

MANAGING NEW CHALLENGES

ANNUAL REPORT 2013/2014
SUPPLEMENT



Environmental
Commissioner
of Ontario



**"We cannot solve problems
with the same kind of thinking
we used when we created them"**

–Albert Einstein

ABBREVIATIONS.....	iii
SECTION 1: REVIEWS OF SELECT DECISIONS ON ACTS, REGULATIONS AND POLICIES	2
1.1 Ministry of Education.....	2
1.1.1 Ministry of Education's Statement of Environmental Values	2
1.2 Ministry of Energy	6
1.2.1 Ministry of Energy's Revised Statement of Environmental Values	6
1.3 Ministry of the Environment	10
1.3.1 Environmental Noise Guideline: Stationary and Transportation Sources – Approval and Planning (Publication NPC-300)	10
1.3.2 Amendments to Regulated Mixed Anaerobic Digestion Facility Requirements of O. Reg. 267/03.....	16
1.4 Ministry of Municipal Affairs and Housing	21
1.4.1 Provincial Policy Statement Five-Year Review	21
1.5 Ministry of Natural Resources	32
1.5.1 Algonquin Provincial Park Management Plan Amendment.....	32
1.5.2 Update of Ontario's Wetland Evaluation System Manuals	42
1.5.3 Fish Community Objectives for Lake Ontario	48
1.5.4 Taking a Broader Landscape Approach – A Policy Framework for Modernizing Ontario's Approach to Natural Resource Management	55
1.5.5 Modernization of Approvals under the <i>Public Lands Act</i>	65
1.6 Ministry of Transportation.....	71
1.6.1 Ontario Ministry of Transportation Cycling Strategy.....	71
SECTION 2: REVIEWS OF APPLICATIONS FOR REVIEW	82
2.1 Ministry of the Environment	82
2.1.1 Classification of Chromium-containing Waste as Hazardous	82
2.1.2 Need for Air Pollution Hot Spots Regulatory Reform	83
2.1.3 Request for a New Regulation Providing for Stays Pending Decisions on Leave to Appeal Applications filed under the <i>EBR</i>	85
2.1.4 Review of the <i>Environmental Bill of Rights, 1993</i>	87
2.1.5 Regulations Related to Hydraulic Fracturing	88
2.1.6 IC&I Source Separation Programs.....	89
2.1.7 Environmental Compliance Approvals Issued to a Nepheline Syenite Mine	90
2.1.8 Review of Standards in Air Quality Regulation and Noise Guidelines	95
2.1.9 Need to Amend Waste Disposal Site Provisions under the <i>EPA</i>	99
2.1.10 The Management of High-Sodium Ground Sourced Brines	100

2.1.11 Environmental Assessment of Genetically Engineered Glyphosate Tolerant Alfalfa ..	106
2.1.12 Regulation of Compromised Soil	112
2.1.13 Need to Reform Approach to Contaminated Site Liability Management	112
2.1.14 Need for Odour Control Measures for Mushroom Compost Facilities	116
2.1.15 Need to amend the OWRA and its Wells Regulation	120
2.1.16 Reforming the Environmental Assessment Act and related Regulations	121
2.1.17 Need for Measures related to Air Quality Protection from Aggregate Operations	128
2.2 Ministry of Municipal Affairs	129
2.2.1 Regulation of Compromised Soil	129
2.2.2 Need for Measures related to Air Quality Protection from Aggregate Operations	129
2.3 Ministry of Natural Resources	130
2.3.1 Regulations related to Hydraulic Fracturing	130
2.3.2 Need for Measures related to Air Quality Protection from Aggregate Operations	131
SECTION 3: REVIEWS OF APPLICATIONS FOR INVESTIGATION	137
3.1 Ministry of the Environment	137
3.1.1 Soil and Groundwater Contamination from an Electroplating Facility	137
3.1.2 Air Quality and Noise Issues Associated with a Nepheline Syenite Mine	140
3.1.3 Emitting Air Contaminants Causing an Adverse Effect	144
3.1.4 Mushroom Compost Facility Emitting Noxious Odours	149
3.1.5 Sewage Discharge from Septic Bed	152
3.1.6 Investigation of a Wood Waste Disposal Site	155
3.1.7 Investigation of a Concrete Plant	156
3.2 Technical Standards & Safety Authority	156
3.2.1 Investigation of a Wood Waste Disposal Site	156

ABBREVIATIONS

Legislation

ARA *Aggregate Resources Act*
EAA *Environmental Assessment Act*
EBR *Environmental Bill of Rights, 1993*
EPA *Environmental Protection Act*
ESA *Endangered Species Act, 2007*
FFPPA *Farming and Food Production Protection Act*
HTA *Highway Traffic Act*
NMA *Nutrient Management Act, 2002*
OWRA *Ontario Water Resources Act*
PLA *Public Lands Act*
PPCRA *Provincial Parks and Conservation Reserves Act, 2006*

Provincial Ministries

EDU Ministry of Education
ENG Ministry of Energy
MMAH Ministry of Municipal Affairs and Housing
MNR Ministry of Natural Resources
MOE Ministry of the Environment
MTO Ministry of Transportation
OMAF Ontario Ministry of Agriculture and Food

Terms and Titles

ADM Assistant Deputy Minister
AFA Algonquin Forestry Authority
ANSI Area of Natural and Scientific Interest
AOC Area of Concern
AQMS Air Quality Management System
CAAQS Canadian Ambient Air Quality Standards
CCME Canadian Council of Ministers of the Environment
CFIA Canadian Food Inspection Agency
Class EA Class Environmental Assessment
CVECO Chemical Valley Emergency Coordination Organization
dB decibels
EA Environmental Assessment
EASR Environmental Activity and Sector Registry

ECA Environmental Compliance Approval
ECO Environmental Commissioner of Ontario
ERT Environmental Review Tribunal
FIT Feed-in Tariff
FMP Forest Management Plan
FMZ Fisheries Management Zone
GE Genetically engineered
GHG greenhouse gas
GLWQA Great Lakes Water Quality Agreement
IEB Investigation and Enforcement Branch, Ministry of the Environment
kg kilograms
km kilometres
km² square kilometres
LaMPs Lakewide Management Plans
LSPP Lake Simcoe Protection Plan
LTA Leave to Appeal
m metres
NPC-300 Noise Pollution Control Guide
NPRI National Pollution Release Inventory
NYSDEC New York State Department of Environmental Conservation
OBC Ontario Building Code
O. Reg. Ontario Regulation
OWES Ontario Wetland Evaluation System
PCBs polychlorinated biphenyls
PM particulate matter
PM_{2.5} particulate matter 2.5 microns or less in size
PM₁₀ particulate matter 10 microns or less in size
PNTs Plants with novel traits
PPS Provincial Policy Statement
PSW Provincially Significant Wetland
PTTW Permit to Take Water
RAPs Remedial Action Plans
REA Renewable Energy Approval
SDHU Sudbury & District Health Unit
SEV Statement of Environmental Values
TSP total suspended particulate
TSSA Technical Standards & Safety Authority
WHO World Health Organization

SECTION 1

REVIEWS OF SELECT DECISIONS ON ACTS, REGULATIONS AND POLICIES

SECTION 1: REVIEWS OF SELECT DECISIONS ON ACTS, REGULATIONS AND POLICIES

1.1 Ministry of Education

Review of Posted Decision:

1.1.1 Ministry of Education's Statement of Environmental Values

Decision Information

Registry Number: 011-7406
Proposal Posted: October 23, 2012
Decision Posted: April 30, 2013

Comment Period: 30 days
Number of Comments: 2
Decision Implemented: April 30, 2013

Description

Overview

Statements of Environmental Values (SEVs) set out how the purposes of the *Environmental Bill of Rights, 1993 (EBR)* are to be applied when environmentally significant decisions are made within a prescribed ministry. SEVs also explain how the purposes of the *EBR* should be integrated with the social, economic and scientific considerations that also inform ministry decision making. In April 2013, the Ministry of Education (EDU) finalized its first SEV since becoming prescribed in 2012. Although the development of this SEV is a positive step, it follows the trend set by other ministries and does not provide meaningful guidance for decision making.

Background

The *EBR* requires that a ministry prepare a draft SEV within three months of being prescribed, and solicit public comment before finalizing the document. An SEV should provide guidance to the Minister and ministry staff on how the ministry will apply the three main purposes of the *EBR*:

- a) to protect, conserve and, where reasonable, restore the integrity of the environment by the means provided in the *EBR*;
- b) to provide sustainability of the environment by the means provided in the *EBR*; and
- c) to protect the right to a healthful environment by the means provided in the *EBR*.

In addition, an SEV should explain how the purposes of the *EBR* will be integrated with the other considerations, including social, economic and scientific considerations, which are part of decision making in the ministry.

An SEV should be both a statement of ministry-specific environmental principles, as well as a guidance document that establishes the general framework by which these environmental principles will be integrated into ministry decision making in a meaningful way (for more information on the purposes underlying SEVs, refer to Part 8.2 of our 2008/2009 Annual Report).

The inclusion of EDU among the *EBR*-prescribed ministries came after more than a decade of public effort and recommendations by the ECO for such action. In our 2000/2001 Annual Report, the ECO

reported on an application for review of EDU's exclusion from the list of *EBR*-prescribed ministries. The Ministry of the Environment (MOE), which administers the *EBR* and is ultimately responsible for prescribing ministries under the *EBR*, undertook this review and concluded that the purposes of the *EBR* would not be furthered by prescribing EDU. The ECO strongly disagreed, and explicitly recommended that EDU be prescribed in order to give Ontarians greater rights in the ministry decision-making process (see pages 165-166 of our 2000/2001 Annual Report).

A second application for review was filed in 2004, which focused on the importance of ecological literacy and the role of public education in environmental protection as the basis for prescribing EDU under the *EBR*. MOE again undertook a review of EDU's non-prescribed status and concluded that, while EDU should be prescribed for the purposes of drafting an SEV, it should not be required to comply with other elements of the *EBR*. In 2005, MOE posted a proposal for such a change on the Environmental Registry, but the proposal was never finalized. The ECO reported on this application in our 2005/2006 Annual Report and, while pleased with the proposal to prescribe EDU, the ECO questioned MOE's rationale for denying the public the important *EBR* right to comment on ministry proposals. The ECO recommended that the government consider making EDU subject to all provisions of the *EBR* rather than only those relating to the SEV (see pages 123-128 of our 2005/2006 Annual Report).

In 2008, when MOE was making regulatory amendments to prescribe other ministries under the *EBR* (Environmental Registry #010-2308), MOE noted that it had received several comments urging the ministry to move forward with prescribing EDU as well. At that time, MOE stated that it was working together with EDU to determine the future status of the proposal.

Ultimately, MOE proceeded to fully prescribe EDU for the purposes of SEV and public consultation provisions under Part II of the *EBR* (see Environmental Registry #011-2697). Shortly after it was prescribed in August 2012, EDU posted a draft SEV on the Environmental Registry.

The SEV

The ministry's SEV is a three-page document. The first two pages are dedicated to setting out boilerplate information about the background and purpose of the *EBR* and the general intent of SEVs, as well as a high-level overview of EDU's vision, mandate and a description of its business, with no specific mention of the environment. Only one page of the SEV is dedicated to setting out principles to inform environmental decision-making within the ministry.

The two core principles adopted by EDU are as follows:

1. EDU is committed to the goal of "[preparing] students with the knowledge, skills, perspectives and practices they need to be environmentally responsible citizens."
2. While recognizing the autonomy of school boards, Consolidated Municipal Service Managers/District Social Services Administrative Boards, First Nations, child care operators and EDU transfer payment agencies, EDU "will encourage [these parties] to practice environmentally responsible behaviour similar to that set out in [EDU's] SEV."

Furthermore, the ministry commits itself to continuing to encourage energy conservation and resource conservation in its own operations.

Implications of the Decision

Preparing an SEV is an important first step in ensuring that environmentally significant decisions are given due consideration and are made in a consistent, transparent and justifiable manner. EDU is now legally required to consider its SEV when making any decision that may have a significant effect on the environment. In theory, the SEV will provide guidance to ministry staff within EDU regarding how to incorporate the purposes of the *EBR* and environmental principles into ministry decision making.

In practice, this particular SEV, like those of most other prescribed ministries, provides vague commitments and little direction as to *how* the general principles espoused in the document may be implemented, or how one might approach decision making in a meaningful way, particularly where social, economic and political considerations are also at play. As such, while this SEV may influence ministry staff to turn their minds to environmental considerations where they may not have otherwise done so, its vagueness seriously minimizes the potential of the document to achieve more environmentally sustainable decision making.

The SEV's explicit commitment to encourage environmentally responsible practices among school boards and other affiliated bodies should encourage greater collaboration and partnership between EDU and other educational bodies, and hopefully promote better environmental decision making throughout the educational field, beyond just the ministry itself.

The SEV specifically directs EDU to manage its facilities in an energy efficient and resource-conscious manner, which should have the effect of decreasing energy use and resource consumption by the ministry. However, EDU would likely be required to make such efforts regardless as part of the broader effort to green the operation of provincial ministries.

Public Participation & *EBR* Process

EDU posted a proposal notice, including a draft version of the SEV, on the Environmental Registry on October 23, 2012 for a 30-day comment period. The decision notice was posted on April 30, 2013.

The first of two comments expressed concern that the draft SEV did not include an electronic link to a referenced policy document and did not provide a definition of "environmentally responsible citizen." The commenter expressed concern that the caveat regarding integration with social, economic and other considerations could allow EDU to avoid making environmentally responsible decisions in favour of economic, social or political gain. The commenter also stated that the *EBR* process in general is inadequate and that the SEV does not go far enough to consider issues such as the protection and restoration of endangered species.

The second comment, provided by a Public Health Unit, encouraged EDU to consider the role that partnerships and collaborative relationships could play in ensuring the integration of environmental and health issues into decision making. The impact of school site selection on air-quality-related and other health impacts was discussed as one example of an issue where EDU may be able to assist boards and agencies in giving due consideration to environmental factors.

In response to these comments, EDU included an electronic link to the referenced policy document (*Acting Today, Shaping Tomorrow*) and revised the SEV to "better reflect the mandate of the ministry." No explanation of the specific drafting changes was provided.

ECO Comment

The success of finally seeing EDU prescribed under the *EBR* is diminished by the ministry's delivery of a rather hollow SEV, as has sadly become the norm among most prescribed ministries. The SEV presented an opportunity for EDU to identify broad and considered ministry goals, and to provide useful guidance regarding how to approach environmentally significant decision making. Disappointingly, the SEV instead includes much of the same boiler-plate language seen in many other SEVs that fails to address how environmentally significant decisions should be made.

This SEV offers little explanation of how the ministry will apply the purposes of the *EBR* and what environmental principles should be taken into consideration when making decisions. While the SEV states that the ministry will integrate environmental values with social, economic and scientific consideration, it provides no guidance on how EDU will carry out such integrated decision making.

The SEV also misses the opportunity to incorporate ministry obligations set out in other government policies. For example, *Biodiversity: It's in Our Nature, Ontario Government Plan to Conserve Biodiversity 2012-2020* (the "Plan"), sets out EDU's role and obligations in conserving biodiversity. With respect to EDU, the Plan emphasizes the unique role the ministry has to play in establishing opportunities for students at all grade levels to learn about biodiversity. The SEV, however, is silent on the issue of biodiversity despite the Plan setting an explicit task for all ministries to incorporate biodiversity conservation into existing policy as opportunities arise; the preparation of this SEV was just such an opportunity.

As is the case with many other SEVs, the vagueness of the principles within EDU's SEV and the lack of guidance on the "how to" of decision making provide the decision-maker with broad discretion to interpret and apply the SEV as they so desire, minimizing the potential value of the SEV. Without any information about what environmental principles EDU expects decision makers to consider, let alone a framework for the integration of environmental decision making under the *EBR*, it is difficult to imagine how the SEV will meaningfully influence decision making within the ministry. This lack of detail also makes it difficult to hold the ministry to account for its implementation (or lack thereof) of the SEV, as there are no bright-line requirements.

A positive aspect to this SEV is the commitment to work with school boards and other agencies to encourage the adoption of environmentally responsible behaviours, including energy and resource conservation. This commitment is particularly important given that school properties are usually owned by school boards, not EDU. As detailed in Part 1 of our 2011/2012 Annual Report, EDU has already undertaken commendable work toward minimizing the environmental footprint of Ontario's school system, particularly with respect to reducing energy consumption. Many of these initiatives involve collaboration with school boards and other entities and the ECO is optimistic that these partnerships will continue to grow under the mandate provided by the SEV.

1.2 Ministry of Energy

Review of Posted Decision:

1.2.1 Ministry of Energy's Revised Statement of Environmental Values

Decision Information

Registry Number: 011-7790
Proposal Posted: December 14, 2012
Decision Posted: July 10, 2013

Comment Period: 45 days
Number of Comments: 1
Decision Implemented: July 10, 2013

Description

Overview

Under the *Environmental Bill of Rights, 1993 (EBR)*, prescribed ministries are required to prepare a Statement of Environmental Values (SEV). An SEV sets out both how the purposes of the *EBR* will be applied when environmentally significant decisions are made and how the purposes of the *EBR* should be integrated with other social, economic and scientific considerations. On July 10, 2013, the Ministry of Energy (ENG) finalized its revised SEV. Although the document includes some encouraging commitments, it does not provide a clear picture of the values ENG hopes to embody in its environmentally significant decision making and how it expects to go about making such decisions.

Background

Under the *EBR*, a ministry must prepare a draft SEV within three months of being prescribed; prior to finalizing the SEV, public comments must be solicited via the Environmental Registry. SEVs should provide guidance to the minister and ministry staff on how the three main purposes of the *EBR* will be applied to ministry decisions. These purposes are:

- a) to protect, conserve and, where reasonable, restore the integrity of the environment by the means provided in the *EBR*;
- b) to provide sustainability of the environment by the means provided in the *EBR*; and
- c) to protect the right to a healthful environment by the means provided in the *EBR*.

An SEV should also explain how the purposes of the *EBR* will be integrated with the other social, economic and scientific considerations, which inform decision making in the ministry.

SEVs should be both a statement of ministry-specific environmental principles, as well as a guidance document that establishes the general framework by which these environmental principles will be integrated into ministry decision making in a meaningful way (for more information on the purposes underlying SEVs, refer to Part 8.2 of our 2008/2009 Annual Report).

Prescribed ministries are set out under the *EBR* in O. Reg. 73/94. As the ECO has noted in previous reports, the Ministry of the Environment, which administers the *EBR*, plays a near-constant game of "catch-up" to keep O. Reg. 73/94 up-to-date with various ministry name changes (see Chapter 3.4 in Part 1 of our 2011/2012 Annual Report). This has been particularly true with respect to the Ministry of Energy, which has undergone multiple name changes over the past decade. While some title

changes were largely in name only, others reflected a new or altered mandate, which necessitated a review of the SEV. In any event, SEVs should be regularly reviewed and kept up-to-date by ministries.

ENG's previous SEV dated from 2001 when the ministry was the Ministry of Energy, Science and Technology. In 2009, the newly created Ministry of Energy and Infrastructure was prescribed under the *EBR* and it posted a proposed SEV on the Environmental Registry (#010-8644). It appears, however, that this proposal was never finalized, and that the ministry continued to rely on the 2001 version of its predecessor's SEV.

In 2010, the energy and infrastructure portfolios were divided and the current Ministry of Energy was established. In August 2012, O. Reg. 73/94 was updated to reflect the name change and prescribe ENG. In December 2012, ENG posted a draft revised SEV on the Environmental Registry.

The SEV

The ministry's SEV is a four-page document. The first two pages are dedicated to setting out boilerplate information about the background and purpose of the *EBR* and the intent of SEVs generally, as well as a statement of ENG's ministerial mandate. As the preliminary sections use standard language, they were not substantively revised from the previous SEV. The description of the ministry's mandate, however, was updated to remove references relating to the science and technology components of the old ministry's responsibilities.

The remainder of the SEV outlines principles that ENG should consider during its environmentally significant decision making and sets out some specific environmental commitments. In particular, ENG identifies two core principles that it intends to apply when making environmentally significant decisions:

1. The ministry will consider the effects of its decisions on current and future generations, consistent with sustainable development principles; and
2. The ministry will consider and evaluate environmental benefits and risks when planning future initiatives, such as, considering the differing environmental impacts of energy sources and technologies, including greenhouse gas emissions, and providing opportunities for increased use of cleaner sources of energy.

The SEV also states that the ministry will take into account social, economic and other considerations along with the purposes of the *EBR* when making environmentally significant decisions.

The ministry also makes a number of specific commitments within the SEV, including to:

- encourage energy conservation programs;
- document how the SEV is considered when decisions are posted on the Environmental Registry and ensure that staff involved in relevant decision making are aware of ENG's obligations under the *EBR*;
- provide opportunities for an open and consultative process, and particularly for involvement of interested Aboriginal peoples (separate and apart from the Crown's duty to consult with Aboriginal peoples or the obligations imposed by any treaties); and
- support Government of Ontario initiatives to conserve energy and water, and encourage wise use of resources in its own operations.

Implications of the Decision

Theoretically, the new principles and commitments articulated in the revised SEV should provide strong guidance to those within ENG regarding how to incorporate environmental considerations and values into ministry decision making. However, the revised SEV exhibits many of the same shortcomings common to the SEVs of many other ministries. Specifically, it merely directs ministry staff to consider certain environmental factors, but provides no guidance on how environmental benefits and risks might be ranked or weighed among other, sometimes competing, priorities. Similarly, although the SEV includes stock language asserting that social, economic and other considerations are to be integrated with the purposes of the *EBR* in the ministry's environmentally significant decision making, there is again no assistance on how staff should accomplish such integration.

As a result of this lack of specificity, it is difficult to see how the SEV offers any real guidance to decision-makers struggling with broad and complex issues where environmental factors are only one of many considerations. This means the SEV will likely have little influence on such decisions. In fact, it may be less effective than the previous SEV, which at least set out broad strategic directions – including environmental, economic and social priorities (e.g., promotion of safe, secure and competitively-priced energy supplies; encouragement of environmentally sustainable energy production; economic development, increased jobs and investment in Ontario; etc.) – that provided some guidance to decision-makers on the ministry's competing environmental and non-environmental goals.

The revised SEV does, however, commit ENG to some specific approaches that were not included in the previous version (such as encouraging energy conservation programs); consequently, the ministry is now required to consider and work towards these new commitments in its work.

Public Participation & *EBR* Process

ENG posted a proposal notice, including a draft version of the revised SEV, on the Environmental Registry on December 14, 2012. The proposal notice provided for a 45-day comment period which ended on January 28, 2013. The decision notice was posted on July 10, 2013.

The sole comment was provided on behalf of a Public Health Unit. It argued that energy facilities have significant potential to both detract from and contribute to public health in a number of ways. The commenter recommended that ENG embrace the SEV as integral to all decisions regarding the generation and distribution of energy, including both overall strategy and individual projects. It also encouraged ENG to be more transparent about how the SEV guides decisions and the impact of these decisions on Ontarians. Moreover, the commenter made several recommendations to add certain specific language to the SEV intended "to more explicitly consider the potential health and healthy equity impacts of energy initiatives" and noted that many environmental assessments of energy projects currently fail to consider how vulnerable communities may be disproportionately affected by the negative effects of projects.

ENG did not revise the SEV to reflect any of these suggested changes or comments. The ministry responded to the first comments by reiterating information already provided in the draft SEV: ENG is required under the *EBR* to consider the SEV and uses a form to document this consideration. This response seems to miss the commenter's point, which encouraged ENG to take an expansive and fulsome approach to its application of the SEV.

In response to the recommendations on specific language changes, the ministry referred to the fact that it "broadly 'takes into account social, economic and other considerations' in its decision making, as indicated in its SEV, and this can include consideration of health concerns." ENG further

noted that health concerns are explicitly considered through the environmental assessment process and within provincial standards (both of which fall under the jurisdiction of the Ministry of the Environment). ENG's response seems to imply a position that there is no need to give human health considerations a more central place within the SEV.

ECO Comment

An update of the ministry's SEV was long overdue. The ECO encourages all ministries to undertake regular periodic reviews to ensure that SEVs are consistent with both current ministry mandates and environmental realities. Such a review becomes a rather empty exercise, however, when ministries fail to provide the necessary direction to decision-makers, as is the case with ENG's revised SEV. Sadly, ENG is not alone among ministries that fail to provide appropriate guidance within their SEVs.

ENG's SEV identifies two core principles that direct staff to consider the potential environmental impacts and benefits of their proposed decisions. This direction could potentially lead ministry staff to turn their minds to environmental issues where they might not have otherwise done so. However, these statements fall far short of actually promoting particular environmental values or encouraging more environmentally sustainable decisions, even where they are already mandated by existing government policy.

For example, the SEV fails to acknowledge the role and obligations of ENG in conserving Ontario's biodiversity, as set out in *Biodiversity: It's in Our Nature, Ontario Government Plan to Conserve Biodiversity 2012-2020* (the "Plan"). The Plan recognizes the importance of moving to cleaner, renewable energy sources and energy conservation and ENG is specifically tasked with activities relating to the reduction of greenhouse gas emissions and to reducing the threat posed to biodiversity by pollution. Although one such task - the promotion of energy conservation initiatives - is included in the SEV, the broader themes set out in the Plan are largely ignored. One of the identified tasks of the Plan, applicable to all ministries, is to incorporate biodiversity conservation into existing policy as opportunities arise; the preparation of this SEV was just such an opportunity.

