices of Completion) on the World Wide Web. The OMOE-EAAB does not publish information about the times and costs for completing EA duties.

In summary, the Individual EA Act review process is not periodically monitored. The process lacks amending procedures, the ability to identify and solve problems on an ongoing basis, and evidence of public accountability. The few evaluations that have occurred have been costly because there is no ongoing collection of data and incremental incurrence of evaluation costs (both time and money). Although not legally required, evaluations of the EA Act have occurred, and been published, and some changes have been made; these reviews have included public consultation. This criterion is not met.

### **5.15 Are the discernible environmental benefits of the EIA system believed to outweigh its financial costs and time requirements?**

- |   |
|---|
| <ul style="list-style-type: none"><li>a) Does empirical evidence exist that the EIA process has significantly altered the outcome of decisions?</li><li>b) Do the participants in the EIA process believe that the environmental quality and acceptability of decisions are improved by it?</li><li>c) Do the participants in the EIA process believe that it has altered the behaviour of the proponents, consultants, consultees, the public and the decision making authorities?</li><li>d) Do the financial costs of the EIA process to proponents, consultees, the public and the decision making authorities exceed those which would have been incurred in any event?</li><li>e) Do the times required to complete the various stages of the EIA process exceed those specified?</li><li>f) Do the participants in the EIA process believe there are enough resources to effectively implement the EIA process (Lasswell 1971)?</li><li>g) Is the time to complete the EIA process acceptable to the stakeholder groups (Lasswell 1971)?</li></ul> |
|---|

The EA Act does not require monitoring of action impacts, compliance, or the EA system in general, and therefore it is challenging to determine if the benefits of the EA process outweigh the costs. A second challenge to assessing this criterion is that I was unable to interview all key stakeholder groups about their opinions of the EA process; thus, I am mainly relying on the results of previous evaluations to assess this criterion.

Valiante (1999) and Levy (2002) have questioned the effectiveness of the EA Act, and the recent review by the EAAP expressed concern that the OMOE has not ensured that all parties understand what the purpose of the EA Act is and how the EA process achieves this purpose (EAAP 2005):

The EA Act states that its purpose is to achieve the “betterment” of Ontarians as well as the “protection, conservation, and wise management” of the environment. However, aside from this broad statement of purpose, the MOE has not articulated explicit EA principles to ensure that EA planning or decision-making actually achieves the purpose of the Act. The ongoing absence of overarching EA principles promotes uncertainty, undermines accountability, unduly politicizes the process, and subverts the potential effectiveness of the EA Act in securing societal benefits and environmental protection.

None of the previous evaluations of the EA Act recommended that the legislation should be revoked, and the EAAP concluded that the “... EA Act is fundamentally sound but requires minor legislative, regulatory and administrative fine-tuning” (EAAP 2005). This finding implies that EA experts and stakeholders in the EA process believe that there are benefits to the existing system, even though some of these reviews have been quite critical of the EA process.

Timeliness has been a key issue for evaluators. The EAAP evaluation noted that stakeholders are concerned that parts of the EA Act are not as timely as they could be, but

the report was not overly critical about the time it takes to conduct EAs; the Executive Group discussed the following two problems (EAAP 2005):

1. The Deadline Regulation is not as comprehensive as it might be. The regulation focuses on government performance during the EA process and not the proponent or the public. The regulation also does not set deadlines for all parts of the EA process (e.g., "...does not prescribe a timeline for proponent actions leading up to the submission of the TOR, such as public consultation")
2. The OMOE does not always meet the prescribed deadlines. In particular, proponents are concerned about the delay in determining Part II order requests.

Financial burden is an issue in Ontario, especially for the public, the OMOE and other provincial agencies. Proponents and other stakeholders are concerned that the OMOE lacks the necessary resources to lead an efficient and effective EA program (EAAP 2005), and the EAAP is recommending the establishment of fees in an attempt to remedy this problem.

Ontario has not been successful in developing a process to determine the willingness of communities to accept proposed undertakings (EAAP 2005):

Siting of fixed and linear projects is often challenging under the EA Act, especially since very local impacts upon neighbours are often unavoidable, reducing land values and quality of life, and prompting staunch objections to the proposed undertaking, regardless of proposed mitigation measures or the creation of local, regional or provincial benefits arising from the project. Problems inherent in siting unpopular facilities like landfills have led to the development of processes aimed at identifying eager, or at least "willing", hosts for these projects, with very explicit attendant local benefits defined at the outset.

The still rather sparse experience with willing host procedures is not encouraging, and indicates that much more work and experimentation is required before this process is likely to succeed.

The Executive Group recommends that an advisory body should explore this issue in greater detail, which is a reasonable suggestion considering that Ontario has not

identified “acceptability” as a criterion for making approval decisions, and therefore has little practical experience with this subject.

The absence of sufficient opportunities for the public to participate meaningfully during the EA process may limit the ability of the EA Act to help improve the working relationships among EA participants. The need to improve consultation and participation during EA is clear from the EAAP review (see criterion 11 on Figure 5.2).

In summary, the recent evaluation by the EAAP determined that the EA Act is fundamentally sound but that on-the-ground implementation requires improvement. The timeliness of the Individual EA Act review process was relatively a minor issue, but the OMOE lacks sufficient resources to properly administer the process. Stakeholders have noted that the relationships among proponents and the public have been improving over the past couple of decades (although no interviewees could attribute this improvement directly to the EA processes). This criterion is partially met.

#### **5.16 Does the EIA system apply to significant programmes, plans and policies, as well as to projects?**

The EA Act applies to all undertakings, including proposals, plans or programs conducted by or for the Crown, a public body or municipality, and private parties if designated by regulation or by agreement of the Minister of Environment (EA Act s. 3).

Although the EA Act states that plans and program should undergo EA, all plans (except infrastructure plans under the MEA Class EA) are effectively exempted from EA. Two regulations under the EA Act appear to exempt local and provincial land use planning from EA: 1) municipal Official Plans appear to be exempted by ON Reg. 334 (s. 5) and 2) all undertakings and classes of undertakings performed by or on behalf of the



Minister of Municipal Affairs and Housing are exempted by ON Reg. 334 (s. 6). This latter provision excludes from EA any proposals, plans and programs related to the *Planning Act*, including the PPS. In addition, the following acts explicitly state that the resulting land use plans are not considered undertakings under the EA Act: *Places to Grow Act, 2005, S.O. 2005, c. 13* (s. 17(2)), *Oak Ridges Moraine Conservation Act, 2001, S.O. 2001, c. 31* (s. 3(6)), and the *Greenbelt Act, 2005, S.O. 2005, c. 1* (s. 3(3)). The *Niagara Escarpment Plan*, first approved in 1985 and amended in 1994 and 2005, has also not undergone EA.

The EA Act effectively screens out policies, programs, and plans. Therefore, this criterion is not met.

## **5.17 Summary**

Overall, the Individual EA Act review process is moderately effective (Table 5.3).

The following are the key strengths and weaknesses of the process:

### **Strengths**

→ EA reports are adequately reviewed

### **Weaknesses**

→ Environmental impacts are not properly scoped

→ The EA system is not adequately monitored

→ The process does not apply to plans, policies, or programmes

**Table 5.3 Summary of evaluation results for the Individual EA Act Review process**

Evaluation Criteria	Individual EA Act
1. Is the EIA system based on clear and specific legal provisions?	☐
2. Must the relevant environmental impacts of all significant actions be assessed?	☐
3. Must evidence of the consideration, by the proponent, of the environmental impacts of reasonable alternative actions be demonstrated in the EIA process?	☐
4. Must screening of actions for environmental significance take place?	☐
5. Must scoping of the environmental impacts of actions take place and specific guidelines be produced?	○
6. Must EIA reports meet prescribed content requirements and do checks to prevent the release of inadequate EIA reports exist?	☐
7. Must EIA reports be publicly reviewed and the proponent respond to the points raised?	●
8. Must the findings of the EIA report and the review be a central determinant of the decision on the action?	☐
9. Must monitoring of action impacts be undertaken and is it linked to the earlier stages of the EIA process?	☐
10. Must the mitigation of action impacts be considered at the various stages of the EIA process?	☐
11. Must consultation and participation take place prior to, and following EIA report publication?	☐
12. Must the EIA system be monitored and, if necessary, be amended to incorporate feedback from experience?	○
13. Are the discernible environmental benefits of the EIA system believed to outweigh its financial costs and time requirements?	☐
14. Does the EIA system apply to significant programmes, plans and policies, as well as to projects?	○

○ criterion is not met; ☐ criterion is partially met; ● criterion is fully met

## 6. COMPARISON OF EVALUATION RESULTS

### 6.1 Introduction

The evaluation results for each EA process are summarized and compared below. By comparing the results, it is possible to identify strengths and weaknesses unique to an EA process, or shared by all processes. Processes with unique strengths may be learned from to inform recommendations to improve weaker EA processes (section 7.2). Shared strengths or weaknesses might reflect preferences in how the Province of Ontario designs and implements environmental legislation; shared weaknesses may require recommendations for improvement that go beyond the EA processes studied (section 7.2).

Table 6.1 summarizes the evaluation results for each EA process. In order to make it easy to identify similarities and differences among the processes, three symbols are used to indicate performance. A criterion is fully met (●) when the EA process meets the characteristics of the criterion (i.e., all sub-criteria are met). A half circle (◐) identifies an EA process that meets some of the characteristics of the criterion or perhaps even all of the characteristics but weakly. A criterion is not met (○) when an EA process does not have any of the characteristics of the criterion, or when that component of the process is particularly poor. The numbers in Table 6.1 refer to the sections of this report that contain information to support the evaluation results.

**Table 6.1 Summary and comparison of evaluation results**

<b>1. Is the EIA system based on clear and specific legal provisions?</b>			
<i>ARA</i> ● 2.3*	<i>MTO</i> ○ 3.3	<i>MEA</i> ● 4.3	<i>Individual EA Act</i> ☹ 5.3
<b>2. Must the relevant environmental impacts of all significant actions be assessed?</b>			
<i>ARA</i> ● 2.4	<i>MTO</i> ● 3.4	<i>MEA</i> ● 4.4	<i>Individual EA Act</i> ☹ 5.4
<b>3. Must evidence of the consideration, by the proponent, of the environmental impacts of reasonable alternative actions be demonstrated in the EIA process?</b>			
<i>ARA</i> ○ 2.5	<i>MTO</i> ☹ 3.5	<i>MEA</i> ● 4.5	<i>Individual EA Act</i> ☹ 5.5
<b>4. Must screening of actions for environmental significance take place?</b>			
<i>ARA</i> ● 2.6	<i>MTO</i> ☹ 3.6	<i>MEA</i> ● 4.6	<i>Individual EA Act</i> ☹ 5.6
<b>5. Must scoping of the environmental impacts of actions take place and specific guidelines be produced?</b>			
<i>ARA</i> ○ 2.7	<i>MTO</i> ● 3.7	<i>MEA</i> ☹ 4.7	<i>Individual EA Act</i> ○ 5.7
<b>6. Must EIA reports meet prescribed content requirements and do checks to prevent the release of inadequate EIA reports exist?</b>			
<i>ARA</i> ☹ 2.8	<i>MTO</i> ☹ 3.8	<i>MEA</i> ☹ 4.8	<i>Individual EA Act</i> ☹ 5.8
<b>7. Must EIA reports be publicly reviewed and the proponent respond to the points raised?</b>			
<i>ARA</i> ☹ 2.9	<i>MTO</i> ☹ 3.9	<i>MEA</i> ☹ 4.9	<i>Individual EA Act</i> ● 5.9
<b>8. Must the findings of the EIA report and the review be a central determinant of the decision on the action?</b>			
<i>ARA</i> ☹ 2.10	<i>MTO</i> ○ 3.10	<i>MEA</i> ☹ 4.10	<i>Individual EA Act</i> ☹ 5.10
<b>9. Must monitoring of action impacts be undertaken and is it linked to the earlier stages of the EIA process?</b>			
<i>ARA</i> ☹ 2.11	<i>MTO</i> ☹ 3.11	<i>MEA</i> ○ 4.11	<i>Individual EA Act</i> ☹ 5.11
<b>10. Must the mitigation of action impacts be considered at the various stages of the EIA process?</b>			
<i>ARA</i> ☹ 2.12	<i>MTO</i> ● 3.12	<i>MEA</i> ● 4.12	<i>Individual EA Act</i> ☹ 5.12
<b>11. Must consultation and participation take place prior to, and following EIA report publication?</b>			
<i>ARA</i> ○ 2.13	<i>MTO</i> ☹ 3.13	<i>MEA</i> ☹ 4.13	<i>Individual EA Act</i> ☹ 5.13
<b>12. Must the EIA system be monitored and, if necessary, be amended to incorporate feedback from experience?</b>			
<i>ARA</i> ○ 2.14	<i>MTO</i> ☹ 3.14	<i>MEA</i> ☹ 4.14	<i>Individual EA Act</i> ○ 5.14
<b>13. Are the discernible environmental benefits of the EIA system believed to outweigh its financial costs and time requirements?</b>			
<i>ARA</i> ☹ 2.15	<i>MTO</i> ○ 3.15	<i>MEA</i> ☹ 4.15	<i>Individual EA Act</i> ☹ 5.15
<b>14. Does the EIA system apply to significant programmes, plans and policies, as well as to projects?</b>			
<i>ARA</i> ○ 2.16	<i>MTO</i> ○ 3.16	<i>MEA</i> ☹ 4.16	<i>Individual EA Act</i> ○ 5.16

○ criterion is not met; ☹ criterion is partially met; ● criterion is fully met;

\* The number refers to the section of this paper containing evidence to support the rating.

## 6.2 Is the EIA system based on clear and specific legal provisions?

- a) Is each step in the EIA process clearly specified in law or a regulation?
- b) Are the legal provisions sufficiently unambiguous in application?
- c) Is there a degree of discretion in the provisions which is acceptable to the participants in the EIA process?
- d) Are the EIA requirements clearly differentiated from other legal provisions?
- e) Is each step in the EIA process enforceable through the courts or by other means?
- f) Are time limits for the various steps in the EIA process specified?
- g) Does a clear outline of procedures and time limits exist for the EIA system as a whole?
- h) Are opportunities for learning about the EIA process available to participants (Lasswell 1971)?

All four EA processes have a basis in law but the requirements of the MTO Class EA process lack clarity and transparency, give the proponent too much discretion in how it complies with the rules, and are poorly monitored and enforced. The MTO Class EA process does not meet the criterion.

The Individual EA Act review process is weak when it comes to providing guidance and learning opportunities for proponents and other participants (although this problem may be rectified through the development of Codes of Practice, which is currently taking place). The Individual EA Act review process is also weak in integrating with other legislation including CEAA, and monitoring and enforcement.

The ARA process is clear and understandable by diverse stakeholders and is not duplicated by other legislation. The only weaknesses on this criterion are that the ARA process lacks time limits (although it appears land use planning processes may be the chief factor in delays), and the OMNR may lack sufficient resources to monitor and enforce the ARA (although recent changes to the ARA fee structure may improve this situation).

The MEA Class EA process is clear and training is available for EA practitioners. The only weaknesses are that the EA process is integrating poorly with other municipal planning processes (under the *Planning Act*) and that it lacks time limits (although

timeliness does not appear to be a major issue, except for the Part II Order request process).

### **6.3 Must the relevant environmental impacts of all significant actions be assessed?**

- a) Does the EIA system apply to all public and private environmentally significant projects?
- b) Are the provisions applied in practice to all the actions covered in principle?
- c) Are all significant environmental impacts covered by the EIA system?

All of the EA processes utilize a broad definition of the environment that covers environmental, social, and cultural elements. The ARA applies to both private and public proponents and covers nearly all areas with significant mineral aggregate resources. Together, the MTO Class EA, MEA Class EA, and Individual EA Act review processes apply to public infrastructure projects that consume approximately 60% of all mineral aggregate resources in Ontario. The majority of private projects that consume aggregate are excluded from the EA Act. A key weakness is that the EA Act applies to few private projects and has effectively screened out plans and programs, even though the EA Act could legally apply to these actions. None of the EA processes require or promote the assessment of cumulative impacts.

### **6.4 Must evidence of the consideration, by the proponent, of the environmental impacts of reasonable alternative actions be demonstrated in the EIA process?**

- a) Must clear evidence of the consideration of the environmental impacts of alternatives be apparent in preliminary EIA documentation?
- b) Must the realistic consideration of the impacts of reasonable alternatives, including the no-action alternative, be evident in the EIA report?
- c) Does published guidance on the treatment of the impacts of reasonable alternatives exist?
- d) Does the treatment of alternatives take place effectively and efficiently?

The ARA does not require that proponents document the consideration of alternatives to the proposed pit or quarry. Alternative methods of operation may be considered in practice, but these methods are neither evaluated systematically nor documented.

Both the MTO Class EA and Individual EA Act review processes require the consideration of alternative methods of designing actions, and the EA Act also demands proponents consider alternatives to the action. However, these processes do not require consideration of the “no action” alternative and neither process gives sufficient guidance to proponents on how to evaluate alternatives. A problem specific to the MTO Class EA is that it is clearly biased against demand management alternatives and towards traditional engineering solutions.

If proponents follow the MEA Class EA process and the guidance within the MEA Class EA, the consideration of alternatives to and alternative methods could be effective. A key strength of the MEA Class EA process is the clear promotion of the no action and non-structural alternatives. However, better guidance could be provided to help EA participants assess alternatives.

## **6.5 Must screening of actions for environmental significance take place?**

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| <ul style="list-style-type: none"><li>a) Is there a legal test of whether the action is likely to affect the environment significantly?</li><li>b) Is there a clear specification of the type of action to be subject to EIA?</li><li>c) Do clear criteria/thresholds exist (e.g., size, location)?</li><li>d) Do different types of EIA exist for different types of action?</li><li>e) Must documentation be submitted by the proponent to assist in screening?</li><li>f) Does published guidance about actions, criteria, thresholds and screening procedures exist?</li><li>g) Is the screening decision made by a publicly accountable body?</li><li>h) Does consultation and participation take place during screening?</li><li>i) Is there a right of appeal against screening decisions?</li><li>j) Does screening function effectively and efficiently?</li></ul> |
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The MEA Class EA and ARA processes are likely most effective at screening proposals for significance. Recent changes mean that the ARA applies to almost all significant mineral aggregate resources in Ontario. Therefore, the screening decision is simple. The MEA Class EA includes numerous examples of actions (with monetary thresholds) to guide proponents during the screening decision, and the MEA Class EA has checkpoints after public consultation periods when the proponent should reconsider the screening choice. Both processes include varying levels of EA that are customized to the potential environmental impacts of the proposed project.

The MTO Class EA process also includes different levels of EA but the use of vague language may make it difficult for the proponent to choose the appropriate EA category for a particular project and for the public and OMOE to assess whether the proponent's choice was reasonable. The MTO Class EA also does not clearly indicate the importance of reconsidering the screening decision after public consultation periods.

Both Class EA processes include the Part II Order request that gives the public and review agencies the ability to appeal to the Minister of the Environment to have a project bumped up to an Individual EA Act review.

The EA Act and supporting regulations are quite clear on the projects to which the Individual EA Act review process applies. Clarity could be improved by increasing the transparency of the decision making process for designating and exempting actions. The EA Act does not provide an appeal for screening decisions for Individual EA Act reviews.



## 6.6 Must scoping of the environmental impacts of actions take place and specific guidelines be produced?

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| a) | Must the proponent consult the environmental authority early in the EIA process? |
| b) | Must the proponent prepare information as a basis for scoping?                   |
| c) | Is scoping mandatory in each case?   |
| d) | Must a general or generic set of impacts be addressed in the EIA?                |
| e) | Must action-specific scoping guidelines be prepared?                             |
| f) | Are irrelevant impacts screened out?   |
| g) | Does published guidance on scoping procedures and methods exist?                 |
| h) | Is consultation and participation required in scoping?                           |
| i) | Is there a right of appeal against scoping decisions?                            |
| j) | Does scoping function efficiently and effectively?                               |

The MTO Class EA process is relatively clear about the need to focus the EA on important, project specific impacts. Early consultation and participation during the development of the Study Design Report (SDR) represents an opportunity for scoping to take place. General environmental impacts are listed in the MTO Class EA to guide the scoping process. The main weakness is that the proponent is not required to document scoping results, so in practice, the SDR may not actually scope the project.

In contrast, the Individual EA Act review process does not require, or clearly recommend scoping. Although a TOR is prepared for each project, the proponent controls when, if, and how the EA will focus on specific environmental issues. Consultation and participation are required when developing the TOR, which is beneficial for those proponents that want to use the TOR process to scope EAs. The absence of a TOR amendment process may discourage proponents from tight scoping as the OMOE recommends that flexibility be built into the TOR to avoid the need to process the revised TOR as if it were for a brand new project.

Although the MEA Class EAs Renewal Project identified scoping as an issue that needed to be addressed, the current MEA Class EA does not discuss the scoping step as clearly as the MTO Class EA. Similar to the MTO Class EA and Individual EA Act

review processes, proponents are not required to document the results of scoping. It is advantageous that the OMOE is listed as a mandatory consultee for all consultation and participation periods, and the MEA Class EA includes some guidance about identifying potential impacts.

The Provincial Standards scope the applications for pits and quarries under the ARA, but scoping is flawed. The ARA process does not require early consultation, therefore issues that become apparent during the public review period may be more expensive to address than if these were identified earlier in the ARA process. The absence of consultation and participation during scoping combined with the requirement for proponents to reasonably address all concerns raised by the public and review agencies, has enabled the public to request the proponent consider “laundry lists” of environmental impacts, possibly as a way to delay the pending approval of pits and quarries. References to assist the proponent during scoping are provided but are dated or not readily available. Scoping is therefore inefficient and ineffective.

## **6.7 Must EIA reports meet prescribed content requirements and do checks to prevent the release of inadequate EIA reports exist?**

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| <ul style="list-style-type: none"><li>a) Must EIA reports describe actions and environments affected, forecast impacts, indicate significance and contain a non-technical summary?</li><li>b) Must information held by the relevant authorities about the environment or type of action be made available to the proponent?</li><li>c) Does published guidance on EIA report preparation exist?</li><li>d) Must specified EIA methods or techniques be employed?</li><li>e) Does accreditation of EIA consultants exist?</li><li>f) Do checks on the content, form, objectivity, and accuracy of the information presented occur before publication of the EIA report?</li><li>g) Is consultation and participation required in the EIA report preparation?</li><li>h) Does the EIA process encourage creative fact finding (Lasswell 1971)?</li><li>i) Does EIA report preparation function efficiently and effectively?</li></ul> |
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None of the EA processes ensures that fully complete and accurate EA reports are published, although all processes require the documentation of actions, the environments affected, forecasted impacts, and a non-technical summary. The processes do not have specific methods prescribed for assessing the accuracy and objectivity of the EA reports, and none of the processes discuss the range of EA methods and techniques that proponents could employ.

Both the ARA and Individual EA Act review processes involve provincial staff in assessing the completeness of EA reports. Although the Provincial Standards and Manual are fairly detailed regarding what information is required in EA reports, there are unjustified inconsistencies in the requirements for different pits and quarries, and the Manual is so poorly advertised that proponents and the public may not be benefiting from the guidance the document offers. The ARA and Provincial Standards also require that professionals with specific credentials author certain reports. The Individual EA Act review process does not require that particular professionals author EA reports, but there is supposed to be a new guidance document being developed to assist proponents in meeting EA Act requirements for EA reports. This guidance could be quite helpful because the EA Act provisions for report content are quite vague when compared with the ARA Provincial Standards. Compared with the OMNR review of ARA reports, the Ministry Review (by the OMOE-EAAB) of EA reports lacks transparency because the OMOE does not have published guidance describing its procedures that it will make available to the public (unlike the Manual for the ARA).

An advantage of the Individual EA Act review and both Class EA processes is that consultation is required during the development of the EA reports, whereas the ARA

does not require consultation when proponents for pits and quarries are preparing application documents. The MEA provides additional advice to improve EA reports – proponents are encouraged to send draft EA reports to review agencies for their initial comments, so that proponents may improve the reports prior to publishing them for public review.

Unlike the ARA process, the Class EAs do not specify the professionals that may author EA reports, and non-proponents do not assess the EA reports for completeness prior to the public review period. The MEA Class EA document guides proponents through the writing of EA reports. The MTO Class EA also guides proponents and offers a wider range of potential information sources than the MEA Class EA, although it is not as specific about the requirements for EA reports.

## **6.8 Must EIA reports be publicly reviewed and the proponent respond to the points raised?**

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| <ul style="list-style-type: none"><li>a) Must a review of the EIA report take place?</li><li>b) Do checks on the objectivity of the EIA report review exist?</li><li>c) Do review criteria to determine EIA report adequacy exist?</li><li>d) Does an independent review body with appropriate expertise exist?</li><li>e) Must the findings of the EIA report review be published?</li><li>f) Can the proponent be asked to respond to comments and to provide more information following review?</li><li>g) Must a draft and final EIA report be prepared?</li><li>h) Does published guidance on EIA review procedures and methods exist?</li><li>i) Is consultation and participation required in EIA report review?</li><li>j) Is consultation and participation required where further information is submitted?</li><li>k) Is there some form of appeal against review decisions?</li><li>l) Does EIA report review function effectively and efficiently?</li></ul> |
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All EA processes require the public review of EA reports and proponents must respond to the concerns raised over a particular time frame. The documentation for the EA processes does not describe clearly what a reasonable response by the proponent

would constitute. All processes prescribe public notification and consultation as the minimum level of public involvement during public review.

Relative to the other processes that I studied, the public review component of the Individual EA Act review process is the best because public comments and responses by proponents are published with the Ministry Review, so that this new information may be reviewed and commented on by the public prior to the Minister's decision on the EA. The key weakness of the Individual EA Act review process for public review is that there is no guidance specifically written for the public that want to participate in this step of the EA process, although a revised guide for public consultation is being finalized.