The SEV also does not explain *how* the ministry will apply the purposes of the *EBR* other than to say it will ensure that staff are aware of the ministry's *EBR* obligations. Similarly, while the SEV states a commitment to integrating environmental considerations into ministry decision making, it offers no comment on how this will be achieved. The vagueness of these statements provides each decision-maker with broad discretion to interpret and apply the SEV as they so desire, thus minimizing the value of the SEV. Furthermore, this lack of detail in terms of both objectives and processes also makes it difficult to hold the ministry to account for its implementation (or lack thereof) of the SEV.

Some directional value may derive, however, from the sections of the document which commit to certain approaches, such as to encourage energy conservation programs and to provide opportunities for an open and consultative process around environmentally significant decision-making. These commitments do provide ENG with some environmental direction. The ECO encourages ENG to take up the mandates reflected in these commitments and implement them without delay.

1.3 Ministry of the Environment

Review of Posted Decision:

1.3.1 Environmental Noise Guideline: Stationary and Transportation Sources – Approval and Planning (Publication NPC-300)

Decision Information

Registry Number: 011-0597
Proposal Posted: November 16, 2010
Decision Posted: October 21, 2013

Comment Period: 60 days
Number of Comments: 59
Decision Implemented: October 21, 2013

Description

Overview

For over three decades, the Ministry of the Environment (MOE) has used noise guidelines in its approvals work and in its responses to noise complaints. In August of 2013, MOE published a new Environmental Noise Guideline (the “guideline”), which updated and consolidated several old noise guidelines dating from the 1990s. A key update by the ministry was to harmonize previously inconsistent noise limits.

Background

Noise is measured using a scale of decibels (dB), which assigns a value of 0 dB to the lower threshold of human hearing. The decibel scale is logarithmic – not linear – and, thus, any increase of 10 decibels reflects a ten-fold increase in the power of the sound.

MOE’s regulatory approach to noise assigns limits that vary depending on the geographic location. Urban areas (defined as “Class 1 areas”) are allowed the highest noise limits. Somewhat more stringent limits are set for urban areas that typically experience quiet evenings and nights (“Class 2 areas”). The most stringent noise limits are set for rural areas (“Class 3 areas”). The noise limits apply at the point of reception, not at the source, and, therefore, are determined not just by the noise level emitted, but also by the proximity of the closest neighbour.

MOE uses the guideline’s noise limits whenever owners of subject facilities apply to the ministry for Environmental Compliance Approvals (ECAs) under the *Environmental Protection Act*. MOE and proponents of projects also apply the noise limits under the provisions of the *Environmental Assessment Act*.

MOE also relies on the noise limits whenever it responds to noise-related complaints, to determine whether an “adverse effect,” under section 14 of the *Environmental Protection Act*, has occurred.

Municipalities and other land use planning authorities are also encouraged (but not required) to use the noise guideline as policy guidance in planning decisions, and in municipal noise control bylaws. The Ministry of Natural Resources uses the noise limits in regulating sand, gravel and quarry operations under the *Aggregate Resources Act*.

The ministry described multiple drivers for the update; on the one hand, there is a need to protect current and future Ontario residents from excessive noise. On the other hand, the guidelines should

also protect and buffer lawfully operating sources of noise – such as industrial or commercial facilities – from encroaching incompatible development that might create new noise-based complaints and conflicts. Industry, developers, municipalities, the Ontario Municipal Board and noise consultants all had concerns with the various old guidelines; those guidelines could create conflicts since they did not apply consistent noise limits across the board to noise sources and to residential land uses.

In theory, under the previous guidelines, a local planning authority could approve a residential development far enough away from an existing industrial facility to satisfy noise criteria set out in guideline LU-131. But the industrial facility's approval under the *Environmental Protection Act (EPA)* would be based on somewhat more stringent noise limits, set out in NPC-205. Thus, the encroachment of new residences could be too close to meet NPC-205 limits, and could put the industrial noise source out of compliance with its own approval under the *EPA*, even though facility operations and noise levels were unchanged. The regulated community needed more certainty, clarity and protection from such encroaching residential development.

MOE's New Environmental Noise Guideline (NPC-300)

The new guideline made several key changes to the ministry's management of noise issues.

Consolidated Several Old MOE Guidelines:

The new guideline, NPC-300, which MOE began using October 21, 2013, consolidated four old noise guidelines. The first two set limits on noise from facilities and the second two treated noise in land use planning:

- NPC-205: Sound Level Limits for Stationary Sources in Class 1 & 2 Areas (Urban) (1995)
- NPC-232: Sound Level Limits for Stationary Sources in Class 3 Areas (Rural) (1995)
- LU-131: Noise Assessment Criteria in Land Use Planning (1997)
- Requirements, Procedures and Implementation document (1997)

Harmonized Noise Limits:

The new noise guideline contains limits that are either identical to those in the old guideline or are somewhat more relaxed. For example, MOE increased the acceptable daytime and evening noise level in an urban (Class 1) area measured at an open window from 47 to 50 dBA. This is the limit that previously applied to land use planning decisions in Publication LU-101, and now applies to both land use planning and to stationary sources. In another example, MOE increased the acceptable noise level in a Class 2 area during evening hours measured at an open window from 45 to 50 dBA.

Created a New Area Class:

The new guideline still uses Class 1, 2, and 3 areas, but also gives municipalities and planning authorities the option to establish a new "Class 4 area" with significantly relaxed noise limits. Compared to limits in a Class 1 (urban) area, Class 4 limits are 5 dBA less stringent in outdoor areas and 10 dBA less stringent at window panes. MOE makes the explicit assumption, however, that these limits are based on closed windows for sensitive land uses such as dwellings. Only certain areas are eligible to be designated as Class 4: the area must not yet be built on, but must be in an urban or suburban area and be close to "lawfully established" noise sources. The guideline also envisages signed agreements for noise mitigation between involved parties and land use planning authorities. The guideline also recommends that prospective purchasers of Class 4 dwellings be informed through registration on title that sound level limits are based on the assumption of closed windows.

MOE also made many minor changes to the guideline. For example, places of worship on industrially or commercially zoned lands are no longer considered noise sensitive points of reception.

Implications of the Decision

Clearer Rules for Certain Types of Noise

MOE has resolved certain discrepancies in the regulatory regime for noise by consolidating four outdated documents into one guideline and by harmonizing noise limits. This consolidation has somewhat improved regulatory clarity and certainty for the regulated community, their consultants, and land use planners.

Relaxed Noise Limits in Some Situations

For Class 1, 2, or 3 areas, some of the new noise limits are relaxed by 3 dBA or by 5 dBA compared to 1997 limits. For Class 4 areas, the limits are 5 dBA less stringent than Class 1 for outdoor areas, and 10 dBA less stringent at window panes, with limits based on the assumption of closed windows.

Noise Controls Acceptable on Receptor Buildings in Class 4 Areas

In the past, MOE has preferred that noise control measures be installed on the property of the noise source, viewing this approach as most economical and practical. For the new Class 4 areas however, MOE's assumption is that planning authorities will apply noise control measures such as sealed-in balconies onto the building of the receptor. The Class 4 area concept, with its assumption of closed windows and central air conditioning at the receptor building, gives developers the new option of controlling industrial noise at the receiving building.

Guideline Does Not Cover All Sources

The scope of this guideline is largely unchanged, in terms of what facilities are caught or excluded. The noise guideline applies to certain – but not all – industrial and commercial establishments. Types of establishments caught include: many sand and gravel extraction facilities; natural gas plants; repair or storage garages for public vehicles; truck terminals; warehouses; solar farms; and works yards. The land use planning portion of the guideline also advises developers how to assess noise impacts from nearby transportation sources.

Many kinds of activities, including blasting operations, wind turbines, landfills and transit corridors are not covered by this guideline because they are each governed by their own specific guidelines.

Agricultural activities are generally not covered under this guideline. Agricultural activities also do not require MOE approvals. Rather, activities that are considered "normal farm practice" are addressed through the *Farming and Food Production Protection Act, 1998*. Some examples of agricultural activities that may produce noise, but that are excluded from the guideline, include bird scaring devices, on-farm grain dryers, irrigation, heating or air conditioning equipment, and equipment for seeding, spraying or harvesting crops.

Low frequency sounds are not covered, but MOE has indicated it is working on a guideline. Racetracks, car washes, firearm ranges and snow disposal sites are all excluded by regulation from the need for an ECA and, thus, are also outside the scope of this guideline. Construction noise is not covered because the guideline's definition of "stationary source" explicitly excludes construction sounds.

Noise Effects on Human Health and Wildlife not Discussed

Although MOE's noise guideline has relaxed noise limits in some situations, it fails to support these changes with references to background research on noise effects on human health or wildlife, despite the ministry's expressed commitments to precautionary and science-based approaches in its Statement of Environmental Values. For example, a 2009 World Health Organization (WHO) guideline for night-time noise in Europe observes that when outside night-time noise averages between 40 and 55 decibels over a year, then adverse health effects are observed among the exposed population, and vulnerable groups are more severely affected. Reflecting this adverse effect threshold, the WHO recommends a guideline for outside nighttime noise of 40 decibels between hours of 11:00 pm and 7:00 am. The WHO recommends a 55 decibel interim target for outside night-time noise for countries where 40 decibels cannot be achieved in the short term. MOE's new guideline permits noise levels up to 50 dBA between 7:00 pm and 11:00 pm, and up to 45 dBA between 11:00 pm and 7:00 am for urban (Class 1) areas.

The impact of noise on wildlife is a developing research area. A growing body of evidence published over the last decade indicates that urban background noise can interfere with the way animals communicate, mate and hunt. Such effects have been observed in a range of species, including certain species of birds, bats and tree frogs.

Disconnect Persists Between MOE Regulation of Noise and Land Use Planning Pressures

MOE's updated noise guideline remains optional for municipalities and other planning authorities. Thus, future planning decisions of municipalities or the Ontario Municipal Board will not always be consistent with the noise guideline. The new *Provincial Policy Statement, 2014* (PPS) is also merely advisory on noise control: "Major facilities and sensitive land uses should be planned to ensure they are appropriately designed, buffered and/or separated from each other to prevent or mitigate adverse effects from odour, noise and other contaminants, minimize risk to public health and safety, and to ensure the long-term viability of major facilities."

Both the previous and new PPS apply the word "should" rather than "shall." Moreover, the words "or mitigate" have been added to the new PPS 2014, thus lowering the bar from a preventative approach to a mitigative approach.

Not only does Ontario planning policy give municipalities flexibility on noise mitigation, but high real estate values and the pursuit of a denser urban form put pressure on planners to require only narrow buffers and separation distances which cannot, on their own, reduce noise to the satisfaction of all parties. This means that sources of noise such as industrial facilities will remain vulnerable to encroaching incompatible development. Such encroachments may at times put noise sources into non-compliance with their approvals from MOE. Noise conflicts between incompatible land uses will thus continue to require the attention of MOE district staff.

Guidelines for Separation Distances and Buffers Still Outdated

The new noise guideline states that it needs to be used in conjunction with another set of guidelines (the D-series Guidelines, dated 1994) that address separation distances, setbacks and buffers between sensitive land uses and major facilities. However, these guidelines may be inadequate: in 2009, the ECO encouraged MOE to update them, as they contain separation zones that do not seem to protect receptors from adverse effects. MOE acknowledged that the D-series guidelines are under review, but that this work had been set aside to complete work on the noise guideline.

Regulation of Noise Remains Complex and Patchy

MOE's new noise guideline applies only to certain types of noise, such as noise from certain industrial facilities and transportation sources. Some other noise sources are governed by their own specific guidelines (e.g., wind turbines, landfills) and yet others are exempted from provincial regulation altogether (e.g., racetracks, firearm ranges and noise from agriculture). Construction noise is not addressed by the province. Ontario municipalities also have the right under the *Municipal Act, 2001* to establish noise bylaws, with the result that rules and definitions governing noise can vary considerably across the province. Noise exposure in the workplace is unique again, and covered by provincial occupational health and safety laws. Taken together, this produces a very complex regulatory terrain for both the regulated community and for members of the public seeking relief from noise.

Public Participation & EBR Process

MOE consulted stakeholders extensively on this policy proposal, using a multi-phase approach as well as meetings. First, the ministry used focus groups and questionnaires in the summer of 2009 to identify issues of concern. Then the ministry opened a 60-day comment period through the Environmental Registry in late 2010, and received 59 comments from a wide range of sectors, including municipal staff, lawyers, industry and professional associations, utilities, acoustical consultants and also from sister ministries. The ministry then consulted the commenters again by circulating a draft revised guideline and holding four additional consultation meetings in April 2011. This second more targeted phase garnered 21 further comments which the ministry also considered in finalizing the guideline.

Many commenters requested clarification or changes to definitions of terms, such as "background sound level," "point of reception," "noise sensitive land uses" or "stationary source."

Several commenters had questions about how municipalities would implement a Class 4 area designation. One municipality noted, for example, that most planning authorities lack expertise to implement, monitor and enforce noise mitigation agreements. Commenters also warned that the *Planning Act* and the *Ontario Building Code* cannot be relied upon to resolve enforcement issues related to noise mitigation.

Some commenters noted the guideline does not reflect either WHO's evidence of acute and long-term health effects from environmental noise, or ecological effects of noise on wildlife.

Commenters noted that the noise guidelines and the D-series guidelines addressing separation distances and setbacks should have been reviewed together.

The ministry was receptive to comments, making significant changes to the final guideline. For example, the ministry revised many definitions, added a guideline implementation section, and clarified that the section on land use planning is intended as merely guidance and advice, since MOE does not administer land use planning under the *Planning Act*.

Although MOE had initially proposed both a new Class 4 and a Class 5 planning area (to address situations where background noise is dominated by existing rail and air traffic), MOE discarded the Class 5 concept in response to comments that it was too unclear. The Registry decision notice also alerted the public that the ministry would soon hold information sessions on the guideline, and provided an e-mail address for those interested in attending. One weakness of both the Registry proposal and decision notices was a failure to explain that the old set of guidelines set varying decibel limits, and were thus in conflict with each other. The decision notice also failed to clarify

that MOE introduced somewhat relaxed noise limits compared to the previous guidelines. Despite these flaws, MOE's public consultation approach on this guideline was exemplary overall.

Statement of Environmental Values

MOE explained in a Statement of Environmental Values (SEV) consideration form how the noise guideline is consistent with principles laid out in its SEV. For example, MOE noted that the guideline considers cumulative effects, since developers need to assess noise impacts from adjacent stationary sources as well as rail, road and aircraft. The ministry also asserted that a precautionary approach had been taken by considering potential impacts on human health and the environment. The ministry also held that the guideline integrated other SEV principles, including using a science-based approach, pollution reduction/environmental restoration, strategic management and social and economic considerations.

ECO Comment

Noise is an ever-present feature of modern life and a frequent source of conflicts in Ontario, often requiring response from MOE staff. Some noise conflicts result in expensive legal disputes. Noise issues have also prompted many Ontario residents to seek reviews or investigations under the *Environmental Bill of Rights, 1993 (EBR)*. Industrial plants, commercial air conditioners and grain mills are just some of the noise sources that have triggered *EBR* applications over the years. Communities need agreed-upon rules for preventing noise-related land use conflicts and for resolving noise issues when they do occur. As cities become increasingly dense, especially in southern Ontario, noise guidelines become even more important to set a fair and transparent playing field for all participants. Urban noise is not only a quality of life issue, it is also a public health issue as the World Health Organization has confirmed.

One of MOE's intentions was that this updated noise guideline should "promote new development that will facilitate urban intensification, while protecting the viability of existing industries in urban settings." This is a laudable goal. The ECO has often stressed how important a denser urban form will be to reducing a community's greenhouse gas emissions and to a sustainable future more generally. However, intensification also brings challenges; to be successful and sustainable in the long term, dense urban areas must remain appealing and healthy for those who live and work there. Land use planners must find creative ways to prevent conflicts arising from potentially incompatible land uses placed in close proximity, and noise is a classic example.

MOE's noise guideline offers local planning authorities some tools to find compromises on noise issues, including the new concept of a "Class 4" area, where higher ambient noise is presumably accepted by all parties, residential windows are assumed to be kept closed, balconies are glassed in and air conditioning is relied upon. It remains unclear how municipalities will initiate or formalize a Class 4 designation, or how attractive this concept will be to local planning authorities. The concerns of commenters about enforceability of noise mitigation approaches in Class 4 areas suggests that noise-related conflicts might arise despite signed agreements. The Class 4 reliance on air conditioning as the main ventilation option would also add to overall energy consumption, especially at peak load times – the reverse of the Ontario government's stated intention.

Rather than simply accepting increased ambient urban noise and (in Class 4 areas) assuming closed windows to protect people from noise, there would be merit in placing the first priority on mitigating ambient noise to the extent possible through design innovations. Prevention of noise at the source would align more closely with the *EBR* purpose of "the prevention, reduction and elimination of pollutants that are an unreasonable threat to the integrity of the environment." Prevention would also be more in keeping with the ministry's own SEV commitment to use "a

precautionary, science-based approach in its decision-making to protect human health and the environment.”

Review of Posted Decision:

1.3.2 Amendments to Regulated Mixed Anaerobic Digestion Facility Requirements of O. Reg. 267/03

Decision Information

Registry Number: 011-8998
Proposal Posted: May 22, 2013
Decision Posted: November 1, 2013

Comment Period: 45 days
Number of Comments: 8
Decision Implemented: October 25, 2013

Description

Overview

On November 1, 2013, the Ministry of the Environment (MOE) posted on the Environmental Registry its decision to amend O. Reg. 267/03 under the *Nutrient Management Act, 2002 (NMA)*. The ministry stated that the purpose of the amendments was to allow more on-farm anaerobic digestion facilities the option to be regulated under the *NMA*. Previously, anaerobic digestion facilities that used more than 25 per cent off-farm input materials were required to obtain either a Renewable Energy Approval (REA) or an Environmental Compliance Approval (ECA) under the *Environmental Protection Act (EPA)*. The main change to the regulation in support of this goal was an increase from 25 to 50 in the percentage. Now, on-farm facilities can accept up to 50 per cent off-farm input materials while remaining under the *NMA*. In addition, MOE added some new requirements, which the ministry states will protect the environment while “...reducing barriers for investment in this renewable energy technology.”

O. Reg. 284/13, amending the Regulated Mixed Anaerobic Digestion Facility requirements in O. Reg. 267/03, took effect on the date of filing, October 25, 2013. This amendment to O. Reg. 267/03 was a joint initiative of MOE and the Ontario Ministry of Agriculture and Food (OMAF).

Background

Anaerobic digestion is a process by which organic materials are broken down (digested) in a confined environment by a class of micro-organisms that require an absence of oxygen (anaerobic). The process produces “biogas,” which consists primarily of carbon dioxide and methane, as well as a nutrient-rich liquid effluent known as “digestate.” The biogas can be burned to produce heat or electricity or it can be “upgraded” (i.e., have most of the carbon dioxide and impurities removed) to produce natural gas. The digestate can be applied directly to land as a liquid fertilizer for crops or it can be processed to remove suspended solids, which are then used as animal bedding or composted. The residual liquid from this process is also applied to land as fertilizer. Anaerobic digestion lends itself primarily to farms where manure is collected in a liquid form, such as dairy operations. Other manure treatment options, such as composting, require manure to be in a solid form (i.e., dry matter greater than 30 per cent).

In addition to the energy produced, which may be used on-farm or sold into the power grid, anaerobic digestion as a manure-management practice provides several benefits to farmers. Compared to raw manure, the end product is very stable, minimizing odour. It retains almost all of the nutrients from the original material and in addition these nutrients tend to be, like commercial fertilizer, more plant-available than those in raw manure. The process also reduces pathogens significantly, resulting in less potential for contamination of crops, surface water and groundwater. This reduces disease risks associated with drinking water, swimming and food quality. The anaerobic digestion process can also reduce the number of weed seeds in manure, meaning less need for tillage or herbicides. Finally, as the organic matter breaks down in the process, the digestate is easier than manure to agitate, pump and move through pipes for the purposes of land application.

As pointed out in our 2007/2008 Annual Report (pages 23-24), the anaerobic digestion process also provides a number of significant climate change benefits. These benefits include a reduction in methane emissions compared to most other manure-management systems and a reduction in the use of energy from fossil fuels replaced by the biogas. In addition, the amount of greenhouse gases (GHGs) generated by fertilizer production and transportation is reduced by the application of the nutrient-rich digestate to crops.

Anaerobic Digestion and Energy Production in Ontario:

Although anaerobic digestion has been a popular renewable energy and manure-management option in Europe for some time, farmers in Ontario have only recently begun to adopt this technology. A few facilities were built in the province in the 1980s; however, these failed due to high costs relative to revenues.

In 2006, Ontario introduced a Renewable Energy Standard Offer Program, which paid farmers a set price for the power generated by an anaerobic digestion system. Then, in 2007, the province implemented a funding program for the design and construction of anaerobic digestion facilities on farms and amended O. Reg. 267/03 to establish the Regulated Mixed Anaerobic Digestion Facility requirements for systems that receive up to 25 per cent off-farm inputs. The amended regulation included lists of allowable off-farm input materials in three schedules: materials that can be added as-is (schedule 1); materials requiring pre-treatment (schedule 2); and materials specifically indicated as not acceptable (schedule 3).

In 2009, the Ontario Power Authority introduced the next generation of pricing for anaerobic digestion systems, called the Feed-In Tariff (FIT) program, under the *Green Energy and Economy Act, 2009*. The FIT program offers farmers a range of prices for electricity that vary with the capacity of the AD system.

The Newest Amendments:

The changes made to O. Reg. 267/03 in 2013 include:

- an increase in the percentage of off-farm materials (e.g., food processing residuals) that a facility can include in its process from 25 to 50 per cent;
- an increase in the allowable amount of on-farm materials that can be imported from other farms, from 1,000 to 2,000 nutrient units (a nutrient unit is a *NMA*-defined measurement based on fertilizer replacement values);
- an increase in allowable copper and zinc concentrations in input materials (with some conditions);
- the inclusion of organic residuals from the processing of pet food and from wineries;
- the allowing of schedule 2 materials to be pre-processed off site by the generator of those materials or a third party (formerly they had to be processed on-site by the facility);
- prescribed setback distances for facilities constructed on non-livestock farms; new technical requirements for gas storage covers;
- a requirement for signage on the nearest public road;

- a requirement for input delivery hours to be between 7 am and 7 pm;
- a requirement for existing facilities that plan to utilize more than 25 per cent off-farm inputs to submit an amendment identifying changes to their nutrient management strategies for approval by the OMAF Director;
- clarification of language in schedule 3 to specifically prohibit source-separated organics; and
- various other minor technical and administrative changes.

Finally, MOE asserted that it had examined a number of possible strategies, such as including on-farm AD in the Environmental Activity and Sector Registry (EASR), before deciding on the amendments to O. Reg. 267/03. MOE states that the amendments to O. Reg. 267/03 reduce regulatory barriers without introducing another instrument (EASR) and without compromising on environmental protection.

Implications of the Decision

Adding off-farm wastes to anaerobic digestion systems results in significantly increased gas production, since many of these materials (e.g., oils and fats, food processing wastes, etc.) have a higher energy content than manure and other on-farm wastes, such as silage. The benefits of using a mixed feedstock were demonstrated when the earlier amendment to O. Reg. 267/03, allowing off-farm wastes as inputs up to a maximum of 25 per cent, improved the economics of the on-farm systems by substantially increasing the potential for electricity revenues. These benefits were supported first by the Renewable Energy Standard Offer Program, and then the FIT programs, which guaranteed prices. The industry responded to the incentives by growing rapidly; as of the end of 2013, there were 30 anaerobic digestion projects operating or about to begin operations and 15 new projects proposed.

The new decision to boost the allowable percentage of off-farm wastes into the 25-to-50-per-cent range will further increase the potential biogas production of on-farm systems to about four times what is possible when using manure alone, according to OMAF. The improved economics brought about by this higher potential productivity should result in more systems being built on Ontario farms. OMAF states that increasing the number of anaerobic digestion facilities and the volume of material that they process will: reduce the environmental impacts associated with the storage of raw manure and its application to fields; increase renewable energy production in Ontario; increase the diversion rate for organic residuals; improve the fertilizer value of manure produced in the province; and provide increased environmental benefits such as cleaner water, fewer GHG emissions, and less odour.

These changes do raise some concerns, however. Some of the comments received (see below) expressed concern that the new rules would create an uneven playing field between on-farm anaerobic digestion facilities, and both off-farm facilities and composting facilities. Both of the latter are required to obtain either REAs or ECAs under the *EPA*, while the former, if they receive 50 per cent or less off-farm inputs, can operate pursuant to a nutrient management strategy under the *NMA*, which requires no public consultation, is not a prescribed instrument under the *EBR*, and in general is far less onerous. According to the Ministry of Economic Development and Trade, the *NMA*-based process reduces the average approval time, as compared to the REA process, from two years to three months and saves the average operator almost \$90,000 in permit application and consulting fees.

The specific risk for the composting industry is that very large quantities of organic residuals from food-processing and other industrial or commercial sources might flow to on-farm anaerobic digestion operations, attracted by potentially lower tipping fees. If this were to happen on a large scale, it would negatively affect the economics of off-farm composting facilities, whose operations generally depend on these waste streams both for tipping fees and for a less-contaminated

feedstock to balance the high levels of contamination found in source-separated municipal waste streams. Similarly, the lower-cost, quicker approval process and reduced operational requirements of the on-farm scenario could be enough incentive for waste management companies to purchase farms as sites for their new facilities; this could result in some on-farm operations that are *de facto* waste management facilities, but without the stringent controls, required equipment, and professional expertise associated with off-farm facilities.

With respect to these concerns, OMAF has indicated that the material going to the on-farm facilities will have a higher moisture content than the material sought by compost facilities, or will be of a different nature (i.e., consisting primarily of oils and fats), and therefore, it will not significantly reduce the latter's feedstock supply. In addition, OMAF notes that anaerobic digestion facilities must keep the moisture content of the mix above 90 per cent in order to get good results and this technical requirement precludes the addition of too many low-moisture materials, such as those favoured for composting. The ministry also added a specific prohibition of source-separated waste to schedule 3 of O. Reg. 267/03 to address the concern that these facilities would turn into waste management operations.

With respect to the issue of the uneven playing field between on-farm and off-farm facilities, the obligation for on-farm facilities to use at least 50 per cent farm waste, with its relatively low energy content vis-à-vis food wastes, may possibly mitigate any advantage the on-farm facilities might have in terms of permitting and on-going oversight.

Finally, potential environmental concerns are exacerbated by the fact that Nutrient Management Strategies are not prescribed instruments under the *EBR* (the ECO had recommended that they be prescribed in our 2003/2004 Annual Report). Accordingly, the process to acquire a nutrient management strategy does not require any public consultation, including postings on the Environmental Registry, as is required by both the REA and ECA processes. Moreover, if members of the public suspect that the strategy has not been correctly implemented or sustained, they have no right to request an investigation under the *EBR*.

Public Participation & *EBR* Process

MOE posted a proposal notice for these amendments on the Environmental Registry on May 22, 2013, for a period of 45 days. Eight comments were received, five in writing and three on-line. Additionally, the ministry directly consulted with affected stakeholders, a group that is, in this case, fairly narrow, since the amendments modify requirements that only apply to relatively small on-farm operations.

The comments received were generally supportive of the intent of the proposed changes, although several of the commenters from the waste management industry expressed concerns regarding the possible effect of the changes on the industry in general. The main concerns, as discussed above, were that the increase in allowable off-farm inputs might either harm the composting industry by creating unfair competition for certain feedstock materials, or allow on-farm facilities to become *de facto* waste management facilities. This latter risk was seen by some commenters as a potential threat to long-term public acceptance of anaerobic digestion technology, should odour or other environmental problems arise from poorly managed facilities and create problems with neighbours. Commenters also expressed concerns that the new rules would create an uneven playing field between on-farm and off-farm anaerobic digestion facilities.

The most frequent technical concern was with a proposal to increase the minimum retention time (i.e., the amount of time that the material must remain in the digester) from 20 to 35 days. The purpose of the retention time requirement is to ensure that the digestion process is complete and the digestate is mature; however, all of the commenters argued that retention time is not a good

measure of the maturity of the digestate, since the process can proceed at varying rates. As a result of these comments, MOE ultimately decided not to extend the minimum retention time. Instead, MOE and OMAF committed to undertaking further research into what constitutes the best assessment method for determining whether the digestion process is complete. The ministries will undertake a research study to collect data from operational digesters in Ontario and use these data to evaluate several alternative approaches, which may result in further amendments to the regulation in the future.

The lack of best management guidelines, such as those developed for the composting industry, was also pointed out as a deficiency by several commenters. Commenters recommended developing such a document, along with a process to determine the best method for assessing system performance and a government commitment to tracking the impacts of this decision on the waste management industry.

Finally, commenters also criticized the three schedules that determine which off-site materials may be accepted. Specific suggestions included the inclusion of winery wastes as well as clarification of the schedules, which were seen as too open to interpretation. In response to these concerns, MOE made changes to schedule 3 to clarify that source separated organics are not allowed in on-farm facilities. MOE also adopted a few of the other suggestions, such as the inclusion of winery wastes in schedule 1.

Statement of Environmental Values

The ministry stated that it considered its Statement of Environmental Values (SEV) principles of environmental management, pollution reduction and environmental restoration, and strategic management in the development of this decision. MOE noted that it had sought to encourage the proper disposal of agricultural waste, including manure, while considering the ecosystem impacts of the associated regulatory changes. The ministry also stated that the amendments were specifically chosen to “reduce or eliminate any potential negative environmental impacts” that could result from the percentage increase in off-farm inputs.

ECO Comment

The ECO agrees with the decision by MOE and OMAF to allow on-farm digesters to include up to 50 per cent off-farm wastes in their processes without the requirement of a REA or an ECA. The new amendments to O. Reg. 267/03 should put the economics of on-farm anaerobic digesters on an even firmer footing, which is a positive development for several important reasons. The environmental and social benefits of small-scale, on-farm anaerobic digestion include reduced water pollution (as long as the digestate is applied properly), fewer greenhouse gas emissions and less fossil-fuel use. The economic benefits for farmers that implement such systems include energy and fertilizer savings as well as the realization of a new revenue stream. In fact, significant downsides to this technology are hard to find: as long as the systems are constructed and operated properly, the local environment is protected, odours are reduced in the countryside and society will gain many environmental and economic benefits.

The ECO does have a few words of caution, however. Despite the fact that composting facilities generally accept a different type of waste than anaerobic digesters, the possibility of negative economic impacts on the off-farm composting industry, via unfair competition for feedstock, is real and should be closely monitored over the next few years. Likewise, concerns regarding the uneven playing field for off-farm anaerobic digestion facilities and the potential for turning farms into under-regulated waste management facilities need to be kept in mind as the real-world results of the new regulatory amendments unfold.

Finally, the ECO encourages MOE and OMAF to collaborate in setting up a stakeholder working group to develop guidelines for on-farm anaerobic digestion facilities, similar to the guidelines for composting facilities, and to post them on the Environmental Registry. This is particularly important given the lack of public consultation and access to *EBR* requests for investigation inherent in the *NMA*-based process. Such a document could potentially be incorporated into the planning process for all Regulated Mixed Anaerobic Digestion Facilities under O. Reg. 267/03.

1.4 Ministry of Municipal Affairs and Housing

Review of Posted Decision:

1.4.1 Provincial Policy Statement Five-Year Review

Decision Information

Registry Number: 011-7070
Proposal Posted: September 24, 2012
Decision Posted: February 24, 2014

Comment Period: 60 days
Number of Comments: 166
Decision Implemented: April 30, 2014

Description

Overview

The *Provincial Policy Statement* (PPS) provides direction on matters of provincial interest with respect to land use planning. In March 2014, the Ministry of Municipal Affairs and Housing (MMAH) completed its review of the 2005 PPS. The new 2014 PPS includes a variety of amended and new policies under three general areas of provincial interest: building strong healthy communities; the wise use and management of resources; and protecting public health and safety.

Background

Ontario's Land Use Planning System and the Provincial Policy Statement:

Land use planning influences nearly every aspect of daily life. For example, it plays a part in determining: where new homes will be built; how far people will travel to get to school and work; how Ontarians get around their communities; where the province's food is produced; and, if a local forest is protected. It also has a significant influence on the abundance and diversity of species and natural areas by directing what forms of development should be allowed where.

Ontario's planning system comprises a complex array of legislation, regulations, bylaws, plans and policies. Each of these elements apply at different scales: the *Planning Act* and PPS provide overarching direction for the province, while other provincial plans, such as the *Growth Plan for the Greater Golden Horseshoe* and the *Niagara Escarpment Plan* provide regional guidance. Municipal official plans, along with zoning and development bylaws, are the primary mechanisms used to implement planning decisions at the local level.

The PPS, made under the *Planning Act*, is the foundation of Ontario's "policy-led" land use planning system. Under the Act, planning decisions must be "consistent with" the PPS, although

direction in plans like the *Greenbelt Plan* may take precedence over the PPS in event of a conflict. Some of the PPS policies are mandatory and obligate planning authorities to take specific actions or comply with certain standards. The PPS also contains enabling or supportive policies which encourage planning authorities to incorporate specific considerations into their processes or take certain actions, but allow for discretion in their implementation.

The PPS provides policy direction on matters of “provincial interest” related to land use planning. In some cases, it is the PPS alone that sets the high-order direction or priority for an issue; for example, the recent changes to it have now led it to be among the few government policies that seek to promote the use of green infrastructure. In other cases, the PPS simply mirrors the direction set by another ministry’s regulatory framework; for example, the lack of a prohibition on development in the habitat of endangered species is largely a reflection of the inadequacies of regulations under the *Endangered Species Act, 2007*. In other words, if something that affects land use planning is already extensively dealt with through another mechanism the PPS generally will not substantially deviate from that direction.

The PPS is currently reviewed by the provincial government every five years, although a review may take several years to complete. In 2010, MMAH commenced its review of the 2005 PPS, with the intent of ensuring that it “provides effective policy direction to protect provincial interests.” As part of the ministry’s review, it also considered whether the five-year review period for the PPS should be extended. This four-year review process culminated in the new 2014 PPS, which came into force on April 30, 2014.

Provincial Policy Statement, 2014

This overview highlights a selection of the most environmentally significant new or amended policies in the 2014 PPS, including policies addressing natural heritage, climate change, water and mineral aggregates. For full details on all new policies refer directly to the PPS.

Natural Heritage:

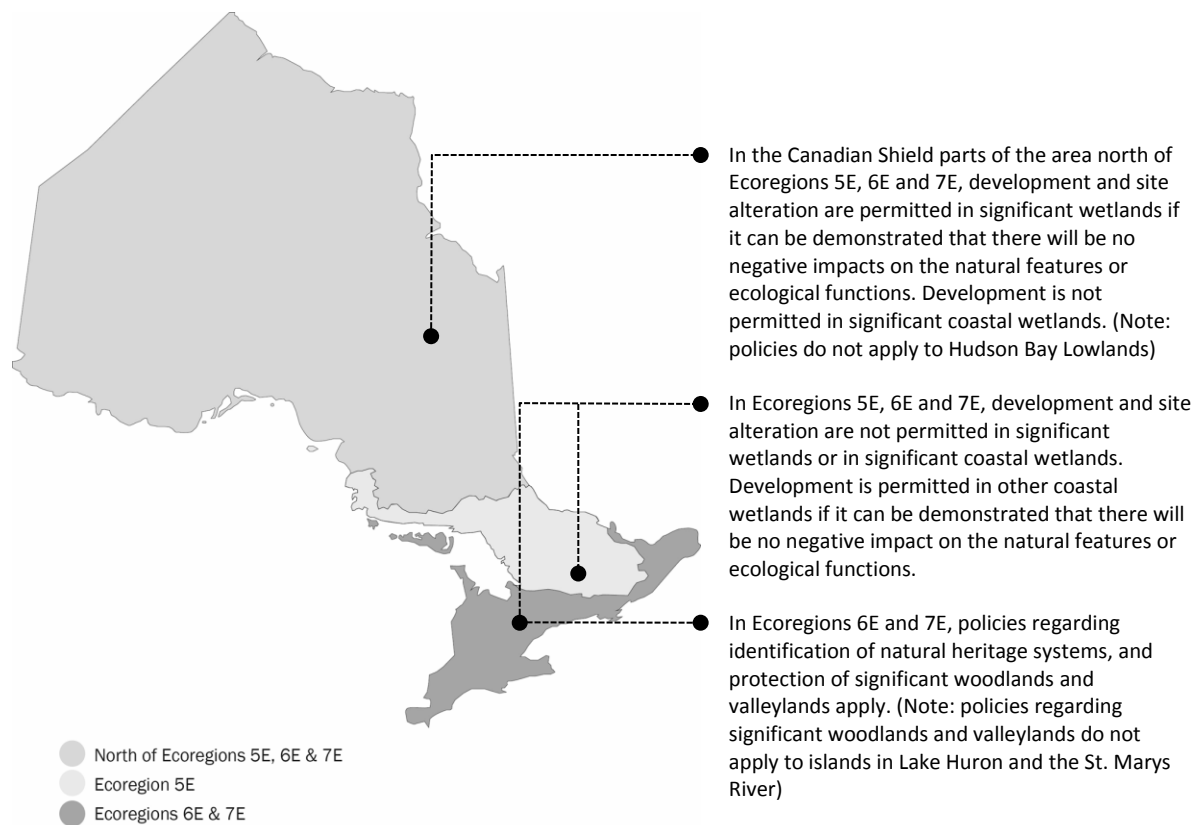
Natural features and areas (such as woodlands, wetlands and wildlife habitat) are under constant threat of degradation and destruction from encroaching development, especially in southern Ontario. The destruction of natural areas has cascading negative effects including the loss of biodiversity and ecosystem services. The protection of natural heritage is a critical component of sound land use planning. The 2014 PPS retains direction from the previous PPS that speaks generally to requiring that natural features and areas are “protected for the long term.” However, it only *encourages* protecting the diversity and connectivity of natural heritage features, and the long-term ecological function and biodiversity of natural heritage systems.

One way in which the PPS seeks to protect natural heritage is by prohibiting “development” and “site alteration” in areas adjacent to or within specific natural heritage features, such as certain wetlands or significant wildlife habitat. However, the 2014 PPS retains the very narrow definition of “development” used in the 2005 PPS, which excludes such potentially intrusive projects as infrastructure (e.g., roads, oil and gas pipelines, and electricity generation facilities), drainage projects and certain mining activities. Although there are circumstances in which the PPS imposes an absolute prohibition on development and site alteration, it sometimes imposes only a conditional prohibition that allows development and site alteration to occur if there will be “no negative impacts” on the natural features or their ecological functions.

The degree of real protection for natural heritage generally depends on whether the feature in question is deemed by the Ministry of Natural Resources or a local planning authority to be “significant,” a term that is defined in the PPS for each type of natural heritage feature or area. This definition also notes that “while some significant resources may already be identified and inventoried by official sources, the significance of others can only be determined after evaluation.”

The 2014 PPS now reinforces this direction with a policy that clarifies that evaluation “may be required” for some natural heritage features and resources in order to determine their significance.

Different levels of protection also apply to natural heritage features depending on where they are located in Ontario (i.e., based on ecoregion boundaries); for example, provincially significant wetlands have greater protections in southern Ontario than in the north. The 2005 PPS prohibited development and site alteration in significant wetlands in central and southern Ontario, and in all significant coastal wetlands. The 2014 PPS now provides enhanced protection for all Great Lakes coastal wetlands in central and southern Ontario that are not already protected as significant wetlands. Development and site alteration are now prohibited in these features unless the “no negative impacts” standard is met (Figure 1). Development and site alteration is permitted in significant wetlands in ecoregions in northern Ontario, provided that there will be no negative impacts on the wetlands or their ecological functions. (For more information refer to pages 35-43 of our 2006/2007 Annual Report.)



Note: For more detailed mapping please see Section 5.0 of the Provincial Policy Statement, 2014.

Figure 1. Natural heritage protection under the PPS (Source: Adapted from MMAH, *An Introduction to the Provincial Policy Statement, 2014: Rural Ontario*).

In addition, MMAH expanded the policy area that applies to the conditional prohibition (i.e., subject to the “no negative impacts” test) on development and site alteration in significant woodlands and significant valleylands to encompass ecoregion areas in eastern Ontario that were previously excluded.

The 2005 PPS prohibited development and site alteration in the significant habitat of endangered species and threatened species, without exception. These activities were also prohibited in lands adjacent to the significant habitat of these species unless there would be no negative impacts on the habitat or its ecological function. This policy has been replaced with a prohibition on development and site alteration in the habitat of endangered species and threatened species, unless it is in accordance with provincial and federal species at risk legislation (i.e., obtaining a permit under the *Endangered Species Act, 2007* and/or the federal *Species at Risk Act*). (For more information refer to the ECO's Special Report: *Laying Siege to the Last Line of Defence: A Review of Ontario's Weakened Protections for Species at Risk*.)

The 2005 PPS defined "natural heritage system" as a system of natural heritage features and areas linked by natural corridors necessary to maintain biological and geological diversity, natural functions and viable populations. Also included were restored lands or lands with the potential to be restored to a natural state. The 2014 PPS definition of natural heritage system has been expanded to include: linkages and connectivity; natural processes (including hydrological and ecological function); and protected areas. This new definition also notes that natural heritage systems can be identified using either the Ontario government's recommended approach, or municipal approaches that achieve or exceed the same objective. To this end, the 2014 PPS contains a new requirement to identify natural heritage systems in southern Ontario, while recognizing that such systems will have a diversity of forms and sizes depending on where they occur (e.g., urban vs. rural settings). (For more information refer to Part 4.1 of our 2010/2011 Annual Report.) There are also several new general statements regarding the importance of conserving biodiversity.

Climate Change:

Climate change is a major challenge facing all municipalities in the province, which will have to deal with more frequent extreme weather events (e.g., drought, flooding), additional stresses on infrastructure, and the increased vulnerability of natural heritage systems (for more information refer to Part 3.1 of our 2009/2010 Annual Report). By proactively addressing such impacts in land use planning, municipalities may be able to reduce their vulnerability and associated risks. The way development is planned also has a substantial impact on Ontario's greenhouse gas emissions, the primary cause of climate change.

The 2014 PPS retains its previous direction requiring land use patterns and densities within settlement areas that "minimize negative impacts to air quality and climate change, and promote energy efficiency." In addition, a series of new policies recognize the importance of resilience to climate change and require planning authorities to "consider" and "minimize" the impacts of climate change. These requirements have been incorporated into policies pertaining to: development and land use patterns; supporting long-term economic prosperity; natural hazards; and the provision of infrastructure and public service facilities.

The pre-existing section of the PPS on energy and air quality has also been amended to include a greater emphasis on energy conservation, and on climate change mitigation and adaptation.

Protection of Water Quantity and Quality:

Land use has a significant influence on the quantity and quality of water resources. For example, water consumption and groundwater recharge are highly dependent on the types and intensity of land uses in an area, as well as land cover. Similarly, agricultural, industrial, residential and commercial land uses can contribute to water pollution through wastewater, industrial effluent and runoff, including stormwater.

There are a number of new additions to the PPS policies on water. The PPS retains its previous direction supporting watershed scale planning, but it now includes a new emphasis on watershed-based "integrated and long-term planning, which can be a foundation for considering the cumulative impacts of development."

Further, the 2005 PPS directed planning authorities to identify specific hydrological features and functions. The 2014 PPS now requires the identification of “water resource systems,” a more comprehensive term that includes all the individual components listed under the 2005 PPS. In addition, shoreline areas are also now specifically recognized as surface water features that form part of a water resource system.

The PPS now directs planning authorities to consider “environmental lake capacity,” where applicable in their decision making, in order to help protect water quality from the impacts of phosphorus inputs (for more information refer to Part 4.4 of our 2010/2011 Annual Report). There are also multiple new references to the importance of the Great Lakes and recognition of the need for greater coordination in their protection.

Finally, the 2014 PPS incorporates new stormwater considerations into the policy for sewage and water, which previously simply stated that stormwater management practices should minimize volumes and contaminant loads and maintain or increase the extent of vegetative and pervious surfaces (for more information on stormwater management refer to Part 4.5 of our 2010/2011 Annual Report). Now, planning for stormwater management must:

- minimize, or, where possible, prevent increases in contaminant loads;
- minimize changes in water balance and erosion;
- not increase risks to human health and safety and property damage;
- maximize the extent and function of vegetative and pervious surfaces; and,
- promote stormwater management best practices, including stormwater attenuation and re-use, and low-impact development.

The PPS now also encourages the promotion of green infrastructure, which it defines as “natural and human-made elements that provide ecological and hydrological functions and processes.” Previously, such structures were not included in the PPS definition of infrastructure. (For information on green infrastructure refer to Part 3.6 of our 2010/2011 Annual Report.)

Mineral Aggregate Resources:

The PPS provides direction for protecting aggregate resources (e.g., gravel, sand, stone, etc.) for long-term use and for the rehabilitation of extraction areas. Aggregate is in high demand in Ontario for construction projects, including infrastructure such as roads. However, aggregate extraction may conflict with other land uses because aggregate deposits often underlie prime agricultural land, wetlands and significant woodlands. Further, the potential impacts of aggregate extraction on water resources have made this one of the more controversial issues in Ontario’s land use planning system. (For more information refer to pages 44-49 of our 2006/2007 Annual Report.)

The 2014 PPS had strengthened the protection of mineral aggregate resources for long-term use, including requirements to identify deposits of mineral aggregate resources if provincial information is available. In addition, the PPS now requires the conservation of aggregate resources, and, as part of this requirement, encourages aggregate recycling facilities within operations. Whereas the 2005 PPS required aggregate extraction to be undertaken in a manner that minimizes social and environmental impacts, it now mandates minimizing economic impacts as well.

The 2014 PPS modifies the previous requirements for the rehabilitation of aggregate extraction sites, including:

- Mitigating negative impacts to the extent possible.
- Encouraging comprehensive rehabilitation planning where there is a concentration of aggregate operations.

- More stringent rehabilitation standards in specialty crop areas, including the restoration of substantially the same areas, soil capability, and microclimate (if applicable).
- More limited circumstances under which proponents are exempt from undertaking complete rehabilitation to an agricultural condition within specialty crop areas. For exemption from complete rehabilitation there must be a substantial quantity of high quality mineral aggregate resources below the water table, and the depth of the extraction must make restoration unfeasible.

The 2014 PPS retains a previous policy stating that aggregates should be made available as close to markets as possible, and that “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.” Similarly, the 2014 PPS maintains a policy that allows for wayside pits and quarries, portable asphalt plants and concrete plants, without development permits, rezoning, or plan amendments, except in areas of existing development or “particular environmental sensitivity” (a term that is not defined under the PPS) that are incompatible with extraction and associated activities.

Implications of the Decision

Expanded but Inadequate Natural Heritage Protection

The 2014 PPS contains a number of enhancements to the protection of natural heritage, including: new references to conserving biodiversity; increased protection for coastal wetlands, and the expansion of the policy area for the purposes of protecting significant woodlands and valleylands in southern Ontario. The new mandatory identification of natural heritage systems in southern Ontario also represents advancement; according to MMAH, as of 2013, only 12.5 per cent of municipal official plans had natural heritage system identification supported by a comprehensive study. However, these are almost negligible gains when measured against the enormous omissions and inconsistencies in natural heritage protection that remain throughout the PPS. Overall, the PPS is wholly inadequate to safeguard natural heritage against the irreparable damage and loss of biodiversity that inevitably accompany development.

There is a continuing lack of mandatory protection for natural heritage. This is exemplified by Policy 2.1.2 of the PPS, which only *encourages* the maintenance, restoration or improvement of the diversity and connectivity of natural features, as well as the ecological function and biodiversity of natural heritage systems. The discretionary wording of this policy effectively undermines the policy directly preceding it which states that “natural heritage features and areas shall be protected for the long term.”

Moreover, the PPS protections for natural heritage are further weakened through exemptions. Specifically, the exclusion of a wide range of activities from the definitions of “site alteration” and “development,” including infrastructure projects (e.g., roads, oil and gas pipelines and electricity generation facilities), continues to leave many of the province’s most significant and vulnerable natural heritage features open to serious adverse impacts from a wide range of land uses.

The features and regions that receive protection from site alteration are limited as well. For example, the 2014 PPS continues to only protect inland wetlands that have been evaluated by the province and deemed “significant.” The PPS still does not provide any protective measures specific to the province’s many unevaluated wetlands or for those designated as locally (but not provincially) significant.

A central weakness of Ontario’s wetland protection system is that wetlands remain completely vulnerable if they are unevaluated and they are only examined when confronted with imminent

threat of development. In 2006, the ECO urged the province to speed up wetland evaluations, as well as improve its regulatory framework for protecting wetlands (see pages 35-43 of our 2006/2007 Annual Report). However, the Ontario government still does not have a systematic process for determining which wetlands should be evaluated, nor does the ministry devote sufficient resources for evaluating wetlands. Consequently, the responsibility for wetland evaluations often falls to third-parties who may have a conflicting interest in developing the wetland.

Furthermore, the geographic disparity in wetland protection, with significant wetlands in northern Ontario receiving less protection, has also carried over into the 2014 PPS, despite growing development pressure in the north from activities such as forestry, mining, hydro-electric development and peat extraction.

Moreover, one of the key actions in *Biodiversity: It's In Our Nature* (the Ontario government's plan to conserve biodiversity) is to "further integrate biodiversity into land use and resource management planning," specifically including the PPS. However, the new vague statements referring to the importance of conserving biodiversity fundamentally fail to make any substantive improvement to the protection of biodiversity under the 2014 PPS.

Vague Guidance on Climate Change Adaptation

The 2014 PPS makes reference to climate change in a number of policies; however, these policies are generally vague and discretionary. Most of the policies simply require decision makers to "consider" the impacts of climate change, while one policy suggests that long-term economic prosperity "should" be supported by minimizing the negative impacts from climate change. The PPS does not offer any guidance as to what considering the impacts of climate change entails or how heavily those considerations should weigh in reaching a final decision. As a result, it is unclear how municipalities are expected to operationalize this guidance in their planning decisions.