The other EA processes have some but not all characteristics of a well functioning public review process. The ARA process offers almost no guidance on how to conduct a public review and the minimum requirements for public review differ based on land ownership, without a clear explanation for the differences. Moreover, the public review is the first mandatory point for public involvement and the public is placed in the position of having to justify why and how the proponent's project does not meet their concerns. Additionally, the public review for wayside permits can occur up to 30 months prior to the extraction of mineral aggregate, which means the issues that are important during the public review period may change by the time the project goes ahead. Lastly, the list of Matters to be Considered by the Minister (somewhat analogous to the Ministry Review conducted for the Individual EA Act review process) is not prepared for aggregate permits, and is not published for comment by the public and review agencies.

Both Class EAs have similar public review periods. There are no explicit criteria to determine whether the EA reports are adequate, the findings of the public review

period may or may not be consistently recorded in the EA reports, and there is little guidance for the public review period.

## **6.9 Must the findings of the EIA report and the review be a central determinant of the decision on the action?**

- a) Must the decision be postponed until the EIA report has been prepared and reviewed?
- b) Can permission be refused, conditions be imposed or modifications be demanded at the decision stage?
- c) Is the decision made by a body other than the proponent?
- d) Is any summary evaluation prepared prior to decision making made public?
- e) Must the EIA report, and comments upon it, be used to frame the conditions attached to any consent?
- f) Are the decision, the reasons for it, and the conditions attached published?
- g) Must these reasons include an explanation of how the EIA report and review influenced the decision?
- h) Does published guidance on the factors to be considered in the decision exist?
- i) Is consultation and participation required in decision making?
- j) Is there a right of appeal against decisions?
- k) Does decision making function effectively and efficiently?

The MTO Class EA assumes that the project will proceed unless the proponent is stopped. The preparation and review of EA reports function mainly to identify and mitigate environmental impacts, and to determine the alternative design with the highest net benefit. The proponents (mainly the publicly accountable MTO) drive the EA process and make the bulk of the decisions. The only decision that is made by non-proponents is the Part II Order request.

The MEA Class EA process requires that proponents decide among alternatives based on their net benefits. Conditions are rarely imposed but proponents may voluntarily agree to mitigation during the EA to avoid Part II Order requests. Notices of Completion document when an EA is deemed complete but do not provide much information about the decisions to proceed, and would be false if a Part II Order request was successful.

For Class EAs, the Part II Order is the only remedy the public or review agencies have if they disagree with the EA process that the proponent followed or the results of the

EA. In addition, the only opportunity for conditions to be imposed is if a Part II Order request is denied. The Part II Order request is really an opportunity to reconsider the screening decision – should the project or plan have gone through an Individual EA Act review instead of a Class EA process? There are no clear criteria or guidance to assist the Minister of the Environment when deciding on the Part II Order request.

The decision resulting from the ARA and Individual EA Act review processes may be an approval, approval with conditions, or refusal. After the public review period, the Minister of Natural Resources decides applications for licences, the Head of the Geotechnical Section of the MTO decides applications for aggregate and wayside permits for pits and quarries that will supply public road projects (which presents a conflict of interest), and OMNR Area Supervisors decide applications for all other aggregate and wayside permits. The decisions that are posted by the OMNR and OMOE on the Web do not include reasons for the decision or any conditions for approval, although these may be available by request from the Province of Ontario.

There are few appeal opportunities for the ARA and Individual EA Act review processes, and the ARA provides the most appeal opportunities to proponents on private land. The Minister of the Environment can vary or substitute her or his decision for the ERT, which leaves the Individual EA Act review process open to political interference.

#### **6.10 Must monitoring of action impacts be undertaken and is it linked to the earlier stages of the EIA process?**

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| <ul style="list-style-type: none"><li>a) Must monitoring of the implementation of the action take place?</li><li>b) Must the monitoring of action impacts take place?</li><li>c) Is such monitoring linked to the earlier stages of the EIA process?</li><li>d) Must an action impact monitoring programme be specified in the EIA report?</li><li>e) Can the proponent be required to take ameliorative action if monitoring demonstrates the need for it?</li><li>f) Must the results of such monitoring be compared with the predictions in the EIA report?</li></ul> |
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| g) | Does published guidance on the monitoring and auditing of action implementation and impacts exist? |
| h) | Must monitoring and auditing results be published?   |
| i) | Is there a public right of appeal if monitoring and auditing results are unsatisfactory?           |
| j) | Does action monitoring function effectively and efficiently?                                       |

The MEA Class EA process is the weakest process regarding monitoring of compliance and impacts. The lack of minimum requirements for monitoring may mean that monitoring only occurs if it is required by other legislation or if the proponent agrees to monitor to avoid a Part II Order request.

The MTO Class EA process is a bit clearer regarding the minimum requirements for monitoring; proponents are supposed to monitor and respond to monitoring results during the construction phase, and after, if the proponent agreed to do so during the EA process. The MTO may monitor the effectiveness of mitigation measures and conduct site visits during construction to identify and remedy problems, although the ECO has reported that the MTO may be ineffectively monitoring impacts and compliance. In general, the MTO monitoring program lacks transparency.

The monitoring program for the Individual EA Act review process also lacks transparency. Although annual compliance monitoring is commonly required as a condition of approval, it is unclear what happens when deficiencies are reported. The OMOE is also supposed to be monitoring compliance by conducting site visits but the OMOE may lack sufficient resources to effectively monitor compliance. The monitoring of environmental impacts is also not required unless monitoring is included in the EA report or demanded as a condition of approval. There is no published guidance to assist proponents during monitoring, or staff when assessing compliance, or the public in understanding how monitoring is conducted.



The ARA process has the most transparent monitoring program. Proponents must monitor the environmental impacts as required in the Provincial Standards. Proponents are also responsible for reporting compliance annually to the OMNR; published guidance exists to assist proponents when reporting compliance. The OMNR visits sites to verify compliance and enforce the ARA, but the ECO has consistently reported that the OMNR does not have the funding to effectively monitor the mineral aggregate industry (changes to the fee structure for annual aggregate payments that came into affect on January 1, 2007, may give the OMNR more resources for monitoring).

Compliance reports prepared by proponents and the OMNR are public and the OMNR reports enforcement actions that have been taken on their website. Impact monitoring results may be less accessible to the public, but municipalities commonly receive the results, and the OMNR may also receive the results and inspect monitoring records during site visits.

A key weakness shared by all the EA processes is that no party is comparing the impact monitoring results with projections in application documents to improve impact forecasting, and no one has audited compliance results over time to identify and remedy problems with the compliance reporting process.

### **6.11 Must the mitigation of action impacts be considered at the various stages of the EIA process?**

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| <ul style="list-style-type: none"><li>a) Must clear evidence of the mitigation/avoidance of environmental impacts be apparent in the initial action design described in preliminary EIA documentation?</li><li>b) Must a schedule of mitigation measures and their implementation be set down in the EIA report?</li><li>c) Must evidence of the consideration of mitigation be presented during screening, during scoping, during EIA report review and revision, during decision making and during monitoring?</li><li>d) Does published guidance on mitigation and modification exist?</li><li>e) Does the mitigation of action impacts take place effectively and efficiently?</li></ul> |
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Both Class EA processes clearly require EA participants to consider mitigation measures throughout the EA process. The MEA Class EA includes a fair amount of guidance about mitigation but some references to other documents may be out of date. The MTO Class EA also includes guidance about mitigation (including a preferred order of mitigation beginning with avoidance), additional guidance documents are being finalized, and the MTO has committed to train its staff and consultants to better mitigate. The MTO Class EA also intends that proponents adjust their operations during construction to mitigate any impacts that were not anticipated or when mitigation measures are found to be ineffective, but there is evidence showing that this may not always occur in practice. The MTO is also supposed to be monitoring and evaluating continually the effectiveness of mitigation measures, although there is no evidence readily available to the public to assess this claim.

Both the ARA and Individual EA Act review processes require the consideration of mitigation measures but there is little guidance to assist proponents through this step of the EA process. As a minimum, proponents of projects under the Individual EA Act review process must in the TOR commit to consider mitigation during the EA and document the results in the EA report. The ARA and Provincial Standards require specific mitigation measures (e.g., progressive and final rehabilitation, vegetation of berms to control erosion) which increases the efficiency of the mitigation stage as the most common environmental issues may be addressed by these standard measures, although there has been no auditing of the specified mitigation measures to determine whether the requirements are adequate. Mitigation measures must be determined for any significant impacts that are identified during scoping (i.e., during the preparation of

technical reports). Unlike the MTO Class EA, there is no preference indicated for mitigation measures (e.g., avoidance first, minimization second).

## **6.12 Must consultation and participation take place prior to, and following EIA report publication?**

- a) Must consultation and participation take place prior to scoping, during scoping, during EIA report preparation, during review and following revision, during decision making and during monitoring?
- b) Must a public participation strategy be initiated for each EIA?
- c) Are copies of EIA documents made public at each stage of the EIA process?
- d) Can copies of EIA documents be accessed free of charge or purchased at a reasonable price?
- e) Do confidentiality/secretcy restrictions inhibit consultation and participation?
- f) Are consultation and participation methods appropriate to the stage of the EIA process at which they are employed?
- g) Is funding of public participants provided for?
- h) Are obligatory consultees specified at various stages in the EIA process?
- i) Must adjoining authorities/states/countries be consulted?
- j) Does published guidance on consultation and participation exist?
- k) Must the results of consultation and participation be published?
- l) Do rights of appeal exist at the various stages of the EIA process?
- m) Does consultation and participation function efficiently and effectively?

None of the EA processes excel at involving the public and review agencies. All processes include information notices and public consultation whereby the public may hear from proponents and review agencies, proponents may hear from the public and review agencies, and review agencies may hear from the public and proponents. However, information notices and consultation processes do not ensure that the decision maker heeds the public's input when deciding an EA approval; these levels of public involvement are only token efforts on the ladder of public participation in decision making (Arnstein 1969).

The ARA process does not meet this criterion because the Provincial Standards prescribe only one opportunity for public involvement, late in the EA process, and do not encourage proponents to customize the consultation and participation strategy to best meet the needs of the community and review agencies. Consultation late in the EA

process is inefficient and may increase antagonism between proponents and those with concerns about the pit or quarry – proponents have spent a lot of time and money by that point in the process and might see the consultation period as the final hurdle to getting an approval, whereas some concerned citizens recognize that it is their only legally prescribed opportunity to be heard (unless the application goes to hearing) and are put in the position of having to justify why the proponent's plans are unsatisfactory in meeting their concerns. There are few opportunities for the public to appeal during the EA process and there is no funding to support public participation. There is no published guidance to help proponents design a meaningful strategy for public participation, and until the recent publication of the Information Guide produced by a non-governmental organization (Gravel Watch 2007b), no guidance to assist the public during the EA process. The only strengths of the ARA process regarding consultation and participation are that proponents must consult with specified consultees (although the Canadian Department of Fisheries and Oceans is missing from the list), most documents related to the ARA process are public, and there is likely only the cost of copying the records if the public wishes to have personal copies.

The Individual EA Act review process requires consultation during the preparation of the TOR, EA report, and Ministry Review. The TOR should include a consultation plan and there has been guidance in draft form for some time. There is a general provision in the EA Act that enables the public to request a hearing at any time in the EA process but few requests have been granted. There are few mandatory consultees, and appeals through the Judicial Review process have not been effective remedies for concerned citizens. The termination of the intervenor funding program in 1996 has

decreased the public's ability to participate effectively during hearings. In brief, the individual EA process may be ineffective in providing meaningful opportunities for involving the public in environmental decisions.

The Class EA processes similarly require the preparation of a consultation plan for each project/plan, but in practice, the MTO has been using a generic consultation plan. Both processes involve the public early and throughout the EA process but neither process offers sufficient guidance to proponents or EA participants to ensure quality participation (although the MEA refers to the OMOE draft consultation document). The Part II Order (bump-up) request is the only explicit remedy for the members of the public that disagree with the proposed action, but few bump-up requests have been successful, and the bump-up process lacks transparency. The MEA Class EA identifies a range of potential consultees, organized by potential environmental impact, to guide proponents in involving all relevant parties. Regrettably, the cost to obtain a copy of the MEA Class EA document may inhibit the ability of the public to learn about how the EA process is meant to work.

The MTO Class EA does not require proponents to contact specific consultees or suggest a range of potential consultees. In contrast with the MEA Class EA, and the Individual EA review process, the MTO Class EA process is focussed on involving the most directly affected parties rather than the affected and any interested parties. Another weakness of the MTO Class EA process, and perhaps the most problematic, is the exclusivity of the process. Out of all the EA processes, the MTO Class EA process is the least transparent. The MTO Class EA alienates the public and review agencies from the

EA process by using the terms “internal” and “external” to describe consultees and procedures.

### **6.13 Must the EIA system be monitored and, if necessary, be amended to incorporate feedback from experience?**

- a) Is there a legal provision for periodic review of the EIA system?
- b) Have reviews of the EIA system been carried out and changes made?
- c) Is consultation and participation required in EIA system review?
- d) Is a record of EIA reports for various types of action kept and made public?
- e) Are records of other EIA documents kept and made public?
- f) Are EIA reports and other EIA documents publicly available at one or more locations?
- g) Are records of financial costs of EIA kept and made public?
- h) Is information on the time required for EIA collected and made public?
- i) Are the lessons from specific EIAs fed back into the system?
- j) Does published guidance on monitoring and amending the EA process exist (Lasswell 1971)?
- k) Are appraisals reviewed by a third party (Lasswell 1971)?
- l) Are complaints about the EIA system documented and used to inform appraisal and termination (Lasswell 1971)?
- m) Does the EIA system ensure changes are made at optimal times (Lasswell 1971)?
- n) Does the EIA system ensure changes are made in a manner that minimizes harm to all groups affected by the change (Lasswell 1971)?
- o) Does the EIA system ensure changes result in the fair distribution of benefits and are losers compensated when there is a justified complaint about the distribution of benefits (Lasswell 1971)?
- p) Is formal responsibility for success and failures of the EIA system attributed (Lasswell 1971)?
- q) Are all components of the EIA system appraised (Lasswell 1971)?
- r) Does the monitoring of the EIA system function efficiently and effectively?

Both Class EA processes require annual monitoring of the EA processes, and in addition the MEA Class EA must be reviewed every five years and the MTO and OMOE-EAAB have agreed to review the MTO Class EA every five years. Annual monitoring is a key benefit for these processes because deficiencies can be identified and remedied on a continual basis, and monitoring costs occur incrementally. The Class EAs include amendment procedures, and the OMOE-EAAB has approved evaluation frameworks for both processes.

The Class EA evaluation frameworks have weaknesses though, particularly the MTO Class EA Monitoring Program, which does not appear to meet its own Conditions of Approval for monitoring (although the evaluation framework is currently under

revision). Key flaws of the MEA Class EA Monitoring Program include generally poor evaluation criteria, a focus on successes rather than weaknesses, and short and poorly justified and explained evaluation reports. The MTO monitoring results are not readily available (neither the MTO nor the OMOE would agree to send me electronic copies of the documents) and it is unclear if changes have been made as a result of the monitoring program; in contrast, the MEA publishes monitoring results and amendments on their website. Both evaluation frameworks include the participation of some EA participants, but the public is not asked for comments (although the MEA and the MTO may draw some public comments from Part II Order requests). Proponents, or representatives of proponents author the monitoring reports. Neither evaluation framework clearly indicates that the monitoring program is meant to improve the Class EAs so that they will better achieve the purpose of the EA Act.

Neither the ARA nor the Individual EA Act review process requires ongoing monitoring. These processes lack amending procedures, the ability to identify and solve problems on an ongoing basis, and evidence of public accountability. The few evaluations that have occurred have been costly because there is no ongoing collection of data and incremental incurrence of evaluation costs (both time and money). Although not legally required, evaluations of the EA Act have occurred, and been published, and some changes have been made; these reviews have included public consultation. The community has largely authored evaluations of the ARA process, and reviews completed by the OMNR are not consistently published.

## 6.14 Are the discernible environmental benefits of the EIA system believed to outweigh its financial costs and time requirements?

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| <ul style="list-style-type: none"><li>a) Does empirical evidence exist that the EIA process has significantly altered the outcome of decisions?</li><li>b) Do the participants in the EIA process believe that the environmental quality and acceptability of decisions are improved by it?</li><li>c) Do the participants in the EIA process believe that it has altered the behaviour of the proponents, consultants, consultees, the public and the decision making authorities?</li><li>d) Do the financial costs of the EIA process to proponents, consultees, the public and the decision making authorities exceed those which would have been incurred in any event?</li><li>e) Do the times required to complete the various stages of the EIA process exceed those specified?</li><li>f) Do the participants in the EIA process believe there are enough resources to effectively implement the EIA process (Lasswell 1971)?</li><li>g) Is the time to complete the EIA process acceptable to the stakeholder groups (Lasswell 1971)?</li></ul> |
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No previous evaluation has called for the termination of the EA processes in Ontario, but all of these reports call for improvements. All processes lack sufficient provisions, guidance, and funding to ensure that the public can effectively participate in the EA process.

The MTO Class EA process does not meet this criterion because there is little evidence to show it is achieving its goals, but there is sufficient evidence to the contrary.

An interview participant reported that compared to an earlier initiative that established guidelines to encourage municipal infrastructure proponents to consider the environment, the MEA Class EA is much more effective in changing proponents' behaviour because there are mandatory requirements to do so.

Stakeholders have noted that for projects conducted according to the ARA and Individual EA Act review processes, the relationships among proponents and the public have been improving over the past couple of decades (although no interviewees could attribute this improvement directly to the EA processes). The ARA process is generally long and costly for proponents, and the OMNR may lack sufficient resources to properly administer the ARA. The *Pits and Quarries Control Act* and its successor, the ARA, have



not resolved resource conflicts or ensured the long term supply of mineral aggregate from southern Ontario; instead, the opposite has occurred – conflict is increasing while mineral aggregate supplies are depleting. The recent evaluation by the EAAP determined that the EA Act is fundamentally sound but that on-the-ground implementation requires improvement. The timeliness of the Individual EA Act review process was relatively a minor issue, but the OMOE lacks sufficient resources to properly administer the process.

#### **6.15 Does the EIA system apply to significant programmes, plans and policies, as well as to projects?**

Only the MEA Class EA includes plans, although more guidance about the Master Planning process may be required to improve the assessment plans. Although the EA Act has provisions that suggest it can include plans and programs, in practice these undertakings are screened out of the assessment process.

## 7. DISCUSSION AND RECOMMENDATIONS

### 7.1 Discussion

“The purpose of [the EA Act] is the betterment of the people of the whole or any part of Ontario by providing for the protection, conservation and wise management in Ontario of the environment” (EA Act s. 2).

The purpose of the EA Act includes two goals that are consistent with principles of sustainable development (SD) from the Rio Declaration (UN 1992):

1. **Betterment of the people**

Principle 1: Human beings are at the centre of concerns for SD. They are entitled to a healthy and productive life in harmony with nature.

2. **Protection, conservation and wise management in Ontario of the environment**

Principle 7: States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth’s ecosystem.

Betterment of the people and wise management of the environment also involve Principle 8 (UN 1992): “To achieve SD and a higher quality of life for all people, States should reduce and eliminate unsustainable patterns of production and consumption and promote appropriate demographic policies.” Moreover, Principle 27 of the Rio Declaration recommends EA for actions that may cause significant environmental impacts (UN 1992), and EA experts assert that EA is an important part of a policy package for achieving sustainability (e.g., Lawrence 2003, Gibson 2001, Jay et al 2007).

It is evident from the goals of the EA Act that the Province of Ontario envisions that its EA processes will help achieve sustainable development. Additionally, the recent evaluation of EA in Ontario that was commissioned by the Minister of the Environment determined that EA should be more than simply a tool to determine mitigation measures

to ameliorate significant environmental impacts; “The goal of EA should be to contribute to ecological and community sustainability, and to create a more desirable and durable future” (EAAP 2005, p. 34).

This study evaluated the effectiveness of Ontario’s processes for assessing the merits and environmental impacts of mineral aggregate resource development. The assumption is that a well-performing process is likely to achieve the intended outcome, which, in this case, is sustainability. If I assume that the fourteen evaluation criteria are equally important to the definition of effectiveness, then all four processes are moderately effective (Table 7.1). Three EA processes achieved the “partially met” rating or better for 10 of the 14 criteria. No criterion was “fully met” by all processes although the criterion for coverage was fully met by all but the Individual EA Act review process (because the EA Act screens out nearly all private projects, and plans and programs). No criterion was “not met” for all processes, but only the MEA Class EA clearly includes plans. It is intriguing that only one criterion (for report preparation) received the same rating for all processes, “partially met.”

**Table 7.1 Comparison of the performance ratings for each EA process**

EA Process	Not Met (#)	Partially Met (#)	Fully Met (#)
ARA	5	6	3
MTO	4	7	3
MEA	1	8	5
IR	3	10	1
<b>Total</b>	<b>14</b>	<b>30</b>	<b>12</b>

# is the number of criteria that were assigned that particular rating (e.g., not met).

Criterion 13 is one of the key determinants of effectiveness:

13. Are the discernible environmental benefits of the EIA system believed to outweigh its financial costs and time requirements?

If the costs of an EA process are greater than the benefits of the process, the process is ineffective regardless of how well the individual components of that process are functioning. If I assume that a process must, as a minimum, partially meet criterion 13 to be considered at least somewhat effective, then the ARA, MEA Class EA, and Individual EA Act review processes are moderately effective whereas the MTO Class EA process is ineffective (i.e., it fails to at least partially meet criterion 13).

In order to assess how much the ARA process is like a true EA process, I evaluated it using the same criteria (largely from the EA literature) that I used for the other processes. Even though the designers of the ARA process did not label it an EA process, it still includes many of the characteristics of EA. Moreover, the ARA process outperformed at least one of the other processes in the assessment of six of the criteria. The ARA process received a lower rating than all three other EA processes for only two criteria (relating to alternatives, and consultation and participation).

My evaluation shows that Ontario's processes for assessing the merits and environmental impacts of mineral aggregate resource development could be substantially improved. It is possible that the problems I found with the EA processes are contributing to the loss of close-to-market mineral aggregate supplies, increasing land use conflicts, and allowing unsustainable mineral aggregate resource development.

## 7.2 Recommendations

I present the problems and recommendations below to encourage discussion among those responsible for and interested in managing sustainably the mineral aggregate resources in Ontario. Other jurisdictions can learn from Ontario's experience with EA processes and benefit by discussing the outcomes of this study and whether their particular processes might benefit from the exploration of the following recommendations.

The comprehensiveness of the evaluation criteria allowed me to prioritize the problems for discussion. A problem is discussed if a criterion received a rating of "not met" (Table 6.1). A "partially met" rating for a particular criterion indicates that there is a problem with the EA process, but this problem is not as important as the problem that is likely causing an EA process to fail outright to meet a criterion.

The following problems are likely reducing the Province's ability to achieve sustainability through EA of aggregate development:

1. Provincial policy statements for mineral aggregate resources are unsustainable
2. Lack of political will at the provincial level to implement strategic environmental assessment (SEA)
3. Aggregate resources are disconnected from aggregate products (e.g., roads)
4. The ARA process does not require the consideration of alternatives
5. Information about mineral aggregate resources and alternatives is lacking
6. The MTO Class EA allows proponents to decide to proceed with a project prior to considering the EA report
7. The MTO Class EA process lacks transparency and certainty
8. EA is poorly directed
9. Audience-specific guidance is lacking
10. Public involvement in EA lacks meaningfulness
11. The ARA and Individual EA Act review processes do not sufficiently scope EAs
12. Impacts of municipal projects and plans, and compliance with the MEA Class EA, are not adequately monitored

13. Monitoring program for the MTO Class EA process may not meet Conditions of Approval
14. EA systems are inadequately monitored

**Problem 1 Provincial policy statements for mineral aggregate resources are unsustainable**

The current Provincial Policy Statement (PPS) (OMMAH 2005) might be Ontario's best effort to define sustainable planning, but unfortunately, the policies affecting mineral aggregate are unsustainable (the most important policies are included in section 1.1.7). The current PPS and the recommendations concerning mineral aggregate in the *Growth Plan for the Greater Golden Horseshoe* reinforce Ontario's commitment to the first *Mineral Aggregate Resources Policy Statement* approved in 1979. The Government of Ontario clings to a policy approach that is focussed on making as much mineral aggregate available as close to markets as possible, without evidence to suggest that this approach is optimal. Recently, a multi-stakeholder group broadly agreed that mineral aggregate supplies in southern Ontario are nearing exhaustion (Lura Consulting 2006), and Clayton Research and MHBC (2004) felt that land use planning decisions have severely limited access to potential mineral aggregate resources (the opposite of what the ARA and the *Planning Act* are supposed to achieve).

The PPS also does not encourage the efficient use of mineral aggregate or the exploration of alternatives to the non-renewable resource (Winfield and Taylor 2005).

The policy statement of particular concern is Policy 2.5.2.1 (OMMAH 2005):

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.

Keeping the haul distance for mineral aggregate to a minimum does reduce greenhouse gas emissions and traffic accidents. However, the policy does not require the assessment of need or a supply/demand analysis when new pits and quarries are sited – thus, economically inefficient pits and quarries are acceptable to the Province of Ontario. The provincial government has an economic incentive to keep mineral aggregate costs low by minimizing barriers to mineral aggregate development: approximately 60% of all mineral aggregate is utilized in the construction and maintenance of public infrastructure and cheap construction materials reduce infrastructure costs. The PPS reflects this economic driver and likely means that the decisions resulting from the ARA are not expected to limit the extraction of non-renewable mineral aggregate supplies. Inexpensive mineral aggregate resources provide little incentive for governments and the construction industry to explore alternatives to mineral aggregate resources (e.g., recycling, renewable substitutes)

Additionally, the current PPS requires planning authorities (e.g., municipalities) that would like to use an area with or near a known deposit of mineral aggregate for a land use other than a pit or quarry to justify why the alternative use should be allowed on that land (OMMAH 2005, policy 2.5.2.5); clearly, the Province has directed that the default land use in areas of known mineral aggregate resources is mineral aggregate extraction. This policy statement works against OMNR's pursuit of strong sustainability (see section 1.1.9). Ecological integrity must be the first concern of policies attempting to achieve strong sustainability; thus, the PPS for mineral aggregate is unsustainable.

**Recommendation 1**

Sustainable policies will protect ecological integrity and ensure the efficient use of non-renewable mineral aggregate resources and investment in renewable alternatives (Hussen 2000). Policy 2.5.2.1 and 2.5.2.5 (see above) should be removed from the PPS (OMMAH 2005). Policy 2.5.2.3 should be amended to read, “The conservation of mineral aggregate resources should be promoted by investing in the development of substitutes (particularly renewable materials) for mineral aggregate, and new technologies that use less aggregate resources” (OMMAH 2005). To be consistent with strong sustainability, Policy 2.5.2.2 should be amended to read, “Extraction shall be undertaken in a manner which protects ecological integrity and minimizes social and environmental impacts” (OMMAH 2005).

**Problem 2 Lack of political will at the provincial level to implement SEA**

Since the day that the EA Act was proclaimed, the stated intent was to include plans, programs and policies (EA Act s. 3). The continued lack of SEA in Ontario may be due to a lack of political will at the provincial level. This is evidenced by the difference in the approach of municipal governments in Ontario to planning, which already requires EA of certain aspects of plans according to the MEA Class EA, and the TTT’s support (dominated by municipal interests) for requiring approval of Master Plans through the Class EA process. In contrast, the provincial MTO Class EA document explicitly excludes plans from the EA process. Moreover, the Executive Group of EAAP, commissioned by the OMOE, is suggesting a delay in extending EA to Master Plans. The continued lack of SEA may be contributing to the unjustified reliance on a management



approach for mineral aggregate (i.e., the PPS), which is nearly 30 years old, and a regulatory process that has not involved the assessment of cumulative impacts.

### **Recommendation 2**

Both Richards and Peel (2003) and Baker and Shoemaker (1995) recommend that the planning for mineral aggregate resource development should be over multiple scales: at least the single pit/quarry site, and a regional scale to identify and mitigate cumulative impacts. Winfield and Taylor (2005), and the ECO have also suggested the development of a conservation strategy to better manage Ontario's aggregate resources. The *Growth Plan for the Greater Golden Horseshoe* enables the development of a conservation strategy for a large area of southern Ontario and could pilot the use of SEA for setting mineral aggregate resource policy.

The Ministers of Ontario Ministry of Public Infrastructure Renewal and OMNR should use SEA as a tool for developing a well informed conservation strategy that considers both the positive and negative effects of alternative planning scenarios. A quality SEA will ensure that affected and interested parties have sufficient opportunities to participate. If the Province of Ontario does not have a SEA expert, an independent SEA expert should be hired to guide the development of the conservation strategy.

### **Recommendation 3**

The MTO Class EA should be amended to require the EA of public infrastructure plans that include projects that would fall under the MTO Class EA. To ensure a complete EA review, the MEA Class EA should be amended to require that Master Plans proceed through all five phases of the MEA Class EA process rather than just the first two phases: 1) problem or opportunity, 2) alternative solutions, 3) alternative design

concepts for preferred solution, 4) environmental study report, and 5) implementation.

Public infrastructure plans guide the development of a number of projects affecting the environment and aggregate resources and should be considered significant.

Municipal Official Plans and provincial plans like the *Growth Plan for the Greater Golden Horseshoe* should also undergo SEA. Provisions in the EA Act must be changed to enable SEA of official plans; the provisions in the planning legislation that exempt plans from SEA should be revoked.

#### **Recommendation 4**

The EA Act and the ARA should be amended to require the assessment and documentation of cumulative impacts during SEA processes for planning exercises affecting mineral aggregate resources (e.g., the conservation strategy, infrastructure plans, official plans).

#### **Problem 3 Aggregate resources are disconnected from aggregate products (e.g., roads)**

A key failure in Ontario's system for managing mineral aggregate resources may be the continued conceptual disconnect between aggregate resources and products. An interview participant described the situation as follows (Personal Communication-employee of TOARC):

People are very much affected by that old NIMBY process, not in my backyard. They need aggregate, they don't realize they need it but they do. They consume in Ontario about 14 tonnes for every man, woman, and child every year. Now they don't go out and buy it directly – its not like buying hotdogs or new clothes. Its purchased for them indirectly through their tax dollars for building highways and so on and so forth. So the first time that somebody wants to extract gravel... next door or down the road even and run the trucks in front of their house, they scream bloody murder and scream about how its going to destroy their life...

It is the construction of the built environment which both consumes aggregate and can make potential mineral aggregate supplies inaccessible. The definition of “environment” in the EA Act does not explicitly include minerals and therefore the impacts of a proposed undertaking on mineral aggregate sources may not be considered during EA. The legislation and policies for managing the raw material and built products are separate.

The separation of legislation and policies for managing materials and products might explain why some of the key informants did not initially make the connection between EA and aggregate resources (i.e., the word “road” does not automatically get people thinking about the materials that make up the road). One party did not wish to participate in an interview because they were not convinced of the connection between aggregate resources and the MEA Class EA. Some of the parties that agreed to interviews for the MTO, MEA and Individual EA Act review processes initially suggested that I was better to look at the ARA process because my study was dealing with aggregate resources, which are not part of the EA process. Before asking one interview question, these responses provided evidence that Ontario is not using provisions in the EA Act to encourage the wise management of mineral aggregate resources.

**Recommendation 5**

Since people are not automatically connecting mineral aggregate resources to public infrastructure, the MTO and MEA Class EAs should be amended to require that proponents consider alternatives to projects and plans, and alternative methods of designing and operating projects to minimize the amount of aggregate resources consumed over the lifetime of the project, and the amount of mineral aggregate sterilized

by the proposed action (i.e., the amount of aggregate that is made inaccessible by building on top of it). Requiring municipal and provincial governments, their contractors, and the public to consider how proposals will affect mineral aggregate resources will increase public awareness about the materials that are often indirectly consumed to achieve our modern lifestyle.

**Recommendation 6**

Municipalities and the MTO should report the total amount and cost of aggregate they consume annually in public infrastructure projects. TOARC would be the logical organization to collect and distribute this information because they have a history of gathering and publishing mineral aggregate statistics. The ARA would require an amendment to enable TOARC to gather and publish the information, and TOARC would need additional funding to assume the extra responsibility.

**Recommendation 7**

Eliminating the conceptual disconnect between materials and products is a goal of life cycle assessment, and important for achieving the sustainable development of minerals (Azapagic 2004). TOARC has a research function, and in collaboration with the MTO and MEA, should complete a life cycle assessment for a well known road project in Ontario. A non-technical summary of the study, directed at the general public, should be widely distributed to better inform the public of the full costs of road projects, including the mineral aggregate resources and impacts of mineral aggregate extraction, processing and transport. This project could be part of the mineral aggregate conservation strategy mentioned above.

**Problem 4 The ARA process does not require the consideration of alternatives**

Quality decision making requires the consideration of alternatives; the strengths and weaknesses of each alternative may be better understood through comparison. The ARA process does not require the consideration of alternatives to the proposed pit or quarry, but often in public meetings, the idea of opening a pit or quarry in a different location is brought up but not necessarily discussed. The no-action alternative is likely not considered because the PPS says that aggregate is always needed (OMMAH 2005, policies 2.5.2.1 and 2.5.2.3).

The alternative methods of designing and operating the pit or quarry may be discussed to alleviate public concern, but these discussions are not recorded. This presents a lost opportunity for learning – What designs or operational details are most egregious to the public? What designs or operational details are most acceptable to the public?

**Recommendation 8**

The Provincial Standards for the ARA should be amended to require the proponent to document the consideration of alternatives to the proposed pit or quarry, including the “no action” alternative, and alternative methods of designing and operating the proposed pit or quarry.

**Problem 5 Information about mineral aggregate resources and alternatives is lacking**

The intent of EA is to ensure decisions are well informed, yet little information exists about the environmental and social impacts of mineral aggregate extraction and use in Ontario (Budney and Peel 2007). The *Aggregate Resources of Ontario: A State of the*

*Resource Study* (SOR) only briefly described impacts (PILA 1993). However, the OMNR plans to include more information on impacts when the SOR is updated (Budney and Peel 2007). Additionally, the Aggregate Round Table (held by the ECO) identified the need for better information about the recycling rates and potential for aggregate resources (even though the Ontario Geological Survey has been mapping mineral aggregate potential for over 30 years) (Lura Consulting 2006). There is also little information readily available about substitutes for mineral aggregate (e.g., furnace slag, low aggregate construction technologies).

**Recommendation 9**

The OMNR should proceed with the update of the SOR and should provide sufficient funding to enable the collection of information about environmental and social impacts of mineral aggregate resource extraction and use, and alternatives to mineral aggregate and traditional engineering solutions to public infrastructure requirements. The SOR is a good example of a quality information product because it appeals to a wide range of stakeholders. The mineral aggregate industry, environmental non-governmental organizations and the public interested in mineral aggregate issues support the update of this information (Budney and Peel 2007). The SOR should be updated regularly to capture innovations in technologies, changes in mineral aggregate resource supply and demand, and improvements in the understanding of impacts and mitigation measures.

Funding for the SOR is best shared among the OMNR, MTO, and municipal governments – the authorities responsible for managing mineral aggregate resource development. TOARC’s mandate includes research so the corporation should also contribute some funding to SOR improvements. The OMNR should ask the MEA, MTO,

and the innovators in the construction material industry to contribute their knowledge to updating the SOR.

**Recommendation 10**

The OMNR, with help from the MTO, MEA, and the Ontario Ministry of Public Infrastructure Renewal, should build into the mineral conservation strategy a process for gathering and publishing information about the potential for alternative road construction and maintenance methods that might require less aggregate (e.g., gravel road reclaimers, low gravel concrete). This information would allow better assessment of the potential for these alternatives to either replace mineral aggregate or reduce the demand for aggregate during EAs for public infrastructure plans and projects.

**Problem 6 The MTO Class EA allows proponents to decide to proceed with a project prior to considering the EA report**

Under the MTO Class EA, the decision to proceed with a project currently occurs prior to the completion of the EA report and is the default decision. The decision is therefore not based on the quality information that the EA report is supposed to provide for decision making.

**Recommendation 11**

The MTO Class EA should be amended to remove any language that suggests the default decision is to proceed (except for projects that are exempt from EA); the decision about a project should be delayed until after the EA reports are complete and publicly reviewed so that the decision will be well-informed. The MTO could refer to the MEA Class EA process as it does a better job of describing how proponents can conduct an EA

so that the proponent's preference is not seen as "the decision," and as the EA process continues, the importance of reconsidering earlier decisions based on new information.

**Problem 7 The MTO Class EA process lacks transparency and certainty**

The MTO Class EA process was the most challenging process to evaluate because of the confusing nature of the process and the lack of available information (in addition, no key informants were available to be interviewed). I based my conclusions on ECO annual reports and the MTO Class EA document. The proponent has so much discretion that the EA process is ambiguous in application. After studying the process in detail for over a year and half, I still have not been able to get reliable information about what actually happens in practice. How can the residents of Ontario be sure that the MTO Class EA process is adequately protecting the environment and resulting in the best net benefit for the province?

I think the ECO correctly identified a fundamental weakness in that the culture of MTO may be inhibiting quality environmental assessment. The MTO's use of the terms "internal" and "external" to describe EA participants is exclusive. The complex nature of the MTO Class EA document may be indicative of a desire by MTO to remain in control of provincial transportation decisions while giving the appearance that the public is involved in the decision process. The omission of demand management solutions clearly indicates a bias toward traditional engineering alternatives that may not offer the best net benefit. EA is supposed to help find creative solutions to problems, yet the MTO Class EA does not appear to encourage creativity (although it does allow considerable discretion).



**Recommendation 12**

Class EAs are supposed to be used for undertakings that have readily predictable impacts which are mitigatable. It seems reasonable that a simple and predictable EA process is most appropriate for these undertakings. The MTO Class EA should be rewritten so it is simpler and offers more certainty to the public and review agencies as to what exactly will occur. The MEA Class EA is an example of a relatively easy to follow EA process that the MTO may consider adopting. The MEA process has strengths and weaknesses but it is fundamentally sound and a better model for transparency than the existing MTO Class EA. The ARA process is also fairly strong in communicating EA requirements clearly, and might inform the rewrite of the MTO Class EA.

The process of rewriting the MTO Class EA offers a chance to influence MTO culture through studying and learning from the successes and failures of the MTO Class EA process, and by considering the strengths and weaknesses of other Class EA processes, inside and outside of Ontario.

**Problem 8 EA is poorly directed**

EA in Ontario lacks congruency; only one criterion received the same rating for all EA processes and only two criteria saw three processes share the same rating. Why the inconsistency? Perhaps the EAAP's observation that the EA Act lacks EA principles to guide the implementation of the legal provisions accurately identified the causal factor (EAAP 2005). The minimum requirements written in the EA Act lack specificity and therefore cannot be solely relied upon to inform on-the-ground practice of EA. The PPS and EBR might offer additional guidance, but few decisions resulting from the ARA and the EA Act must comply with the EBR, and the ARA and EA Act do not refer to the PPS.

The lack of clear direction means there is “wobble room” for the policy professionals that are writing Class EAs, guidance documents (the few that exist), and the Codes of Practice for EA.

Moreover, the lack of clear principles to guide decision making means there is much discretion in the hands of the proponents and the Ministers and government staff that are making decisions. Some discretion in an EA process is important so that unique or unusual proposals may be accommodated and diverse environmental conditions properly dealt with. The EA processes provide the decision makers with so much discretion and the legal requirements and stated goals are so vague, however, that if the public wanted to challenge these decisions in court, it would be extremely difficult to point to the legal provisions (meant to secure the public interest) that are not being complied with. Unsustainable decisions may occur because there are no criteria to assist decision makers in determining which projects and plans are sustainable.

**Recommendation 13**

I support the EAAP’s recommendations to develop clear EA principles to better guide the implementation of EA in Ontario. The principles should include sustainability criteria to guide decision makers when determining whether a project or plan is sustainable (e.g., Gibson 2001, IISD 2002). These principles should be enshrined in law so they are legally enforceable; all EA decisions should have to be consistent with the principles and sustainability criteria. The Class EAs should then be evaluated by an independent party and amended as necessary to ensure that the requirements are consistent with achieving the EA principles and sustainability.

**Recommendation 14**

The purposes of the ARA should be clarified: the current purposes, to manage aggregate resources, and control and regulate aggregate operations, are too vague. The de facto rationale for decisions about aggregate resource management has been the PPS. The ARA should be amended to specify that the PPS is guiding mineral aggregate resource management until the aggregate conservation strategy is complete. The aggregate conservation strategy should include sustainability criteria to guide decision makers in determining whether a proposed pit or quarry is sustainable. The ARA should then be amended to specify that the new aggregate conservation strategy is guiding mineral aggregate resource management and that all decisions resulting from the ARA must be consistent with the strategy. Decision makers should be required to document their reasons for deeming a pit or quarry sustainable or unsustainable.

**Problem 9 Audience-specific guidance is lacking**

There are few guidance documents for EA in Ontario that are for a single audience. Most documents are meant for both proponents and the public, or proponents and government staff. The information needs of proponents, the public, and government staff are different. Information is most effective when it is relevant to the audience, and is as detailed and precise as the audience needs it to be.<sup>19</sup>

**Recommendation 15**

Guidance documents for the EA Act (Codes of Practice) were still in draft form as of June 1, 2007, and would benefit from a review that assessed the quality of the

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<sup>19</sup> See Budney and Peel 2007 for an evaluation of the system that is generating aggregate resource information in Ontario. The evaluation criteria in this report might be useful to consider when designing guidance documents.

information from an information user's perspective. These documents should be targeting one audience only; therefore additional guidance will need to be developed for each group (proponents, public, government staff). Information users should be involved in determining what information should be included and how information is best presented (e.g., text, diagrams, tables, photos, on paper pamphlets, or an interactive web product). All guidance documents should be made available over the Internet at no cost, for efficiency and transparency.

### **Recommendation 16**

In addition to guidance documents, periodic training sessions should be offered for proponents, government staff, and the public. A private partner should design and execute the training so it is audience appropriate and based on sound learning principles. Similar to the published guidance, training should be audience specific.

### **Problem 10 Public involvement in EA lacks meaningfulness**

Galbraith et al (2007) summarized from the published literature common problems with public involvement in EA (p. 33):

However, even when participation is encouraged, communities often lack skills, time, financial resources, and access to technocratic forms of knowledge and guidance documents (Craig and Tester, 1982; Sinclair and Diduck, 2001). Moreover, when participation does take place, it is often difficult to integrate alternative cultural conceptions (for instance, views of the utility of land) into the process — a particular problem associated with integrating Aboriginal community consultation (Baker and McLelland, 2003; Edelstein and Kleese, 1995; Sallenave, 1994). Meaningful local participation is also discouraged in many instances, as the final decision authority often resides with those who live outside of the place under consideration (Donihee and Myers, 1990).

Public involvement is essential to ensuring that all significant environmental and social impacts are considered and mitigated adequately during EA, and that

environmentally unacceptable development does not occur (Wood 2003) – proper public involvement is essential to sustainable decisions. None of the EA processes sufficiently involve the public or offer the necessary appeal opportunities for the public to help prevent unsustainable projects and plans from proceeding.

The model for public involvement in Ontario’s EA processes is notification and consultation. These mechanisms are low on Arnstein’s ladder of public participation, meaning the public has a limited ability to influence decision making (Arnstein 1969). Projects undergoing EA may be quite technical and complex, and, currently, members of the public are asked to review the EA documentation (often lengthy documents) during their “free time” and then come to public meetings during their “free time” and present their concerns or support for an EA in a community hall filled with their neighbours, friends, and family. The atmosphere is set up for confrontation – the proponent versus the public, or those that support the project versus those that do not. Alternatively, people might write a letter during their “free time.” Moreover, the appropriate involvement of First Nations is also not discussed in the documents describing the EA processes.

Specific to the ARA process, the only EA process that failed to meet the public involvement criterion, the Provincial Standards only require one public notification and consultation period late in the ARA process. By involving the public earlier in the process, prior to the identification of the applicant’s preferred design, people may have a better chance of influencing the design of the pit or quarry and mitigation measures. The public would also have more time to think about, and perhaps learn about, the potential implications of the proposed project, thereby bettering their ability to communicate their concerns and potential solutions. Some aggregate producers have already recognized the

benefits of earlier public involvement opportunities and are offering these (e.g., having meetings over coffee with potential neighbours when a preliminary design is in hand).

The differences in public involvement opportunities for licences, aggregate permits, and wayside permits may not be in the public interest because the public has the least opportunity to participate in the process for decisions affecting public land and public projects (aggregate permits and wayside permits). This is an example of ARA's focus on managing resources on private lands – there are stricter requirements for private land compared to public land. This is likely because mineral aggregate resource production and consumption is concentrated in southern Ontario, largely private land. However, as mineral aggregate resource supplies are exhausted in the south, more northerly resources on public lands may become economically viable, and the potential for environmental impacts does not differ because of land ownership (although the social impacts may be different since there are no permanent residents on public land). Resources on public land should be considered through an EA process that is at least as rigorous as the process on private land.

**Recommendation 17**

Empowering the public so that they may better influence the EA approval decision and Ontario's progress towards sustainability requires Ontario to shift to a higher rung on Arnstein's (1969) ladder of public participation in decision making. I recommend that the ECO facilitate a process for identifying and selecting a better model of public involvement that would apply to all environmentally significant decisions, including decisions resulting from the ARA and EA Act. This new model should be legally enshrined in the EBR. Similarly, minimum requirements for public participation

in all Class EAs should be increased from notification and consultation to a more meaningful level – these requirements should be legally enshrined in the EA Act.

One option to increase the meaningfulness of public involvement might be to establish and fund multi-stakeholder groups across Ontario that proponents can work with early in the EA processes to help prepare public involvement plans so that they are meaningful and efficient. Regionally based groups are logistically reasonable to establish, and could help ensure that participation plans are consistent with local cultures. The proponent could be legally required to pay for the involvement of such a group, and payment could be based on a fee schedule that is relative to the complexity of the proposal.

**Recommendation 18**

I support the EAAP’s recommendation to prepare with First Nations and aboriginal communities the development of public participation “protocols, procedures and collaborative agreements to facilitate meaningful participation by First Nations and aboriginal communities...” These should move beyond relying on notification and public comment periods to solicit public input. Galbraith et al (2007) and references within offer advice for appropriately involving First Nations in EA processes.

**Recommendation 19**

I support the EAAP’s recommendation to amend the EBR so the public can appeal the decision to approve or exempt an environmentally significant project or undertaking if a public hearing was not conducted according to EA Act provisions.

To be fair to the public and increase the public's ability to stop unsustainable pits and quarries from proceeding, the ARA should be amended so the public has the same rights to appeal as the proponent.

**Recommendation 20**

Currently, the only appeal for Class EA decisions is in the form of a Part II Order request. The effectiveness of this appeal mechanism is questionable, because so few requests have been approved, and the process for analysing requests is hidden from public scrutiny. Part II Order requests are basically an appeal based on the screening decision, and therefore should be made during the first public involvement period following the proponent's preliminary screening choice. If the Part II Order request is denied, conditions of denial could still specify mitigation that would be required or procedural steps that the proponents must take to continue to proceed without an Individual EA Act review. This way, the proponent and the public can be certain that the rigour of the EA review is appropriate to the proposal early in the EA process rather than when the EA process is nearly complete.

Stakeholders should work together to develop criteria for basing Part II Order requests, and the EA Act should be amended to include these criteria to increase transparency, and improve effectiveness. If these changes are made and found to improve the EA process, then there is no need to add another opportunity for appeal in the Class EAs because the Class EAs would truly only be used for projects and plans that have predictable environmental impacts that are readily mitigatable. The decisions resulting from the Class EAs should only cause insignificant environmental impacts.



**Recommendation 21**

The Provincial Standards are 10 years old and are overdue for review and updating. The Provincial Standards should set the bar higher for public participation. I think all stakeholders should be involved in an evaluation of the Provincial Standards with a particular focus on achieving the goals of the ARA and the EBR. More guidance is required to assist aggregate operators and their consultants to develop meaningful opportunities for public involvement that are community specific, and occur throughout the EA process.

**Problem 11 The ARA and Individual EA Act review processes do not sufficiently scope EAs**

“The objective of scoping is to identify the significant issues associated with a proposed action and thus to determine the issues to be addressed in the EIA report” (Wood 2003, p. 159). Effort during EA should be directed at the most important environmental issues rather than potential environmental impacts that are of lesser significance. Scoping decisions are judgements based on values, and thus should involve environmental authorities and the public. Both the ARA and Individual EA Act review processes may be less efficient and effective because unimportant impacts may not be excluded from consideration early in the EA process, and the reasons for the failure differ.

The Provincial Standards attempt to scope the application documents but the requirements do not make mandatory the involvement of the public and environmental authorities during the scoping step. The public has begun using the public consultation and notification period to delay projects by asking proponents to reasonably consider

their concerns, regardless of the significance of the potential impact. It is also possible that proponents miss identifying significant impacts during the scoping step, and thus the EA process is delayed as more information is gathered late in the EA process. The ARA process could be made more efficient by requiring public involvement during the scoping step to avoid delays near the end of the process.

The problem with the Individual EA Act review process is that the proponents are controlling the timing of scoping, and the lack of a TOR amendment process provides a perverse incentive for proponents and the OMOE-EAAB to draft and approve vague TORs.

**Recommendation 22**

The Provincial Standards should be amended to require the involvement of the public and the specified review agencies when information is being gathered to inform the technical reports. Applicants should document the scoping decisions in a scoping guideline (i.e., clearly indicate why particular impacts are deemed significant and other impacts insignificant). To expedite this process, the Provincial Standards should better clarify why the prescribed impacts that must be assessed are considered to be potentially significant. Scoping decisions should be subject to appeal.

**Recommendation 23**

The TOR should be used to scope the EA report, and a legal provision should be added to the EA Act to require scoping. This recommendation requires that a TOR amendment process be developed to efficiently increase or decrease the scope of the EA report as more information about the environment and the project or plan comes to light. A clear scoping requirement will include EA principles and guidance to assist

proponents, the public, review agencies and OMOE-EAAB staff in determining significant impacts.

**Problem 12 Impacts of municipal projects and plans, and compliance with the MEA Class EA, are not adequately monitored**

The MEA Class EA outlines few requirements and offers little guidance about impact and compliance monitoring. The MEA Class EA requires that proponents comply with monitoring commitments made in the ESR but offers no guidance as to when monitoring is required and how it should be done, above and beyond what is specified by other legislation.

The MEA Class EA monitoring program is not assessing whether proponents comply with EA reports. The OMOE-EAAB also does not appear to monitor proponents' compliance. Currently, public complaints appear to be the only way that monitoring of the proponents' compliance with the MEA Class EA and EA reports will occur. It is unreasonable to expect the public to monitor public infrastructure projects and plans.

**Recommendation 24**

The MEA Class EA should list the circumstances under which impact monitoring should occur and the type(s) of monitoring that should take place. For example, proponents should always monitor environmental impacts that they agreed to mitigate, to ensure that the mitigation measures are effective. Advice about how to conduct impact monitoring can be found in the published literature (e.g., Morrison-Saunders and Arts (2004)). The MEA has already determined the most likely impacts that will occur, and common mitigation measures for the particular problems, so it seems reasonable that the MEA could offer guidance to proponents to achieve adequate monitoring of impacts.