Moreover, the 2014 PPS does not contain direction for municipalities to take any specific climate change adaptation actions – despite the fact that the Ontario government explicitly committed to integrating adaptation policies into the PPS in the province's climate adaptation strategy, *Climate Ready: Ontario's Adaptation Strategy and Action Plan 2011-2014*. For example, the absence of any requirement to address the effects of climate change in the PPS stormwater management policies is a particularly glaring omission given the predicted effects of climate change in Ontario, which include more frequent extreme weather events.

In practical terms, municipalities that are voluntarily addressing issues involving climate change will continue to do so, while the remainder are unlikely to be spurred to take substantive steps by the PPS. The failure to require municipalities to prepare for the impacts of climate change not only leaves communities vulnerable, but may also contribute to a risk of municipal liability for damage associated with extreme weather.

Stronger Direction to Consider Water Issues

Generally, the new and amended policies respecting water quantity and quality in the PPS should encourage planning authorities to give greater consideration to water-related issues in making planning decisions. In particular, the addition of "integrated and long-term planning" to the policy respecting watershed-scale planning is a positive development, as is the new language regarding consideration of cumulative effects and environmental lake capacity. This direction may also be supported by the requirement to identify water resource systems. However, there is no obligation for planning authorities to prepare watershed or subwatershed scale plans or any requirement to consider and address watershed impacts in making planning decisions.

Similarly, the new policies recognizing the Great Lakes are an important addition to the PPS. However, the suggestion that “there may be circumstances where planning authorities should consider agreements” respecting the Great Lakes-St. Lawrence River Basin does not provide clear direction to municipalities about the role that such agreements should play in the planning process.

The 2014 PPS policies regarding planning for stormwater management provide significantly stronger and more specific direction than the 2005 PPS. Although the new policy encouraging planning authorities to promote green infrastructure is discretionary rather than mandatory, this policy could further empower municipalities in achieving the stormwater management objectives. However, the direction to “promote” stormwater management best practices, as opposed to a requirement to employ such practices, reduces the potential effectiveness of this policy.

Mineral Aggregates Retain Priority Over Other Land Uses and Interests

The 2014 PPS offers slightly more stringent rehabilitation policies for specialty crop areas, and a stronger emphasis on comprehensive rehabilitation planning and mitigating the negative impacts of aggregate extraction “to the extent possible.” However, prime agricultural areas, including specialty crop areas, remain open to aggregate extraction operations throughout the province as a so-called “interim use.”

The aggregate policies remain largely unchanged in all other respects, including the continued inclusion of policies that require aggregates to be sourced close to market and prohibit requiring demonstration of need. Aggregate operations will continue to be allowed in virtually all parts of the province, subject to certain conditions. Consequently, aggregate extraction remains a land use that effectively trumps all other land use priorities in the province.

Public Participation & EBR Process

MMAH conducted a two-stage public consultation process during its review of the 2005 PPS. First, on May 12, 2010, the ministry posted a policy proposal notice on the Environmental Registry (#010-9766) seeking general feedback on the effectiveness of the 2005 PPS policies and the need for the revision, removal or addition of policies. The ministry posted the notice for a 170-day consultation period, receiving a total of 82 comments.

Subsequently, on September 24, 2012, MMAH posted the draft 2014 PPS on the Environmental Registry for a 60-day consultation period. The ministry received 166 comments from a variety of stakeholders, including members of the public, Aboriginal communities, environmental non-profit organizations, municipalities, consultants, corporations and industry associations. Most comments were at least partially supportive of the draft policies and recognized a number of improvements in the new PPS. However, most commenters suggested changes to specific policies or highlighted shortcomings. The ministry notes that it received over 550 submissions through its broader PPS consultation process.

Natural Heritage Policies

Many commenters argued that natural heritage features and/or systems should be subject to mandatory protection instead of the discretionary protection carried forward from the 2005 PPS. While a number of commenters applauded the new requirement to identify natural heritage systems, others requested clarification regarding whose obligation it is to identify those systems, as well as further detail on the consequences of identification.

Commenters were generally supportive of the new protection for certain coastal wetlands, but many argued that protection for inland wetlands should be increased as well. Several commenters

identified peat extraction as a particularly significant risk to Ontario's wetlands and asserted that this activity should be explicitly included in the PPS definitions of development and site alteration.

In addition, several commenters were opposed to the removal of the 2005 PPS policies limiting development and site alteration in the habitat of endangered and threatened species. Others advocated for expanded protection for species listed as "special concern" under the *Endangered Species Act, 2007*, not only those that are "endangered" or "threatened." One municipality sought clarification on whether the new policy deferring these issues to the *Endangered Species Act, 2007* and the federal *Species at Risk Act* would require proponents to obtain permits under these laws before *Planning Act* approvals could be granted.

Many commenters asserted that the PPS requires greater clarity regarding the relative priority of conflicting policy goals. A number of these commenters argued for the need to resolve conflicts in favour of protecting natural heritage and human health, while some expressed concern that the PPS policies respecting natural heritage could limit development and other activities. One group of commenters was very critical of the low priority of the environment in the PPS, stating that "the PPS does not accomplish the overarching goal of balancing Ontario's economic, social and environmental interests," and noting that "throughout the PPS, economic development is consistently prioritized over environmental interests. This prioritization occurs due to phrasing which places precedence on economic interests, combined with weak or ambiguous language used for environmental protection."

Climate Change Policies

Many commenters supported the new policies addressing climate change. However, a number of commenters asserted that these policies are vague and questioned their potential effectiveness, arguing that additional support materials are needed. For example, one municipality noted that it is not clear whether the policies are intended to encourage a focus on climate change adaptation or mitigation.

Water Policies

A number of commenters commended MMAH for including new references to shorelines, integrated watershed management, and cumulative effects. However, some suggested that these policies did not go far enough to protect riparian zones. Other commenters suggested that the PPS definition of surface water features is too broad, and that certain man-made surface water features and agricultural infrastructure should be excluded.

Commenters generally supported the inclusion of the new policies on stormwater management. However, several highlighted implementation challenges for stormwater management, such as life-cycle costs and siting of stormwater infrastructure. Other commenters also suggested that using stronger language in stormwater policies would ensure wider implementation of best management practices.

In addition, several commenters suggested that revisions were needed to make the PPS source water protection policies fully consistent with the *Clean Water Act, 2006* (e.g., by requiring conformity with source water protection plans or by explicitly referencing the Act).

Mineral Aggregate Policies

A large number of commenters expressed their opposition to new proposed policies relating to aggregate extraction, as well as to policies carried forward from the 2005 PPS, including the prohibition on requiring a demonstration of need for aggregate. Many commenters took issue with the primacy of aggregate extraction over other land uses (e.g., farmland, natural heritage and

municipal drinking water), and argued that farmland and water resources should have priority over aggregates. Moreover, commenters asserted that aggregate extraction should be prohibited on prime agricultural land and in significant natural heritage features and their adjacent lands.

One commenter argued that given the heightened rehabilitation requirements for aggregate pits on agricultural land, guidance should also be provided for the rehabilitation of pits and quarries in natural heritage systems, areas of built heritage resources and cultural heritage landscapes.

Numerous commenters were alarmed over a proposed draft policy that would have allowed a planning authority to consider the eventual rehabilitation of aggregate sites as part of its determination of whether the “no negative impacts” test has been met (i.e., the test that must be met in order to allow aggregate extraction in significant natural heritage features and their adjacent lands). This draft policy was ultimately removed from the final 2014 PPS, although it effectively mirrors the direction already provided in the *Natural Heritage Reference Manual*, which provides technical guidance for implementing the natural heritage policies of the PPS.

One industry association commented that the aggregate policies “continue to recognize the vital provincial interest in aggregate resources,” and suggested that “upholding the close to market and demonstration of need policies illustrate that there is recognition that these long standing policies are effective and important.” However, this comment also emphasized that there are “remaining concerns with the balance between provincial resources, the recognition of the environmental benefits of close to market aggregates, and the stronger policies needed to facilitate aggregate recycling and reuse.” This commenter also suggested that the draft policy directing conservation of aggregates be amended to also encourage the use of aggregate recycling facilities within aggregate operations. This suggestion was accepted by the ministry, which incorporated this direction into the final 2014 PPS. A number of members of the public have raised concerns about the potential environmental implications of this new policy.

PPS Review Cycle

Comments were mixed regarding whether the five-year PPS review cycle should be extended. Some commenters noted that since reviews of the PPS take several years to complete, a five-year period should be maintained. However, a number of commenters, mostly municipalities, supported a ten-year review period that synchronizes with other provincial plan reviews; many noted that it is difficult for municipalities to keep official plans up to date with frequent PPS revisions. The ministry stated that based on this feedback, it will consider whether to extend the review cycle to ten years, and noted that any change would require an amendment to the *Planning Act*.

Statement of Environmental Values

MMAH considered its Statement of Environmental Values (SEV) in reviewing and amending the PPS. In its SEV consideration documentation, the ministry stated that the PPS “embodies good planning principles,” and asserted that the amendments “signal to land use planning decision-makers that land use decisions have broad implications that affect the health of the environment and people, and are tied to social and economic factors that play a role in the vitality of Ontario’s communities.”

The ministry also stated that the 2014 PPS will benefit the environment, because the amendments:

- support the efficient use of land and resources;
- include stronger, clearer direction to support building strong, healthy communities;
- encourage a strong economy; and
- protect the environment and resources by recognizing the importance of biodiversity, requiring the identification of natural heritage systems, promoting the conservation of

cultural heritage, and strengthening requirements for the rehabilitation of specialty crop areas that are subject to aggregate extraction.

Other Information

On February 24, 2014, MMAH updated Environmental Registry #010-5700 to announce that the *Provincial Policy Statement, 2005: Performance Monitoring Framework and Indicator Results* report had been completed. The report provides an overview of the performance monitoring framework for the PPS, as well as a summary of key performance indicator findings.

ECO Comment

Ontario is facing many complex and urgent issues that are inextricably tied to land use planning, including biodiversity loss, climate change, water quality and food security. The planning decisions made today will help dictate how and where Ontario develops in the generations ahead. At the heart of our planning system is the *Provincial Policy Statement*, reflecting the priorities and interests laid out by the government.

MMAH's practice of postponing its review of the PPS until the eleventh hour is inadequate. The ministry's record of merely commencing – rather than completing – reviews on a five-year cycle is not sufficient to ensure that the PPS keeps pace with the rapidly evolving planning issues that need to be addressed. This is in stark contrast to the ministry's proactive approach to continually considering and addressing emerging issues under the province's *Building Code*, which allows the Code to stay current in a dynamic situation. The ECO strongly urges MMAH to engage in ongoing assessment of the PPS, including continual public engagement, in order to allow formal reviews to be completed in a reasonable amount of time.

The PPS is beginning to expressly recognize a number of increasingly important issues. The inclusion of new supportive policies on integrated watershed management, cumulative effects, climate change, green infrastructure, resilience and stormwater are welcome additions. Many of these new policies may empower forward-thinking municipalities to give greater consideration to these matters in their planning decisions. However, while these new policies are a step in the right direction, the majority are vague and leave broad discretion to municipalities to decide whether to actually take any sort of concrete action. Without strong, mandatory direction to municipalities, there is little likelihood of these problems being addressed in a meaningful and effective manner across Ontario. It is imperative that collective and consistent action is taken to tackle many of these challenges.

The 2014 PPS does little to resolve some of the heated conflicts in land use planning. Many of the policies carried forward from the 2005 PPS to the new edition are problematic, particularly the policies respecting aggregates and the protection (or lack thereof) of natural heritage. Moreover, there are simply too many instances in which environmental interests are framed as goals which should be "promoted" or "considered," or where action is only required where "feasible" or "possible." Conversely, the PPS uses mandatory directives and prohibitions for various other provincial interests, such as the protection of aggregate resources, infrastructure, and transportation corridors, as well as the requirement that growth and development areas be identified.

This prioritization of development over the environment is not confined to the 2014 PPS; it is a broader reflection of government policy in general. The consequences of weak environmental protections are potentially enormous: continued loss of biodiversity, impaired water quality, and vulnerability to the impacts of climate change, to name but a few. Weak provincial direction will also perpetuate land use conflicts within many local communities.

The protections provided by the PPS are generally only as strong as the government priorities and the regulatory frameworks they reflect. In the absence of the political will to enact stronger environmental protections, and the fortitude to implement these protections at the potential expense of some development, relying on Ontario's current land use planning system to protect the environment is ultimately a losing game.

1.5 Ministry of Natural Resources

Review of Posted Decision:

1.5.1 Algonquin Provincial Park Management Plan Amendment

Decision Information

Registry Number: 010-8824
Proposal Posted: July 25, 2012
Decision Posted: July 19, 2013

Comment Period: 51 days
Number of Comments: 1,347
Decision Implemented: June 14, 2013

Description

Overview

Algonquin Provincial Park is the only protected area in Ontario in which commercial timber harvesting is allowed. For nearly a decade, the Ministry of Natural Resources (MNR) has been in the process of determining how to "lighten the ecological footprint of logging" in Algonquin Park. In June 2013, the ministry finalized the *Algonquin Park Management Plan Amendment* (the "Plan Amendment"), which modifies the 1998 *Algonquin Provincial Park Management Plan* ("Management Plan"). The Plan Amendment alters zoning within the park, increasing the area in which logging is not allowed from 22.1 per cent to 34.7 per cent of the park.

Background

Algonquin Park was established in 1893 as a public park, forest reservation, fish and game preserve, and a "health resort and pleasure ground" for the people of Ontario. As the oldest provincial park in Ontario, the early administration of Algonquin Park differed greatly from today's accepted approaches to protected area management. For example, the legislation establishing the park allowed Cabinet to make regulations permitting many activities that would now be viewed as incompatible with the purpose of a protected area, including: the destruction of wolves, bears and other "noxious or injurious" wildlife; mining; and logging.

Much has changed since Algonquin Park's early days – today the park is more than twice its original size, spanning over 7,600 square kilometres. Algonquin Park has become an integral part of Ontario's natural heritage and cultural identity; it receives more than 800,000 visitors a year. The park's abundant biological diversity, which includes at least 16 species at risk, has become increasingly important given the mounting threats to biodiversity in Ontario.

The science, planning, and management of protected areas have also evolved considerably in the last 120 years, with increasing recognition of the importance of conserving biodiversity and maintaining ecological integrity. Between 2004 and 2006, MNR undertook a review of the outdated law that governed the province's protected areas, with the aim to modernize how these areas are managed. This process ultimately resulted in the *Provincial Parks and Conservation Reserves Act, 2006*, which now governs the management of all provincial protected areas, including Algonquin Park.

The *Provincial Parks and Conservation Reserves Act, 2006* enshrines the principle of ecological integrity as the first priority in the planning and management of Ontario's protected areas. Protected areas have integrity when their biological components, abiotic components, and processes can function unimpaired. According to MNR, the heart of ecological integrity is the "naturalness" of a given protected area. The new law generally prohibits industrial activities in protected areas, such as commercial timber harvesting, electricity generation, mining, and aggregate extraction. However, commercial timber harvesting and aggregate extraction for the purpose of constructing forest access roads continue to be permitted in Algonquin Park under exemptions.

The Algonquin Provincial Park Management Plan:

The park's Management Plan provides the long-term planning direction for Algonquin Park. Among other things, the plan sets out a goal and objectives for the park, establishes zoning designations, and articulates stewardship, operations and development policies.

The plan establishes which land uses are permitted within Algonquin Park through the application of seven different types of zoning:

- **Nature reserve zones** protect representative and significant earth and life science features.
- **Wilderness zones** preserve the natural state of the area and provide visitors with a "wilderness experience."
- **Natural environment zones** include "aesthetic landscapes in which there is minimum development required to support low-intensity recreational activities" (e.g., hiking, backpacking, canoeing).
- **Historical zones** apply to significant historical resources that require distinct management (e.g., archaeological sites).
- **Development zones** contain operational, research, recreational and interpretive facilities.
- **Access zones** are "staging areas" that support the use of other zones, and include facilities such as access roads, parking, washrooms, boat launches, etc.
- **Recreation/utilization zones** cover the area of the park where both low-intensity recreational activities (e.g., canoeing, camping, hiking) and resource development activities are permitted. Development activities include forest management/logging, hunting and trapping, and aggregate extraction for the construction and maintenance of logging roads. This zone type is unique to Algonquin Park.

Collectively, all areas outside of the recreation/utilization zones are referred to as the "protection zones."

The *Provincial Parks and Conservation Reserves Act, 2006* requires the ministry to review each park's management direction every 20 years to determine whether it should be amended or replaced. As such, MNR must review Algonquin Park's management plan in 2018.

Commercial Timber Harvesting in Algonquin Park:

The area that is now Algonquin Park has been commercially logged since about 1830. In the last several decades, the actual amount of wood harvested in the park has been much less than planned. Roughly 135,000 hectares are currently designated as the available harvest area for the 2010-2020 period.

Commercial forestry in Algonquin Park is managed by the Algonquin Forestry Authority (AFA), a Crown agency established in 1974. The AFA conducts forestry operations in the park under a licence issued by MNR pursuant to the *Crown Forest Sustainability Act, 1994*, and in accordance with *The Algonquin Park Forest Management Plan (2010-2020)* ("Forest Management Plan"). Forestry operations must conform with the park's Management Plan.

Where logging within the park may affect a sensitive natural resource feature, land use, or other "value," the Forest Management Plan must identify the area around the feature as an "area of concern" (AOC). For each AOC, the Forest Management Plan includes an "operational prescription" to prevent, minimize or mitigate adverse effects on the value, which may include a complete prohibition on logging.

Within the recreation/utilization zone in Algonquin Park the areas subject to an AOC operational prescription are currently considered "unavailable" for forestry activities by MNR. Furthermore, MNR states that roughly 56,000 hectares within the recreation/utilization zone are simply not suitable for logging (e.g., water, swamps or rocks). Accordingly, while logging is technically allowed under the park management plan in all 498,785 hectares of the recreation/utilization zone, MNR states that about a fifth of this zone (107,648 hectares) is currently "unavailable for forest management."

Lightening the Footprint of Logging in Algonquin Park:

The passage of the *Provincial Parks and Conservation Reserves Act, 2006* sparked renewed interest in examining the effects of logging in Algonquin Park. As a result, the then Minister of Natural Resources asked the Ontario Parks Board of Directors – a public advisory committee appointed by Cabinet – for advice on how to "lighten the ecological footprint of logging in Algonquin Provincial Park." In December 2006, the Board responded with *Recommendations of the Ontario Parks Board, Lightening the Ecological Footprint of Logging in Algonquin Provincial Park*, which recommended expanding the protection zones to 54 per cent of the park, thus reducing the area where logging is potentially allowed to 46 per cent of the park (see Environmental Registry #010-0445).

After receiving comments from the public on these recommendations through the Environmental Registry, and from the AFA, the Minister asked the Ontario Parks Board and the AFA Board to jointly develop recommendations. The final joint proposal, released in the fall of 2009, noted that the report was "not about reducing logging in the Park; rather, it [was] intended to be about lightening the ecological footprint of logging in the Park." The report also stated that "any impacts on wood supply should be manageable." The joint proposal included the following recommendations:

- all area in Algonquin Park that is not available for logging should contribute to the area considered protected from, or not available for, logging.
- protection zones should be expanded by 98,202 hectares to enhance the protection of under-represented ecosystems and important park values.
- operational and planning strategies (i.e., for roads, forestry practices, brook trout lakes and old growth forest) should contribute to a lighter footprint in the areas where logging occurs.

The joint proposal was accepted by the Minister of Natural Resources in November 2009, and was subsequently posted on the Environmental Registry (#010-8247). MNR then developed the proposed amendment to the park's Management Plan in response to the recommendations of the joint proposal.

Algonquin Provincial Park Management Plan Amendment

In line with the recommendations of the joint proposal, the Plan Amendment increases the area under protection zoning, and amends both the stewardship and operational policies of the Management Plan.

Increased Protection Zoning:

The Plan Amendment adds a total of 96,089 hectares to the nature reserve, wilderness, natural environment and historical zones (Figure 1). As a result of these additions, the total area where logging is not permitted has increased from 22.1 per cent to 34.7 per cent of the total park area (Table 1).

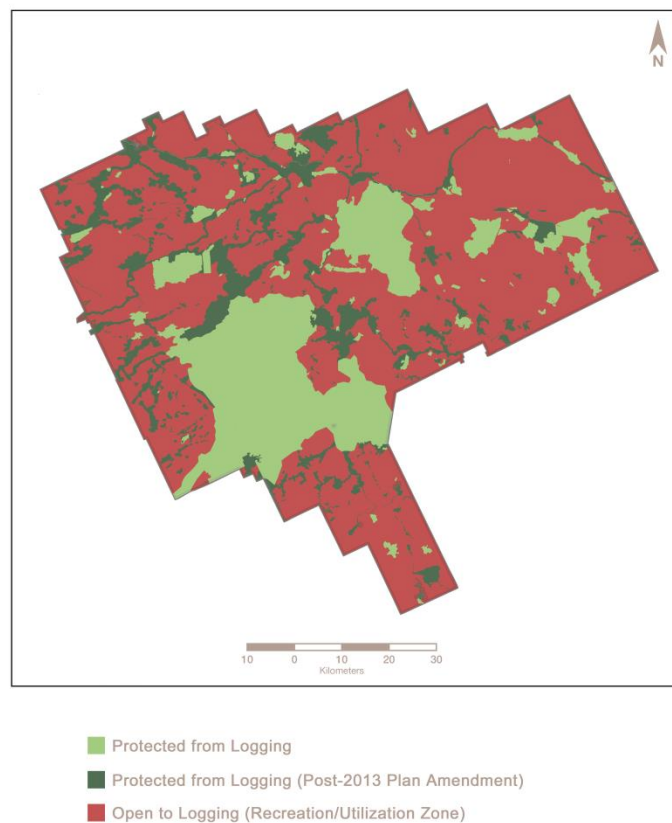


Figure 1. New protection zoning in Algonquin Provincial Park (Source: adapted from *Algonquin Park Management Plan Amendment* (2013), Ministry of Natural Resources).

Table 1. Zoning Changes Implemented by the Plan Amendment (Source: *Algonquin Park Management Plan Amendment* (2013), Ministry of Natural Resources).

Park Zoning Type	1998		2013	
	Area (ha)	Area (%)	Area (ha)*	Area (%)
Nature Reserve	39,250	5.1	51,462	6.8
Wilderness	90,475	11.9	104,792	13.7
Natural Environment	13,765	1.8	83,470	10.9
Historical	1,680	0.2	1,624	0.2
Development	22,545	3.0	22,502	3.0
Access	735	0.1	824	0.1
Recreation/Utilization (area open to logging)	594,860	77.9	498,785	65.3
Total	763,310	100	763,459	100

*Since the publication of the park's Management Plan, improved geo-spatial information and technology have resulted in more accurate area figures for park zones.

Six new nature reserve zones were added to protect representative examples of landform-vegetation associations. The Plan Amendment also expanded 24 existing nature reserve zones to improve connectivity between zones that are not logged, to better reflect ecologically recognizable features, and to capture hydrological features and functions.

The Plan Amendment also increased the area of two wilderness zones: the Harness Lake wilderness zone was expanded by 1,706 hectares, and the Burnt Island wilderness zone expanded by 12,586 hectares.

Additions to Algonquin Park's natural environment zones represent the most significant change made through the Plan Amendment, with a total of 69,584 hectares contributing to new and expanded zones. The Plan Amendment notes that the new zones were based on the following criteria:

- 200 metre protection along high-use canoe routes (though in some areas, boundaries are between 200 and 120 metres to allow "practical road access");
- 120 metre protection along high-use canoe routes in areas where the AFA wanted to log;
- 120 metre protection around Lake Opeongo and some medium to low-use canoe routes;
- 30 metre protection along some low-use canoe routes where the AFA wanted to log; and
- areas of inaccessible or inoperable forest, areas that increase connectivity between core protection zones, and areas that protect natural heritage values.

Hunting and trapping will be allowed to continue in new natural environment zones that fall within Bruton, Clyde and Eyre Townships. Existing temporary hunt camps will also be permitted in these zones; however, the Plan Amendment notes that the ministry will consider relocating these camps in the future. The Plan Amendment also specifies that the construction of forest access roads may be permitted in the newly established natural environment zones, subject to approval.

The recreation/utilization zone, where logging is permitted, has been reduced from 594,860 hectares to 498,785 hectares. Within this zone, the area currently available and suitable for logging has changed from 73 per cent to 78 per cent of this zone, ultimately representing a reduction from 57 to 51.2 per cent of the total park area (Figure 2).