**Recommendation 25**

The Conditions for Approval for the MEA Class EA absolve the MEA monitoring committee from having to assess project-by-project compliance and impacts. Therefore, the responsibility should be on the OMOE-EAAB to ensure that proponents are complying with Class EA requirements and that actions taken by proponents are not causing significant environmental impacts (according to the MEA Class EA and findings in the EA reports). The OMOE-EAAB should work with an evaluation expert to develop a program to audit all projects and plans that proceed through Class EAs in Ontario.

**Problem 13 MTO Class EA process monitoring program may not meet Conditions of Approval.**

The Conditions of Approval specifically require the MTO to monitor compliance and effectiveness, and also to "...determine selected impacts of the undertaking on the surrounding environment" (OC 1653/99). However, the MTO's monitoring program, approved by the OMOE-EAAB in 2000 and amended in 2003, does not discuss monitoring of environmental impacts – its strict focus is on the Class EA process (MTO 2003).<sup>20</sup> Thus, it appears that the current Monitoring Program is not meeting all the requirements of the Conditions of Approval (although I cannot confirm this conclusion without seeing the monitoring reports).

**Recommendation 26**

The monitoring program for the MTO Class EA process should be amended to clearly indicate how the program is determining "selected impacts of transportation projects on the environment," as required by the Conditions of Approval.

<sup>20</sup> The MTO was expecting to pilot a revised monitoring program in 2007 (Personal Communication- the MTO).

**Recommendation 27**

The OMOE-EAAB should ensure that the MTO complies with the monitoring requirements of the Conditions of Approval and that monitoring reports are readily available for public review.

**Problem 14 EA systems are inadequately monitored**

To the best of my knowledge, the EA policies affecting aggregate resource extraction and use have never been evaluated together, prior to this study. With some improvements, the annual monitoring programs of the MEA and MTO Class EAs have the potential to achieve the ongoing assessment of the effectiveness of EA for achieving the purpose of the EA Act, and contribute to continuous improvement of the processes so they may be more effective and efficient. The ARA and EA Acts do not have explicit monitoring programs so they do not have these advantages.

It is unreasonable that the MEA Class EA and MTO Class EA processes are monitored annually and reviewed every 5 years, and the Individual EA Act review process is not. The Class EA processes are meant for actions that are less significant than the actions that undergo Individual EA Act review. It would seem then that the effectiveness of the individual EA process is relatively more important than the effectiveness of the Class EA processes. The evaluations conducted for the Individual EA Act review process have been infrequent, unnecessarily large and costly endeavours, and there are no amendment procedures to turn recommendations for improvement into actual changes.

Assessing the performance of the EA system, and responding to the results of evaluations is a mechanism for increasing accountability. Requiring that monitoring

results be widely published would demonstrate the Government of Ontario's commitment to achieving the Province's sustainability goals, and open up the EA processes to public scrutiny.

**Recommendation 28**

The ARA and EA Act should be amended to include a provision that requires the periodic evaluation of the effectiveness of these statutes in achieving their goals. An independent party with the full cooperation and involvement of proponents, administrators, and the public would be best to conduct the evaluations. The evaluation framework and results should be publicized for public scrutiny. It is important that statements and recommendations in the evaluation results are justified to inspire credibility. Amendment procedures, such as those in the MTO and MEA Class EAs, should be developed and legally enshrined in the ARA and EA Act so that the Province has an efficient and effective mechanism for implementing changes to the statutes on an ongoing basis.

**Recommendation 29**

The evaluation frameworks for the MTO and MEA Class EAs have merit, but need improvement. The MTO and MEA should review the evaluation results for EA system monitoring in order to recognize and remedy the problems with the monitoring programs. The literature on policy and program evaluation is vast and should be consulted to inform the improvements.

**Recommendation 30**

The OMOE-EAAB should consult literature on policy and program evaluation, and develop a set of criteria so it may better judge the quality of evaluation frameworks

and reports for monitoring Class EA processes. All Class EA monitoring programs should then be revised so they are consistent with achieving the criteria. A third party evaluation expert could be contracted to develop with the OMOE-EAAB the criteria and process for assessing the quality of monitoring programs and EA reports.

## **8. CONCLUSION AND FUTURE RESEARCH OPPORTUNITIES**

This study evaluated the effectiveness of existing provincial processes for assessing the merits and environmental impacts of mineral aggregate resource development in Ontario. The processes evaluated included the application process for mineral aggregate pits and quarries (ARA); the Individual EA Act review process that has been applied to a few road projects; the MTO Class EA that covers many of the MTO's projects that consume mineral aggregate, and; the MEA Class EA for municipal roads, water and wastewater projects, and plans. A comprehensive set of criteria from Wood (2003), supplemented with additional criteria from Lasswell (1971), was used to assess effectiveness. Published and online literature, and key informant interviews informed the evaluation.

To be considered at least moderately effective overall, an EA process had to at least partially meet the criterion of providing environmental benefits that outweighed financial and time costs. The ARA, MEA Class EA, and Individual EA Act review processes were deemed moderately effective, whereas the MTO Class EA was ineffective. Although not labelled EA, the ARA process has many characteristics of EA, and on six of the fourteen criteria outperformed at least one of the other processes. The ARA process received a lower rating than all three other EA processes for only two criteria (relating to alternatives, and consultation and participation).

The comparison of strengths and weaknesses in this evaluation shows clearly that the quality of particular steps in the EA varies dramatically across the processes. This



variation may be due to the lack of EA principles to clarify vague legal provisions and set the standards for quality EA in Ontario (EAAP 2005). Additionally, the Class EAs and Individual EA Act review process do not ensure that participants consider the impacts of proposals on mineral aggregate resources. Currently, the province is not capitalizing on the opportunity to reduce the demand for mineral aggregate resources for public infrastructure projects, which currently consume 60% of the mineral aggregate produced in Ontario. The following additional key problems were identified with the EA processes for mineral aggregate resource development in Ontario:

1. Provincial policy statements for mineral aggregate resources are unsustainable
2. Lack of political will at the provincial level to implement SEA
3. Aggregate resources are disconnected from aggregate products (e.g., roads)
4. The ARA process does not require the consideration of alternatives
5. Information about mineral aggregate resources and alternatives is lacking
6. The MTO Class EA allows proponents to decide to proceed with a project prior to considering the EA report
7. The MTO Class EA process lacks transparency and certainty
8. EA is poorly directed
9. Audience-specific guidance is lacking
10. Public involvement in EA lacks meaningfulness
11. The ARA and Individual EA Act review processes do not sufficiently scope EAs
12. Impacts of municipal projects and plans, and compliance with the MEA Class EA, are not adequately monitored
13. Monitoring program for the MTO Class EA process may not meet Conditions of Approval
14. EA systems are inadequately monitored

There is room to improve all four EA processes so that Ontario may achieve more sustainable aggregate extraction and use. Thirty recommendations are suggested for the consideration of those affected by and interested in the EA of mineral aggregate resource development in Ontario.

Ontario's approach to managing mineral aggregate resources may be Canada's best (Peel 2004). Other Canadian provinces and territories can learn from the Ontario case by comparing their systems to the performance of Ontario. However, even this Canadian "best case" should be treated with caution, because the current Ontario approach to the EA of mineral aggregate resource development is unsustainable.

The outcomes of this study could provide a starting point for further research focussed on assessing the Ontario EA processes in practice, by better involving all stakeholders (including Gravel Watch and the Ontario Stone, Sand and Gravel Association), and assessing specific EA reports and decision documents. Perhaps the ECO would be interested in collaborating in such research as a follow up to the Aggregate Round Table (Lura Consulting 2006), and as a way to support the development of an aggregate management strategy for the *Growth Plan for the Greater Golden Horseshoe*. Alternatively, TOARC might seek out someone to complete this research with the money TOARC collects from mineral aggregate producers for the study of mineral aggregate resource issues.

To become sustainable, changes must be made to ensure that mineral aggregate resources are used efficiently, renewable alternatives to mineral aggregate are invested in for the use of future generations, and ecological integrity is protected. My recommendations could move Ontario further towards achieving sustainability. Over the long term, a more sustainable approach to mineral aggregate development could prolong the life of mineral aggregate deposits, decrease the need to expand or construct new mineral aggregate pits and quarries, minimize haul distances—thereby reducing

greenhouse gas emissions, fossil fuel consumption and the cost of public infrastructure—and decrease land use conflicts.

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## APPENDIX A

## Appendix A

The table below lists the 14 primary evaluation criteria and the sub-criteria that helped determine whether the primary criteria were fully met. All criteria and sub-criteria are verbatim from Wood (2003), unless otherwise indicated. Additionally, this table links the interview questionnaires with the sub-criteria. Most interview questions were asked to determine whether a sub-criterion was met, if sufficient evidence could not be gleaned from published sources. Some interview questions were asked to clarify information determined from published sources; these interview questions are not matched to the evaluation criteria because the published source was referenced.

### Code

A code is used to match the interview question to the sub-criterion. The following example explains the code:

**ARA**  
B1a

This code means that at least one interview question was composed to assess this sub-criterion for the ARA process (if there is no EA process in bold following a sub-criterion or if there is nothing underneath the bolded EA process, no interview question was used to assess the sub-criterion). The (B) refers to Appendix B. The (1) refers to the first section in Appendix B. The (a) refers to interview question (a) in section (1) of Appendix B.

<b>1. Is the EIA system based on clear and specific legal provisions?</b>			
Is each step in the EIA process clearly specified in law or a regulation?			
Are the legal provisions sufficiently unambiguous in application?			
<b>ARA</b> B1a	<b>MTO</b> C1a	<b>MEA</b> D1a	<b>IR</b> E1a
Is there a degree of discretion in the provisions which is acceptable to the participants in the EIA process?			
<b>ARA</b> B1e	<b>MTO</b> C1e	<b>MEA</b> D1f	<b>IR</b> E1d
Are the EIA requirements clearly differentiated from other legal provisions?			
<b>ARA</b>	<b>MTO</b>	<b>MEA</b> D5f	<b>IR</b>
Is each step in the EIA process enforceable through the courts or by other means?			
Are time limits for the various steps in the EIA process specified?			
Does a clear outline of procedures and time limits exist for the EIA system as a whole?			



<p>Are opportunities for learning about the EIA process available to participants (Lasswell 1971)?</p> <p><i>ARA</i> B1b,c,d</p> <p><i>MTO</i> C1c,d</p> <p><i>MEA</i> D1d,e</p> <p><i>IR</i> E1b,c</p>
<p><b>2. Must the relevant environmental impacts of all significant actions be assessed?</b></p>
<p>Does the EIA system apply to all public and private environmentally significant projects?</p> <p>Are the provisions applied in practice to all the actions covered in principle?</p> <p>Are all significant environmental impacts covered by the EIA system?</p> <p><i>ARA</i> B6a</p> <p><i>MTO</i> C6a; C10p,q</p> <p><i>MEA</i> D6a; D10m,n</p> <p><i>IR</i> E6a; E10n,o</p>
<p><b>3. Must evidence of the consideration, by the proponent, of the environmental impacts of reasonable alternative actions be demonstrated in the EIA process?</b></p>
<p>Must clear evidence of the consideration of the environmental impacts of alternatives be apparent in preliminary EIA documentation?</p> <p>Must the realistic consideration of the impacts of reasonable alternatives, including the no-action alternative, be evident in the EIA report?</p> <p>Does published guidance on the treatment of the impacts of reasonable alternatives exist?</p> <p><i>ARA</i> B6r</p> <p><i>MTO</i> C6s</p> <p><i>MEA</i> D6r</p> <p><i>IR</i> E6r</p> <p>Does the treatment of alternatives take place effectively and efficiently?</p> <p><i>ARA</i> B6n,o,p,q</p> <p><i>MTO</i> C6o,p,q,r</p> <p><i>MEA</i> D6n,o,p,q</p> <p><i>IR</i> E6n,o,p,q</p>
<p><b>4. Must screening of actions for environmental significance take place?</b></p>
<p>Is there a legal test of whether the action is likely to affect the environment significantly?</p> <p>Is there a clear specification of the type of action to be subject to EIA?</p> <p>Do clear criteria/thresholds exist (e.g., size, location)?</p> <p>Do different types of EIA exist for different types of action?</p> <p>Must documentation be submitted by the proponent to assist in screening?</p>

Does published guidance about actions, criteria, thresholds and screening procedures exist?	<i>ARA</i> B5e	<i>MTO</i> C5e	<i>MEA</i> D5i	<i>IR</i> E5e
Is the screening decision made by a publicly accountable body?				
Does consultation and participation take place during screening?				
Is there a right of appeal against screening decisions?	<i>ARA</i>	<i>MTO</i>	<i>MEA</i> D5g	<i>IR</i>
Does screening function effectively and efficiently?	<i>ARA</i> B5a,b,d	<i>MTO</i> C5a,b,d	<i>MEA</i> D5a,b,d	<i>IR</i> E5a,b,d
<b>5. Must scoping of the environmental impacts of actions take place and specific guidelines be produced?</b>				
Must the proponent consult the environmental authority early in the EIA process?				
Must the proponent prepare information as a basis for scoping?				
Is scoping mandatory in each case?				
Must a general or generic set of impacts be addressed in the EIA?				
Must action-specific scoping guidelines be prepared?				
Are irrelevant impacts screened out?	<i>ARA</i> B6c	<i>MTO</i> C6c	<i>MEA</i> D6c	<i>IR</i> E6c
Does published guidance on scoping procedures and methods exist?	<i>ARA</i> B6e	<i>MTO</i> C6e	<i>MEA</i> D6e	<i>IR</i> E6e
Is consultation and participation required in scoping?				
Is there a right of appeal against scoping decisions?				
Does scoping function efficiently and effectively?	<i>ARA</i> B6b,d	<i>MTO</i> C6b,d	<i>MEA</i> D6b,d	<i>IR</i> E6b,d
<b>6. Must EIA reports meet prescribed content requirements and do checks to prevent the release of inadequate EIA reports exist?</b>				
Must EIA reports describe actions and environments affected, forecast impacts, indicate significance and contain a non-technical summary?				

Must information held by the relevant authorities about the environment or type of action be made available to the proponent?			
<i>ARA</i>	<i>MTO</i>	<i>MEA</i>	<i>IR</i>
B10i,j	C10m,n	D10j,k	E10k,l
Does published guidance on EIA report preparation exist?			
Must specified EIA methods or techniques be employed?			
Does accreditation of EIA consultants exist?			
<i>ARA</i>	<i>MTO</i>	<i>MEA</i>	<i>IR</i>
B11e	C11j	D11j	E11j
Do checks on the content, form, objectivity, and accuracy of the information presented occur before publication of the EIA report?			
<i>ARA</i>	<i>MTO</i>	<i>MEA</i>	<i>IR</i>
	C7c	D7b	
Is consultation and participation required in the EIA report preparation?			
Does the EIA process encourage creative fact finding (Lasswell 1971)?			
Does EIA report preparation function efficiently and effectively?			
<i>ARA</i>	<i>MTO</i>	<i>MEA</i>	<i>IR</i>
B7a,b,c	C7a,e	D7a,c	E7a,b,c,d,e
<b>7. Must EIA reports be publicly reviewed and the proponent respond to the points raised?</b>			
Must a review of the EIA report take place?			
Do checks on the objectivity of the EIA report review exist?			
Do review criteria to determine EIA report adequacy exist?			
<i>ARA</i>	<i>MTO</i>	<i>MEA</i>	<i>IR</i>
			E8g,n
Does an independent review body with appropriate expertise exist?			
Must the findings of the EIA report review be published?			
<i>ARA</i>	<i>MTO</i>	<i>MEA</i>	<i>IR</i>
B8d,f	C8e,g	D8d,f	E8d,f,i,k,o
Can the proponent be asked to respond to comments and to provide more information following review?			
Must a draft and final EIA report be prepared?			
Does published guidance on EIA review procedures and methods exist?			
<i>ARA</i>	<i>MTO</i>	<i>MEA</i>	<i>IR</i>
B8h	C8i	D8h	E8m,q
Is consultation and participation required in EIA report review?			

Is consultation and participation required where further information is submitted?				
Is there some form of appeal against review decisions?				
Does EIA report review function effectively and efficiently?	<i>ARA</i> B8c,e,g	<i>MTO</i> C8d,f,h	<i>MEA</i> D8c,e,g	<i>IR</i> E8c,e,h,j,l,p
<b>8. Must the findings of the EIA report and the review be a central determinant of the decision on the action?</b>				
Must the decision be postponed until the EIA report has been prepared and reviewed?				
Can permission be refused, conditions be imposed or modifications be demanded at the decision stage?	<i>ARA</i>	<i>MTO</i> C9d	<i>MEA</i> D9d	<i>IR</i>
Is the decision made by a body other than the proponent?				
Is any summary evaluation prepared prior to decision making made public?				
Must the EIA report, and comments upon it, be used to frame the conditions attached to any consent?	<i>ARA</i> B9i	<i>MTO</i> C9j	<i>MEA</i> D9j	<i>IR</i>
Are the decision, the reasons for it, and the conditions attached published?	<i>ARA</i> B9a,b,c	<i>MTO</i> C9b,c,d	<i>MEA</i> D9b,c,d	<i>IR</i> E9a,b
Must these reasons include an explanation of how the EIA report and review influenced the decision?				
Does published guidance on the factors to be considered in the decision exist?	<i>ARA</i> B9g	<i>MTO</i> C9h	<i>MEA</i> D9h	<i>IR</i> E9f
Is consultation and participation required in decision making?				
Is there a right of appeal against decisions?				
Does decision making function effectively and efficiently?	<i>ARA</i> B9f,h,j	<i>MTO</i> C9g,i,k	<i>MEA</i> D9g,i,k	<i>IR</i> E9e,g,h
<b>9. Must monitoring of action impacts be undertaken and is it linked to the earlier stages of the EIA process?</b>				
Must monitoring of the implementation of the action take place?				

Must the monitoring of action impacts take place?

Is such monitoring linked to the earlier stages of the EIA process?

Must an action impact monitoring programme be specified in the EIA report?

Can the proponent be required to take ameliorative action if monitoring demonstrates the need for it?

Must the results of such monitoring be compared with the predictions in the EIA report?

Does published guidance on the monitoring and auditing of action implementation and impacts exist?

**ARA**

B6j,m

**MTO**

C6k,n; C9n

**MEA**

D6j,m; D9n

**IR**

E6j,m; E9k

Must monitoring and auditing results be published?

Is there a public right of appeal if monitoring and auditing results are unsatisfactory?

Does action monitoring function effectively and efficiently?

**ARA**

B6i,l; B9l,m

**MTO**

C6j,m; C9m

**MEA**

D6i,l; D9m

**IR**

E6i,l; E9j

#### **10. Must the mitigation of action impacts be considered at the various stages of the EIA process?**

Must clear evidence of the mitigation/avoidance of environmental impacts be apparent in the initial action design described in preliminary EIA documentation?

Must a schedule of mitigation measures and their implementation be set down in the EIA report?

Must evidence of the consideration of mitigation be presented during screening, during scoping, during EIA report review and revision, during decision making and during monitoring?

Does published guidance on mitigation and modification exist?

**ARA**

B6h

**MTO**

C6i

**MEA**

D6h

**IR**

E6h

Does the mitigation of action impacts take place effectively and efficiently?

**ARA**

B6g

**MTO**

C6h

**MEA**

D6g

**IR**

E6g

**11. Must consultation and participation take place prior to, and following EIA report publication?**

Must consultation and participation take place prior to scoping, during scoping, during EIA report preparation, during review and following revision, during decision making and during monitoring?

Must a public participation strategy be initiated for each EIA?

Are copies of EIA documents made public at each stage of the EIA process?

<i><b>ARA</b></i>	<i><b>MTO</b></i>	<i><b>MEA</b></i>	<i><b>IR</b></i>
B8a	C4f; C6g; C7b; C8a,b	D8a	E8a

Can copies of EIA documents be accessed free of charge or purchased at a reasonable price?

<i><b>ARA</b></i>	<i><b>MTO</b></i>	<i><b>MEA</b></i>	<i><b>IR</b></i>
B8b	C4f; C6g; C7b; C8a,c	D8b	D8b

Do confidentiality/secretcy restrictions inhibit consultation and participation?

<i><b>ARA</b></i>	<i><b>MTO</b></i>	<i><b>MEA</b></i>	<i><b>IR</b></i>
B10k	C10o	D10l	E10m

Are consultation and participation methods appropriate to the stage of the EIA process at which they are employed?

<i><b>ARA</b></i>	<i><b>MTO</b></i>	<i><b>MEA</b></i>	<i><b>IR</b></i>
B4b	C4b,e	D4b	E4b

Is funding of public participants provided for?

Are obligatory consultees specified at various stages in the EIA process?

Must adjoining authorities/states/countries be consulted?

Does published guidance on consultation and participation exist?

<i><b>ARA</b></i>	<i><b>MTO</b></i>	<i><b>MEA</b></i>	<i><b>IR</b></i>
B4d	C4g	D4e	E4e

Must the results of consultation and participation be published?

Do rights of appeal exist at the various stages of the EIA process?

Does consultation and participation function efficiently and effectively?

<i><b>ARA</b></i>	<i><b>MTO</b></i>	<i><b>MEA</b></i>	<i><b>IR</b></i>
B4a,c	C4a,d	D4a,d	E4a,d

**12. Must the EIA system be monitored and, if necessary, be amended to incorporate feedback from experience?**

Is there a legal provision for periodic review of the EIA system?

Have reviews of the EIA system been carried out and changes made?

<b><i>ARA</i></b> B11c	<b><i>MTO</i></b> C11c	<b><i>MEA</i></b> D11c	<b><i>IR</i></b> E11c
Is consultation and participation required in EIA system review?			
<b><i>ARA</i></b> B10a	<b><i>MTO</i></b> C10e,c	<b><i>MEA</i></b> D10a,b	<b><i>IR</i></b> E10b
Is a record of EIA reports for various types of action kept and made public?			
<b><i>ARA</i></b> B10b,c,d,e,f	<b><i>MTO</i></b> C10a,b,d,f,g,h,i,j	<b><i>MEA</i></b> D10c,d,e,g	<b><i>IR</i></b> E10a,c,d,e,f,g,h
Are records of other EIA documents kept and made public?			
<b><i>ARA</i></b> B10a,b,c,d,e,f	<b><i>MTO</i></b> C10a,b,c,d,e,f,g,h	<b><i>MEA</i></b> D10a,b,c,d,e,f,g	<b><i>IR</i></b> E10a,b,c,d,e,f,g,h
Are EIA reports and other EIA documents publicly available at one or more locations?			
<b><i>ARA</i></b> B10g	<b><i>MTO</i></b> C10k	<b><i>MEA</i></b> D10h	<b><i>IR</i></b> E10i
Are records of financial costs of EIA kept and made public?			
<b><i>ARA</i></b> B10h	<b><i>MTO</i></b> C10l	<b><i>MEA</i></b> D10i	<b><i>IR</i></b> E10j
Is information on the time required for EIA collected and made public?			
<b><i>ARA</i></b> B11d	<b><i>MTO</i></b> C11d	<b><i>MEA</i></b> D11d	<b><i>IR</i></b> E11d
Are the lessons from specific EIAs fed back into the system?			
<b><i>ARA</i></b> B11b,d	<b><i>MTO</i></b> C11b,d	<b><i>MEA</i></b> D11b,d	<b><i>IR</i></b> E11b,d
Does published guidance on monitoring and amending the EA process exist (Lasswell 1971)?			
<b><i>ARA</i></b> B11a	<b><i>MTO</i></b> C11a	<b><i>MEA</i></b> D11a	<b><i>IR</i></b> E11a
Are appraisals reviewed by a third party (Lasswell 1971)?			
<b><i>ARA</i></b> B11a	<b><i>MTO</i></b> C11a	<b><i>MEA</i></b> D11a	<b><i>IR</i></b> E11a
Are complaints about the EIA system documented and used to inform appraisal and termination (Lasswell 1971)?			
<b><i>ARA</i></b> B11a	<b><i>MTO</i></b> C11a	<b><i>MEA</i></b> D11a	<b><i>IR</i></b> E11a
Does the EIA system ensure changes are made at optimal times (Lasswell 1971)?			
<b><i>ARA</i></b> B11e	<b><i>MTO</i></b> C11e	<b><i>MEA</i></b> D11e	<b><i>IR</i></b> E11e
Does the EIA system ensure changes are made in a manner that minimizes harm to all groups affected by the change (Lasswell 1971)?			
<b><i>ARA</i></b> B11f	<b><i>MTO</i></b> C11f	<b><i>MEA</i></b> D11f	<b><i>IR</i></b> E11f

Does the EIA system ensure changes result in the fair distribution of benefits and are losers compensated when there is a justified complaint about the distribution of benefits (Lasswell 1971)?

<i>ARA</i>	<i>MTO</i>	<i>MEA</i>	<i>IR</i>
	C11g,h	D11g,h	E11g,h

Is formal responsibility for success and failures of the EIA system attributed (Lasswell 1971)?

Are all components of the EIA system appraised (Lasswell 1971)?

Does the monitoring of the EIA system function efficiently and effectively?

<i>ARA</i>	<i>MTO</i>	<i>MEA</i>	<i>IR</i>
B11b	C11b	D11b	E11b

**13. Are the discernible environmental benefits of the EIA system believed to outweigh its financial costs and time requirements?**

Does empirical evidence exist that the EIA process has significantly altered the outcome of decisions?

<i>ARA</i>	<i>MTO</i>	<i>MEA</i>	<i>IR</i>
B9d,e	C9e,f	D9e,f	E9c,d

Do the participants in the EIA process believe that the environmental quality and acceptability of decisions are improved by it?

<i>ARA</i>	<i>MTO</i>	<i>MEA</i>	<i>IR</i>
B1g,h,i	C1g,h,i	D1h,i,j	E1f,g,h

Do the participants in the EIA process believe that it has altered the behaviour of the proponents, consultants, consultees, the public and the decision making authorities? \*

<i>ARA</i>	<i>MTO</i>	<i>MEA</i>	<i>IR</i>
B3a,b,c	C3a,b,c	D3a,b,c	E3a,b,c

Do the financial costs of the EIA process to proponents, consultees, the public and the decision making authorities exceed those which would have been incurred in any event?

Do the times required to complete the various stages of the EIA process exceed those specified?

Do the participants in the EIA process believe there are enough resources to effectively implement the EIA process (Lasswell 1971)?

<i>ARA</i>	<i>MTO</i>	<i>MEA</i>	<i>IR</i>
B2a,b,c,d,e	C2a,b,c	D2a,b,c,d	E2a,b,c,d

Is the time to complete the EIA process acceptable to the stakeholder groups (Lasswell 1971)?



<b>14. Does the EIA system apply to significant programmes, plans and policies, as well as to projects?</b>			
<i>ARA</i>	<i>MTO</i>	<i>MEA</i> D5e	<i>IR</i>

\* This sub-criterion was interpreted to mean that the EA process fosters positive working relationships among EA participants.

## APPENDIX B

## Appendix B

### EA Process **Aggregate Resources Act**

Interviewee

Role

Notes

\*\* Review process refers to the process for approving aggregate pits and quarries as described in the Aggregate Resources Act, Regulations, and Provincial Standards. The review process includes the activities that occur as a result of the approval of a project, such as compliance monitoring, and actions taken to fulfill conditions specified in the approval.

\*\* An application includes the site plan, summary statement, and technical reports as described in the Provincial Standards.

\*\* Applicant is used instead of proponent so the language of the questionnaire is consistent with the Aggregate Resources Act, Regulations, and Provincial Standards.

Thank-you for agreeing to talk with me.

Start by defining the review process. See note above.

Structure- 11 groups of questions; I'd like to start with some general questions about the review process as a whole then move to some questions about specific parts of the process.

Please ask me to clarify what I mean if any question seems confusing.

\*\*Note for me\*\* always introduce the category of questions so people know that we are changing our focus, and to give them a sense that we are progressing towards the end.

#### 1. General Questions- about the whole review process

- a) How would you describe the clarity of the Aggregate Resources Act, regulations, and Provincial Standards?

##### **If unclear**

- I. What is unclear?  
II. How might clarity be improved?

##### **If clear**

- III. Is there anything that could be clearer in the legislation, regulations or policies?

- b) Are there opportunities for the applicant to learn about how applications are made, reviewed, approved, and monitored (e.g., published documents, websites, classes)?

##### **If yes**

- IV. Please describe these opportunities.

- c) Are there opportunities for the public to learn about how applications are made, reviewed, approved, and monitored (e.g., published documents, websites, classes)?

**If yes**

V. Please describe these opportunities.

- d) Is the Aggregate Resource Program Manual of Policy and Procedures available to applicants and the public?

**If yes**

VI. How is the Manual made available?

VII. Is there a cost?

- e) In situations where there are unusual circumstances, does the review process have enough flexibility and discretion in it to handle these unusual circumstances? (such as a unique pit or quarry design or rare environmental conditions)

**If no**

VIII. How could the review process be changed so there is enough flexibility and discretion?

IX. Is there any time during the review process when there is too much flexibility and discretion?

**If yes**

- i. How could the review process be changed so there isn't too much flexibility and discretion?

**If yes**

X. Is there any time during the review process when there is too much flexibility and discretion?

**If yes**

- ii. How could the review process be changed so there isn't too much flexibility and discretion?

- f) In your view, what does the term sustainable development mean?

Please listen to the following definition of sustainable development from the Ministry of Natural Resources:

“Under the concept of sustainable development, Ontario’s natural resources constitute natural “capital”. Resources over and above those essential for long-term sustainability requirements become available over time as “interest” for use, enjoyment and development. Development which maintains the natural capital and allows for the accumulation of this natural interest is sustainable.”

- g) Do you think that the application review and approval process ensures sustainable development, as defined by the MNR, is achieved?

**If yes**

XI. How?

XII. Could the application review, and approval process be improved to better ensure sustainable development is achieved?

**If no**

XIII. How could the application review and approval process be improved to ensure sustainable development is achieved?

- h) Do you feel the review process affects the quality of the environment as a whole?

**If yes**

XIV. How?

- i) Do you feel the review process affects the acceptability of proposed pits and quarries to the public?

**If yes**

XV. How does the review process affect acceptability?

2. Resources- time, money, qualified personnel

- a) In your experience, do you and/or other applicants have sufficient time, money, and qualified personnel to produce quality applications and meet commitments specified in applications and approvals?

**If no**

I. What resources are lacking?

II. What might be done to remedy this resource problem?

- b) In your experience, do NGOs and the public, have sufficient time and money to participate adequately in the review process?

**If no**

III. What resources are lacking?

IV. What might be done to remedy this resource problem?

- c) Does the Ministry of Natural Resources have sufficient time, money, and qualified personnel to administer the application review, approval and monitoring process?

**If no**

V. What resources are lacking?

VI. What might be done to remedy this resource problem?

- d) In your view, does the Ontario Municipal Board have sufficient time, money, and qualified personnel to review applications and decide whether or not to approve a proposed pit and quarry?

**If no**

VII. What resources are the Ontario Municipal Board lacking?

VIII. What might be done to remedy this resource problem?

- e) Does the Mining and Lands Commissioner have sufficient time, money, and qualified personnel to review applications and make a recommendation on whether or not to approve a proposed pit and quarry?

**If no**

IX. What resources is the Mining and Lands Commissioner lacking?

X. What might be done to remedy this resource problem?

### 3. Relationships

- a) Do you feel the review process affects the working relationships among applicants, NGOs, the public, and government?

**If yes and positive effect**

I. How?

II. Could the review process be improved to help better working relationships?

**If yes and negative effect**

III. How?

IV. How might the review process be improved to help better working relationships?

- b) Does the review process build trust among applicants, NGOs, the public, and government?

**If yes**

V. How?

VI. Could the review process be improved to help build trust among the different parties?

**If no**

VII. How can the review process be improved to help build trust among the different parties?

- c) Are conflicts resolved among applicants, NGOs, the public, and government during the review process?

**If yes**

VIII. How are conflicts resolved?

**If specific methods like negotiation, mediation or facilitation**

- i. How frequently are these methods to resolve conflicts used?
- ii. Do these methods to resolve conflicts affect the working relationships among affected and interested parties?

**If yes**

iii. How?

IX. Can you suggest any improvements to the review process so conflicts are resolved even better?

**If no**

X. What might be changed so conflicts are better resolved during the review process?

4. Public Consultation and Participation

- a) Do the current processes for consultation and participation of affected and interested parties improve the quality of decisions on whether or not to approve proposed pits and quarries? (affected and interested parties include applicants, government agencies, NGOs and the public)

**If yes**

I. How do the processes improve decisions?

- b) How fair are the current processes for consultation and participation of affected and interested parties?

**If unfair**

II. How might the processes be changed so they are more fair?

**If fair**

III. What makes the current process fair?

IV. Could the review process be improved so it is more fair?

- c) How efficient is the current process for consultation and participation of affected and interested parties?

**If inefficient**

V. How might efficiency be improved?

**If efficient**

VI. Can you suggest any improvements so consultation and participation is more efficient?

- d) Does published guidance exist on consultation and participation of affected and interest parties for the review process?

**If yes**

VII. How may I get copies?

- e) Can you suggest any additional improvements to the consultation and participation processes?

5. The kinds of pits and quarries covered by the review process (screening)

- a) In your experience, does the review process ensure all proposed pits and quarries that may have environmentally and socially significant impacts are reviewed?

**If no**

I. What types of pits and quarries that may have environmentally and socially significant impacts are excluded?

**If yes**

II. How is this accomplished?

- b) In your view, are applications ever submitted for proposed pits and quarries that don't have the potential for environmentally and socially significant impacts?

**If yes**

III. Can you provide examples of or describe these kinds of pits and quarries?

IV. What happens to these applications?

**If no**

V. How does the review process screen out such applications?



- c) Can you suggest any improvements to ensure that the review process focuses on pits and quarries that may have environmentally and socially significant impacts?
- d) How efficient is the review process in determining whether or not a proposed pit or quarry requires review?

**If inefficient**

VI. How might efficiency be improved?

**If efficient**

VII. Is there any way efficiency could be improved?

- e) Does published guidance exist about how to determine whether or not a proposed pit or quarry requires review?

**If yes**

VIII. How may I get copies?

6. Environmental and Social Impacts of Pits and Quarries (scoping, mitigation, monitoring, alternatives)

- a) Are all the important environmental and social impacts of proposed pits and quarries assessed during the review process?

**If no**

I. What additional types of environmental and social impacts would you like to see assessed during the review process? (might be different ecosystem components like hydrological or perhaps cumulative effects, or social impacts, or truck traffic...)?

- b) In your view, does the review process focus the attention of all parties on the important environmental and social issues?

**If yes**

II. How does the review process focus applications on the important environmental and social issues?

- c) In your view, does the review process ensure unimportant environmental and social impacts are excluded from consideration?

**If yes**

III. How does it do so?

- d) How efficient is the review process for determining which environmental and social issues should be considered?

**If inefficient**

IV. How might efficiency be improved?

**If efficient**

V. Could efficiency be improved?

- e) Does published guidance exist on how to determine the environmental and social issues that should be considered during the review process?

**If yes**

VI. How may I get copies?

- f) Can you suggest any improvements to the process for determining which environmental and social issues should be considered during the review process?

- g) Are all the negative environmental and social impacts of approved pits and quarries satisfactorily mitigated?

**If no**

VII. Why not?

VIII. How might mitigation be improved?

**If yes**

IX. How does it do so?

X. Can you suggest any improvements to mitigation?

XI. How efficient is the review process at mitigating negative environmental and social impacts?

**If inefficient**

i. How might efficiency be improved?

**If efficient**

ii. Could efficiency be improved?

- h) Does published guidance exist on mitigating negative environmental and social impacts of pits and quarries?

**If yes**

XII. How may I get copies?

- i) Are all of the important environmental and social impacts of building and operating approved pits and quarries monitored?

**If yes**

XIII. How does the review process ensure these impacts are monitored?

XIV. Are changes made during the construction or operation of an approved pit or quarry when the monitoring of environmental and social impacts suggests the environment is being harmed?

**If yes**

iii. Can you provide examples of when changes were made in response to monitoring results?

XV. How efficient is the monitoring of environmental and social impacts?

**If inefficient**

iv. How might the monitoring of environmental and social impacts be changed to increase efficiency?

**If efficient**

v. Could efficiency be improved?

j) Does published guidance exist on monitoring environmental and social impacts of pits and quarries?

**If yes**

XVI. How may I get copies?

k) Can you suggest any improvements for monitoring environmental and social impacts of pits and quarries?

l) In your experience, are all monitoring results compared with the application and approval conditions to improve the forecasting of impacts and use of mitigation measures for future applications?

**If yes**

XVII. How is this done?

XVIII. How efficient is the process for comparing monitoring results with the application and approval?

**If inefficient**

vi. How might efficiency be improved?

**If efficient**

vii. Could efficiency be improved?

m) Does published guidance exist on how to audit environmental and social impacts by comparing monitoring results with impacts forecasted and mitigation measures stated in the application and approval?

**If yes**

XIX. How may I get copies?

- n) In your experience, does the review process ensure that the applicant considers reasonable alternatives to the proposed pit or quarry? (“alternative to” means an action other than the proposed pit or quarry)

**If yes**

XX. How does it do so?

XXI. How efficiently does it do so?

**If inefficient**

viii. How might the review process be improved so the process for considering alternatives is more efficient?

**If efficient**

ix. Could efficiency be improved?

**If no**

XXII. Should the applicant consider the environmental and social impacts of reasonable alternatives to the proposed pit or quarry?

**If yes**

x. Why?

**If no**

xi. Why not?

- o) In your view, does the review process ensure the government and public consider reasonable alternatives to the proposed pit or quarry? (“alternative to” means an action other than the proposed pit or quarry)

**If yes**

XXIII. How does it do so?

XXIV. How efficiently does it do so?

**If inefficient**

xii. How might the review process be improved so the process for considering alternatives is more efficient?

**If efficient**

xiii. Could efficiency be improved?

**If no**

XXV. Should the government and public consider the environmental and social impacts of reasonable alternatives?

**If yes**

xiv. Why?

**If no**

xv. Why not?

- p) Do you think the review process ensures the applicant considers reasonable alternative methods of designing and operating the proposed pit or quarry?

**If yes**

XXVI. How does it do so?

XXVII. How efficiently does it do so?

**If inefficient**

xvi. How might efficiency be improved?

**If efficient**

xvii. Could efficiency be improved?

**If no**

XXVIII. Should the applicant consider the environmental and social impacts of alternative methods of designing and operating the proposed pit or quarry?

**If yes**

xviii. Why?

**If no**

xix. Why not?

q) In your view, does the review process ensure the government and public consider reasonable alternative methods of designing and operating the proposed pit or quarry?

**If yes**

XXIX. How does it do so?

XXX. How efficiently does it do so?

**If inefficient**

xx. How might the review process be improved so the process for considering alternatives is more efficient?

**If efficient**

xxi. Could efficiency be improved?

**If no**

XXXI. Should the government and public consider the environmental and social impacts of alternative methods of designing and operating the proposed pit or quarry?

**If yes**

xxii. Why?

**If no**

xxiii. Why not?

r) Does published guidance exist on how to consider reasonable alternatives to or reasonable alternative methods of designing and operating proposed pits and quarries?

**If yes**

XXXII. How may I get copies?

## 7. Application Documents (site plans and technical reports)

- a) In your experience, how frequently are applicants asked to submit more information than they provided in their original application documents to meet prescribed requirements?

### **If frequently**

- I. Why don't applicants submit fully complete applications?
- II. How might the review process be improved so applicants submit fully complete applications?

- b) In your experience, do application documents contain the necessary information on the environmental and social impacts of pits and quarries for making the decision about whether or not to approve a pit or quarry?

### **If no**

- III. What information is most commonly missing?
- IV. How might the review process be improved so applications contain the necessary information on the environmental and social impacts of pits and quarries?

### **If yes**

- V. How does the review process ensure the necessary information is contained in the site plans and technical reports?

- c) How efficient is the process for preparing application documents?

### **If inefficient**

- VI. How might efficiency be improved?

### **If efficient**

- VII. Could efficiency be improved?

## 8. Public Review of Application Documents (site plans and technical reports)

- a) In your experience, how does the public access application documents during the prescribed public review process?

- b) Is there a cost to the public to access application documents?

### **If Yes**

- I. Is the cost reasonable?

- c) Do you feel that the public review of site plans and technical reports improves the quality of those documents?

**If yes**

II. How does it do so?

- d) In your experience, are comments made by the public and review agencies during the public review period made public?

**If yes**

III. When?

IV. How do the public access these comments?

V. Is there a cost to the public when accessing the comments?

**If Yes**

i. Is the cost reasonable?

- e) In your experience, do applicants respond to the comments and requests for further information during the public review process?

**If yes**

VI. How does the review process ensure the applicant responds to comments and requests made during public review?

**If no**

VII. Why not?

VIII. What can be done to ensure the applicant responds to comments and requests made during the public review process?

- f) Are the responses of the applicant to comments made by public and review agencies made public?

**If yes**

IX. At what points in the review process are these responses made public?

X. How do the public access these responses?

XI. Is there a cost to the public when accessing these responses?

- g) How efficient is the prescribed process for the public review of documents submitted by the applicant?

**If inefficient**

XII. How might efficiency be improved?

**If efficient**

XIII. Could efficiency be improved?

- h) Does published guidance exist on how to conduct the public review of application documents?

**If yes**

XIV. How may I get copies?

- i) Can you suggest any additional improvements to the prescribed process for the public review of documents submitted by the applicant?

9. Approval Decision- Minister of Natural Resources

- a) Is the decision whether or not to approve a proposed pit or quarry made public?

**If yes**

I. How?

II. Is there a cost to the public when accessing the decisions?

**If Yes**

i. Is the cost reasonable?

- b) Are the reasons for the decisions made public?

**If yes**

III. How?

IV. Is there a cost?

**If Yes**

ii. Is the cost reasonable?

- c) Are the conditions of approval made public?

**If yes**

V. How?

VI. Is there a cost?

**If Yes**

iii. Is the cost reasonable?

- d) Do you think that the outcomes of decisions whether to approve proposed pits and quarries would be different if the review process didn't exist?

**If yes**

VII. What would be different?

**If no**

VIII. Why would the outcomes be the same?



- e) Are there any studies that examine whether the review process significantly alters the outcomes of decisions on whether or not to approve proposed pits and quarries?

**If yes**

IX. How can I get copies of these studies? (ask for citations or copies if I don't have them already)

- f) Do you think that the decision making process for determining whether or not to approve a proposed pit or quarry results in fair decisions?

**If yes**

X. How does the decision making process ensure these decisions are fair?

XI. Could the decision making process be more fair?

**If no**

XII. How could the decision making process be improved to ensure decisions are fair?

- g) Does published guidance exist on the factors that should be considered when deciding whether or not to approve a proposed pit or quarry?

**If yes**

XIII. How may I get copies?

- h) In your view, how important to the Minister of Natural Resource's decision on whether or not to approve a proposed pit or quarry, are site plans, technical reports, comments received during public review, and the MNR's report on the Matters to be Considered by the Minister?

**If important**

XIV. How does the review process ensure applications and the comments from the public and review agencies are important determinants in the decision?

- i) In your experience, are site plans, technical reports, comments from the public review period and MNR's report on the Matters to be Considered by the Minister used to frame the approval conditions?
- j) From the point when the site plan, technical reports, and comments from the public review period are in the hands of the Minister, how efficient is the decision making process for determining whether to approve a proposed pit or quarry?

**If inefficient**

XV. How might efficiency be improved?

**If efficient**

XVI. Could efficiency be improved?

- k) Can you suggest any additional improvements to the decision making process for determining whether or not to approve a proposed pit or quarry?
- l) Does the annual compliance reporting system ensure that pits and quarries are built and operated as described in the approvals and applications?

**If yes**

- XVII. How does the annual compliance reporting system do so?
- XVIII. How efficient is the annual compliance reporting system?

**If inefficient**

- iv. How might efficiency be improved?

**If efficient**

- v. Could efficiency be improved?

**If no**

- vi. Why not?
- vii. What could be improved?

- m) Does published guidance exist on compliance monitoring?

**If yes**

- XIX. How may I get copies?

- n) Can you suggest any improvements to the annual compliance reporting system?

10. Information about the review process, environment, and aggregate resources

- a) Can the public access historic applications?

**If yes**

- I. How do the public access historic applications? (ask the following questions as necessary)
- II. From where?
- III. From whom?
- IV. Is there a cost?

- b) Can the public access historic comments made by the public and review agencies about specific applications?

**If yes**

- V. How do the public access historic comments made by the public and review agencies? (ask the following questions as necessary)
- VI. From where?
- VII. From whom?
- VIII. Is there a cost?

- c) Can the public access historic responses of the applicant to comments made by the public and review agencies?

**If yes**

- IX. How do the public access historic responses of the applicant to comments made by the public and review agencies? (ask the following questions as necessary)
- X. From where?
- XI. From whom?
- XII. Is there a cost?

- d) Can the public access historic decision documents such as approvals and refusals?

**If yes**

- XIII. How do the public access historic decision documents such as refusals and approvals? (ask the following questions as necessary)
- XIV. From where?
- XV. From whom?
- XVI. Is there a cost?

- e) Can the public access annual compliance reports for previously approved pits and quarries?

**If yes**

- XVII. How do the public access annual compliance reports? (ask the following questions as necessary)
- XVIII. From where?
- XIX. From whom?
- XX. Is there a cost?

- f) Can the public access monitoring reports on the environmental and social impacts of previously approved pits and quarries?

**If yes**

- XXI. How do the public access monitoring reports on the environmental and social impacts of previously approved pits and quarries? (ask the following questions as necessary)
- XXII. From where?
- XXIII. From whom?
- XXIV. Is there a cost?

- g) Can the public learn about the financial costs associated with the review process?

**If yes**

- XXV. How does the public learn about the financial costs of the review process?
- XXVI. Are any of the costs unavailable?

h) Can the public learn about the time costs associated with the review process?

**If yes**

XXVII. How does the public learn about the time costs of the review process?

XXVIII. Are any of the costs unavailable?

i) Have you or other applicants ever had trouble accessing information held by other parties concerning the environment potentially affected by a proposed pit or quarry?

**If no**

XXIX. Can you describe the kind of information that you or others had trouble accessing?

XXX. How might the sharing of information be improved?

**If yes**

XXXI. Could information sharing be improved?

j) Have you or other applicants ever had trouble accessing information about pits and quarries, and aggregate resources that is important for considering when completing an application?

**If no**

XXXII. Can you describe the kind of information that you or others had trouble accessing?

XXXIII. How might the sharing of information be improved?

**If yes**

XXXIV. Could information sharing be improved?

k) Have you or others been restricted from seeing information important to deciding whether or not to approve a proposed pit or quarry?

**If yes**

XXXV. What information are you or others restricted from seeing?

11. Evaluating and amending the review process

a) How are complaints about the review and monitoring processes treated?

b) Is the review and monitoring process, as a whole, evaluated regularly to assess the effectiveness of the process and inform improvements?

**If yes**

I. Please describe this evaluation program?

II. How efficient is the evaluation program?

**If inefficient**

i. How might efficiency be improved?

**If efficient**

ii. Could efficiency be improved?

III. Does published guidance exist on evaluating and amending the review process?

**If yes**

iii. How may I get copies?

IV. Can you suggest any improvements to the current process for evaluating and amending the review process?

c) Please list any studies of the review process that you know exist, (additional to the ones you already mentioned). (if the interviewee has done a study, ask for a copy)

**If studies are mentioned**

V. Have these studies resulted in changes to the review process?

**If no**

iv. Why not?

**If yes**

v. Please describe the changes that were made as a result of these studies?

vi. How were these changes made?

d) Are lessons learned from specific applications used to improve the review process for future pits and quarries?

**If yes**

VI. How is this accomplished?

VII. How efficient is the process?

**If inefficient**

vii. How might efficiency be improved?

**If efficient**

viii. Could efficiency be improved?

VIII. Does published guidance exist on evaluating and amending the review process?

**If yes**

ix. How may I get copies?

IX. Can you suggest any improvements to the current process for evaluating and amending the review process?

Second last question:

- e) Does accreditation exist for consultants involved in preparing an application?

**If yes**

X. What is the name of the accreditation program?

Now I have one final question. It is about the Provincial Policy Statement that is created according to the Planning Act. My question is regarding Policy 2.5 entitled Mineral Aggregates.

Are you familiar with these statements?

(depending on response, I will change the speed at which I go through the phrases below)

In particular, the following specific statements that I will read to you in the order in which they appear in the Provincial Policy Statement.

2.5.1 Mineral aggregate resources shall be protected for long-term use.

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

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

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

2.5.2.3 The conservation of mineral aggregate resources should be promoted by making provision for the recovery of these resources, wherever feasible.

- f) In your experience, does the Provincial Policy Statement for Mineral Aggregates affect the information used in the review process?

**If yes**

XI. How?

\*\*

Before we conclude our conversation, would you like to make any further comments or suggest any other improvements to the review process? Is there anyone else that I should definitely talk to about the Aggregate Resources Act?

Thanks for you time.

## APPENDIX C

## Appendix C

### EA Process **MTO Class EA**

Interviewee

Role

Notes

\*\* Environmental assessment process refers to all the processes described in the MTO Class EA document, and include, defining the problem or opportunity, assessing and selecting a preferred alternative, public consultation, and monitoring.

Thank-you for agreeing to talk with me.

Start by defining the environmental assessment process. See note above.

Structure- 11 groups of questions; I'd like to start with some general questions about the environmental assessment process as a whole then move to some questions about specific parts of the process.

Please ask me to clarify what I mean if any question seems confusing.

\*\*Note for me\*\* always introduce the category of questions so people know that we are changing our focus, and to give them a sense that we are progressing towards the end.

#### 1. General Questions- about the whole environmental assessment process

- a) How would you describe the clarity of the MTO Class EA document, and any policies associated with it?

##### **If unclear**

- I. What is unclear?
- II. How might clarity be improved?

##### **If clear**

- III. Is there anything that could be clearer?

- b) Who administers the MTO Class EA?

- c) Are there opportunities for the proponent to learn about how environmental assessments are made, reviewed, approved, and monitored (e.g., published documents, websites, classes)?

##### **If yes**

- IV. Please describe these opportunities.



- d) Are there opportunities for the public to learn about how environmental assessments are made, reviewed, approved, and monitored (e.g., published documents, websites, classes)?

**If yes**

V. Please describe these opportunities.

- e) In situations where there are unusual circumstances, does the environmental assessment process have enough flexibility and discretion in it to handle these unusual circumstances? (such as a unique project/plan design or rare environmental conditions)

**If no**

VI. How could the environmental assessment process be changed so there is enough flexibility and discretion?

VII. Is there any time during the environmental assessment process when there is too much flexibility and discretion?

**If yes**

- i. How could the environmental assessment process be changed so there isn't too much flexibility and discretion?

**If yes**

VIII. Is there any time during the environmental assessment process when there is too much flexibility and discretion?

**If yes**

- ii. How could the environmental assessment process be changed so there isn't too much flexibility and discretion?

- f) In your view, what does the term sustainable development mean?

Please listen to the following definition of sustainable development from the Ministry of Natural Resources:

“Under the concept of sustainable development, Ontario’s natural resources constitute natural “capital”. Resources over and above those essential for long-term sustainability requirements become available over time as “interest” for use, enjoyment and development. Development which maintains the natural capital and allows for the accumulation of this natural interest is sustainable.”

- g) Do you think that the environmental assessment, review and approval process ensures sustainable development, as defined by the MNR, is achieved?

**If yes**

IX. How?

X. Could the environmental assessment review, and approval process be improved to better ensure sustainable development is achieved?

**If no**

XI. How could the environmental assessment process be improved to ensure sustainable development is achieved?

- h) Do you feel the environmental assessment process affects the quality of the environment as a whole?