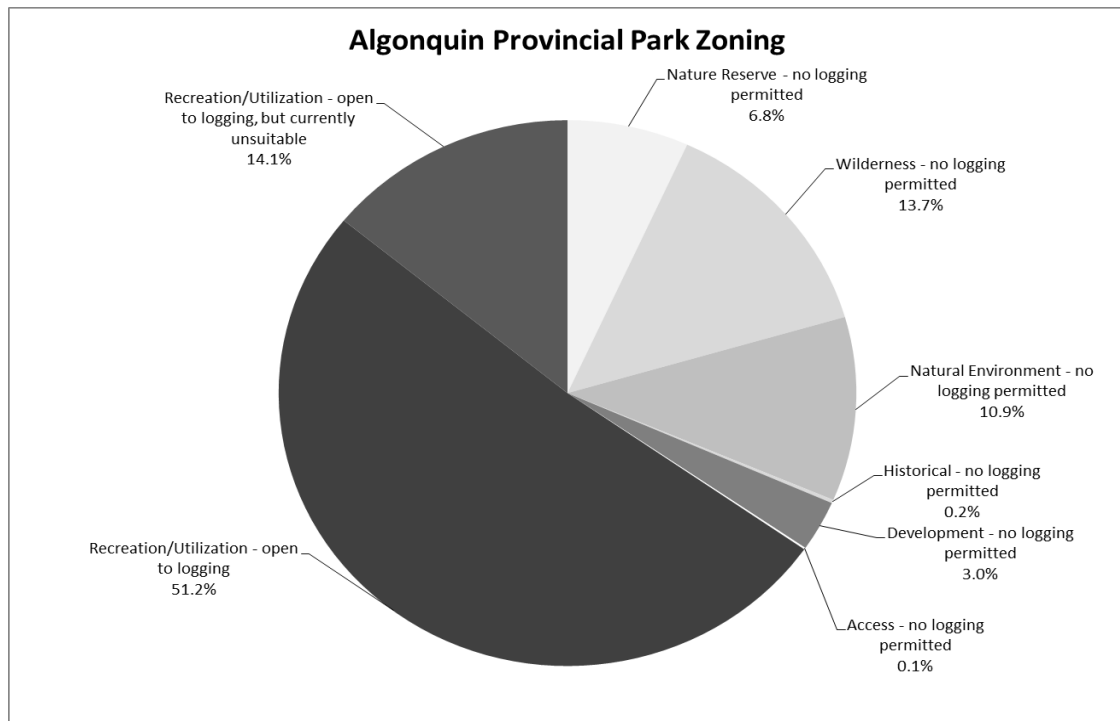


Figure 2. Algonquin Provincial Park zoning.

Roads:

Algonquin Park contains more than 2,000 kilometres of active logging roads, in addition to several thousand more kilometres of abandoned, but not rehabilitated logging roads. New roads are constructed in the park each year, and hundreds of kilometres of road are actively maintained. Road construction and use can result in a number of serious impacts in the park, including: habitat fragmentation; pollution; and wildlife mortality, including species at risk. The presence of roads also provides opportunities for public access into previously inaccessible areas of the park. In turn, this increases hunting and fishing pressure and facilitates the introduction of invasive species, which may be brought in by people and their pets, and carried in their cars, boats and other equipment. In Algonquin Park, the illegal use of baitfish in particular poses a serious threat to the park's native aquatic species; this risk is exacerbated by the presence of logging roads.

The Plan Amendment sets out several new policies for the construction and operation of roads and associated infrastructure. For example, the Plan Amendment requires forest access roads to be built to the minimum necessary standards. It also commits to decommissioning (i.e., abandoning) roads that will not be used for extended periods and to investigating opportunities to rehabilitate abandoned roads.

The Plan Amendment explicitly states that new forest access roads, skid trails or landings are not permitted within nature reserve, wilderness or historical zones; however, it also notes that if practical road access for forestry operations has been restricted through this amendment, then a planning process may be initiated to address the issue. Finally, the Plan Amendment adds a new policy that provides direction to minimize the impacts of water crossings on stream habitats through the continued use of portable bridges. This policy aligns the park Management Plan with existing direction within the Algonquin Park Forest Management Plan.

Aggregates:

Logging roads are constructed using aggregate extracted within the park. The Plan Amendment makes several additions to the existing stewardship policies pertaining to aggregate extraction. For example, the Plan Amendment clarifies that aggregate extraction will not be permitted in new protection zones. Elsewhere, the AFA must demonstrate the need for aggregate and minimize use to obtain permission from MNR for aggregate extraction. Further, aggregate pits must be managed to minimize environmental impacts and rehabilitated, consistent with the requirements of the *Provincial Parks and Conservation Reserves Act, 2006*.

Brook Trout:

Algonquin Park is home to the largest complex of natural brook trout lakes in the world, a species that has declined significantly over the past century. The Plan Amendment includes several new policies to enhance protection for the park's self-sustaining brook trout lakes (for further information on the park's brook trout, refer to Chapter 2.7 in Part 2 of our 2011/2012 Annual Report). Under these new policies, MNR will conduct surveys to identify nursery creeks associated with self-sustaining brook trout lakes. In addition, an appropriate AOC will be applied to protect identified fish habitat. New aggregate pits and forest access roads will not be permitted in the AOC around self-sustaining brook trout lakes without approval. New roads in these areas will also require specific direction within the Forest Management Plan.

Implications of the Decision*More Land Protected, But Large Area Still Open to Logging*

Nearly 100,000 hectares of the park will now receive greater protection than they did before, by virtue of their inclusion in the nature reserve, wilderness, natural environment and historical zones. However, 65.3 per cent of the park remains under the recreation/utilization zone designation and, therefore, remains potentially open to commercial timber harvesting and its associated impacts.

Currently, 107,648 out of the 498,785 hectares in the recreation/utilization zone are considered "unavailable for forest management" according to MNR, either because the area is physically not suitable for logging (e.g., the area includes water, swamps and rocks) or the area is within an AOC identified in the Forest Management Plan. While the areas unsuitable for logging will presumably remain relatively constant, the AOCs that are protected from logging may change over time.

Neglecting Ecological Integrity

The *Provincial Parks and Conservation Reserves Act, 2006* requires ecological integrity to be the first priority in planning and managing Algonquin Park. Although the law exempts Algonquin Park from the prohibitions on logging and aggregate extraction, the legislation does not state or imply that such activities have equal or greater priority than the ecological integrity of the park.

While the Plan Amendment makes a number of positive contributions to the ecological integrity of the park (e.g., increasing ecological connectivity, protecting additional natural heritage values, etc.), the maintenance or restoration of ecological integrity does not appear to have been the priority in determining the final zoning amendments. Instead, the Plan Amendment is a compromise that improves ecological integrity only to the extent that resource extraction is relatively unaffected. For example, as outlined above, the Plan Amendment provides less protection along canoe routes in areas where the AFA wants to log.

The 2006 Ontario Parks Board proposal recommended expanding protection zones by 241,032 hectares to permanently protect 54 per cent of the park, which would have considerably improved the connectivity of protected zones. The final joint proposal notes that "as a result of further study,

consultation and compromise, a new proposal was developed that reduced the productive forest to be moved to protection, and exchanged other areas to reduce the risk of supply impacts on local mills." In its assessment, the AFA concluded that "there is only a 2% reduction in wood supply objective achievement and a 1% reduction overall compared to the original FMP." The final Plan Amendment is substantially different from the initial Ontario Parks Board proposal, with only 34.7 per cent of the park permanently off limits to logging, and ultimately, greater fragmentation than originally proposed.

The Plan Amendment also effectively reduces the degree of protection afforded by the natural environment zoning designation. For example, allowing forest access roads and hunting within the new natural environment zones waters down the overall protection provided by this zoning designation, which, prior to the Plan Amendment, only allowed for low intensity recreational activities.

Public Participation & EBR Process

MNR conducted a two-stage public consultation process for the Plan Amendment. The ministry first posted background information about the proposal on the Environmental Registry and solicited comments between January 20 and March 8, 2010. Then, on July 25, 2012, MNR posted a proposed draft of the Plan Amendment on the Environmental Registry with a comment period of 51 days. The ministry also noted that Algonquin Provincial Park staff met with the Algonquins of Ontario on four occasions to discuss the proposed Plan Amendment, and that representatives of the Algonquins of Ontario were included in the technical working group that developed the joint proposal.

In total, the ministry received 1,347 comments on the proposal from members of the public, municipalities and other stakeholders. A number of commenters expressed their support for the proposed Plan Amendment; however, the majority of commenters were split between those that argued the Plan Amendment would negatively impact forestry, hunting and the local economy, and those who thought that the Plan Amendment was not sufficiently protective of the park's ecological features.

Potential Impact of the Plan Amendment on Forestry, Hunting and the Local Economy

The ministry received a large number of comments that suggested the Plan Amendment could harm the forestry industry in the area, and consequently, the local economy. As a result, commenters urged the ministry to defer the Plan Amendment until the completion of an economic impact analysis. One association also questioned the need for the new protection zones and argued that any restrictions on forest operations would adversely affect habitat availability for certain species that depend on early succession ecosystems.

Many commenters expressed concern that the Plan Amendment would affect hunting activities within the park. Generally, these commenters were opposed to potential restrictions on hunting in newly protected zones and were concerned about maintaining access to hunting areas.

Inadequate Ecological Protection

A number of commenters suggested that the Plan Amendment did not go far enough in protecting the park's ecological features, and argued that the park should receive the maximum protection possible. Many commenters suggested that logging in the park should be greatly reduced or banned altogether. One commenter observed that "Algonquin Park has become something of a movie set – false forest fronts with a massive network of roads, bridges and logging activities going on behind."

These commenters also raised a number of concerns with respect to ecological protection, including: a lack of protection for old growth stands; inadequate protection for species at risk; inadequate consideration of the negative impacts of roads; and a failure to effectively address the effects of aggregate extraction. Many commenters argued that the areas that have been designated as “unavailable for forestry” should be permanently protected through protection zoning, rather than remaining in the recreation/utilization zone.

Several commenters also suggested that the Plan Amendment is not consistent with the prioritization of ecological integrity, as mandated by the *Provincial Parks and Conservation Reserves Act, 2006*. For example, one commenter stated that the Plan Amendment “is biased toward wood production and canoe routes, without sufficient thought being given to the overall wellbeing and sustainability of the ecosystem.”

Response to Public Comments

MNR states that comments submitted during the initial phase of consultation resulted in a number of revisions to the proposed Plan Amendment, including: ensuring that “practical road access” to harvest areas could be provided without significantly compromising park values; clarifying that the amendment is not intended to affect Aboriginal treaty rights and associated traditional uses; ensuring that new zoning would not affect existing recreational activities; and minor changes to protection zoning for areas with wilderness and recreation values. The ministry also noted that the second phase of consultation resulted in minor wording changes, as well as clarifications and corrections to the text and zoning map.

Statement of Environmental Values

MNR considered its Statement of Environmental Values (SEV) in making this decision. In its SEV consideration document, the ministry explained how each principle of its SEV was applied in making the Plan Amendment.

For example, the ministry stated that the new protection zoning in the Plan Amendment was based on a sound understanding of natural and ecological systems and was determined using an ecosystem approach. In addition, the ministry noted that the new zoning increases the area under permanent protection, putting a focus on minimizing negative effects from forestry on ecological values in the park, and recognizing the finite capacity of the park’s natural systems.

With respect to forest management in the park, the ministry stated that the goal of the Plan Amendment “was to balance increased protection, respecting [Algonquins of Ontario] interests, and adequate certainty of future wood supply for local mills,” thereby contributing to the principle of proper valuation of natural resources. The ministry also noted that the Plan Amendment includes a statement to help ensure that forest management in the park uses new and innovative equipment and navigational technologies. Further, MNR stated that the Plan Amendment contains policies to ensure rehabilitation of degraded environments, such as aggregate pits and operational roads.

MNR stated that the Plan Amendment implements recommendations on how to lighten the ecological footprint of logging in the park, in line with the principle of adaptive management. The ministry concluded that “MNR’s commitment to sustainable forest management, protecting a world class system of protected areas, and meaningful Aboriginal, stakeholder and public engagement were considered in the context of this proposal.”

ECO Comment

MNR should be commended for increasing the area under full protection from logging in Algonquin Park. However, the ECO is deeply troubled that Algonquin Provincial Park, Ontario's flagship park, continues to receive the lowest level of protection of all of the province's protected areas. It is also disappointing that the ministry's amendment to the park Management Plan appears to give little weight to the direction in the *Provincial Parks and Conservation Reserve Act, 2006* to prioritize ecological integrity in planning and managing the park. Indeed, the government has never allowed there to be public consultation with regard to *if* Algonquin Park should be logged, only where and how much.

Logging in Algonquin Park is conducted under similar standards and practices as any other forest operation in Ontario. While certain zones within the park receive the full protection afforded to all other provincial parks, the remainder of the park is essentially a forest management unit like any other piece of Crown land in the province. The result is that Algonquin Park is effectively made up of a collection of islands of protection surrounded by roads and timber harvesting. MNR itself notes that the two-thirds of the park that are open to logging do not qualify as a "park" under international standards for protected areas.

Algonquin Park was established more than 120 years ago at a time when ideas about protected areas were in their infancy, and the scientific concepts concerning biodiversity conservation and ecological integrity did not exist. The current science, practice and law of protected areas management bear little resemblance to early ideas about provincial parks. Similarly, the role of parks has changed a great deal, particularly given that protected areas are one of the most critical tools in the fight to maintain and restore biodiversity. Viewed in this context, many aspects of Algonquin Park's management appear to be antiquated holdovers from a bygone era.

Protected areas only cover nine per cent of Ontario and are the last refuge for wilderness; in the rest of the province, wildlife habitat and ecosystems are open to constant pressure from industry. It is imperative that our protected areas actually provide protection, otherwise they are simply lines on a map. Much of the debate around Algonquin Park's management to date has been focused on the issue of whether logging in the park is "sustainable." However, there is a fundamental distinction between logging sustainably and maintaining the ecological integrity of a protected area.

MNR should bring the management of the province's flagship park into alignment with the important role of provincial parks today and afford Algonquin Park the same level of protection as the rest of Ontario's protected areas. The ECO strongly urges MNR to end commercial logging in Algonquin Provincial Park. The Ontario government should live up to its commitment to the conservation of biodiversity by ensuring that *all* provincial parks and conservation reserves receive appropriate protection.

Review of Posted Decision:**1.5.2 Update of Ontario's Wetland Evaluation System Manuals****Decision Information**

Registry Number: 011-1687
Proposal Posted: January 25, 2012
Decision Posted: April 3, 2013

Comment Period: 47 days
Number of Comments: 47
Decision Implemented: March 20, 2013

Description*Overview*

The Ministry of Natural Resources (MNR) created the Ontario Wetland Evaluation System (OWES) in 1982 as a ranking system that provides a standardized approach to assessing the relative significance of wetlands. Wetland evaluations inform decisions about wetland protection during municipal and provincial land use planning processes. The highest ranked wetlands are designated as provincially significant wetlands (PSWs); the province has directed that protecting these types of wetlands is a provincial interest within our land use planning system. Ontario has more than a quarter of all wetlands in Canada, and approximately six per cent of the global total.

The OWES consists of two manuals, for northern and southern Ontario respectively. Within our land use planning system, MNR is responsible for developing the OWES manuals, providing training to wetland evaluators, and approving the final identification of PSW. Historically, the ministry also undertook a substantial role in evaluating wetlands, but in recent years this responsibility has largely been shifted to proponents.

In January 2012, the ministry began a "scoped review" of the OWES manuals, which had previously been revised in 2002. MNR released the amended manuals in March 2013.

*Background**Wetlands in Ontario:*

Wetlands are areas with wet soils that are found along lakes, rivers, and streams, and in other places where the water table is high. Wetlands serve a number of significant functions that provide valuable economic and health and safety benefits such as preventing floods, filtering water, reducing erosion and storing carbon.

Wetlands are hotspots of biodiversity. There are more than 33 million hectares of wetlands in Ontario, which provide important habitat for a large number of species, including many species at risk such as Blanding's turtle and the least bittern. The government recognizes the critical importance of conserving wetlands in the Ontario Government Plan to Conserve Biodiversity, which is intended to help Canada meet our international commitments under the Convention on Biological Diversity.

There are four general types of wetlands in Ontario: bogs, fens, swamps and marshes. Bogs and fens are peatlands with sparse tree cover, but bogs are characterized by the presence of Sphagnum moss; fens are usually distinguished by a higher diversity of plants, including sedges and grasses. Swamps are wooded wetlands where surface water is found in the form of pools and channels. Marshes are permanently or periodically wet areas that include open expanses of standing or

flowing water. Most coastal wetlands in Ontario are marshes that provide important wildlife habitat for a range of species including birds, turtles, amphibians and mammals.

Since European settlement, more than 70 per cent of the wetlands in southern Ontario have been lost due to land-clearing and drainage for development and agriculture. The loss of wetlands can lead to increased flooding, poor water quality, and wildlife population declines. Most of the wetlands that persist in southern Ontario are found on private lands, while most northern Ontario wetlands are located on Crown lands.

Although wetlands are still abundant in northern areas, they are under pressure from activities such as forestry, mining, hydro-electric development and peat extraction. Further, all wetlands are sensitive to the impacts of climate change. Drastic changes in temperature and precipitation are expected to occur, particularly in northern Ontario, which could cause wetlands to dry up and result in the disappearance or displacement of wetland species.

Provincial Wetland Protection:

Despite the continuing pressures on wetlands in the province, there is no specific legislation for wetland protection in Ontario, nor is there a province-wide strategic policy to coordinate protection efforts. Instead, wetlands are addressed through a patchwork of policies and rules, such as the *Provincial Policy Statement* (PPS), the *Conservation Authorities Act*, municipal official plans, and forest management plans.

The PPS, issued under the *Planning Act*, “provides policy direction on matters of provincial interest related to land use planning and development.” Policies of the PPS are meant to “focus growth within settlement areas and away from significant or sensitive resources and areas.” The PPS directs that natural features, which include wetlands identified by MNR as being provincially significant, will be given long-term protection so that biodiversity, connectivity and ecological functions are maintained, restored or improved. Specifically, the PPS directs that development and site alteration is not permitted in provincially significant wetlands in southern Ontario (i.e., Ecoregions 5E, 6E and 7E). The PPS also prohibits development and site alteration within significant coastal wetlands throughout the province. In northern Ontario, development and site alteration are not permitted in provincially significant wetlands, unless “there will be no negative impacts on the natural features or their ecological functions.”

It is important to note that the PPS defines development as “the creation of a new lot, a change in land use, or the construction of buildings and structures that require approval under the *Planning Act*.” However, this definition expressly excludes “the creation or maintenance of infrastructure, drainage works subject to the *Drainage Act*, or mining and exploration in certain areas;” these types of activities are still allowed to occur within PSWs. In addition, the PPS does not provide any protective measures for unevaluated wetlands or for those designated as locally significant.

Wetlands have some protections under the *Conservation Authorities Act*, which empowers conservation authorities to regulate development and activities in, or adjacent to, wetlands within their jurisdiction. Conservation authorities can prohibit development in wetlands if it will interfere with or alter wetland processes or functions. Additional measures are contained within regional land use plans such as the Greenbelt Plan.

Forestry operations are not permitted within PSWs on Crown lands unless an MNR-approved environmental impact study demonstrates that the proposed operations will “not result in the loss of natural features or ecological functions that make the wetland provincially significant.” Forestry operations may then proceed subject to a number of conditions. PSWs on Crown land are also encompassed by a 120 metre buffer.

How Wetlands Become Protected:

The OWES manuals are used to evaluate wetlands to determine if they are provincially significant and, therefore, subject to the protections provided by various policies and plans. According to MNR, the manuals provide “a framework through which conflicting claims about wetland values and uses can be resolved.” The manuals recognize the role of wetlands in “maintaining critical ecosystem functions, providing social benefits, moderating storm flows, improving water quality and protecting rare species;” however, the manuals do not evaluate vulnerability to threats or risks.

Less than two per cent of all wetlands in Ontario have been evaluated. Historically, wetland evaluations were initiated by MNR staff at district offices, but now they are mostly proponent-driven. Proponents and the public can request that MNR evaluate a wetland, but the number of evaluations conducted by the ministry largely depends on district work plan priorities and funding. As a result, proponents often hire consultants to carry out evaluations if an unevaluated wetland is found in an area proposed for development. MNR must approve all OWES evaluators to ensure that they have a minimum level of expertise and have completed a ministry-approved wetland evaluation course. The ministry retains sole authority for approving completed evaluations.

The results of approved OWES evaluations are used to inform municipal and provincial land use decisions, which must be consistent with the PPS. Municipalities can designate provincially significant and/or locally significant wetlands in their official plans and can also create zoning bylaws for their protection. Conservation authorities use the results of OWES evaluations to develop watershed plans or to provide technical advice to municipalities. In addition, MNR uses these evaluations to manage natural resources and to inform stewardship and incentive programs.

The Ontario Wetland Evaluation System:

Most components of the northern and southern OWES manuals are very similar, with minor variations reflecting regional differences. Wetland values in the OWES manuals are grouped into four main components: biological, social, hydrological, and special features. Each component is capped at 250 points so that the maximum possible score for a wetland is 1,000 points (see Table 1). Some attributes are given a very high score to highlight their important contribution to wetland significance. For example, the presence of reproductive habitat for an endangered or threatened species is assigned 250 points under the special features component.

The biological component is evaluated using measures of productivity, biodiversity and size. Scores for the social component measure direct human uses, while recognizing that ongoing use requires healthy ecosystems. The hydrological component determines the net benefit provided to downstream portions of the basin by assessing the role of a wetland in maintaining, controlling, and modifying the quantity and quality of water. Scores for the special features component evaluate the rarity of that type of wetland, the presence of rare species and significant wildlife habitat, as well as ecosystem age. The scores for certain sub-components, such as rarity and significant features and habitats, are directly related to the number of species and/or habitats found in the wetland.

OWES evaluators use a wide variety of information sources to score wetland values, including available scientific literature, aerial photographs, satellite imagery, and Forest Resource Inventory data, along with maps of watersheds, ecological land classification, soils and topography. Wetland evaluators are required to conduct field visits to verify existing information, record new observations, and adjust wetland boundaries.

A completed OWES evaluation results in the assignment of an overall score for a wetland. To be considered provincially significant, a wetland must achieve a score of 200 or more points in either the biological or special features components, or an overall score of at least 600 points. Wetlands

that do not meet these criteria may be considered locally significant, but they are not afforded any protection under provincial rules.

Table 1. Summary of OWES Scoring Components (Sources: *Ontario Wetland Evaluation System, Northern Manual* (2013); *Ontario Wetland Evaluation System, Southern Manual* (2013)).

Component	Subcomponent	Northern Manual Score	Southern Manual Score
Biological	Productivity	50	50
	Biodiversity	150	150
	Size	50	50
Social	Economically Valuable Products	50	48
	Recreational Activities	80	80
	Landscape Aesthetics	10	10
	Education and Public Awareness	40	40
	Proximity to Areas of Human Settlement	40	40
	Ownership	10	10
	Size	20	20
	Aboriginal Values and Cultural Heritage	30	30
Hydrological	Flood Attenuation	100	100
	Ground Water Recharge	30	60
	Water Quality Improvement	90	100
	Carbon Sink	15	5
	Shoreline Erosion	15	15
	Groundwater Discharge	30	30
Special Features	Rarity	*	*
	Significant Features and Habitats	**	**
	Ecosystem Age	25	25
	Great Lakes Coastal Wetlands	75	75

* The score for rarity is cumulative; there is no maximum score because it depends on the number of rare species present in the wetland. ** Depending on the types of habitat found in a wetland, the score for significant features and habitats can exceed 500 points.

Implications of the Decision

No Substantive Changes to the OWES

Most of the revisions to the 2013 OWES manuals are administrative, including updated cross-references to other policy and legislation, a revised definition for Great Lakes coastal wetlands, and correction of inconsistencies. MNR stated that “the basic structure and scoring components of the OWES remain the same,” however, some of the changes may have an indirect effect on some wetland scores.

The ministry added new identification criteria to the OWES manuals for wetland soils and plants, which may affect the scores of attributes that depend on wetland size and type. Evaluators can now use the presence and extent of hydric soils to identify wetlands and to assist with boundary delineation, where this information is collected in the field. The 2013 OWES manuals also include an expanded list of common wetland plants to assist with wetland identification and with determining wetland type.

Wetlands Remain Vulnerable

Evaluating wetlands is often an intensive process, but the result is a rigorous assessment that guides land use planning. However, a central weakness of Ontario's wetland protection system persists, regardless of the quality of the OWES manuals: wetlands remain vulnerable if they are unevaluated and are only examined when confronted with imminent development.

In 2006, the ECO warned MNR that failing to identify wetlands leaves them unprotected (refer to pages 35-43 of our 2006/2007 Annual Report). The Ontario government still does not have a systematic, pro-active, risk-based process for determining which wetlands should be evaluated, nor does the ministry appear to devote sufficient resources for evaluating wetlands. Consequently, the responsibility for wetland evaluations often falls to third parties who may have a conflicting interest in developing the wetland.

Furthermore, existing wetland protections are weak and have been applied inconsistently across the province. For example, agricultural drainage has caused significant wetland losses in southern Ontario, yet the PPS does not prohibit this practice. In addition, conservation authorities have inconsistently implemented wetland protections and have tended to concentrate their efforts only on PSWs, even though they are empowered to protect all wetlands within their jurisdictions. Current land use planning offers insufficient protections for wetlands because it is reactive, project-specific, and fails to adequately address cumulative impacts across our entire natural heritage system.

Wetlands in northern Ontario are afforded even less protection than those in southern Ontario. While PSWs are recognized in the forest management process, MNR can still approve forest operations that cause some loss of a wetland's natural features. Also, other types of activities are unrestricted; for example, there are no specific measures for wetland protection in the mineral exploration and development process.

Public Participation & EBR Process

In January 2012, MNR posted a proposal notice on the Environmental Registry to seek public input on the draft update of the OWES manuals. Forty-seven comments were submitted by the public during the comment period.

MNR directed the public to limit their comments to the updated portions of the manual, but some commenters stated that it was difficult to determine what changes were actually made since the ministry did not provide a version of the draft document with tracked changes. One commenter further stated that although the proposal notice claimed that the OWES revisions were minor, some of the actual changes were, in fact, substantial and affected the entire manual. For example, many commenters remarked that the new soils criteria in the updated OWES were a welcome addition, but they also stated that this change could greatly affect wetland scores depending on how it is applied. Accordingly, there were many requests for further guidance regarding the application of the new soils criteria in combination with the existing vegetation criteria. The public also requested that MNR offer evaluator training in soil classification.

A group of landowners asserted that the scoring method is flawed because it is open to manipulation which can result in biased scores. Municipal planners and an aggregate industry association stated that the revised OWES appears to elevate scores for significance which will increase the amount of wetlands that are considered provincially significant, and that it was inappropriate for MNR to make this change without completing a full review of the manual. They further stated that the updated OWES perpetuates unnecessary resource conflicts as it seems to favour environmental protection over agriculture and development.

A conservation group claimed that the OWES fails to support the effective implementation of wetland policies set out in the PPS because most wetlands are unevaluated due to the high cost and complexity of evaluations. This group recommended that the province improve the efficiency and cost-effectiveness of OWES evaluations, and in the meantime, the government should identify priority areas where evaluations should be completed. They further called on the government to develop an integrated solution to wetland protection that includes strategic investment and a comprehensive policy framework that includes a plan for public education.

A government agency was concerned with the lack of rationale provided for the existing scoring system as well as for the recent scoring changes. A government ministry suggested that the manual should address implementation issues related to streamlining and that MNR should target evaluations based on the degree of risk and the scale of proposed development. Some commenters requested that MNR develop performance indicators and conduct an analysis of the effectiveness of the OWES in protecting wetlands.

The public also commented on the need for: increased protection for Georgian Bay wetlands and vernal pools; a review of wetland complexing criteria and minimum wetland size; a thorough and detailed review of scoring components; and an evaluation of the effectiveness of the current wetland policy framework. The ministry did not address these comments as it considered them to be beyond the scope of the current review.

The ministry posted a decision notice in April 2013. MNR stated that the comments related to requests for additional clarification resulted in numerous changes throughout the manual, including scores for upland plants and rare species, recording invasive species, lists of information sources, the definition of coastal wetlands, mapping wetlands in agricultural landscapes, and the evaluation process. The ministry also stated that the sections related to the new wetland plant list and soil criteria were edited to reduce confusion and clarify use.

Statement of Environmental Values

MNR stated that it considered its Statement of Environmental Values (SEV) in making this decision. The ministry stated that the OWES provides important information during land use planning that “ensures sustainability and conservation” of significant wetlands. According to its SEV, MNR is “committed to the conservation of biodiversity and the use of natural resources in a sustainable manner.”

ECO Comment

The ECO believes that MNR’s “scoped review” of its wetland evaluation system represents a missed opportunity. The ministry chose not to evaluate the overall effectiveness of the OWES manuals, nor did it begin a broad review Ontario’s wetland conservation policies as a whole – a commitment that was made in the Ontario Government Plan to Conserve Biodiversity in 2012. To date, the government has not announced when this comprehensive review will begin or what it will involve.

Almost a decade ago, the ECO urged the province to speed up wetland evaluations, as well as improve its regulatory framework for protecting wetlands. Since then, the government has failed to take any substantial action. The OWES manuals are just one facet of wetland policies that merit examination. A significant, larger issue is the weak triggers for wetland evaluations to actually occur. As a result, the government continues to rely on an *ad hoc* approach to wetland protection in Ontario.

Wetlands in Ontario remain vulnerable partly because so few have been evaluated. This situation is not likely to change as the current patchwork of wetland protection policies is mostly reactive to development pressures. Additionally, wetlands throughout the province are largely defenceless against activities like infrastructure and agriculture. The ECO strongly urges MNR, with the support of the Ministry of the Environment and the Ministry of Municipal Affairs and Housing, to promptly review Ontario's wetland policies with the objective of implementing a coordinated, risk-based and proactive approach to evaluating and protecting wetlands.

Ontario is home to more than a quarter of all of Canada's wetlands; protecting them is a critically important aspect of conserving species and natural areas. As a signatory to the Convention on Biological Diversity, we have an obligation to properly manage and protect these hotspots of biodiversity within our province. As a country, we have committed to making substantial progress in conserving biodiversity by the year 2020 as part of the Convention's Aichi Biodiversity Targets. By 2015, all countries will be taking stock of their progress. Therefore, it is time for Ontarians to finally have the discussion about wetlands that is so urgently needed. Failing to do so all but guarantees that we will not be able to meet our international commitments to conserve Ontario's biodiversity.

Review of Posted Decision:

1.5.3 Fish Community Objectives for Lake Ontario

Decision Information

Registry Number: 011-5419
Proposal Posted: May 9, 2012
Decision Posted: June 26, 2013

Comment Period: 61 days
Number of Comments: 5
Decision Implemented: April 26, 2013

Description

Centuries of exploitation, contamination, alteration and ecological invasions have devastated Lake Ontario's native fish community and replaced it with a motley mix of non-native species. Enormous efforts have been made to improve Lake Ontario's water quality, ecosystems, and notably, its fisheries.

In 1956, Canada and the United States established the Great Lakes Fishery Commission (the "Commission") to address concerns about the state of the Great Lakes fisheries and fish communities. The major responsibilities of the Commission are to research and recommend measures to attain maximum sustained productivity of fish stock, and to develop and implement a program to eliminate or reduce sea lamprey populations in the Great Lakes. The Commission's goals and strategic directions are then enacted through policies and initiatives developed co-operatively by Ontario's Ministry of Natural Resources (MNR) and the New York State Department of Environmental Conservation (NYSDEC). Under the Commission's *Joint Strategic Plan for Management of Great Lakes Fisheries* (the "Joint Strategic Plan"), MNR and NYSDEC jointly developed the *Fish Community Objectives for Lake Ontario* (the "Objectives") in 1999 to manage the Lake Ontario fishery, and revised it in 2013.

The Objectives provide goals and indicators for managing the Lake Ontario fish community and are intended to initiate discussions with management agencies, interest groups and the public for developing more detailed fishery, habitat and watershed management plans. The Objectives will

also be utilized in other planning and management initiatives including remedial action plans (RAPs) and the *Lakewide Management Plan* (LaMP) for Lake Ontario under the *Great Lakes Water Quality Agreement*. The main goal of the Objectives is the protection and restoration of the native and naturalized fish community, with the purpose of sustaining, increasing and re-establishing various fisheries.

Background

Lake Ontario and its Watershed:

Lake Ontario is the smallest of the five lakes. It has a surface area of 18,960 square kilometres (km²) and a total drainage basin area of 64,030 km². As the last in the Great Lakes' chain, approximately 86 per cent of the water flowing into Lake Ontario comes from the other Great Lakes through the Niagara River.

The population in the Lake Ontario watershed has grown by over 40 per cent in the last two decades and is currently over 10 million people. The Canadian population of Lake Ontario's shoreline is rapidly expanding, while the New York side of the watershed remains largely rural and partially agricultural. Major urban centers located on the shores of Lake Ontario include Toronto, Hamilton, and Rochester.

Lake Ontario Fish Community:

Lake Ontario is home to numerous native and non-native fish species. For clarity, the Objectives categorize fish according to the habitat zones they generally occupy during the majority of their life cycle. These are:

1. The "nearshore zone," which includes the shallow coastal waters less than 15 metres (m) deep, plus all bays and coastal wetlands; and
2. The "offshore zone," which is defined as waters deeper than 15 m excluding bays, and includes both the "deep pelagic and offshore benthic zone" near the bottom of the lake, and the "offshore pelagic zone" in open water.

The offshore zones contain the majority of Lake Ontario's water and life. However, many offshore Lake Ontario species also occupy the nearshore zone during early life stages.

The Lake Ontario fish community has undergone a major transformation since European colonization. By the 1970s, many native fish species commonly found pre-colonization (such as Atlantic salmon, lake trout, burbot, deepwater sculpin, and some ciscoes) were either extirpated or had significantly declined in numbers. Conversely, many non-native species (such as the round goby, rainbow trout, and rainbow smelt), including some particularly disruptive invasive species (such as sea lamprey) had increased in dominance.

A good example of the transformation of the Lake Ontario fish community is the alewife. The alewife is a non-native fish, yet this species plays a significant role in today's Lake Ontario food web. Chinook and coho salmon – also non-native species – were introduced in 1968 to control alewife populations, as well as to provide a sport fishery. Alewife is now vital to maintaining these non-native salmon. This species also exerts other impacts on fish populations. Alewife frequently consume zooplankton and larval fish and eggs, thus negatively affecting efforts to restore the native fish community. As well, alewife can be subject to dramatic population drops, with these sudden declines exerting similar consequences on reliant predatory fish populations. At the same time, alewife can control invasive species such as fishhook fleas and spiny water fleas.

Lake Ontario's Commercial and Recreational Fisheries:

Lake Ontario has hosted a commercial fishery for several centuries. Prior to and during the earlier centuries of European colonization, fisheries for burbot, lake trout, lake whitefish, and Atlantic salmon were reputed to be abundant. However, by the mid- to late-1800s, most Lake Ontario fisheries had already exhibited a notable decline or collapse due to overexploitation. The total commercial harvest peaked at 6.5 million pounds in 1921 and by the 1960s Lake Ontario had the lowest fishery production of the five Great Lakes. Currently, Lake Ontario supports a small, locally significant commercial fishery principally based in the Bay of Quinte, which focuses on yellow perch, sunfish, lake whitefish, brown bullhead, northern pike, and walleye. There is also an Aboriginal fishery for walleye in the Bay of Quinte.

The lake hosts a nearshore recreational fishery for walleye, largemouth bass, smallmouth bass, yellow perch, sunfish, northern pike and muskellunge, and an offshore recreational fishery for chinook salmon and rainbow trout. Lake sturgeon and American eel are both species at risk, and their commercial and recreational fisheries have been closed due to low abundance.

Pressures on Lake Ontario's Fish Community:

The Lake Ontario fish community has been subject to multiple pressures since European colonization. As a result, native fish populations have declined – or in some cases been extirpated – and the food web has been severely altered. Historical and current stressors include overfishing, destruction and alteration of fish habitat, invasive species, contaminants and nutrient loading, and climate change.

Overfishing of fish populations was an early, and frequently catastrophic, pressure on the Lake Ontario fish community, and many species have never recovered. Declines in Atlantic salmon were noted as early as 1835, with the species disappearing by the 1890s. Other populations, such as lake herring, lake whitefish, burbot, and deepwater ciscoes, had also collapsed by the 1940s due to overfishing. Some fish species were overfished for non-food purposes; in the early 1800s lake whitefish were used as fertilizer, while prior to the 1800s, lake sturgeon were destroyed as nuisance fish for tearing nets. Beginning in the 1800s however, lake sturgeon were fished commercially and recreationally for meat and caviar until the Lake Ontario commercial harvest was ended in the 1970s and the recreational fishery was terminated in 2008.

Destruction and degradation of fish habitat have also affected the Lake Ontario fish community. These habitat changes include: the draining or alteration of coastal wetlands important for larvae and young fish; human-caused alterations in water levels, which result in shoreline erosion; dredging, which causes erosion and habitat loss; and dams and power generation projects, which restrict fish migration and spawning.

Invasive species have disrupted the Lake Ontario food web, fish habitat, and the native fish community, sometimes severely. Alewife were first observed in Lake Ontario in 1873 and became abundant by the 1890s. Similarly, sea lampreys were reported in Lake Ontario beginning in the 1830s. Their predation on native fish has played a key role in the collapse and slow recovery of the Lake Ontario fishery; control of lamprey populations remains dependent on the application of chemicals. Dreissenid mussels, such as zebra mussels and quagga mussels, established themselves in Lake Ontario in the 1980s and 1990s, and have since restructured the ecosystem. Their high capacity to filter water promotes algae growth due to increased sunlight penetration, and large colonies of dreissenid mussels can encrust native mussel species, preventing them from opening and closing.

The Lake Ontario fish community is also affected by contaminants from sources such as wastewater treatment facilities, urban and agricultural runoff, and atmospheric deposition. Historically, chemicals like polychlorinated biphenyls (PCBs), dioxins/furans, and mercury can bioaccumulate through the food chain and may affect humans who eat large quantities of contaminated fish. From the 1940s to the 1970s, dissolved phosphorus from agricultural run-off also contributed to

severe algal blooms, eutrophication, and poor water quality, although eutrophication has been partially remediated by binational efforts through the *Great Lakes Water Quality Agreement*. As the last lake in the Great Lakes chain, Lake Ontario is also sensitive to upstream conditions.

Many of the pressures that Lake Ontario faces are exacerbated by climate change. For example, current and future increases in water temperature will also affect the Lake Ontario fish community. Many species require specific water temperatures at critical life stages. For example, peak survival and development of lake sturgeon eggs occurs between 14°C and 17°C, with total egg mortality being documented when the shallow waters they inhabit exceed 20°C. Similarly, while lake trout spawn at temperatures of approximately 10°C, an increase in water temperature of 1°C decreases survival at hatching by 1.5 times, while an increase of 3°C decreases survival by 20 times. Warmer waters will also reduce habitat for coldwater fish due to lower levels of dissolved oxygen, which such species require. Some climate change researchers have projected that if atmospheric carbon dioxide doubles by 2050, as is expected, coldwater fish may become extirpated in Lake Ontario.

Fish Community Objectives

The 2013 Objectives seek to fulfil the goal developed in the Great Lakes Fishery Commission's Joint Strategic Plan for all Great Lakes fishery management agencies. That goal is to safeguard stable self-sustaining fish communities that are "supplemented by judicious plantings of hatchery-reared fish," thus providing "an optimum contribution of fish, fishing opportunities and associated benefits for wholesome food, recreation, culture heritage, employment and income, [and] a healthy aquatic environment."

The development and implementation of the Objectives is guided by fourteen principles including: an ecosystem approach to planning; the acknowledgement of climate change as an important influence; the role of stakeholders in decision making; the role of stocking and monitoring; and the need for the protection and restoration of fish habitat as well as native, naturalized, rare and endangered fish species.

The Objectives contain three main goals to protect, restore, and sustain the species and fisheries of each of the three fish community zones (the nearshore zone, the offshore pelagic zone, and the deep pelagic and offshore benthic zone). Each goal is composed of several objectives, with indicators measuring progress towards the objectives.

The nearshore zone objectives include maintaining healthy and diverse fisheries, restoring native fisheries, and species-specific objectives such as the restoration of lake sturgeon and American eel.

The offshore pelagic zone goal also contains species-specific objectives such as the maintenance of the chinook salmon, rainbow trout, brown trout, and coho salmon fisheries, and the restoration of Atlantic salmon populations and fisheries. As well, the pelagic zone objectives focus on maintaining and increasing prey fish diversity (e.g., alewife, lake cisco, rainbow smelt, emerald shiner, and threespine stickleback) and maintaining a predator-prey balance.

Highlights of the deep pelagic and offshore benthic zone objectives include restoring lake trout and increasing lake whitefish populations, increasing prey fish diversity, and controlling the population and spread of sea lamprey.

Implications of the Decision

Focus on the Recreational Fishery

The Objectives state that “the goal of fisheries management is to provide sustainable benefits to humans through the use of fish for food, recreation, culture, ecological function and aesthetics by sustaining or increasing the abundance of desirable fish.” In other words, the desire to ensure a supply of trophy-sized fish, particularly naturalized chinook salmon, takes precedence over any conflicting objectives to protect and restore native fish populations. Although the Objectives do not explicitly rank one objective over another, it is acknowledged that maintaining the chinook salmon fishery and the alewife population on which they depend “may limit the capacity to fully restore some of these [native] species to their full potential,” thus implicitly prioritizing the chinook fishery over native fish rehabilitation. This focus on the socio-economic benefits of a recreational and commercial fishery versus a robust native fish community is not new – it was also noted in the ECO’s review of the 1999 *Fish Community Objectives for Lake Ontario* (see pages 127-130 of the Supplement to our 2000/2001 Annual Report). However, the 1999 Objectives included an extensive discussion of this dilemma and the choices that were made as a result.

The focus on non-native sport fisheries is further emphasized through other objectives. For example, maintaining the predator-prey balance (Objective 2.4) is a valid goal. However, the sole indicator for this objective is to maintain chinook salmon growth and condition at or above 2007 levels, thus representing predator-prey balance using a non-native species. This emphasis on fisheries is also underscored by objectives such as restoring lake sturgeon populations to levels that would support sustainable fisheries (Objective 1.2).

The Objectives also emphasize stocking to maintain adequate fishery populations. Stocking clearly serves certain purposes; for example, the reintroduction and restoration of Atlantic salmon to Lake Ontario is being facilitated through stocking. However, many of the objectives seek to maintain populations of non-native predators for angling opportunities through stocking.

Yet even objectives related to native fish populations also prioritize fisheries. For example, Objective 2.2 looks to restore Atlantic salmon populations and fisheries “to levels supporting sustainable recreational fisheries” and states that a recreational fishery can also be supplied, where appropriate, through stocking. Therefore, despite Atlantic salmon being extirpated in Lake Ontario, the only objective related to this species focuses on establishing a recreational fishery.

Indicators

Accurately measuring progress towards environmental management objectives requires specific indicators. Many of the indicators in the 2013 Objectives are more detailed than the earlier 1999 Objectives (e.g., numerical, long-term targets for eel escapement and numbers of eels ascending eel ladders annually). However, the majority of indicators still lack sufficient detail to make them useful. Many objectives that speak to maintaining both native and non-native fish communities and fisheries are represented by indicators that simply refer to “maintaining or increasing catch rates,” “increasing populations,” or “maintaining or increasing native fish species richness and diversity.” These indicators do not specify targets for populations or even catch rates, nor do they identify years or conditions against which catch rates, populations, or species diversity should be compared.

Climate Change

The Objectives’ guiding principles acknowledge that “climate change is an important ecological influence that could both positively and negatively affect future Lake Ontario fish communities.” However, the objectives and indicators make no mention of climate change, and do not provide any

goals, objectives or indicators that seek to monitor or address climate change-associated effects on the Lake Ontario fish community. This omission occurs despite the impacts that increased water temperatures can have on fish populations. For example, although the objective for restoring lake sturgeon populations (Objective 1.2) contains the indicator to establish at least four spawning populations of at least 750 sexually mature individuals each in historical spawning areas, increased water temperature can dramatically affect lake sturgeon hatching success. Yet besides some vague mentions of climate change as a source of uncertainty, the Objectives are silent on how it may affect vulnerable species such as lake sturgeon, and how such impacts might be measured or mitigated.

Omission of Contaminants and Impacts on Human Health

While one of the purposes of the Objectives is to maintain or restore sustainable Lake Ontario fisheries, there is no mention in the document of ensuring that fish are free of contaminants that may affect human health. This seems an obvious omission since the focus of the Objectives is a fishery that likely involves human consumption of fish, and many contaminants can bioaccumulate in the predatory fish that are the preferred catch of anglers. While concentrations of contaminants such as PCBs, mirex, dioxins, and furans have declined in Lake Ontario sport fish, the continued presence of these contaminants, plus others including mercury and flame retardants like polybrominated diphenyl ethers, still necessitate consumption advisories. Such contaminants are recognized as human carcinogens or are associated with other non-cancer health impacts. This omission is particularly problematic given that the 1999 Objectives did list reducing contaminants as a goal and since part of the purpose articulated in the Objectives is to secure fish communities to provide wholesome food.

Achieving Action at the Provincial Level within a Binational Framework

The Great Lakes Fishery Commission was established in 1956 as a result of the *Convention on Great Lakes Fisheries between Canada and the United States* (the "Convention"). In recognition of the concerns that two countries shared regarding the degraded commercial and recreational Great Lakes fisheries, in part due to sea lamprey populations, the Convention states that binational efforts are required. As such, it established the Commission. Interestingly, the Commission retains the goals that the Convention set out almost 60 years ago, including developing research programs and suitable actions to attain "the maximum sustained productivity of any stock of fish" of concern in the Great Lakes. While achieving a robust fishery may be a valid aim, the Commission – and by extension, MNR – bases its direction on goals that are over half a century old and that were established using a very different body of ecological knowledge and different resource management concepts than what exists today.

Public Participation & EBR Process

MNR posted the Objectives on the Environmental Registry for a comment period of 61 days. Prior to this, the Objectives were evaluated through the multi-stakeholder Lake Ontario Fisheries Management Zone Council (FMZ 20). FMZ 20 membership consists of various angling associations, as well as the Thousand Islands Landowner Association and Queen's University. MNR also held public information sessions and presented the proposed Objectives at the annual Great Lakes Fishery Commission Lake Committee public meetings in March 2012 in Windsor, Ontario.

Consultations were conducted with Aboriginal peoples whose interests might be affected by the Objectives, according to MNR, including the Mohawks of the Bay of Quinte and the Mohawk Council of Akwesasne. The NYSDEC also conducted concurrent public consultation through public meetings and information postings in its own jurisdiction.

While the decision notice states that five comments were received on the proposal, MNR later clarified that just two letters were submitted consisting of several comments each. While one commenter expressed support for the Objectives, both commenters had specific critiques and questions relating to the proposal. The comments focused on issues of stocking, correcting omissions, and clarifying certain concepts and priorities. The ministry made some small alterations to the Objectives as a result.

Commenters were concerned about stocking practices for chinook and coho salmon, and for brown trout (Objectives 2.1 and 2.6), particularly whether stocking these species was ecologically and economically appropriate in lakes that contain viable populations of native or naturalized fish of the same species. A commenter mentioned that some American eels stocked in Lake Ontario may exhibit different life history characteristics than American eels that migrated to Lake Ontario.

Commenters also noted several omissions or unclear statements that required clarification. For example, while the objective to maintain healthy, diverse fisheries (Objective 1.1) identifies muskellunge as a population to be preserved, enhanced and restored, the associated indicator does not mention the species. A commenter also observed that the indicator for restoring Atlantic salmon populations and fisheries (Objective 2.2) does not list Bronte Creek as a tributary in which to increase adult spawning returns. These oversights were acknowledged and corrected. Commenters also requested clarity on whether chinook salmon would be maintained as the top offshore pelagic predator through stocking or natural reproduction (Objective 2.1). A comma was added to emphasize that this Objective would be achieved through stocking, accounting for natural reproduction.

Statement of Environmental Values

MNR stated that it considered its Statement of Environmental Values (SEV) in developing the Objectives. The ministry highlighted the “conservative and adaptive” approach it took to developing the guidelines, due to the uncertainty that accompanies the Lake Ontario fishery. To this end, MNR committed to an adaptive approach that will be informed by “monitoring and science-based assessment” to evaluate ecosystem change and improve the knowledge with which the ecosystem is managed. In its SEV consideration document, MNR also committed to the protection and rehabilitation of native and desirable naturalized species, associated biodiversity, and critical fish habitat.

Other Information

As part of the *Great Lakes Water Quality Agreement*, Canada and the United States have developed *Lakewide Management Plans* (LaMPs) to restore the Great Lakes ecosystems. This includes a LaMP for Lake Ontario to “restore and protect the uses of Lake Ontario” and provide a “framework for binational protection efforts.” As part of the Lake Ontario LaMP, a binational *Lake Ontario Biodiversity Conservation Strategy* was released in 2009. This strategy, which was developed in consultation with over 50 agencies and organizations, presents recommendations to “protect and restore, to the full extent possible, the native biodiversity and critical natural processes of Lake Ontario.” To this end, the strategy identifies threats to Lake Ontario ecosystems and associated biodiversity, recommendations to address these threats, and strategies and specific actions to enact the recommendations and achieve biodiversity targets. The strategy also assesses and lists priority sites and areas in which efforts should focus.

In January 2014, MNR released its proposed *Ontario Provincial Fish Strategy: Fish for the Future* (Environmental Registry #012-0291). This proposed strategy will provide guidance, goals, objectives and tactics for managing fisheries throughout Ontario, including the Great Lakes, as well as an implementation plan to guide ministry management of fisheries and associated ecosystems. Similar

to the Objectives, the purposes of the proposed *Ontario Provincial Fish Strategy* are “to improve the conservation and management of Ontario’s fisheries resources; and to encourage fishing as an activity that contributes to the individual well-being and the social, cultural and economic well-being of communities in Ontario.” This strategy proposes taking a landscape and risk-based approach to provincial fisheries management. (For further details, refer to Section 1.5.4 of this Supplement.)

ECO Comment

Significant efforts have been made to restore the health of Lake Ontario, including initiatives to decrease contaminants and nutrient loading, and the reintroduction of species such as Atlantic salmon. However, managing the fish community of Lake Ontario continues to be extremely challenging due to the sheer volume and variety of pressures, coupled with the socio-economic value of non-native species, which are now abundant. Lake Ontario’s fisheries managers are faced with multiple, and often conflicting, priorities. However, these challenges should not preclude fisheries managers from setting strong goals and developing effective measures to rehabilitate native species.

The ECO is concerned that the Objectives emphasize non-native sport fish and prey, such as chinook salmon and alewife, at the expense of the native fish community. While commercial and recreational fisheries can also benefit from healthy aquatic ecosystems, the conservation of native fish communities is sometimes traded off by the continued stocking and supporting of non-native fisheries. This trade-off can place additional pressure on already vulnerable aquatic species and compromise the rehabilitation of fish communities that have been massively altered.