**If yes**

XII. How?

- i) Do you feel the environmental assessment process affects the acceptability of proposed projects to the public?

**If yes**

XIII. How does the environmental assessment process affect acceptability?

2. Resources- time, money, qualified personnel

- a) In your experience, do you and/or other proponents have sufficient time, money, and qualified personnel to produce quality Transportation Environmental Study Reports, Design and Construction Reports and meet commitments specified in the TESRs, DCRs and approvals?

**If no**

I. What resources are lacking?

II. What might be done to remedy this resource problem?

- b) In your experience, do NGOs and the public, have sufficient time and money to participate adequately in the environmental assessment process?

**If no**

III. What resources are lacking?

IV. What might be done to remedy this resource problem?

- c) Does the [administrator] have sufficient time, money, and qualified personnel to administer the environmental assessment process?

**If no**

V. What resources are lacking?

VI. What might be done to remedy this resource problem?

### 3. Relationships

- a) Do you feel the environmental assessment process affects the working relationships among proponents, NGOs, the public, and government?

**If yes and positive effect**

- I. How?  
II. Could the environmental assessment process be improved to help better working relationships?

**If yes and negative effect**

- III. How?  
IV. How might the environmental assessment process be improved to help better working relationships?

- b) Does the environmental assessment process build trust among proponents, NGOs, the public, and government?

**If yes**

- V. How?  
VI. Could the environmental assessment process be improved to help build trust among the different parties?

**If no**

- VII. How can the process be improved to help build trust among the different parties?

- c) Are conflicts resolved among proponents, NGOs, the public, and government during the environmental assessment process?

**If yes**

- VIII. How are conflicts resolved?

**If specific methods like negotiation, mediation or facilitation**

- i. How frequently are these methods to resolve conflicts used?  
ii. Do these methods to resolve conflicts affect the working relationships amongst affected and interested parties?

**If yes**

- iii. How?

- IX. Can you suggest any improvements to the environmental assessment process so conflicts are resolved even better?

**If no**

- X. What might be changed so conflicts are better resolved during the environmental assessment process?

#### 4. Public Consultation and Participation

- a) Do the current processes for consultation and participation of affected and interested parties improve the quality of decisions on whether or not to approve proposed projects? (affected and interested parties include proponents, government agencies, NGOs and the public)

**If yes**

I. How do the processes improve decisions?

- b) How fair are the current processes for consultation and participation of affected and interested parties?

**If unfair**

II. How might the processes be changed so they are more fair?

**If fair**

III. What makes the current process fair?

IV. Could the review process be improved so it is more fair?

- c) In your experience, are all parties that are interested in or potentially affected by the extraction, processing, and hauling of aggregates involved in the environmental assessment process?

**If yes**

V. How

VI. Should all parties that are interested in or potentially affected by the extraction, processing, and hauling of aggregates be involved in the environmental assessment process?

**If no**

VII. Why not?

VIII. Should all parties that are interested in or potentially affected by the extraction, processing, and hauling of aggregates be involved in the environmental assessment process?

- d) How efficient is the current process for consultation and participation of affected and interested parties?

**If inefficient**

IX. How might efficiency be improved?

**If efficient**

X. Can you suggest any improvements so consultation and participation is more efficient?

- e) In your experience, are the public and government involved during the development of Consultation Plans?

**If yes**

XI. How are they involved?

- f) Are Consultation Plans made public during the environmental assessment process?

**If yes**

XII. At what points in the environmental assessment process are copies of the Consultation Plan made public?

XIII. How do the public access Consultation Plans?

XIV. Is there a cost to the public when accessing Consultation Plans?

**If Yes**

i. Is the cost reasonable?

- g) Does published guidance exist on consultation and participation of affected and interest parties for the environmental assessment process?

**If yes**

XV. How may I get copies?

- h) Can you suggest any additional improvements to the consultation and participation processes?

5. The kinds of projects covered by the environmental assessment process (screening)

- a) In your experience, does the environmental assessment process ensure all proposed projects that may have environmentally and socially significant impacts are reviewed?

**If no**

I. What types of projects that may have environmentally and socially significant impacts are excluded?

**If yes**

II. How is this accomplished?

- b) In your view, are environmental assessments ever submitted for proposed projects that don't have the potential for environmentally and socially significant impacts?

**If yes**

III. Can you provide examples of or describe these kinds of projects?

IV. What happens to these environmental assessments?

**If no**

V. How does the environmental assessment process screen out such environmental assessments?

- c) Can you suggest any improvements to ensure that the environmental assessment process focuses on projects that may have environmentally and socially significant impacts?
- d) How efficient is the environmental assessment process in determining whether or not a proposed project requires an environmental assessment?

**If inefficient**

VI. How might efficiency be improved?

**If efficient**

VII. Is there any way efficiency could be improved?

- e) Does published guidance exist about how to determine whether or not a proposed project requires an environmental assessment?

**If yes**

VIII. How may I get copies?

6. Environmental and Social Impacts of Projects (scoping, mitigation, monitoring, alternatives)

- a) Are all the important environmental and social impacts of proposed projects assessed during the environmental assessment process?

**If no**

I. What additional types of environmental and social impacts would you like to see assessed during the environmental assessment process? (might be different ecosystem components like hydrological or perhaps cumulative effects, or social impacts, or truck traffic...)?

- b) In your view, does the environmental assessment process focus the attention of all parties on the important environmental and social issues?

**If yes**

II. How does the environmental assessment process focus environmental assessments on the important environmental and social issues?

- c) In your view, does the environmental assessment process ensure unimportant environmental and social impacts are excluded from consideration?

**If yes**

III. How does it do so?

- d) How efficient is the environmental process for determining which environmental and social issues should be considered?

**If inefficient**

IV. How might efficiency be improved?

**If efficient**

V. Is there any way efficiency could be improved?

- e) Does published guidance exist on how to determine the environmental and social issues that should be considered during the environmental assessment process?

**If yes**

VI. How may I get copies?

- f) Can you suggest any improvements to the process for determining which environmental and social issues should be considered during the environmental assessment process?

- g) In your experience, are copies of the Study Design Report made public during the environmental assessment process?

**If yes**

VII. At what points in the environmental assessment process are copies of the Study Design Report made public?

VIII. How do the public access Study Design Reports?

IX. Is there a cost to the public when accessing Study Design Reports?

**If Yes**

i. Is the cost reasonable?

- h) Are all the negative environmental and social impacts of approved projects satisfactorily mitigated?

**If no**

X. Why not?

XI. How might mitigation be improved?

**If yes**

XII. How does it do so?

XIII. Can you suggest any improvements to mitigation?

XIV. How efficient is the environmental assessment process at mitigating negative environmental and social impacts?

**If inefficient**

ii. How might efficiency be improved?

**If efficient**

iii. Is there any way efficiency could be improved?

i) Does published guidance exist on mitigating negative environmental and social impacts of projects?

**If yes**

XV. How may I get copies?

j) Are all of the important environmental and social impacts of building and operating approved projects monitored?

**If yes**

XVI. How does the environmental assessment process ensure these impacts are monitored?

XVII. Are changes made during the construction or operation of an approved project when monitoring suggests the environment is being harmed?

**If yes**

iv. Can you provide examples of when changes were made in response to monitoring results?

XVIII. How efficient is the monitoring of environmental and social impacts?

**If inefficient**

v. How might the monitoring of environmental and social impacts be changed to increase efficiency?

**If efficient**

vi. Is there any way efficiency could be improved?

k) Does published guidance exist on monitoring environmental and social impacts of projects?

**If yes**

XIX. How may I get copies?



- l) Can you suggest any improvements for monitoring environmental and social impacts of projects?
- m) In your experience, are all monitoring results compared with the Transportation Environmental Study Reports, Design and Construction Reports, and approval conditions to improve the forecasting of impacts and use of mitigation measures for future environmental assessments?

**If yes**

XX. How is this done?

XXI. How efficient is the process for comparing monitoring results with the environmental assessment and approval?

**If inefficient**

vii. How might efficiency be improved?

**If efficient**

viii. Is there any way efficiency could be improved?

- n) Does published guidance exist on how to audit environmental and social impacts by comparing monitoring results with impacts forecasted and mitigation measures stated in the Transportation Environmental Study Reports, and Design and Construction Reports, and approvals?

**If yes**

XXII. How may I get copies?

- o) In your experience, does the environmental assessment process ensure that the proponent considers reasonable alternatives to the proposed project? (“alternative to” means an action other than the proposed project)

**If yes**

XXIII. How does it do so?

XXIV. How efficiently does it do so?

**If inefficient**

ix. How might the environmental assessment process be improved so the process for considering alternatives is more efficient?

**If efficient**

x. Is there any way efficiency could be improved?

**If no**

XXV. Should the proponent consider the environmental and social impacts of reasonable alternatives to the proposed project?

**If yes**

xi. Why?

**If no**

xii. Why not?

- p) In your view, does the environmental assessment review and approval process ensure the government and public consider reasonable alternatives to the proposed project? (“alternative to” means an action other than the proposed project)

**If yes**

XXVI. How does it do so?

XXVII. How efficiently does it do so?

**If inefficient**

xiii. How might the environmental assessment process be improved so the process for considering alternatives is more efficient?

**If efficient**

xiv. Is there any way efficiency could be improved?

**If no**

XXVIII. Should the government and public consider the environmental and social impacts of reasonable alternatives?

**If yes**

xv. Why?

**If no**

xvi. Why not?

- q) Do you think the environmental assessment process ensures the proponent considers reasonable alternative methods of designing, building, and operating the proposed project?

**If yes**

XXIX. How does it do so?

XXX. How efficiently does it do so?

**If inefficient**

xvii. How might efficiency be improved?

**If efficient**

xviii. Is there any way efficiency could be improved?

**If no**

XXXI. Should the proponent consider the environmental and social impacts of alternative methods of designing, building and operating the proposed project?

**If yes**

xix. Why?

**If no**

xx. Why not?

- r) In your view, does the environmental assessment process ensure the government and public consider reasonable alternative methods of designing, building and operating the proposed project?

**If yes**

XXXII. How does it do so?

XXXIII. How efficiently does it do so?

**If inefficient**

xxi. How might the environmental assessment process be improved so the process for considering alternatives is more efficient?

**If efficient**

xxii. Is there any way efficiency could be improved?

**If no**

XXXIV. Should the government and public consider the environmental and social impacts of alternative methods of designing, building, and operating the proposed project?

**If yes**

xxiii. Why?

**If no**

xxiv. Why not?

- s) Does published guidance exist on how to consider reasonable alternatives to or reasonable alternative methods of designing, implementing and operating proposed projects?

**If yes**

XXXV. How may I get copies?

7. Environmental Assessment Documents (Transportation Environmental Study Reports, Design and Construction Reports, and the packages developed at the end of each stage of the EA process)

- a) In your experience, do environmental assessment documents contain the necessary information on the environmental and social impacts of projects for making the decision about whether or not to approve a project?

**If no**

I. What information is most commonly missing?

II. How might the environmental assessment process be improved so environmental assessment documents contain the necessary information on the environmental and social impacts of projects?

**If yes**

III. How does the environmental assessment process ensure the necessary information is contained in the Transportation Environmental Study Reports, and Design and Construction Reports?

- b) Are copies of the packages made at the end of each stage of the environmental assessment process made public (e.g., Planning Package)?

**If yes**

- IV. At what points in the environmental assessment process are copies of these packages made public?  
V. How do the public access these packages?  
VI. Is there a cost to the public when accessing these packages?

**If Yes**

- i. Is the cost reasonable?

- c) In your experience, do proponents have procedures for verifying the completeness, accuracy, and objectivity of information presented in Transportation Environmental Study Reports, and Design and Construction Reports?

**If yes**

- VII. Please describe these procedures? (perhaps they are formal/informal, are there checklists?)

- d) To whom does the proponent submit the Transportation Environmental Study Report, and Design and Construction Report?

- e) How efficient is the process for preparing environmental assessment documents?

**If inefficient**

- VIII. How might efficiency be improved?

**If efficient**

- IX. Is there any way efficiency could be improved?

8. Public Review of Environmental Assessment Documents (Transportation Environmental Study Reports, and Design and Construction Reports, Environmental Screening Documents)

- a) In your experience, are Environmental Screening Documents made public during the environmental assessment process?

**If yes**

- I. At what points in the environmental assessment process are environmental screening documents made public?  
II. How do the public access Environmental Screening Documents?  
III. Is there a cost?

b) In your experience, how does the public access Transportation Environmental Study Reports, and Design and Construction Reports during the prescribed public review process?

c) Is there a cost to the public to access environmental assessment documents?

**If Yes**

IV. Is the cost reasonable?

d) Do you feel that the public review of Transportation Environmental Study Reports, and Design and Construction Reports improves the quality of those documents?

**If yes**

V. How does it do so?

e) In your experience, are comments made by the public and review agencies during the public review period made public?

**If yes**

VI. When?

VII. How do the public access these comments?

VIII. Is there a cost to the public when accessing the comments?

**If Yes**

i. Is the cost reasonable?

f) In your experience, do proponents respond to the comments and requests for further information during the public review process?

**If yes**

IX. How does the environmental assessment process ensure the proponent responds to comments and requests made during public review?

**If no**

X. Why not?

XI. What can be done to ensure the proponent responds to comments and requests made during the public review process?

g) Are the responses of the proponent to comments made by public and review agencies made public?

**If yes**

XII. At what points in the environmental assessment process are these responses made public?

XIII. How do the public access these responses?

XIV. Is there a cost to the public when accessing these responses?

h) How efficient is the public review process?

**If inefficient**

XV. How might efficiency be improved?

**If efficient**

XVI. Is there any way efficiency could be improved?

i) Does published guidance exist on how to conduct the public review of environmental assessment documents?

**If yes**

XVII. How may I get copies?

j) Can you suggest any additional improvements to the prescribed process for the public review of documents submitted by the proponent?

9. Approval Decision

a) Does the proponent make the decision whether or not to approve the proposed project even if the proponent is not the Ministry of Transportation?

b) Is the decision whether or not to approve a proposed project made public?

**If yes**

I. How?

II. Is there a cost to the public when accessing the decisions?

**If Yes**

i. Is the cost reasonable?

c) Are the reasons for the decisions made public?

**If yes**

III. How?

IV. Is there a cost?

**If Yes**

ii. Is the cost reasonable?

d) Are conditions for approval documented in the same way as the approvals from the formal environmental assessment process under the Environmental Assessment Act?

**If not**

V. How does the proponent indicate commitments it makes to the public and review agencies?

**If yes**

VI. Are the conditions of approval made public?

**If yes**

iii. How?

iv. Is there a cost?

**If Yes**

v. Is the cost reasonable?

- e) Do you think that the outcomes of decisions whether to approve proposed projects would be different if the environmental assessment process didn't exist?

**If yes**

VII. What would be different?

**If no**

VIII. Why would the outcomes be the same?

- f) Are there any studies that examine whether the environmental assessment process significantly alters the outcomes of decisions on whether or not to approve proposed projects?

**If yes**

IX. How can I get copies of these studies? (ask for citations or copies if I don't have them already)

- g) Do you think that the decision making process for determining whether or not to approve a proposed project results in fair decisions?

**If yes**

X. How does the decision making process ensure these decisions are fair?

XI. Could the decision making process be more fair?

**If no**

XII. How could the decision making process be improved to ensure decisions are fair?

- h) Does published guidance exist on the factors that should be considered when deciding whether or not to approve a proposed project?

**If yes**

XIII. How may I get copies?

- i) In your view, how important to the proponent's decision on whether or not to approve a proposed project, are Transportation Environmental Study Reports, Design and Construction Reports, and the comments received during public review?

**If important**

XIV. How does the environmental assessment process ensure environmental assessments and the comments from the public and review agencies are important determinants in the decision?

- j) In your experience, are Transportation Environmental Study Reports, Design and Construction Reports, and comments from the public review period used to frame the approval conditions?
- k) From the point when the Transportation Environmental Study Report, and/or the Design and Construction Report, and comments from the public review period are in the hands of the proponent, how efficient is the decision making process for determining whether to approve a proposed project?

**If inefficient**

XV. How might efficiency be improved?

**If efficient**

XVI. Is there any way efficiency could be improved?

- l) Can you suggest any additional improvements to the decision making process for determining whether or not to approve a proposed project?
- m) In your experience, are projects monitored to ensure they are built and operated as described in the environmental assessment documents and approval conditions?

**If yes**

XVII. Please describe the monitoring.

XVIII. How efficient is the monitoring?

**If inefficient**

vi. How might efficiency be improved?

**If efficient**

vii. Is there any way efficiency could be improved?

**If no**

viii. Why not?

ix. How can monitoring be improved?



n) Does published guidance exist on compliance monitoring?

**If yes**

XIX. How may I get copies?

o) Can you suggest any additional improvements to compliance monitoring?

10. Information about the environmental assessment process, environment, and aggregate resources

a) Can the public access historic Study Design Reports?

**If yes**

I. How do the public access these documents? (ask the following questions as necessary)

II. From where?

III. From whom?

IV. Is there a cost?

b) Can the public access historic Consultation Plans?

**If yes**

V. How do the public access these documents? (ask the following questions as necessary)

VI. From where?

VII. From whom?

VIII. Is there a cost?

c) Can the public access historic Environmental Screening Documents?

**If yes**

IX. How do the public access these documents? (ask the following questions as necessary)

X. From where?

XI. From whom?

XII. Is there a cost?

d) Can the public access historic packages that are created at the end of each stage (e.g., Planning Package)?

**If yes**

XIII. How do the public access these documents? (ask the following questions as necessary)

XIV. From where?

XV. From whom?

XVI. Is there a cost?

- e) Can the public access historic Transportation Environmental Study Reports, and Design and Construction Reports?

**If yes**

XVII. How do the public access historic environmental assessments? (ask the following questions as necessary)

XVIII. From where?

XIX. From whom?

XX. Is there a cost?

- f) Can the public access historic comments made by the public and review agencies about specific environmental assessments?

**If yes**

XXI. How do the public access historic comments made by the public and review agencies? (ask the following questions as necessary)

XXII. From where?

XXIII. From whom?

XXIV. Is there a cost?

- g) Can the public access historic responses of the proponent to comments made by the public and review agencies?

**If yes**

XXV. How do the public access historic responses of the proponent to comments made by the public and review agencies? (ask the following questions as necessary)

XXVI. From where?

XXVII. From whom?

XXVIII. Is there a cost?

- h) Can the public access historic decision documents such as approvals and refusals?

**If yes**

XXIX. How do the public access historic decision documents such as refusals and approvals? (ask the following questions as necessary)

XXX. From where?

XXXI. From whom?

XXXII. Is there a cost?

- i) [ask if compliance is monitored] Can the public access compliance monitoring reports for previously approved projects?

**If yes**

- XXXIII. How do the public access compliance reports? (ask the following questions as necessary)  
XXXIV. From where?  
XXXV. From whom?  
XXXVI. Is there a cost?

- j) Can the public access monitoring reports on the environmental and social impacts of previously approved projects?

**If yes**

- XXXVII. How do the public access monitoring reports on the environmental and social impacts of previously approved projects? (ask the following questions as necessary)  
XXXVIII. From where?  
XXXIX. From whom?  
XL. Is there a cost?

- k) Can the public learn about the financial costs associated with the environmental assessment process?

**If yes**

- XLI. How does the public learn about the financial costs of the environmental assessment process?  
XLII. Are any of the costs unavailable?

- l) Can the public learn about the time costs associated with the environmental assessment process?

**If yes**

- XLIII. How does the public learn about the time costs of the environmental assessment process?  
XLIV. Are any of the costs unavailable?

- m) Have you or other proponents ever had trouble accessing information held by other parties concerning the environment potentially affected by a proposed project?

**If no**

- XLV. Can you describe the kind of information that you or others had trouble accessing?  
XLVI. How might the sharing of information be improved?

**If yes**

XLVII. Could information sharing be improved?

- n) Have you or other proponents ever had trouble accessing information about projects, and aggregate resources that is important for considering when completing an environmental assessment?

**If no**

XLVIII. Can you describe the kind of information that you or others had trouble accessing?

XLIX. How might the sharing of information be improved?

**If yes**

L. Could information sharing be improved?

- o) Have you or others been restricted from seeing information important to deciding whether or not to approve a proposed project?

**If yes**

LI. What information are you or others restricted from seeing?

Ask the following only if it is difficult to get copies of Transportation Environmental Study Reports, and Design and Construction Reports

- p) Is information on aggregate supply and demand used in the environmental assessment process?

**If yes**

LII. How is information on aggregate supply and demand used in the environmental assessment process?

- q) Is information on the environmental impacts of aggregate extraction, processing, and hauling considered in the environmental assessment process?

**If yes**

LIII. How is the information used?

## 11. Evaluating and amending the environmental assessment process

- a) How are complaints about the environmental assessment process treated?
- b) In your experience, is the environmental assessment review and monitoring process, as a whole, evaluated regularly to assess the effectiveness of the process and inform improvements?

### **If yes**

- I. Please describe this evaluation program?
- II. How efficient is the evaluation program?

#### **If inefficient**

- i. How might efficiency be improved?

#### **If efficient**

- ii. Could efficiency be improved?

- III. Does published guidance exist on evaluating and amending the environmental assessment process?

#### **If yes**

- iii. How may I get copies?

- IV. Can you suggest any improvements to the current process for evaluating and amending the environmental assessment process?

- c) Please list any studies of the environmental assessment process that you know exist, (additional to the ones you already mentioned). (if the interviewee has done a study, ask for a copy)

### **If studies are mentioned**

- V. Have these studies resulted in changes to the environmental assessment process?

#### **If no**

- iv. Why not?

#### **If yes**

- v. Please describe the changes that were made as a result of these studies?
- vi. How were these changes made?

- d) Are lessons learned from specific environmental assessments used to improve the environmental assessment process for future projects?

### **If yes**

- VI. How is this accomplished?
- VII. How efficient is the process?

#### **If inefficient**

- vii. How might efficiency be improved?

#### **If efficient**

- viii. Could efficiency be improved?

VIII. Does published guidance exist on evaluating and amending the environmental assessment process?

**If yes**

ix. How may I get copies?

IX. Can you suggest any improvements to the current process for evaluating and amending the environmental assessment process?

e) In your experience, does the prescribed process for amending the MTO Class EA ensure all necessary changes are made to the MTO Class EA at the optimal time?

**If yes**

X. How does it do so?

XI. Could the process be improved?

**If no**

XII. How might the amendment process be improved so changes are made at the optimal time?

f) In your view, does the amendment process ensure changes are made in a manner that minimizes harm to all parties?

**If yes**

XIII. How?

XIV. Could the amendment process be changed so harm is further minimized?

**If no**

XV. How might the amendment process be changed so harm is minimized?

g) Do you think the amendment process ensures benefits and harms of the changes are distributed equally?

**If yes**

XVI. How is this accomplished?

XVII. Could changes be made so the benefits and harms of amendments are distributed more equally?

**If no**

XVIII. What can be done to ensure the benefits and harms of amendments are distributed equally?

h) In your experienced, are parties disadvantaged by changes to the MTO Class EA compensated for their losses?

**If yes**

XIX. How?

**If no**

XX. Should parties disadvantaged by changes to the MTO Class EA be compensated for their losses?

**If yes**

x. How might this be done?

**If no**

xi. Why not?

Second last question:

Now I have a question about the Provincial Policy Statement that is created according to the Planning Act. My question is regarding Policy 2.5 entitled Mineral Aggregates. Are you familiar with these statements?  
(depending on response, I will change the speed at which I go through the phrases below)

In particular, the following specific statements that I will read to you in the order in which they appear in the Provincial Policy Statement.

2.5.1 Mineral aggregate resources shall be protected for long-term use.

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

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

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

2.5.2.3 The conservation of mineral aggregate resources should be promoted by making provision for the recovery of these resources, wherever feasible.

- i) In your experience, does the Provincial Policy Statement for Mineral Aggregates affect the information used in the environmental assessment process?

**If yes**

XXI. How?

One final question:

- j) Does accreditation exist for consultants involved in environmental assessment?

**If yes**

XXII. What is the name of the accreditation program?

\*\*Before we conclude our conversation, would you like to make any further comments or suggest any other improvements to the environmental assessment process? Is there anyone else that I should definitely talk to about the MTO Class EA?

## APPENDIX D



## Appendix D

### EA Process **Municipal Class EA**

Interviewee

Role

Notes

\*\* Environmental assessment process refers to all the processes described in the Municipal Class EA document, and include, defining the problem or opportunity, assessing and selecting a preferred alternative, public consultation, and monitoring.

Thank-you for agreeing to talk with me.

Start by defining the environmental assessment process. See note above.

Structure- 11 groups of questions; I'd like to start with some general questions about the environmental assessment process as a whole then move to some questions about specific parts of the process.

Please ask me to clarify what I mean if any question seems confusing.

\*\*Note for me\*\* always introduce the category of questions so people know that we are changing our focus, and to give them a sense that we are progressing towards the end.

#### 1. General Questions- about the whole environmental assessment process

- a) How would you describe the clarity of the Municipal Class EA document, and any policies associated with it?

##### **If unclear**

- I. What is unclear?  
II. How might clarity be improved?

##### **If clear**

- III. Is there anything that could be clearer?

- b) What is the role of the Municipal Engineers Association in the Municipal Class EA process?
- c) [if MEA not the administrator] Who administers the Municipal Class EA?
- d) Are there opportunities for the proponent to learn about how environmental assessments are made, reviewed, approved, and monitored (e.g., published documents, websites, classes)?

##### **If yes**

- IV. Please describe these opportunities.

- e) Are there opportunities for the public to learn about how environmental assessments are made, reviewed, approved, and monitored (e.g., published documents, websites, classes)?