MNR does not manage Lake Ontario fisheries in a vacuum. The ministry is guided by the high-level objectives set by the Great Lakes Fishery Commission. While a binational Great Lakes management framework is vital, such a framework should be based on modern fisheries sciences, with sufficient regard for the importance of native fish communities. The goals of the Commission were written in a different age, and there is now a strong argument that it is time to revisit the half-century old federal law and binational convention that guides Ontario’s efforts.

Review of Posted Decision:

1.5.4 Taking a Broader Landscape Approach – A Policy Framework for Modernizing Ontario’s Approach to Natural Resource Management

Decision Information

Registry Number: 011-7540
Proposal Posted: November 14, 2012
Decision Posted: June 28, 2013

Comment Period: 51 days
Number of Comments: 29
Decision Implemented: June 28, 2013

Description

Overview

The Ministry of Natural Resources (MNR) is moving forward with a transformation plan to “modernize its business and operate on a more cost efficient basis.” In June 2013, as part of its

efforts to deliver on this transformation plan, the ministry finalized *Taking a Broader Landscape Approach – A Policy Framework for Modernizing Ontario’s Approach to Natural Resource Management* (“Broader Landscape Approach” or the “Framework”). This policy explains how MNR will attempt to apply a landscape approach to managing the province’s natural resources. In effect, MNR will implement management activities over larger areas and longer time periods, and decisions will be informed by a broader environmental, social and economic context. The Framework is intended to assist individual MNR programs as they incorporate broader management approaches.

Background

Ontario’s Natural Resources and Current Management Challenges:

MNR is responsible for managing the province’s forests, lands, waters, fish and wildlife, aggregates, salt, oil and gas, and protected areas. As the steward of Ontario’s natural resources, the ministry’s mission is “to conserve biodiversity and manage our natural resources in an ecologically sustainable way to ensure that they are available for the enjoyment and use of future generations.”

The province’s natural resources are spread over an area of more than one million square kilometres, ranging from subarctic tundra around Hudson Bay to the Carolinian forest along Lake Erie. Until recently, many of the ministry’s resource management strategies have been relatively focused (e.g., short-term, species-specific, site-specific, etc.); MNR now argues that such an approach can be costly, inefficient, and may neglect patterns and processes that occur at broader scales. At the same time, MNR notes that demands on the province’s natural resources are growing, and that pressures from a range of threats are felt across the province. The ministry states that these “ecological considerations and fiscal realities” necessitate a reassessment of the best scales for resource management, and that management approaches are needed that address broad-scale influences and impacts, while continuing to manage important small-scale issues.

In 2012, MNR announced that it would be moving forward with its transformation plan. The ministry stated that, as it reviewed its programs and services to become more “efficient and sustainable,” it would “work to integrate and co-ordinate programs and policy, set priorities based on the risk to natural resources and the public, and seek economies of scale.” It is within this context of modernization that MNR has adopted the Broader Landscape Approach framework. In our 2012/13 Annual Report, the ECO raised profound concerns with the ministry’s transformation plan on the basis that MNR’s efforts to “modernize” were regressive and short-sighted.

MNR’s Broader Landscape Approach:

The Broader Landscape Approach sets out two goals to guide the implementation of a broader-scale approach to managing natural resources:

1. Adopt a modern and sustainable approach to managing Ontario’s natural resources over broader areas and longer time periods.
2. Support, enable and advance ecosystem-based, landscape management approaches in Ontario over time.

To achieve these goals, the Framework articulates five “management elements,” each with a series of “considerations” to guide program-level change (see Table 1). The Framework discusses how the ministry will apply each of the management elements. In some cases, MNR provides illustrative examples of how these principles are currently being implemented in ministry programs (e.g., forest management unit amalgamations, the Far North Land Use Planning Initiative, and the Ecological Framework for Fisheries Management) and in other jurisdictions.

Table 1. Management Elements and Considerations for a Broader Landscape Approach (Source: Ministry of Natural Resources).

Management Element	Considerations
1. Manage at appropriate scales	i. Where appropriate, use ecological functions and structures (e.g., natural disturbance patterns, watersheds, species distribution) to help identify ecologically meaningful scales of management ii. Seek economies of scale in management effort and cost
2. Integrate and co-ordinate	iii. Co-ordinate and integrate across programs and align resources relative to natural resource management priorities iv. Ensure clear policy and legislative guidance v. Leverage and co-ordinate with the work of others
3. Assess, manage, and mitigate risk	vi. Use risk assessment techniques to prioritize management efforts vii. Use a standard risk management framework to assess, manage and mitigate risk viii. Recognize that finer-scale, more detailed management effort may sometimes be necessary within a broader management approach
4. Focus science and information resources	ix. Focus research and monitoring priorities on supporting management efforts at appropriate scales x. Effectively manage and utilize science and information, including expert and traditional knowledge xi. Continue to develop and use tools to support decision-making at larger scales
5. Manage adaptively	xii. Review the effectiveness of management strategies over time xiii. Identify knowledge gaps and uncertainties

MNR does not articulate which programs might be appropriate candidates for the application of a landscape approach. The Broader Landscape Approach also does not provide a schedule or implementation plan for initiating efforts under the Framework.

Implications of the Decision

In theory, using an ecosystem or landscape based approach can help identify the connectivity between ecological systems and can potentially result in more sustainable management of natural resources. The success or failure of MNR's landscape approach, however, depends on how each element of the Framework is defined, prioritized and implemented. Management at larger scales and over longer time periods needs to be informed by adequate information and monitoring, and based on sound scientific principles and clearly defined decision-making criteria. Equally important is ensuring that these efforts are supported with sufficient expertise and resources.

Manage at Appropriate Scales: No Criteria for Determining Management Scales

The effective management of natural resources necessitates strategies and actions that are based on ecologically appropriate spatial and temporal scales. The selection of appropriate scales should be informed by the characteristics and dynamics of the system in question – too large a scale can leave important processes or features neglected, while too small a scale can fail to account for the factors that drive a system. In most cases, it is essential to simultaneously implement management activities on multiple scales to address both coarse-scale and fine-scale issues.

The Broader Landscape Approach appears to be premised on these principles and, in theory, it could encourage the ministry to adopt more meaningful management scales. The ECO has encouraged MNR to adopt management scales that align with ecological realities in many different contexts, including afforestation, the management of protected areas, and land use planning.

However, MNR did not provide criteria for actually determining appropriate management scales. While the Framework's considerations include using "ecological functions and structures" (such as landforms and water systems) to help identify management scales, it also emphasizes "seek[ing] economies of scale in management effort and cost." Further, the Framework notes that social and economic factors play important roles, and suggests that cost-benefit analysis may be helpful in determining appropriate scales. Notably absent is any discussion of how these factors should be weighed under circumstances where ecological and socio-economic objectives result in conflicting optimal management scales.

The Framework's lack of clear decision-making criteria could allow management decisions to be more easily driven by fiscal or political concerns and rationalized as such, to the potential detriment of the province's natural resources. If the determination of management scales is not based primarily on ecological factors, the long-term sustainability of natural resources could be jeopardized, ultimately undermining the interests of both industry and the public.

Further, the absence of criteria impairs public transparency and accountability. The ECO highlighted this very concern four years ago with respect to MNR's landscape approach to managing cervids (e.g., caribou, moose, elk and deer), noting that the ministry did not provide a detailed rationale for the Cervid Ecological Zone boundaries (see Part 3.5 of our 2009/2010 Annual Report).

Integrate and Co-ordinate: Potential for Downsizing and Downloading

Managing at broader scales requires co-ordination between multiple actors, often across administrative boundaries. As such, integration and co-ordination is one of the Broader Landscape Approach's core elements, including: co-ordination and integration across programs, aligning resources relative to natural resource management priorities, and leveraging and co-ordinating with the work of others. This new emphasis on integration and co-ordination could potentially result in better dialogue between ministries and other agencies, ultimately leading to more robust and informed decisions. In fact, the ECO has long advocated better co-ordination among ministries, particularly with respect to broad-scale land use planning (for example, see pages 51-74 of our 2006/2007 Annual Report).

However, there is a risk that this element of the Broader Landscape Approach – particularly the guidance to "align resources relative to natural resource management priorities" and to "leverage... the work of others" – may be used as justification for downsizing or eliminating MNR programs, and downloading ministry responsibilities to other organizations, all under the guise of integration and co-ordination. This concern is bolstered by some recent trends in the ministry, including legislative amendments made by the 2012 budget bill (Bill 55, the *Strong Action for Ontario Act (Budget Measures)*, 2012) that allow the outsourcing of many ministry decision-making

powers at the discretion of the Minister (see Part 2.1 of our 2012/2013 Annual Report), as well as reductions in ministry staff that occurred in 2013.

There are early indications that MNR's "integration and co-ordination" efforts are in fact taking this direction. For example, as part of MNR's transformation initiative, the ministry reduced the number of staff working on its Bear Wise program, and decided that it would no longer provide assistance with site-specific bear conflicts, nor would it continue to trap and relocate problem bears. As a result, the provincial and local police are now typically responsible for responding to human-bear conflicts, and nuisance bears will likely be shot rather than relocated (see Part 2.1 of our 2012/2013 Annual Report).

Similarly, MNR already heavily relies on external, voluntary programs to undertake specific recovery activities for many species at risk, as indicated in government response statements issued under the *Endangered Species Act, 2007 (ESA)*. The ministry has not made any commitment to undertake necessary recovery work itself if these external programs are unable to do so – in effect abandoning a large part of its responsibility for the recovery of the province's imperiled species (see Part 3.2 of our 2010/2011 Annual Report).

Furthermore, despite the Framework's emphasis on a more integrated and co-ordinated landscape approach, it appears that MNR will likely continue to allow development to proceed under the landscape-scale policies without ensuring that all necessary safeguards are first established and that all co-ordinating agencies have met their responsibilities. For example, the Broader Landscape Approach highlights the Far North Land Use Planning Initiative as "a good example of an integrated and co-ordinated broader-scale policy approach." However, to the contrary, proposals for major infrastructure and development in the Ring of Fire in Ontario's Far North are being considered prior to the completion of the land use plans described by the *Far North Act, 2010* – an act administered by MNR. This planning is also occurring prior to the development of the Far North Land Use Strategy, which is intended to be "the foundation of policy and information that provides the big-picture, broad-scale land use interests to support community based land use planning." (For details refer to Part 3.1 of our 2012/2013 Annual Report.)

Assess, Manage and Mitigate Risk: No Transparency for Risk Assessment

The Broader Landscape Approach advocates using a "risk-based" approach to inform management strategies. A risk-based approach can potentially allow the ministry to focus its resources on our most vulnerable natural resources and the most pressing issues faced by the province's ecosystems. In order for risk-based approaches to be defensible, the ministry needs to employ a transparent method that applies consistent considerations at each of the risk assessment, management and mitigation stages.

The Framework itself does not articulate how MNR will assess and manage risk, but contemplates the use of "a standard risk management framework." In December 2013, MNR released *Integrating Risk in MNR: Risk Management How to Guide* ("Risk Management Guide") through an information notice on the Environmental Registry (#012-0618). While this document provides an overview of the steps undertaken in a generic risk management process, it does not provide substantive guidance with respect to the specific risks faced by MNR in making natural resource management decisions.

This continuing lack of transparency has already proven to be problematic in the context of the ministry's transformation – MNR has not provided information about the risk assessment process that it is applying in its modernization of approvals initiative. For example, in July 2013, MNR purportedly used a risk-based approach to create regulatory exemptions under the *ESA*. However, the ministry provided no details with respect to risk assessment, and ultimately exempted many potentially damaging activities (e.g., forestry, aggregate pits and quarries, and development and infrastructure projects) from the protections for species at risk established by the Act. (For further

details refer to the ECO's 2013 Special Report: *Laying Siege to the Last Line of Defence – A Review of Ontario's Weakened Protections for Species at Risk.*)

Similarly, MNR has exempted certain activities from the requirement to obtain a work permit under the *Public Lands Act* as of January 2014. The ECO requested the ministry to provide documentation detailing the risk management assessment undertaken in the course of finalizing the new exemptions. Despite the fact that the Risk Management Guide emphasizes the need for documentation throughout all stages of the risk management process, the ministry declined to provide any such documentation. (For further details refer to Section 1.5.5 of this Supplement.)

Although the Broader Landscape Approach is aimed at implementing landscape-level natural resource management, there is also an acknowledgement that finer-scale management "may sometimes be necessary" for certain areas, features, species or issues. MNR highlights the use of a "coarse-filter/fine-filter" system as one method for making such decisions. This approach involves two levels of analysis: the coarse-filter produces "generalized guidance, targets and priorities for a broad area or program," while the fine-filter identifies elements that are not adequately addressed at the broader level and develops more detailed direction. In theory, this is an excellent approach that can protect ecosystem function and benefit a wide variety of species, while at the same time meeting the specific needs of particular species or ecosystem features.

However, without the necessary articulation of risk assessment and management priorities, it is not clear how MNR will consistently apply the coarse-filter/fine-filter system. This issue arises, for example, in MNR's management of protected areas. MNR acknowledges a variety of systemic, coarse level, threats and pressures to the ecological integrity of provincial parks in its *State of Ontario's Protected Areas Report*; however, these threats are inadequately addressed at the fine-scale management direction for individual parks. In fact, less than 15 per cent of all site-specific management direction for parks even reflects the basic mandate of the current law – that ecological integrity must be the first priority of planning and management. (For more information, refer to Part 4.6 of our 2012/2013 Annual Report.)

Focus Science and Information Resources: Even Less Monitoring

The Broader Landscape Approach highlights the importance of science and information resources in a broad-scale resource management system. Adequate monitoring and other science and information resources are clearly critical to making defensible natural resources management decisions. They should also be integral components of many of the Framework's other management elements, including the determination of ecologically appropriate scales, risk-based decision making and adaptive management.

However, the Broader Landscape Approach provides little information on how MNR intends to support the new monitoring and information management programs that will be required under its broad-scale approach. Instead, the Framework places emphasis on: focusing programs; streamlining and replacing intensive, inefficient processes; and collaborating and leveraging the work of scientists in other agencies, the broader scientific community, natural resource industries and other stakeholders. In August 2013, the ministry also announced that it would be eliminating its Science and Information Resources Division and integrating its functions into other operational divisions.

Despite the Framework's commitment to collecting information, MNR has repeatedly demonstrated an unwillingness and inability to carry out sufficient monitoring activities. For example:

- Biodiversity: MNR has failed to commit to monitoring biodiversity throughout the province under its biodiversity plan (*Biodiversity: It's in Our Nature, Ontario Government Plan to Conserve Biodiversity 2012-2020*). Although the plan includes a monitoring system as one of

its promised actions, it is unclear whether the system would be any more than a collection of data already gathered through existing programs, which would be grossly inadequate. The ECO has repeatedly recommended that the government establish a statutory responsibility for monitoring and reporting on the state of the province's biodiversity (see Part 4.1 of our 2012/2013 Annual Report).

- **Wildlife:** No monitoring programs exist and MNR lacks basic population data for many species of wildlife (e.g., marten, fisher, lynx, bobcat, cougar, coyote, etc.) for which it allows commercial and recreational harvests. (See Part 8.2 of our 2007/2008 Annual Report.) For example, despite the fact that the snapping turtle is a species of special concern under the *ESA*, MNR does not actively monitor the snapping turtle population or collect information on population trends. The deficiency in this vital information casts doubt on the validity of the ministry's snapping turtle management decisions (see Part 3.4 of our 2012/2013 Annual Report).
- **Far North:** Although MNR reported that it was working with other ministries, the federal government and First Nations communities under a five-year plan to collect much-needed baseline information in the Far North, the ministry's long-term plans are uncertain at best. In 2013, the ECO recommended that MNR, along with MOE and the Ministry of Northern Development and Mines, make a statutory commitment to long-term environmental monitoring for the Far North (see Part 3.1.1 of our 2012/2013 Annual Report).
- **Forest Management:**
 - Although legally obliged to do so, MNR has for many years failed to monitor the impacts of forest management actions at the provincial scale through the Provincial Wildlife Population Monitoring Program. In Chapter 2.6 of Part 2 of our 2011/2012 Annual Report, the ECO concluded that this program failed to actually undertake any direct monitoring and is "in a state of abject failure."
 - The ministry's Effectiveness Monitoring of Forest Management Guides: Strategic Direction suggests that MNR may look to outside sources to assist in funding and undertaking monitoring. However, third parties generally undertake short-term research projects and cannot provide the long-term monitoring required.

Collectively, the fiscal restraint guided by the ministry's transformation plan, the elimination of MNR's science division, the ministry's past failures in monitoring, and the Framework's emphasis on focusing, streamlining, and collaborating with and leveraging the work of others for its monitoring programs, suggest that MNR may undertake even less monitoring work in the future.

Manage Adaptively: No Plan for Improvement

Another core element of the Broader Landscape Approach, and a key principle in the ministry's Statement of Environmental Values, is "adaptive management" – the continuous improvement of natural resources management in response to monitoring, assessment, and new information. The complexity of systems at larger scales generates uncertainty; therefore, adaptive management can be an important tool for making management decisions at the landscape scale.

Key elements of adaptive management include: adopting a proactive approach; accepting the uncertainty of natural systems; allowing for flexibility to respond to new information; seeking long-term resilience; gathering appropriate feedback through monitoring and evaluation; and facilitating institutional learning and integration of scientific information.

The Framework's main considerations for adaptive management include reviewing the effectiveness of management strategies over time, and identifying knowledge gaps and uncertainties. However,

the Broader Landscape Approach places almost no emphasis on the role of monitoring in implementing adaptive management. More importantly, it provides no indication of how the ministry plans to improve its adaptive management practices from their current state. MNR has frequently had difficulty implementing adaptive management across its programs. For example:

- **Species at Risk:** Under new rules-in-regulation exemptions under the *ESA*, MNR will not be collecting or reviewing mitigation plans, monitoring records or reports that must be prepared by proponents, thereby hampering the ministry's ability to build on the existing body of knowledge on effective mitigation strategies for activities that adversely affect species at risk (see the ECO's 2013 Special Report: *Laying Siege to the Last Line of Defence: A Review of Ontario's Weakened Protections for Species*).
- **Wolf Conservation:** MNR failed to revise its *Strategy for Wolf Conservation in Ontario* to reflect the current state of the science with respect to the recognition of eastern wolf as a distinct species, which has potentially enormous consequences on its management as a species at risk (see Part 3.3 of our 2010/2011 Annual Report).
- **Black Bear Management:** In 2009, MNR revised its previous black bear management policy and finalized the *Framework for Enhanced Black Bear Management in Ontario*. The new framework focused solely on the sustainability of hunting rather than addressing the ecological sustainability of the species. It also failed to re-evaluate scientifically questionable "sustainable" harvesting guidelines. Further, the framework included only vague monitoring guidance, which failed to provide action-oriented strategies or improve upon the *status quo*. (Refer to Part 3.6 of our 2009/2010 Annual Report.)
- **Predator Management:** MNR is responsible for managing the province's mammalian predators, such as eastern wolves, coyotes, cougars and black bears. However, the ministry's management decisions almost exclusively focus on simplistic total population numbers, and fail to incorporate new scientific information regarding the ecological role of these species (see Part 8.2 of our 2007/2008 Annual Report).

Public Participation & EBR Process

MNR posted the policy proposal for the Broader Landscape Approach on the Environmental Registry for a 51-day public consultation period. The ministry received 29 comments from a wide variety of stakeholders including members of the public, non-profit organizations, government agencies, industry associations, and municipalities. Most commenters were supportive of a landscape-scale approach to natural resources management in principle, but expressed concern about how this policy framework would be implemented across MNR's programs.

A common criticism of the proposed Framework was that it lacked sufficient detail to effectively guide decision making, and consequently, that it was also difficult to provide meaningful comments. In particular, commenters noted the following deficiencies:

- There is a lack of clarity regarding how MNR will determine the scale at which management activities should occur, and detailed decision-making criteria are needed.
- The Framework provides no guidance on weighing environmental and socio-economic factors. While commenters were somewhat divided on which of these principles should take precedence, most agreed that the ministry must clarify how they will be prioritized in decision making.

- To date, MNR has not had a consistent and transparent approach to risk assessment, and should ensure that it has a clear and publicly-accessible policy with respect to risk assessment and management.
- The Framework lacks detail regarding how the ministry will implement adaptive management.
- The Framework fails to adequately incorporate important principles such as the assessment of cumulative effects, the consideration of ecosystem services, sustainability, and the precautionary principle.

A number of commenters expressed support for integrating and co-ordinating management activities, particularly with respect to eliminating redundant processes. Several commenters also argued that there is a need for better integration of MNR programs with the province's land use planning processes. However, others were concerned about the potential for MNR to merely offload its responsibilities to other organizations or abandon them altogether.

Many commenters also stressed the importance of adequate monitoring, and a need for standardized monitoring, data collection and sharing at multiple scales, especially within the context of adaptive management.

Overall, many commenters were concerned that MNR's implementation of the elements in the Broader Landscape Approach would ultimately result in substantial deregulation, and negative impacts on Ontario's ecosystems and natural resources. Several commenters also questioned whether the ministry has the capacity, or is willing to commit adequate resources, to successfully transition to landscape-based natural resource management, particularly given that these changes are proposed in the context of efficiency.

MNR also received a number of comments in response to this policy proposal that focused on particular natural resource management issues. The ministry stated that these comments were outside the scope of the paper. However, MNR also stated that it is committed to providing additional consultation opportunities as new policies or programs related to specific management activities are developed.

Statement of Environmental Values

MNR considered the principles in its Statement of Environmental Values (SEV) in developing the policy Framework. In its SEV consideration document, the ministry explained how the key elements of a Broader Landscape Approach relate to each of the principles in its SEV. For example, MNR highlighted that the Framework emphasizes: science and information resources; a risk-informed approach; adaptive management; and, strategically looking at resource management through a broader lens. The ministry also noted that the Framework was developed in part to seek input from the public, stakeholder and Aboriginal people, and that it would continue to seek input as it takes a broader landscape approach.

ECO Comment

Applying a landscape approach to natural resource management can have significant environmental benefits if properly applied. It can account for, and ideally protect, the underlying processes and species that drive ecological systems. It also can be an effective way to sustainably manage natural resources to meet the needs of communities and industry. Employing an ecosystem approach is increasingly important given the crisis of biodiversity loss in Ontario and, accordingly, the ECO has long encouraged MNR to apply this approach in its decision making.

Taken at face value, it is difficult to disagree with the basic principles articulated in MNR's Broader Landscape Approach, which largely reflect simple truisms of natural resource management. However, the ECO has serious concerns about the ministry's promised approach in light of MNR's broader transformation plan to downsize the ministry and its responsibilities. The ministry's track record of offloading programs, obscuring decision-making criteria, inadequate or non-existent monitoring, and cutting the public out of key decisions makes the ECO sceptical of the application of this Framework.

At best, MNR's Broader Landscape Framework is an ill-equipped attempt to re-focus the ministry; at worst, it is a vague and non-committal document that will be used as justification to marginalize the much-needed conservation work that underlies the core function of the ministry. The lack of detail and decision-making criteria in the Broader Landscape Approach Framework raises the concern that the ministry could use the Framework to rationalize deregulation, reduced regulatory oversight, and the outsourcing of responsibilities. The ECO urges MNR to develop – and explain the rationale behind – clear criteria for determining appropriate management scales, and to publicly articulate the considerations MNR will apply in its risk assessment process. The ECO cautions that the ministry's intent to manage at broader scales should not be used to justify managing *only* at a broad level, ignoring important fine-scale issues.

A defensible ecosystem-based approach requires a comprehensive understanding of the structure and function of the ecosystem in question. Extensive environmental monitoring is the only way to achieve this understanding. To support an ecosystem-based approach, monitoring must also be a long-term undertaking. To date, the ministry's monitoring efforts have been relatively short-term and piecemeal, and have ultimately failed to provide the long-term baseline information necessary to successfully apply a landscape approach to the management of natural resources. Moreover, failing to recognize the critical role of monitoring in adaptive management effectively predestines the failure of this approach.

Therefore, a legitimate broad-scale approach to natural resource management will require new monitoring programs, and systems for collecting and sharing information. While integration and co-ordination are worthy goals, MNR's plans to "leverage and co-ordinate with the work of others" should not be used to justify outsourcing MNR's responsibilities to third parties without ensuring that they have the necessary expertise and resources to take them on. Moreover, MNR needs to articulate how it intends to finance and implement the monitoring necessary for broad-scale landscape management, and how collected data will then be used to inform and improve its natural resource management programs. Seeing the big picture and knowing the reality on the ground are not mutually exclusive.

MNR's operations – with or without this overhaul – require adequate resources and expertise, which seem to be in short supply. As a result, the ECO is concerned that the ministry may not have the internal capacity to effectively implement its new approach in an ecologically sound manner, which could put Ontario's environment and natural resources at risk. In order to guide the successful implementation of the Broader Landscape Approach, the ECO encourages MNR to explain how this Framework will be rolled out and applied to its new and existing programs.