**If yes**

V. Please describe these opportunities.

- f) In situations where there are unusual circumstances, does the environmental assessment process have enough flexibility and discretion in it to handle these unusual circumstances? (such as a unique project/plan design or rare environmental conditions)

**If no**

VI. How could the environmental assessment process be changed so there is enough flexibility and discretion?

VII. Is there any time during the environmental assessment process when there is too much flexibility and discretion?

**If yes**

- i. How could the environmental assessment process be changed so there isn't too much flexibility and discretion?

**If yes**

VIII. Is there any time during the environmental assessment process when there is too much flexibility and discretion?

**If yes**

- ii. How could the environmental assessment process be changed so there isn't too much flexibility and discretion?

- g) In your view, what does the term sustainable development mean?

Please listen to the following definition of sustainable development from the Ministry of Natural Resources:

“Under the concept of sustainable development, Ontario’s natural resources constitute natural “capital”. Resources over and above those essential for long-term sustainability requirements become available over time as “interest” for use, enjoyment and development. Development which maintains the natural capital and allows for the accumulation of this natural interest is sustainable.”

- h) Do you think that the environmental assessment review, and approval process ensures sustainable development, as defined by the MNR, is achieved?

**If yes**

IX. How?

X. Could the environmental assessment review, and approval process be improved to better ensure sustainable development is achieved?

**If no**

XI. How could the decision making process for determining whether or not to approve a proposed project/plan be improved to ensure sustainable development is achieved?

- i) Do you feel the environmental assessment process affects the quality of the environment as a whole?

**If yes**

XII. How?

- j) Do you feel the environmental assessment process affects the acceptability of proposed projects/plans to the public?

**If yes**

XIII. How does the environmental assessment process affect acceptability?

2. Resources- time, money, qualified personnel

- a) In your experience, do you and/or other proponents have sufficient time, money, and qualified personnel to produce quality Environmental Study Reports/Project Files and meet commitments specified in the ESRs/Project Files and approvals?

**If no**

I. What resources are lacking?

II. What might be done to remedy this resource problem?

- b) In your experience, do NGOs and the public, have sufficient time and money to participate adequately in the environmental assessment process?

**If no**

III. What resources are lacking?

IV. What might be done to remedy this resource problem?

- c) Does the Municipal Engineers Association have sufficient time, money, and qualified personnel to administer the environmental assessment review, approval and monitoring process?

**If no**

V. What resources are lacking?

VI. What might be done to remedy this resource problem?

- d) Does the [administrator] have sufficient time, money, and qualified personnel to administer the environmental assessment process?

**If no**

- VII. What resources are lacking?  
VIII. What might be done to remedy this resource problem?

3. Relationships

- a) Do you feel the environmental assessment process affects the working relationships among proponents, NGOs, the public, and government?

**If yes and positive effect**

- I. How?  
II. Could the environmental assessment process be improved to help better working relationships?

**If yes and negative effect**

- III. How?  
IV. How might the environmental assessment process be improved to help better working relationships?

- b) Does the environmental assessment process build trust among proponents, NGOs, the public, and government?

**If yes**

- V. How?  
VI. Could the environmental assessment process be improved to help build trust among the different parties?

**If no**

- VII. How can the environmental assessment process be improved to help build trust amongst the different parties?

- c) Are conflicts resolved among proponents, NGOs, the public, and government during the environmental assessment process?

**If yes**

- VIII. How are conflicts resolved?

**If specific methods like negotiation, mediation or facilitation**

- i. How frequently are these methods to resolve conflicts used?  
ii. Do these methods to resolve conflicts affect the working relationships amongst affected and interested parties?

**If yes**

- iii. How?

IX. Can you suggest any improvements to the environmental assessment process so conflicts are resolved even better?

**If no**

X. What might be changed so conflicts are better resolved during the environmental assessment process?

4. Public Consultation and Participation

a) Do the current processes for consultation and participation of affected and interested parties improve the quality of decisions on whether or not to approve proposed projects/plans? (affected and interested parties include proponents, government agencies, NGOs and the public)

**If yes**

I. How do the processes improve decisions?

b) How fair are the current processes for consultation and participation of affected and interested parties?

**If unfair**

II. How might the processes be changed so they are more fair?

**If fair**

III. What makes the current process fair?

IV. Could the review process be improved so it is more fair?

c) In your experience, are all parties that are interested in or potentially affected by the extraction, processing, and hauling of aggregates involved in the environmental assessment process?

**If yes**

V. How?

VI. Should all parties that are interested in or potentially affected by the extraction, processing, and hauling of aggregates be involved in the environmental assessment process?

**If no**

VII. Why not?

VIII. Should all parties that are interested in or potentially affected by the extraction, processing, and hauling of aggregates be involved in the environmental assessment process?

- d) How efficient is the current process for consultation and participation of affected and interested parties?

**If inefficient**

IX. How might efficiency be improved?

**If efficient**

X. Can you suggest any improvements so consultation and participation is more efficient?

- e) Does published guidance exist on consultation and participation of affected and interest parties for the environmental assessment process?

**If yes**

XI. How may I get copies?

- f) Can you suggest any additional improvements to the consultation and participation processes?

5. The kinds of projects/plans covered by the environmental assessment process (screening)

- a) In your experience, does the environmental assessment process ensure all proposed projects/plans that may have environmentally and socially significant impacts are reviewed?

**If no**

I. What types of projects/plans that may have environmentally and socially significant impacts are excluded?

**If yes**

II. How is this accomplished?

- b) In your view, are environmental assessments ever submitted for proposed projects/plans that don't have the potential for environmentally and socially significant impacts?

**If yes**

III. Can you provide examples of or describe these kinds of projects/plans?

IV. What happens to these environmental assessments?

**If no**

V. How does the environmental assessment process screen out such environmental assessments?

- c) Can you suggest any improvements to ensure that the environmental assessment process focuses on projects/plans that may have environmentally and socially significant impacts?
- d) How efficient is the environmental assessment review and approval process in determining whether or not a proposed project/plan requires an environmental assessment?

**If inefficient**

VI. How might efficiency be improved?

**If efficient**

VII. Is there any way efficiency could be improved?

- e) Have any Master Plans been developed according to the environmental assessment process?

**If yes**

VIII. Can you provide some examples?

- f) How well is the environmental assessment process integrating with the Planning Act?

**If not well**

IX. What might be done so the environmental assessment process is better integrating with the Planning Act?

**If well**

X. What is contributing to this integration?

XI. What might be done so the environmental assessment process is better integrating with the Planning Act?

- g) Is there an opportunity to appeal the proponent's decision to designate a project as a Schedule A project?

**If no**

XII. Can a Part II Order be requested if the proponent designates a projects as a Schedule A project?

**If yes**

XIII. Who can appeal?

- h) Does the Municipal Class EA apply to aggregate pits and quarries owned by municipalities?
- i) Does published guidance exist about how to determine whether or not a proposed project/plan requires an environmental assessment?

**If yes**

XIV. How may I get copies?

6. Environmental and Social Impacts of Projects/plans (scoping, mitigation, monitoring, alternatives)

- a) Are all the important environmental and social impacts of proposed projects/plans assessed during the environmental assessment process?

**If no**

I. What additional types of environmental and social impacts would you like to see assessed during the environmental assessment process? (might be different ecosystem components like hydrological or perhaps cumulative effects, or social impacts, or truck traffic...)?

- b) In your view, does the environmental assessment process focus the attention of all parties on the important environmental and social issues?

**If yes**

II. How does the environmental assessment process focus environmental assessments on the important environmental and social issues?

- c) In your view, does the environmental assessment process ensure unimportant environmental and social impacts are excluded from consideration?

**If yes**

III. How does it do so?

- d) How efficient is the environmental assessment process for determining which environmental and social issues should be considered?

**If inefficient**

IV. How might efficiency be improved?

**If efficient**

V. Is there any way efficiency could be improved?



- e) Does published guidance exist on how to determine the environmental and social issues that should be considered during the environmental assessment process?

**If yes**

VI. How may I get copies?

- f) Can you suggest any improvements to the process for determining which environmental and social issues should be considered during the environmental assessment process?

- g) Are all the negative environmental and social impacts of approved projects/plans satisfactorily mitigated?

**If no**

VII. Why not?

VIII. How might mitigation be improved?

**If yes**

IX. How does it do so?

X. Can you suggest any improvements to mitigation?

XI. How efficient is the environmental assessment process at mitigating negative environmental and social impacts?

**If inefficient**

i. How might efficiency be improved?

**If efficient**

ii. Is there any way efficiency could be improved?

- h) Does published guidance exist on mitigating negative environmental and social impacts of projects/plans?

**If yes**

XII. How may I get copies?

- i) Are all of the important environmental and social impacts of building, implementing and operating approved projects/plans monitored?

**If yes**

XIII. How does the environmental assessment process ensure these impacts are monitored?

XIV. Are changes made during the construction, implementation or operation of an approved project or plan when monitoring suggests the environment is being harmed?

**If yes**

iii. Can you provide examples of when changes were made in response to monitoring results?

XV. How efficient is the monitoring of environmental and social impacts?

**If inefficient**

iv. How might the monitoring of environmental and social impacts be changed to increase efficiency?

**If efficient**

v. Is there any way efficiency could be improved?

- j) Does published guidance exist on monitoring environmental and social impacts of projects/plans?

**If yes**

XVI. How may I get copies?

- k) Can you suggest any improvements for monitoring environmental and social impacts of projects/plans?
- l) In your experience, are all monitoring results compared with the Environmental Study Reports/Project Files and approval conditions to improve the forecasting of impacts and use of mitigation measures for future environmental assessments?

**If yes**

XVII. How is this done?

XVIII. How efficient is the process for comparing monitoring results with the environmental assessment and approval?

**If inefficient**

vi. How might efficiency be improved?

**If efficient**

vii. Is there any way efficiency could be improved?

- m) Does published guidance exist on how to audit environmental and social impacts by comparing monitoring results with impacts forecasted and mitigation measures stated in the Environmental Study Reports/Project Files and approvals?

**If yes**

XIX. How may I get copies?

- n) In your experience, does the environmental assessment process ensure that the proponent considers reasonable alternatives to the proposed project/plan? (“alternative to” means an action other than the proposed project/plan)

**If yes**

XX. How does it do so?

XXI. How efficiently does it do so?

**If inefficient**

viii. How might the environmental assessment process be improved so the process for considering alternatives is more efficient?

**If efficient**

ix. Is there any way efficiency could be improved?

**If no**

XXII. Should the proponent consider the environmental and social impacts of reasonable alternatives to the proposed project/plan?

**If yes**

x. Why?

**If no**

xi. Why not?

- o) In your view, does the environmental assessment process ensure the government and public consider reasonable alternatives to the proposed project/plan? (“alternative to” means an action other than the proposed project/plan)

**If yes**

XXIII. How does it do so?

XXIV. How efficiently does it do so?

**If inefficient**

xii. How might the environmental assessment process be improved so the process for considering alternatives is more efficient?

**If efficient**

xiii. Is there any way efficiency could be improved?

**If no**

XXV. Should the government and public consider the environmental and social impacts of reasonable alternatives?

**If yes**

xiv. Why?

**If no**

xv. Why not?

- p) Do you think the environmental assessment process ensures the proponent considers reasonable alternative methods of designing, implementing, and operating the proposed project/plan?

**If yes**

XXVI. How does it do so?

XXVII. How efficiently does it do so?

**If inefficient**

xvi. How might efficiency be improved?

**If efficient**

xvii. Is there any way efficiency could be improved?

**If no**

XXVIII. Should the proponent consider the environmental and social impacts of alternative methods of designing, implementing and operating the proposed project/plan?

**If yes**

xviii. Why?

**If no**

xix. Why not?

- q) In your view, does the environmental assessment process ensure the government and public consider reasonable alternative methods of designing, implementing and operating the proposed project/plan?

**If yes**

XXIX. How does it do so?

XXX. How efficiently does it do so?

**If inefficient**

xx. How might the environmental assessment process be improved so the process for considering alternatives is more efficient?

**If efficient**

xxi. Is there any way efficiency could be improved?

**If no**

XXXI. Should the government and public consider the environmental and social impacts of alternative methods of designing, implementing, and operating the proposed project/plan?

**If yes**

xxii. Why?

**If no**

xxiii. Why not?

- r) Does published guidance exist on how to consider reasonable alternatives to or reasonable alternative methods of designing, implementing and operating proposed projects/plans?

**If yes**

XXXII. How may I get copies?

7. Environmental Assessment Documents (Environmental Study Reports and Project Files)

- a) In your experience, do environmental assessment documents contain the necessary information on the environmental and social impacts of projects/plans for making the decision about whether or not to approve a project or plan?

**If no**

I. What information is most commonly missing?

II. How might the environmental assessment process be improved so environmental assessment documents contain the necessary information on the environmental and social impacts of projects/plans?

**If yes**

III. How does the environmental assessment process ensure the necessary information is contained in the environmental study reports and project files?

- b) In your experience, do proponents have procedures for verifying the completeness, accuracy and objectivity of information presented in Environmental Study Reports and Project Files?

**If yes**

IV. Please describe these procedures? (perhaps they are formal/informal, are there checklists?)

- c) How efficient is the process for preparing environmental assessment documents?

**If inefficient**

V. How might efficiency be improved?

**If efficient**

VI. Is there any way efficiency could be improved?

8. Public Review of Environmental Assessment Documents (environmental study reports and project files)

- a) In your experience, how does the public access environmental assessment documents during the prescribed public review process?
- b) Is there a cost to the public to access environmental assessment documents?

**If Yes**

I. Is the cost reasonable?

- c) Do you feel that the public review of environmental study reports and project files improves the quality of those documents?

**If yes**

II. How does it do so?

- d) In your experience, are comments made by the public and review agencies during the public review period made public?

**If yes**

III. When?

IV. How do the public access these comments?

V. Is there a cost to the public when accessing the comments?

**If Yes**

i. Is the cost reasonable?

- e) In your experience, do proponents respond to the comments and requests for further information during the public review process?

**If yes**

VI. How does the environmental assessment process ensure the proponent responds to comments and requests made during public review?

**If no**

VII. Why not?

VIII. What can be done to ensure the proponent responds to comments and requests made during the public review process?

- f) Are the responses of the proponent to comments made by public and review agencies made public?

**If yes**

IX. At what points in the environmental assessment process are these responses made public?

X. How do the public access these responses?

XI. Is there a cost to the public when accessing these responses?

- g) How efficient is the public review process?

**If inefficient**

XII. How might efficiency be improved?

**If efficient**

XIII. Is there any way efficiency could be improved?

- h) Does published guidance exist on how to conduct the public review of environmental assessment documents?

**If yes**

XIV. How may I get copies?

- i) Can you suggest any additional improvements to the prescribed process for the public review of documents submitted by the proponent?

## 9. Approval Decision

- a) Does the proponent make the decision whether or not to approve the proposed project or plan even if the proponent is not a municipality?
- b) Is the decision whether or not to approve a proposed project/plan made public?

### **If yes**

- I. How?
- II. Is there a cost to the public when accessing the decisions?

### **If Yes**

- i. Is the cost reasonable?

- c) Are the reasons for the decisions made public?

### **If yes**

- III. How?
- IV. Is there a cost?

### **If Yes**

- ii. Is the cost reasonable?

- d) Are conditions for approval documented in the same way as the approvals from the formal environmental assessment process under the Environmental Assessment Act?

### **If not**

- V. How does the proponent indicate commitments it makes to the public and review agencies?

### **If yes**

- VI. Are the conditions of approval made public?

### **If yes**

- iii. How?
- iv. Is there a cost?

### **If Yes**

- v. Is the cost reasonable?

- e) Do you think that the outcomes of decisions whether to approve proposed projects/plans would be different if the environmental assessment process didn't exist?

**If yes**

VII. What would be different?

**If no**

VIII. Why would the outcomes be the same?

- f) Are there any studies that examine whether the environmental assessment process significantly alters the outcomes of decisions on whether or not to approve proposed projects/plans?

**If yes**

IX. How can I get copies of these studies? (ask for citations or copies if I don't have them already)

- g) Do you think that the decision making process for determining whether or not to approve a proposed project/plan results in fair decisions?

**If yes**

X. How does the decision making process ensure these decisions are fair?

XI. Could the decision making process be more fair?

**If no**

XII. How could the decision making process be improved to ensure decisions are fair?

- h) Does published guidance exist on the factors that should be considered when deciding whether or not to approve a proposed project/plan?

**If yes**

XIII. How may I get copies?

- i) In your view, how important to the proponent's decision on whether or not to approve a proposed project/plan, are environmental study reports/project files and the comments received during public review?

**If important**

XIV. How does the environmental assessment process ensure environmental assessments and the comments from the public and review agencies are important determinants in the decision?



- j) In your experience, are environmental study reports, project files and comments from the public review period used to frame the approval conditions?
- k) From the point when the environmental study report or project file and comments from the public review period are in the hands of the proponent, how efficient is the decision making process for determining whether to approve a proposed project/plan?

**If inefficient**

XV. How might efficiency be improved?

**If efficient**

XVI. Is there any way efficiency could be improved?

- l) Can you suggest any additional improvements to the decision making process for determining whether or not to approve a proposed project/plan?
- m) In your experience, are projects/plans monitored to ensure they are built, implemented and operated as described in the environmental assessment document and approval conditions?

**If yes**

XVII. Please describe the monitoring.

XVIII. How efficient is the monitoring?

**If inefficient**

vi. How might efficiency be improved?

**If efficient**

vii. Is there any way efficiency could be improved?

**If no**

viii. Why not?

ix. How can monitoring be improved?

- n) Does published guidance exist on compliance monitoring?

**If yes**

XIX. How may I get copies?

- o) Can you suggest any additional improvements to compliance monitoring?

10. Information about the environmental assessment process, environment, and aggregate resources

- a) Can the public access historic documentation of Schedule A projects?

**If yes**

- I. How do the public access these documents? (ask the following questions as necessary)
- II. From where?
- III. From whom?
- IV. Is there a cost?

- b) Can the public access historic environmental study reports and project files?

**If yes**

- V. How do the public access historic environmental assessments? (ask the following questions as necessary)
- VI. From where?
- VII. From whom?
- VIII. Is there a cost?

- c) Can the public access historic comments made by the public and review agencies about past projects/plans?

**If yes**

- IX. How do the public access these comments? (ask the following questions as necessary)
- X. From where?
- XI. From whom?
- XII. Is there a cost?

- d) Can the public access historic responses of the proponent to comments made by the public and review agencies about past projects/plans?

**If yes**

- XIII. How do the public access these responses? (ask the following questions as necessary)
- XIV. From where?
- XV. From whom?
- XVI. Is there a cost?

- e) Can the public access historic decision documents such as approvals and refusals?

**If yes**

XVII. How do the public access historic decision documents such as refusals and approvals? (ask the following questions as necessary)

XVIII. From where?

XIX. From whom?

XX. Is there a cost?

- f) [ask if compliance is monitored] Can the public access compliance monitoring reports for previously approved projects/plans?

**If yes**

XXI. How do the public access compliance reports? (ask the following questions as necessary)

XXII. From where?

XXIII. From whom?

XXIV. Is there a cost?

- g) Can the public access monitoring reports on the environmental and social impacts of previously approved projects/plans?

**If yes**

XXV. How do the public access monitoring reports on the environmental and social impacts of previously approved projects/plans? (ask the following questions as necessary)

XXVI. From where?

XXVII. From whom?

XXVIII. Is there a cost?

- h) Can the public learn about the financial costs associated with the environmental assessment process?

**If yes**

XXIX. How does the public learn about the financial costs of the environmental assessment process?

XXX. Are any of the costs unavailable?

- i) Can the public learn about the time costs associated with the environmental assessment process?

**If yes**

XXXI. How does the public learn about the time costs of the environmental assessment process?

XXXII. Are any of the costs unavailable?

- j) Have you or other proponents ever had trouble accessing information held by other parties concerning the environment potentially affected by a proposed project/plan?

**If no**

XXXIII. Can you describe the kind of information that you or others had trouble accessing?

XXXIV. How might the sharing of information be improved?

**If yes**

XXXV. Could information sharing be improved?

- k) Have you or other proponents ever had trouble accessing information about projects/plans, and aggregate resources that is important for considering when completing an environmental assessment?

**If no**

XXXVI. Can you describe the kind of information that you or others had trouble accessing?

XXXVII. How might the sharing of information be improved?

**If yes**

XXXVIII. Could information sharing be improved?

- l) Have you or others been restricted from seeing information important to deciding whether or not to approve a proposed project/plan?

**If yes**

XXXIX. What information are you or others restricted from seeing?

Ask the following only if it is difficult to get copies of Environmental Study Reports and Project Files

- m) Is information on aggregate supply and demand used in the environmental assessment process?

**If yes**

XL. How is information on aggregate supply and demand used in the environmental assessment process?

- n) Is information on the environmental impacts of aggregate extraction, processing, and hauling considered in the environmental assessment process?

**If yes**

XLI. How is the information used?

## 11. Evaluating and amending the environmental assessment process

- a) How are complaints about the environmental assessment process treated?
- b) In your experience, is the environmental assessment review and monitoring process, as a whole, evaluated regularly to assess the effectiveness of the process and inform improvements?

### **If yes**

- I. Please describe this evaluation program?
- II. How efficient is the evaluation program?

#### **If inefficient**

- i. How might efficiency be improved?

#### **If efficient**

- ii. Could efficiency be improved?

- III. Does published guidance exist on evaluating and amending the environmental assessment process?

#### **If yes**

- iii. How may I get copies?

- IV. Can you suggest any improvements to the current process for evaluating and amending the environmental assessment process?

- c) Please list any studies of the environmental assessment process that you know exist, (additional to the ones you already mentioned). (if the interviewee has done a study, ask for a copy)

### **If studies are mentioned**

- V. Have these studies resulted in changes to the environmental assessment process?

#### **If no**

- iv. Why not?

#### **If yes**

- v. Please describe the changes that were made as a result of these studies?
- vi. How were these changes made?

- d) Are lessons learned from specific environmental assessments used to improve the environmental assessment process for future projects/plans?

### **If yes**

- VI. How is this accomplished?
- VII. How efficient is the process?

#### **If inefficient**

- vii. How might efficiency be improved?

#### **If efficient**

- viii. Could efficiency be improved?

VIII. Does published guidance exist on evaluating and amending the environmental assessment process?

**If yes**

ix. How may I get copies?

IX. Can you suggest any improvements to the current process for evaluating and amending the environmental assessment process?

e) In your experience, does the prescribed process for amending the Municipal Class EA ensure all necessary changes are made to the Municipal Class EA at the optimal time?

**If yes**

X. How does it do so?

XI. Could the amendment process be improved?

**If no**

XII. How might the amendment process be improved so changes are made at the optimal time?

f) In your view, does the amendment process ensure changes are made in a manner that minimizes harm to all parties?

**If yes**

XIII. How?

XIV. Could the amendment process be changed so harm is further minimized?

**If no**

XV. How might the amendment process be changed so harm is minimized?

g) Do you think the amendment process ensures benefits and harms of the changes are distributed equally?

**If yes**

XVI. How is this accomplished?

XVII. Could changes be made so the benefits and harms of amendments are distributed more equally?

**If no**

XVIII. What can be done to ensure the benefits and harms of amendments are distributed equally?

h) In your experienced, are parties disadvantaged by changes to the Municipal Class EA compensated for their losses?

**If yes**

XIX. How?

**If no**

XX. Should parties disadvantaged by changes to the Municipal Class EA be compensated for their losses?

**If yes**

x. How might this be done?

**If no**

xi. Why not?

Second last question:

Now I have a question about the Provincial Policy Statement that is created according to the Planning Act. My question is regarding Policy 2.5 entitled Mineral Aggregates. Are you familiar with these statements?  
(depending on response, I will change the speed at which I go through the phrases below)

In particular, the following specific statements that I will read to you in the order in which they appear in the Provincial Policy Statement.

2.5.1 Mineral aggregate resources shall be protected for long-term use.

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

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

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

2.5.2.3 The conservation of mineral aggregate resources should be promoted by making provision for the recovery of these resources, wherever feasible.

- i) In your experience, does the Provincial Policy Statement for Mineral Aggregates affect the information used in the environmental assessment process?

**If yes**

XXI. How?

One final question:

- j) Does accreditation exist for consultants involved in environmental assessment?

**If yes**

XXII. What is the name of the accreditation program?

\*\*Before we conclude our conversation, would you like to make any further comments or suggest any other improvements to the environmental assessment process? Is there anyone else that I should definitely talk to about the Municipal Class EA?

## APPENDIX E



## Appendix E

### EA Process **Individual Review (Environmental Assessment Act)**

Interviewee

Role

Notes

\*\* Interview is focused on the types of projects and plans defined in the MTO Class EA and MEA Class EA (i.e., transportation facilities, roads, and water and sewage infrastructure)

\*\* Environmental assessment process refers to all the processes described in Part II of the Environmental Assessment Act and include, developing Terms of Reference, assessing and selecting a preferred alternative, public consultation, and monitoring.

Thank-you for agreeing to talk with me.

Start by defining the environmental assessment process. See note above.

Structure- 11 groups of questions; I'd like to start with some general questions about the environmental assessment process as a whole then move to some questions about specific parts of the process.

Please ask me to clarify what I mean if any question seems confusing.

\*\*Note for me\*\* always introduce the category of questions so people know that we are changing our focus, and to give them a sense that we are progressing towards the end.

#### 1. General Questions- about the whole environmental assessment process

- a) How would you describe the clarity of the Environmental Assessment Act, regulations, and policies?

##### **If unclear**

- I. What is unclear?
- II. How might clarity be improved?

##### **If clear**

- III. Is there anything that could be clearer?

- b) Are there opportunities for the proponent to learn about how environmental assessments are made, reviewed, approved, and monitored (e.g., published documents, websites, classes)?

##### **If yes**

- IV. Please describe these opportunities.

- c) Are there opportunities for the public to learn about how environmental assessments are made, reviewed, approved, and monitored (e.g., published documents, websites, classes)?

**If yes**

V. Please describe these opportunities.

- d) In situations where there are unusual circumstances, does the environmental assessment process have enough flexibility and discretion in it to handle these unusual circumstances? (such as a unique project/plan design or rare environmental conditions)

**If no**

VI. How could the environmental assessment process be changed so there is enough flexibility and discretion?

VII. Is there any time during the environmental assessment process when there is too much flexibility and discretion?

**If yes**

- i. How could the environmental assessment process be changed so there isn't too much flexibility and discretion?

**If yes**

VIII. Is there any time during the environmental assessment process when there is too much flexibility and discretion?

**If yes**

- ii. How could the environmental assessment process be changed so there isn't too much flexibility and discretion?

- e) In your view, what does the term sustainable development mean?

Please listen to the following definition of sustainable development from the Ministry of Natural Resources:

“Under the concept of sustainable development, Ontario’s natural resources constitute natural “capital”. Resources over and above those essential for long-term sustainability requirements become available over time as “interest” for use, enjoyment and development. Development which maintains the natural capital and allows for the accumulation of this natural interest is sustainable.”

- f) Do you think that the environmental assessment, review and approval process ensures sustainable development, as defined by the MNR, is achieved?

**If yes**

IX. How?

X. Could the environmental assessment review, and approval process be improved to better ensure sustainable development is achieved?

**If no**

XI. How could the environmental assessment, review and approval process be improved to ensure sustainable development is achieved?

- g) Do you feel the environmental assessment process affects the quality of the environment as a whole?

**If yes**

XII. How?

- h) Do you feel the environmental assessment process affects the acceptability of proposed projects/plans to the public?

**If yes**

XIII. How does the environmental assessment process affect acceptability?

2. Resources- time, money, qualified personnel

- a) In your experience, do you and/or other proponents have sufficient time, money, and qualified personnel to produce quality Environmental Assessments and meet commitments as specified in the Environmental Assessments and approvals?

**If no**

I. What resources are lacking?

II. What might be done to remedy this resource problem?

- b) In your experience, do NGOs and the public, have sufficient time and money to participate adequately in the environmental assessment process?

**If no**

III. What resources are lacking?

IV. What might be done to remedy this resource problem?

- c) Does the Ministry of Environment have sufficient time, money, and qualified personnel to administer the environmental assessment process?

**If no**

V. What resources are lacking?

VI. What might be done to remedy this resource problem?

- d) Does the Environmental Review Tribunal have sufficient time, money, and qualified personnel to decide whether to approve a proposed project or plan?

**If no**

VII. What resources are lacking?

VIII. What might be done to remedy this resource problem?

3. Relationships

- a) Do you feel the environmental assessment process affects the working relationships among proponents, NGOs, the public, and government?

**If yes and positive effect**

- I. How?  
II. Could the environmental assessment process be improved to help better working relationships?

**If yes and negative effect**

- III. How?  
IV. How might the environmental assessment process be improved to help better working relationships?

- b) Does the environmental assessment process build trust among proponents, NGOs, the public, and government?

**If yes**

- V. How?  
VI. Could the environmental assessment process be improved to help build trust among the different parties?

**If no**

- VII. How can the environmental assessment process be improved to help build trust amongst the different parties?

- c) Are conflicts resolved among proponents, NGOs, the public, and government during the environmental assessment process?

**If yes**

- VIII. How are conflicts resolved?

**If specific methods like negotiation, mediation or facilitation**

- i. How frequently are these methods to resolve conflicts used?  
ii. Do these methods to resolve conflicts affect the working relationships amongst affected and interested parties?

**If yes**

- iii. How?  
IX. Can you suggest any improvements to the environmental assessment process so conflicts are resolved even better?

**If no**

- X. What might be changed so conflicts are better resolved during the environmental assessment process?

#### 4. Public Consultation and Participation

- a) Do the current processes for consultation and participation of affected and interested parties improve the quality of decisions on whether or not to approve proposed projects/plans? (affected and interested parties include proponents, government agencies, NGOs and the public)

##### **If yes**

I. How do the processes improve decisions?

- b) How fair are the current processes for consultation and participation of affected and interested parties?

##### **If unfair**

II. How might the processes be changed so they are more fair?

##### **If fair**

III. What makes the current process fair?

IV. Could the review process be improved so it is more fair?

- c) In your experience, are all parties that are interested in or potentially affected by the extraction, processing, and hauling of aggregates involved in the environmental assessment process?

##### **If yes**

V. How

VI. Should all parties that are interested in or potentially affected by the extraction, processing, and hauling of aggregates be involved in the environmental assessment process?

##### **If no**

VII. Why not?

VIII. Should all parties that are interested in or potentially affected by the extraction, processing, and hauling of aggregates be involved in the environmental assessment process?

- d) How efficient is the current process for consultation and participation of affected and interested parties?

##### **If inefficient**

IX. How might efficiency be improved?

##### **If efficient**

X. Can you suggest any improvements so consultation and participation is more efficient?

- e) Does published guidance exist on consultation and participation of affected and interested parties for the environmental assessment process?

**If yes**

XI. How may I get copies?

**If the draft MOE guide is not offered, ask the MOE**

XII. Does the MOE have a guide on consultation and participation in draft form?

XIII. Do proponents and the public use the draft guide?

XIV. Can I get a copy?

- f) Can you suggest any additional improvements to the consultation and participation processes?

5. The kinds of projects/plans covered by the environmental assessment process (screening)

- a) In your experience, does the environmental assessment process ensure all proposed projects/plans that may have environmentally and socially significant impacts are reviewed?

**If no**

I. What types of projects/plans that may have environmentally and socially significant impacts are excluded?

**If yes**

II. How is this accomplished?

- b) In your view, are environmental assessments ever submitted for proposed projects/plans that don't have the potential for environmentally and socially significant impacts?

**If yes**

III. Can you provide examples of or describe these kinds of projects/plans?

IV. What happens to these environmental assessments?

**If no**

V. How does the environmental assessment process screen out such environmental assessments?

- c) Can you suggest any improvements to ensure that the environmental assessment process focuses on projects/plans that may have environmentally and socially significant impacts?
- d) How efficient is the environmental assessment process in determining whether or not a proposed project/plan requires environmental assessment?

**If inefficient**

VI. How might efficiency be improved?

**If efficient**

VII. Is there any way efficiency could be improved?

- e) Does published guidance exist about how to determine whether or not a proposed project/plan requires an environmental assessment?

**If yes**

VIII. How may I get copies?

6. Environmental and Social Impacts of Projects/plans (scoping, mitigation, monitoring, alternatives)

- a) Are all the important environmental and social impacts of proposed projects/plans assessed during the environmental assessment process?

**If no**

I. What additional types of environmental and social impacts would you like to see assessed during the environmental assessment process? (might be different ecosystem components like hydrological or perhaps cumulative effects, or social impacts, or truck traffic...)?

- b) In your view, does the environmental assessment process focus the attention of all parties on the important environmental and social issues?

**If yes**

II. How does the environmental assessment process focus environmental assessments on the important environmental and social issues?

- c) In your view, does the environmental assessment process ensure unimportant environmental and social impacts are excluded from consideration?

**If yes**

III. How does it do so?

- d) How efficient is the environmental assessment process for determining which environmental and social issues should be considered?

**If inefficient**

IV. How might efficiency be improved?

**If efficient**

V. Is there any way efficiency could be improved?

- e) Does published guidance exist on how to determine the environmental and social issues that should be considered during the environmental assessment process?

**If yes**

VI. How may I get copies?

- f) Can you suggest any improvements to the process for determining which environmental and social issues should be considered during the environmental assessment process?

- g) Are all the negative environmental and social impacts of approved projects/plans satisfactorily mitigated?

**If no**

VII. Why not?

VIII. How might mitigation be improved?

**If yes**

IX. How does it do so?

X. Can you suggest any improvements to mitigation?

XI. How efficient is the environmental assessment process at mitigating negative environmental and social impacts?

**If inefficient**

i. How might efficiency be improved?

**If efficient**

ii. Is there any way efficiency could be improved?

- h) Does published guidance exist on mitigating negative environmental and social impacts of projects/plans?

**If yes**

XII. How may I get copies?



- i) Are all of the important environmental and social impacts of building, implementing and operating approved projects/plans monitored?

**If yes**

XIII. How does the environmental assessment process ensure these impacts are monitored?

XIV. Are changes made during the construction, implementation or operation of an approved project or plan when monitoring suggests the environment is being harmed?

**If yes**

iii. Can you provide examples of when changes were made in response to monitoring results?

XV. How efficient is the monitoring of environmental and social impacts?

**If inefficient**

iv. How might the monitoring of environmental and social impacts be changed to increase efficiency?

**If efficient**

v. Is there any way efficiency could be improved?

- j) Does published guidance exist on monitoring environmental and social impacts of projects/plans?

**If yes**

XVI. How may I get copies?

- k) Can you suggest any improvements for monitoring environmental and social impacts of projects/plans?

- l) In your experience, are all monitoring results compared with the Environmental Assessments and approval conditions to improve the forecasting of impacts and use of mitigation measures for future environmental assessments?

**If yes**

XVII. How is this done?

XVIII. How efficient is the process for comparing monitoring results with the environmental assessment and approval?

**If inefficient**

vi. How might efficiency be improved?

**If efficient**

vii. Is there any way efficiency could be improved?

- m) Does published guidance exist on how to audit environmental and social impacts by comparing monitoring results with impacts forecasted and mitigation measures stated in the Environmental Assessments and approvals?

**If yes**

XIX. How may I get copies?

- n) In your experience, does the environmental assessment process ensure that the proponent considers reasonable alternatives to the proposed project/plan? (“alternative to” means an action other than the proposed project/plan)

**If yes**

XX. How does it do so?

XXI. How efficiently does it do so?

**If inefficient**

viii. How might the environmental assessment process be improved so the process for considering alternatives is more efficient?

**If efficient**

ix. Is there any way efficiency could be improved?

**If no**

XXII. Why not?

XXIII. How might the environmental assessment process be improved so alternatives are considered?

- o) In your view, does the environmental assessment process ensure the government and public consider reasonable alternatives to the proposed project/plan? (“alternative to” means an action other than the proposed project/plan)

**If yes**

XXIV. How does it do so?

XXV. How efficiently does it do so?

**If inefficient**

x. How might the environmental assessment process be improved so the process for considering alternatives is more efficient?

**If efficient**

xi. Is there any way efficiency could be improved?

**If no**

XXVI. Why not?

XXVII. How might the environmental assessment process be improved so alternatives are considered?

- p) Do you think the environmental assessment process ensures the proponent considers reasonable alternative methods of designing, implementing, and operating the proposed project/plan?

**If yes**

XXVIII. How does it do so?

XXIX. How efficiently does it do so?

**If inefficient**

xii. How might efficiency be improved?

**If efficient**

xiii. Is there any way efficiency could be improved?

**If no**

XXX. Why not?

XXXI. How might the environmental assessment process be improved so alternatives are considered?

- q) In your view, does the environmental assessment process ensure the government and public consider reasonable alternative methods of designing, implementing and operating the proposed project/plan?

**If yes**

XXXII. How does it do so?

XXXIII. How efficiently does it do so?

**If inefficient**

xiv. How might the environmental assessment process be improved so the process for considering alternatives is more efficient?

**If efficient**

xv. Is there any way efficiency could be improved?

**If no**

XXXIV. Why not?

XXXV. How might the environmental assessment process be improved so alternatives are considered?

- r) Does published guidance exist on how to consider reasonable alternatives to or reasonable alternative methods of designing, implementing and operating proposed projects/plans?

**If yes**

XXXVI. How may I get copies?

7. Environmental Assessment Documents (TORs, and Environmental Assessment- the document reviewed by the MOE)

- a) In your experience, how frequently are proponents asked to submit more information than they provided in their original TORs to meet prescribed requirements?

**If frequently**

- I. Why don't proponents submit fully complete TORs?  
II. How might the application process be improved so proponents submit fully complete TORs?

- b) How efficient is the process for preparing TORs?

**If inefficient**

- III. How might efficiency be improved?

**If efficient**

- IV. Is there any way efficiency could be improved?

- c) In your experience, how frequently are proponents asked to submit more information than they provided in their original Environmental Assessments to meet prescribed requirements?

**If frequently**

- V. Why don't proponents submit complete Environmental Assessments?  
VI. How might the application process be improved so proponents submit complete Environmental Assessments?

- d) How efficient is the process for preparing environmental assessments?

**If inefficient**

- VII. How might efficiency be improved?

**If efficient**

- VIII. Is there any way efficiency could be improved?

- e) In your experience, do environmental assessment documents contain the necessary information on the environmental and social impacts of projects/plans for making the decision about whether or not to approve a project or plan?

**If no**

- IX. What information is most commonly missing?  
X. How might the environmental assessment process be improved so environmental assessment documents contain the necessary information on the environmental and social impacts of projects/plans?

**If yes**

XI. How does the environmental assessment process ensure the necessary information is contained in the Environmental Assessments?

8. Public Review of Environmental Assessment Documents (TORs, Environmental Assessments)

- a) In your experience, how does the public access environmental assessment documents during the prescribed public review process?
- b) Is there a cost to the public to access environmental assessment documents?

**If Yes**

I. Is the cost reasonable?

- c) Do you feel that the public review of TORs, and Environmental Assessments improves the quality of those documents?

**If yes**

II. How does it do so?

- d) In your experience, are comments made by the public and review agencies during the public review of TORs made public?

**If yes**

III. When?

IV. How do the public access these comments?

V. Is there a cost to the public when accessing the comments?

**If Yes**

i. Is the cost reasonable?

- e) In your experience, do proponents respond to the comments and requests for further information during the public review process for TORs?

**If yes**

VI. How does the environmental assessment process ensure the proponent responds to comments and requests made during public review?

**If no**

VII. Why not?

VIII. What can be done to ensure the proponent responds to comments and requests made during the public review process?

- f) Are the responses of the proponent to comments made by public and review agencies about TORs made public?

**If yes**

- IX. At what points in the environmental assessment process are these responses made public?  
X. How do the public access these responses?  
XI. Is there a cost to the public when accessing these responses?

- g) Does the Ministry of Environment use explicit criteria to determine the adequacy of the TOR?

**If yes**

- XII. How can I get a copy of the criteria?

- h) How efficient is the public review process for TORs?

**If inefficient**

- XIII. How might efficiency be improved?

**If efficient**

- XIV. Is there any way efficiency could be improved?

- i) In your experience, are comments made by the public and review agencies during the public review of Environmental Assessments made public?

**If yes**

- XV. When?  
XVI. How do the public access these comments?  
XVII. Is there a cost to the public when accessing the comments?

**If Yes**

- ii. Is the cost reasonable?

- j) In your experience, do proponents respond to the comments and requests for further information during the public review process for Environmental Assessments?

**If yes**

- XVIII. How does the environmental assessment process ensure the proponent responds to comments and requests made during public review?

**If no**

- XIX. Why not?  
XX. What can be done to ensure the proponent responds to comments and requests made during the public review process?

- k) Are the responses of the proponent to comments made by public and review agencies about EAs made public?

**If yes**

XXI. At what points in the environmental assessment process are these responses made public?

XXII. How do the public access these responses?

XXIII. Is there a cost to the public when accessing these responses?

- l) How efficient is the public review process for Environmental Assessments?

**If inefficient**

XXIV. How might efficiency be improved?

**If efficient**

XXV. Is there any way efficiency could be improved?

- m) Does published guidance exist on how to conduct the public review of TORs and environmental assessment documents?

**If yes**

XXVI. How may I get copies?

- n) During the Ministry Review, does the Ministry of Environment use explicit criteria to determine the adequacy of the environmental assessment?

**If yes**

XXVII. How can I get a copy of the criteria?

- o) In your experience, are the results of the Ministry Review of the Environmental Assessment made public?

**If yes**

XXVIII. How do the public access the Ministry Reviews?

XXIX. Is there a cost to the public when accessing the Ministry Reviews?

**If Yes**

iii. Is the cost reasonable?

- p) How efficient is the Ministry Review process for Environmental Assessments?

**If inefficient**

XXX. How might efficiency be improved?

**If efficient**

XXXI. Is there any way efficiency could be improved?

- q) Does published guidance exist on how to conduct the Ministry Review of TORs and environmental assessment documents?

**If yes**

XXXII. How may I get copies?

- r) Can you suggest any additional improvements to the prescribed process for the public review and Ministry Review of TORs and EAs?

9. Approval Decision- Environmental Assessment, not the approval of the TOR

- a) Is the decision whether or not to approve a proposed project/plan made public?

**If yes**

I. How?

II. Is there a cost to the public when accessing the decisions?

**If Yes**

i. Is the cost reasonable?

- b) Are the reasons for the decisions made public?

**If yes**

III. How?

IV. Is there a cost?

**If Yes**

ii. Is the cost reasonable?

- c) Do you think that the outcomes of decisions whether to approve proposed projects/plans would be different if the environmental assessment process didn't exist?

**If yes**

V. What would be different?

**If no**

VI. Why would the outcomes be the same?

- d) Are there any studies that examine whether the environmental assessment process significantly alters the outcomes of decisions on whether or not to approve proposed projects/plans?

**If yes**

VII. How can I get copies of these studies? (ask for citations or copies if I don't have them already)



- e) Do you think that the decision making process for determining whether or not to approve a proposed project/plan results in fair decisions?

**If yes**

- VIII. How does the decision making process ensure these decisions are fair?  
IX. Could the decision making process be more fair?

**If no**

- X. How could the decision making process be improved to ensure decisions are fair?

- f) Does published guidance exist on the factors that should be considered when deciding whether or not to approve a proposed project/plan?

**If yes**

- XI. How may I get copies?

- g) In your view, how important to the Minister's decision on whether or not to approve a proposed project/plan, are Environmental Assessments, Ministry Reviews and comments from the public?

**If important**

- XII. How does the environmental assessment process ensure Environmental Assessments, Ministry Reviews and comments from the public are important determinants in the decision?

- h) From the point when the Environmental Assessment, Ministry Review, and comments from the public review period are in the hands of the Minister, how efficient is the decision making process for determining whether to approve a proposed project/plan?

**If inefficient**

- XIII. How might efficiency be improved?

**If efficient**

- XIV. Is there any way efficiency could be improved?

- i) Can you suggest any additional improvements to the decision making process for determining whether or not to approve a proposed project/plan?
- j) In your experience, are projects/plans monitored to ensure they are built, implemented and operated as described in the environmental assessment document and approval conditions?

**If yes**

- XV. Please describe the monitoring.  
XVI. How efficient is the monitoring?

**If inefficient**

iii. How might efficiency be improved?

**If efficient**

iv. Is there any way efficiency could be improved?

**If no**

XVII. Can you describe the environmental compliance monitoring program mentioned in the 2003/2004 report of the Environmental Commissioner?

XVIII. Can I get a copy?

XIX. How might compliance monitoring be improved?

**If no**

XX. How might compliance monitoring be improved?

k) Does published guidance exist on compliance monitoring?

**If yes**

XXI. How may I get copies?

l) Can you suggest any additional improvements to compliance monitoring?

10. Information about the environmental assessment process, environment, and aggregate resources

a) Can the public access historic TORs?

**If yes**

I. How do the public access these documents? (ask the following questions as necessary)

II. From where?

III. From whom?

IV. Is there a cost?

b) Can the public access historic Environmental Assessments?

**If yes**

V. How do the public access historic environmental assessments? (ask the following questions as necessary)

VI. From where?

VII. From whom?

VIII. Is there a cost?

- c) Can the public access historic Ministry Reviews?

**If yes**

- IX. How do the public access these documents? (ask the following questions as necessary)  
X. From where?  
XI. From whom?  
XII. Is there a cost?

- d) Can the public access historic comments made by the public and review agencies about past projects/plans?

**If yes**

- XIII. How do the public access historic comments? (ask the following questions as necessary)  
XIV. From where?  
XV. From whom?  
XVI. Is there a cost?

- e) Can the public access historic responses of the proponent to comments made by the public and review agencies about past projects/plans?

**If yes**

- XVII. How do the public access historic responses? (ask the following questions as necessary)  
XVIII. From where?  
XIX. From whom?  
XX. Is there a cost?

- f) Can the public access historic decision documents such as approvals and refusals?

**If yes**

- XXI. How do the public access historic decision documents such as refusals and approvals? (ask the following questions as necessary)  
XXII. From where?  
XXIII. From whom?  
XXIV. Is there a cost?

- g) [ask if compliance is monitored] Can the public access compliance monitoring reports for previously approved projects/plans?

**If yes**

- XXV. How do the public access compliance reports? (ask the following questions as necessary)  
XXVI. From where?  
XXVII. From whom?

XXVIII. Is there a cost?

- h) Can the public access monitoring reports on the environmental and social impacts of previously approved projects/plans?

**If yes**

XXIX. How do the public access monitoring reports on the environmental and social impacts of previously approved projects/plans? (ask the following questions as necessary)

XXX. From where?

XXXI. From whom?

XXXII. Is there a cost?

- i) Can the public learn about the financial costs associated with the environmental assessment process?

**If yes**

XXXIII. How does the public learn about the financial costs of the environmental assessment process?

XXXIV. Are any of the costs unavailable?

- j) Can the public learn about the time costs associated with the environmental assessment process?

**If yes**

XXXV. How does the public learn about the time costs of the environmental assessment process?

XXXVI. Are any of the costs unavailable?

- k) Have you or other proponents ever had trouble accessing information held by other parties concerning the environment potentially affected by a proposed project/plan?

**If no**

XXXVII. Can you describe the kind of information that you or others had trouble accessing?

XXXVIII. How might the sharing of information be improved?

**If yes**

XXXIX. Could information sharing be improved?

- l) Have you or other proponents ever had trouble accessing information about projects/plans, and aggregate resources that is important for considering when completing an environmental assessment?

**If no**

- XL. Can you describe the kind of information that you or others had trouble accessing?  
XLI. How might the sharing of information be improved?

**If yes**

- XLII. Could information sharing be improved?

- m) Have you or others been restricted from seeing information important to deciding whether or not to approve a proposed project/plan?

**If yes**

- XLIII. What information are you or others restricted from seeing?

Ask the following only if it is difficult to get copies of Environmental Assessments

- n) Is information on aggregate supply and demand used in the environmental assessment process?

**If yes**

- XLIV. How is information on aggregate supply and demand used in the environmental assessment process?

- o) Is information on the environmental impacts of aggregate extraction, processing, and hauling considered in the environmental assessment process?

**If yes**

- XLV. How is the information used?

## 11. Evaluating and amending the environmental assessment process

- a) How are complaints about the environmental assessment process treated?  
b) In your experience, is the environmental assessment review and monitoring process, as a whole, evaluated regularly to assess the effectiveness of the process and inform improvements?

**If yes**

- I. Please describe this evaluation program?

II. How efficient is the evaluation program for the environmental assessment process?

**If inefficient**

i. How might efficiency be improved?

**If efficient**

ii. Could efficiency be improved?

III. Does published guidance exist on evaluating and amending the environmental assessment process?

**If yes**

iii. How may I get copies?

IV. Can you suggest any improvements to the current process for evaluating and amending the environmental assessment process?

c) Please list any studies of the environmental assessment process that you know exist, (additional to the ones you already mentioned). (if the interviewee has done a study, ask for a copy)

**If studies are mentioned**

V. Have these studies resulted in changes to the environmental assessment process?

**If no**

iv. Why not?

**If yes**

v. Please describe the changes that were made as a result of these studies?

vi. How were these changes made?

d) Are lessons learned from specific environmental assessments used to improve the environmental assessment process for future projects/plans?

**If yes**

VI. How is this accomplished?

VII. How efficient is the process?

**If inefficient**

vii. How might efficiency be improved?

**If efficient**

viii. Could efficiency be improved?

VIII. Does published guidance exist on evaluating and amending the environmental assessment process?

**If yes**

ix. How may I get copies?

IX. Can you suggest any improvements to the current process for evaluating and amending the environmental assessment process?

- e) In your experience, is the current process for amending the EA Act that is resulting from the Minister's Environmental Assessment Advisory Panel, ensuring all necessary changes are made to the EA Act at the optimal time?

**If yes**

- X. How does it do so?  
XI. Could the process be improved?

**If no**

- XII. How might the amendment process be improved so changes are made at the optimal time?

- f) In your view, is the current process for amending the EA Act, ensuring changes are made in a manner that minimizes harm to all parties?

**If yes**

- XIII. How?  
XIV. Could the amendment process be changed so harm is further minimized?

**If no**

- XV. How might the amendment process be changed so harm is minimized?

- g) Do you think the current amendment process ensuring benefits and harms of the changes are distributed equally?

**If yes**

- XVI. How is this accomplished?  
XVII. Could changes be made so the benefits and harms of amendments are distributed more equally?

**If no**

- XVIII. What can be done to ensure the benefits and harms of amendments are distributed equally?

- h) Do you know if parties disadvantaged by changes to the EA Act will be compensated for their losses?

**If yes**

- XIX. How?

**If no**

- XX. Should parties disadvantaged by changes to the EA Act be compensated for their losses?

**If yes**

- x. How might this be done?

**If no**

- xi. Why not?

Now I have one final question. It is about the Provincial Policy Statement that is created according to the Planning Act. My question is regarding Policy 2.5 entitled Mineral Aggregates.

Are you familiar with these statements?

(depending on response, I will change the speed at which I go through the phrases below)

In particular, the following specific statements that I will read to you in the order in which they appear in the Provincial Policy Statement.

2.5.1 Mineral aggregate resources shall be protected for long-term use.

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

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

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

2.5.2.3 The conservation of mineral aggregate resources should be promoted by making provision for the recovery of these resources, wherever feasible.

- i) In your experience, does the Provincial Policy Statement for Mineral Aggregates affect the information used in the review process?

**If yes**

XXI. How?

And one final question:

- j) Does accreditation exist for consultants involved in environmental assessment?

**If yes**

XXII. What is the name of the accreditation program?

\*\*

Before we conclude our conversation, would you like to make any further comments or suggest any other improvements to the environmental assessment process? Is there anyone else that I should definitely talk to about the EA Act?