Review of Posted Decision:**1.5.5 Modernization of Approvals under the *Public Lands Act*****Decision Information:**

Registry Number: 011-7669
Proposal Posted: December 5, 2012
Decision Posted: October 7, 2013

Comment Period: 47 days
Number of Comments: 65
Decision Implemented: January 1, 2014

DescriptionOverview

The Ministry of Natural Resources (MNR) has exempted certain activities from the requirement to obtain a work permit under the *Public Lands Act* as of January 2014. These changes are part of the ministry's transformation plan to "modernize" its approvals system. Proponents of some types of activities are now only required to follow rules set out in regulation (O. Reg. 239/13) and, in a few cases, to also register their activity with MNR; in the past, proponents would have been required to obtain a work permit from the ministry.

Background*The Public Lands Act:*

The *Public Lands Act* regulates the management, sale and disposition of most Crown lands and forests, making it applicable to three quarters of Ontario's land base. MNR uses this law to regulate many activities that occur on public lands through permitting requirements. Activities subject to such regulation include those related to mineral exploration, general construction and camping.

Permits are also required for many activities that affect waterways and shore lands. Owners of waterfront property often require permits to alter shorelines because water beds adjacent to private land are often Crown land. Activities affecting waterways and shore lands for which a work permit is required include: constructing a water crossing; dredging or filling shore lands; and constructing or placing a structure (such as a breakwall).

For any such activity that requires a work permit under the *Public Lands Act*, MNR is required to issue the permit provided that the activity is not otherwise prohibited by law or inconsistent with certain policies (such as a municipal Official Plan or provincial land use guideline), and does not create a threat to public safety or the environment.

MNR's Transformation Plan and the Modernization of Approvals:

MNR announced the first stage of its transformation plan in September 2012, which the ministry states is intended to "make it easier, faster and more efficient for businesses and individuals to access services, set the ministry on a sustainable fiscal path, and contribute to balancing Ontario's budget by 2017/18." (For more on the transformation plan, refer to Part 2.1 of our 2012/2013 Annual Report.)

According to the ministry, streamlining (or "modernizing") MNR's approvals process is one key component of the transformation plan. MNR asserts that the existing approvals process "take[s] too long and cost[s] too much to administer." Accordingly, MNR is reviewing all the approvals it issues

to identify if a less cumbersome regulatory approach may be used instead. MNR has identified four general approaches to the approvals it issues:

1. Eliminate approval altogether from regulatory control.
2. Eliminate approval but establish rules governing the activity through regulations (i.e., create a rules-in-regulation system).
3. Provide approval through an automated electronic registry system (i.e., create a registration system).
4. Leave approval unchanged, but look for opportunities to use technology to improve delivery.

MNR states that it is using a risk-based evaluation process to evaluate whether an approval should be changed. The ministry asserts that this process considers the level of impact of the activity on: public health and safety; natural resources; social and cultural uses of natural resources; government, public and private finances and the economy; and public expectations of government. (For more information on the modernization of approvals, refer to Section 1.16 of the Supplement to our 2012/2013 Annual Report.)

Amendments under Bill 55:

In June 2012, the government amended 58 statutes through an omnibus budget bill – Bill 55, the *Strong Action for Ontario Act (Budget Measures), 2012* – including the *Public Lands Act*. These changes to the *Public Lands Act* appear to be intended, in part, to allow for the “modernization” of the approvals issued under the Act, as described above. Before these amendments, the law allowed government to prohibit activities and require work permits, but did not allow government to create a rules-in-regulation and/or a registration system. With the amendments, the *Public Lands Act* was changed to allow the government to create exemptions from requirements for work permits, and to impose a rules-in-regulation and/or registration system.

Exemptions to the Work Permit Requirement

As of January 1, 2014, new exemptions eliminate the requirement for work permits for a number of activities. MNR no longer requires work permits for “minor maintenance activities” to trails, water crossings or roads; there are no conditions attached to this new exemption. For some other activities, as described below, rules set out in regulation, and in some cases requirements for registration, will apply instead of a permit.

Parties constructing or placing a building within an area for which they hold an unpatented mining claim for the purpose of mineral exploration and development are now only required to register with the ministry, rather than obtain a work permit. For this exemption to apply, the building must not be within 120 metres of a shoreline reservation and must not be on land for which the surface rights are held by another person. There are no other requirements or restrictions on this activity.

The remaining exemptions pertain to proponents undertaking activities in waters adjacent to their own private properties. Certain instances of the following activities are exempt from the work permit requirement as long as they follow rules set out in regulation:

- maintenance dredging;
- relocation of rocks and/or boulders;
- removal of invasive aquatic vegetation from shore lands;
- removal of native aquatic vegetation from shore lands in southern Ontario; and
- restoring, repairing or replacing an existing erosion control structure (with registration).

The rules in regulation for each of these activities are similar, including: requirements to minimize environmental impacts, such as to reduce sediment; the prohibition of in-water work during certain timing windows; and a requirement to carry out new work within the same footprint of any previous activity (although in some cases parties may expand beyond the original footprint). In the case of dredging, parties can only carry out work previously authorized under a work permit within the last five years, and must only dredge within the boundaries of the previously dredged area. Table 1 below summarizes the main restrictions and rules for each activity now subject to rules in regulation.

Table 1. Summary of Rules in Regulation under O. Reg. 239/13.

	Registration with MNR	Geographic restrictions	Requirements to minimize environmental impact	<i>In-water Work Timing Window Guidelines</i>	Work must overlap with previous footprint
Minor maintenance activities to trails, water crossings or roads	-	-	-	-	-
Construction of buildings for mineral exploration and development	X	X	-	-	-
Maintenance dredging	-	-	X	X	X
Relocation of rocks and/or boulders	-	-	X	X	X
Maintenance, repair or replacement of an existing erosion control structure	X	X	X	X	X
Removal of invasive aquatic vegetation	-	-	X	X	-
Removal of native aquatic vegetation	-	X	X	X	X

The ministry had initially proposed an exemption for the maintenance and replacement of clear span bridges and culverts, but this activity was not included in the final regulatory changes.

Implications of the Decision

MNR reports that the majority of work permits have historically been issued to individual private property owners undertaking work along the shoreline border of their property. A limited number of permits have typically also been issued to municipalities and industry for commercial undertakings. MNR has not provided any historical information about the number of work permits issued annually or where and for what specific purposes permits were issued. As a result, it is difficult to fully assess the implications of these changes, as the number of parties and properties affected is unknown.

No Option to Deny Work

In the case of work permits, MNR must deny a permit if the activity in question is likely to pose a threat to public safety or to a natural resource. Under the new rules-in-regulation system, there is no ability for MNR to deny permission for the activity even if it is likely to have unacceptable environmental effects; for example, if the activity threatens a significant natural heritage feature such as provincially significant wetlands or an Area of Natural and Scientific Interest.

This inability to deny permits may have a particularly damaging effect on fish habitat. Work permits are one of the main mechanisms by which MNR can control and prevent damage to near shore fish habitat. Individual instances of plant or rock removal, erosion control structure repairs or maintenance dredging may seem minor, but there is a significant potential for negative cumulative effects on fish habitat as multiple parties around a lake or waterway each make alterations to the shoreline. Although other laws such as the *Fisheries Act* and *Endangered Species Act, 2007* and the requirement that parties follow the *In-water Work Timing Window Guidelines*, afford limited protection for some fish populations, there is no longer a comprehensive mechanism for addressing the issue of general habitat degradation.

Reduced Oversight

Under a permitting system, MNR has the opportunity to review every permit application and therefore track the location and type of work being undertaken by private parties on Crown lands. As a result, MNR has the information necessary to monitor areas susceptible to cumulative impacts and to track other environmental trends. The ministry is also aware of locations where inspection and enforcement action may be required to ensure compliance with the terms of a permit.

Activities now exempt from the permitting requirement fall into two general categories: those that require registration (two of the seven activities affected) and those that do not (five of the seven activities). Through registration, MNR maintains its ability to monitor and inspect, much the same as under the permit system. For those activities that do not require registration, however, MNR no longer has any information about when and where these activities occur on Crown land.

The move to a rules-in-regulation approach also removes MNR's ability to impose customized permit conditions to address situation-specific concerns that may exist for proponents relying on the permit exemption.

The Class Environmental Assessment for MNR Resource Stewardship and Facility Development Projects

Many activities carried out by MNR are subject to the *Environmental Assessment Act*. In order to ease the administrative burden imposed by conducting a multitude of individual environmental assessments (EAs) for similar undertakings, the Ministry of the Environment can allow for a class environmental assessment ("Class EA"). In a Class EA, groups of similar activities (i.e., "classes") are assessed together and a set of conditions applicable to all activities in the class is developed. Generally, as long as the proponent follows the conditions imposed by the Class EA, it can proceed with projects within the class without undertaking an individual EA.

Many of the activities that MNR regulates on Crown lands under the *Public Lands Act* are subject to a Class EA: the Class Environmental Assessment for MNR Resource Stewardship and Facility Development Projects (Class EA-RSFD). A decision to allow a party to undertake an activity on Crown land is generally considered a disposition of rights to Crown resources and, as such, is included in this Class EA. Accordingly, the issuance of permits under the *Public Lands Act* is governed by the Class EA-RSFD, meaning that MNR is required to "screen" every decision to issue a permit to determine which of the four class categories it belongs in, and what further action and conditions are required (if any) for the project to proceed. For example, the Class EA-RSFD lists "dispositions such as a work permit for minor dredging/filling projects" as an example of an activity that may fall into Category B and thus be required to follow additional public notice and consultation processes.

However, under the Class EA-RSFD, where an activity is permitted by law or regulation to proceed without a discretionary decision by the ministry, the activity may proceed without being subject to the requirements of the Class EA-RSFD. Accordingly, by making the grant of certain rights under the *Public Lands Act* automatic under MNR's new rules-in-regulation system, where these grants were once discretionary, MNR is no longer obligated to apply the requirements of the Class EA to these activities.

As a result, activities that were previously bound by the Class EA-RSFD, and thus the environmental protection conditions it imposes, are no longer subject to such oversight. This may set an alarming precedent for MNR to avoid the requirements of the Class EA-RSFD and the *Environmental Assessment Act* by simply legislating away its own ability to deny an activity.

Reduced Costs

By eliminating permit requirements for certain activities, MNR has reduced its administrative costs. The ministry no longer requires staff to review application materials, work with proponents and prepare permits. There may be reduced costs associated with enforcement as well, since MNR no longer knows when or where non-registered activities are taking place and will presumably investigate compliance issues for these sites on a complaints-driven basis, rather than through spot-checking.

Proponents may also experience some benefits, as they will no longer have to invest time in preparing application materials, or wait for approval before commencing an activity.

Public Participation & EBR Process

The proposal notice for the regulatory changes was posted on the Environmental Registry on December 5, 2012 for a 47-day comment period. MNR did not provide a draft version of the proposed regulation, but it did provide a fairly comprehensive overview of the intended changes in the original proposal notice. MNR stated that it was undertaking additional consultations and

outreach with interested stakeholders, as well as engagement with First Nation organizations. Sixty-five comments were received through the Environmental Registry, evenly split between those supportive of the proposed changes and those opposed.

Many individuals complained of the long wait periods currently experienced when applying for a work permit, particularly for dredging. Several comments specifically identified the lengthy but required Aboriginal consultation process as the source of these delays. They expressed support for the proposed changes as an automatic approval would expedite the process for property owners.

Some commenters asserted that the proposed exemptions did not go far enough and that additional activities should be allowed to take place without a permit, including general dredging (as opposed to maintenance dredging) and minor maintenance of portages. Multiple commenters suggested that the siltation and/or spoils (dredging by-product) disposal control requirements should be removed for any activity lasting less than one day.

Among those who opposed the proposed changes were several waterfront property owners and cottagers' associations. Several of these parties expressed concern that without MNR's involvement and oversight, shoreline "sterilization" would become the norm and that critical habitat would be destroyed, cumulatively leading to a range of environmental consequences (e.g., loss of species, including birds and amphibians; increased phosphorus levels in lakes due to loss of buffer zone; and shoreline erosion). Some commenters suggested that any benefits gained through administrative cost savings would be offset by increased environmental costs.

Several commenters suggested that without direct interaction with and oversight from MNR, a critical opportunity for public education and direction would be lost and that property owners would be more inclined to use inappropriate methods, causing unnecessary environmental damage.

Challenges in enforcing the rules in regulation were noted by several commenters, whether they were supportive of the overall shift to a rules-in-regulation system or not. Many noted that without registration, there is simply no way for MNR to know when and where work is taking place.

As a result of the comments received, MNR determined that "maintenance, repair or replacement of an existing erosion control structure" would require registration with the ministry (the proposal initially only required proponents to follow rules in regulation). Most significantly, MNR removed the exemptions for activities relating to the maintenance and replacement of clear span bridges and culverts from the proposal. No other changes from the proposed version of the regulation were reported by MNR.

Statement of Environmental Values

In documentation provided to the ECO, MNR briefly explained how the ministry applied its principles of resource stewardship, as outlined in its Statement of Environmental Values, to its decision. MNR's comments generally reflect the ministry's focus on the application of its risk-based evaluation process to the modernization of approvals. The ministry's comments indicate that the ministry concluded that these regulatory changes will have a minor impact on the natural environment.

Other Information

The amendments made to the *Public Lands Act* under Bill 55 (which set the stage for the regulatory changes discussed within this decision review), were the subject of an application for review which was denied by MNR. (For more information, see Section 2.4.3 of the Supplement to our 2012/2013 Annual Report.)

ECO Comment

The efficient operation of government is a laudable goal, and program reviews should be regularly undertaken to ensure services are delivered in the best possible manner. These efforts, however, must not detract from MNR's core mandate to protect and sustainably manage natural resources. The ECO continues to be troubled by MNR's push to "modernize" approvals by simply eliminating the permitting process altogether. The ECO believes the ministry has underestimated the sum impact of these regulatory changes and their potential to harm the natural environment.

Permits tied to a specific activity provide a critical opportunity for MNR to: evaluate potential site-specific and cumulative effects; engage with proponents to ensure appropriate and least damaging methods are used; track activities for monitoring and enforcement purposes; and prohibit an activity if the potential adverse consequences are too severe. Activities under the new rules-in-regulation regime have lost the benefit of all these oversight activities. Registration somewhat improves the situation by at least allowing MNR to track where certain activities are taking place, thus enabling monitoring and enforcement measures.

Some of MNR's approvals are routine in nature. However, maintaining adequate control over approvals is necessary due to the potential for negative cumulative effects. For example, the alteration of one piece of shoreline may in of itself not be seriously damaging to fish habitat; however, if every property owner around a lake altered the shoreline, as is now allowed, serious risks to the lake's ecosystem become a clear danger. This type of harm would have been preventable before MNR "modernized" this regulation under the *Public Lands Act*.

While a rules-in-regulation with registration regime could potentially be appropriate for the activities covered by the new regulation, additional safeguards are needed. For such a system to work efficiently while still protecting the natural environment, MNR has to develop a comprehensive outreach program to educate waterfront property owners about the appropriate methods to be used when undertaking one of the exempted activities. Registration of all work is critical in order to allow MNR to track activities in particularly sensitive areas and identify locations susceptible to cumulative effects, as well as to undertake spot audits and enforcement activities. Finally, such a system must retain MNR's ability to deny activities that pose an unacceptable threat to public safety or the natural environment.

1.6 Ministry of Transportation

Review of Posted Decision:

1.6.1 Ontario Ministry of Transportation Cycling Strategy

Decision Information

Registry Number: 011-7552
Proposal Posted: November 30, 2012
Decision Posted: August 30, 2013

Comment Period: 60 days
Number of Comments: 1,106
Decision Implemented: August 30, 2013

Description

Overview

On August 30, 2013, the Ministry of Transportation (MTO) released *#CycleON: Ontario's Cycling Strategy* (the "Strategy"), an update of MTO's 1992 *Bicycle Policy*. The Strategy presents a 20-year vision for cycling in Ontario that recognizes the important role it plays as a transportation option. Cycling provides numerous social, economic and environmental benefits; however, barriers such as limited infrastructure and safety concerns limit the number of people that currently choose cycling to meet their transportation needs.

In 2011, MTO released *Sustainability inSight*, a broad strategy to incorporate sustainability considerations into the ministry's internal practices, as well as its policies and programs. One of its goals is to increase people's ability to access goods and services, as well as activities and destinations. To achieve this goal, MTO indicated it would broaden the range of transportation options available (i.e., automobile, train, bicycle, foot) so individuals and businesses can choose the mode that best suits a particular trip. The ministry subsequently released its first *Sustainability Implementation Plan*, outlining the actions it would take to achieve the strategy's seven goals. Included within this plan was a commitment to update MTO's 1992 *Bicycle Policy*.

Background

In Ontario, the average light vehicle (such as cars and SUVs) is used to make approximately 1,100 trips per year that are less than six kilometres long. A full 22 per cent of these trips are less than one kilometre in length. Within the Greater Toronto and Hamilton Area nearly 40 per cent of daily automobile trips could be replaced by biking, given the short distances involved. Indeed, for trips up to five kilometres in length, cycling is typically the fastest mode of travel door to door. However, cycling currently accounts for just over one per cent of all commuting trips within Canada, whereas single-occupancy vehicles represent almost three quarters.

Replacing vehicle trips with cycling can reduce air pollution, particularly for shorter distances as most of a vehicle's air emissions are released within the first two kilometres as the engine warms up. Automobile use is a significant source of local and regional air pollution due to the smog-forming pollutants such as nitrogen oxides, volatile organic compounds and particulate matter that are released. Additionally, passenger vehicles are responsible for 71 per cent of Ontario's on-road transportation greenhouse gas emissions.

Cycling also offers benefits from a public health perspective. Vehicle emissions have been linked to high rates of premature deaths and hospitalizations, with children being more adversely affected than adults as they have higher rates of asthma. Mortality-related costs associated with Toronto's traffic pollution are estimated at over \$2 billion annually; a 30 per cent reduction in emissions could prevent hundreds of premature deaths and lead to a significant reduction in annual health care costs according to Toronto Public Health. Additionally, cycling, as a form of regular physical activity, can provide important individual health benefits and reduce the risk of various diseases, as well as lower obesity rates.

Numerous economic benefits are also associated with cycling. An increase in the number of people travelling by bicycle, rather than passenger vehicle, can help reduce traffic congestion: a challenge that has been estimated to cost the Greater Toronto and Hamilton region as much as \$11 billion per year. Efforts to improve physical health through activities such as cycling can also help reduce the province's enormous health care expenditures. Several quality of life co-benefits also exist, including reduced traffic noise, less stress during commuting and more liveable neighbourhoods with less motor vehicle traffic.

Many Ontarians would like to cycle more, but they are held back by the perception that cycling is dangerous. According to the Ontario Medical Association, these fears are warranted; cyclists face a high risk of injury due to accidents, especially when a vehicle is involved. Concerned about the number of cyclists being killed, the Chief Coroner for Ontario investigated and, in 2012, reported on 129 deaths that occurred in the province over a five-year period. The Coroner concluded that all of the deaths reviewed between 2006 and 2010 could have been prevented. Fourteen recommendations that focused on infrastructure, education and legislation were directed at six provincial ministries. In particular, the Coroner recommended that MTO and the Ministry of Municipal Affairs and Housing develop a provincial cycling plan to guide policy development and serve as a base upon which decisions regarding cycling infrastructure and funding could be made.

#CycleON: Ontario's Cycling Strategy

In recognition of the multiple benefits that cycling provides and the need to do more to support this mode of transportation, MTO reviewed its 1992 *Bicycle Policy* and, in August 2013, released *#CycleON: Ontario's Cycling Strategy*.

The Strategy begins with a concise overview of the many benefits that would result if more trips were made by bicycle in Ontario, including personal and public health improvements, fewer air emissions, and the potential for increased economic activity. To achieve these benefits, the Strategy proposes a multi-layered approach including a vision for Ontario in 2033 where cycling is "recognized, respected, and valued as a core mode of transportation." Three guiding principles are identified – safety, accessibility and connectivity, and partnership – which inform five aspirational goals. Twenty years from now, the province aims:

1. To be recognized as the best province for cycling, to be ranked among the top 10 jurisdictions worldwide for cycling and to have at least one Ontario city that is ranked among the 10 most bike-friendly cities in the world;
2. To have, in most communities, a built environment that supports and promotes cycling for all trips under five kilometres;
3. To have a safe cycling environment where there are few serious injuries and, ideally, zero fatalities;
4. To have interconnected networks of safe cycling routes in cities and towns so people can cycle to key destinations; and
5. To have an integrated, province-wide network of cycling routes.

In order to achieve this 20-year vision, the province has further identified five strategic directions, each of which contains several areas for action. Together, these represent areas the government proposes to focus on to "increase the number and safety of cyclists in Ontario."

Table 1. Strategic Directions and Action Areas in *#CycleON: Ontario's Cycling Strategy*.

Strategic Directions	Areas for Action
Design healthy, active and prosperous communities	• Enhance cycling provisions when planning policies, guidelines and legislation are reviewed • Partner with municipalities to implement complete streets policies and develop cycling or active transportation plans • Partner with municipalities and transit agencies to integrate cycling with transit • Ensure bicycles are better accommodated in institutional, residential and commercial buildings
Improve cycling infrastructure	• Develop a funding partnership with municipalities and the federal government to build provincial and municipal cycling routes

	• Make adherence to design guidelines conditional to receive funding • Fund provincial and municipal cycling infrastructure pilot projects to test new ideas and gather data • Remove barriers and streamline approval processes to implement cycling infrastructure
Make highways and streets safer	• Review and recommend cycling-related legislation based on the latest research • Continue to better educate all road users on the rules of the road to build cycling skills • Work with police services to build consistency of enforcement of existing traffic laws to improve cycling safety
Promote awareness and behavioural shifts	• Lead province-wide campaigns to encourage more people to cycle more often • Develop and share relevant cycling best practices, research and data • Encourage more cycling education in schools and at the community level
Increase cycling tourism opportunities	• Promote Ontario as a premier cycling tourism destination • Identify a province-wide cycling network and use it to prioritize future infrastructure investments on provincial highways • Improve cycle tourism experiences and inter-modal cycling connections by working with partners to provide end-of-trip facilities, maps of existing cycling routes and way-finding applications

MTO is to more fully elaborate on each of the action areas within future multi-year action plans. These plans are to outline the specific projects and initiatives to be undertaken. To track progress, MTO is also to include specific performance metrics and indicators. As well, the ministry will report on any progress made, “discuss new issues and emerging trends, and identify projects and the partnerships that will be needed to achieve results.”

Along with identifying future actions, the Strategy discusses several initiatives that have already been started. For example, MTO worked with, and provided funding to, the Ontario Traffic Council to develop a new guidance manual for municipalities that outlines best practices for designing and maintaining on-road bicycle facilities such as bike lanes and signage. A similar manual, the 1996 *Ontario Bikeways Planning and Design Guidelines*, is also being updated to provide direction on designing cycling facilities, such as paved shoulders, on provincial highways. MTO has also, in conjunction with municipalities, compiled an inventory of existing and planned cycling routes throughout the province. The goal is to use this information to determine where the gaps are between existing cycling routes to inform the development of a provincial network.

Finally, the Strategy emphasizes that while MTO will play a central role, achieving the vision will require the partnership of other provincial ministries and agencies, municipalities, road-user groups, businesses, non-governmental organizations and private individuals. The government has also committed to meet with stakeholders on an annual basis to share the progress made.

In April 2014, MTO released the first action plan outlining the measures that are to be taken under each of the five strategic directions. The ministry posted the action plan as an information notice on the Environmental Registry. MTO did not post it on the Environmental Registry as a policy proposal open for public comment as is required by the *Environmental Bill of Rights, 1993*.

Implications of the Decision

Resetting the Cycling Agenda?

The Strategy comprehensively identifies barriers that need to be addressed in order for cycling to become more prevalent in Ontario. This Strategy is not the first time, however, that the province has articulated these hurdles and crafted policy direction in an attempt to address them. In 1992, MTO released a brief, updated bicycle policy. Similar to the current Strategy, the 1992 policy acknowledged that cycling provides multiple environmental and health benefits, but that concerted effort was necessary to increase the number of people riding. At the time, MTO indicated that it would take a leadership role to help integrate bicycles into the overall transportation system. Several measures were identified and broad commitments to take action in a number of areas were made.

For example, the 1992 policy indicated that, to integrate cycling into the overall transportation system, the ministry would “encourag[e] municipalities to undertake comprehensive bicycle plans” and “undertak[e] initiatives to integrate the bicycle with public transit systems.” With regard to cycle touring, the ministry indicated it would work with other ministries and municipalities to develop bicycle projects within tourist corridors. In many areas, therefore, the broad, non-committal language of encouragement, enhancement and partnership that is used in the current Strategy echoes that which was used twenty years ago. Whether the new Strategy actually leads to an improved cycling environment in Ontario depends upon future action plans, the concrete action items that are identified in those plans, and how committed and aggressive the province remains in implementing them.

In this regard, the 1992 policy also recognized the importance of developing an implementation plan that identified the specific initiatives that would be pursued, as well as a timeframe for their completion. The ministry was also to establish a yearly monitoring program, along with a formal five-year review, to “evaluate progress and incorporate any necessary modifications.”

It is unclear, however, if MTO ever finalized a yearly monitoring program, and only one implementation progress report was ever prepared. While the progress report indicates that a number of actions were taken to promote cycling in the province, including the development and release of the *Ontario Bikeways Planning and Design Guidelines* in 1996, the lack of any further reports suggests that cycling did not remain a high priority for the ministry. This shortcoming is reflected, in part, by MTO’s lack of information on cycling and lack of its promotion as a transportation alternative over the years. Apart from providing cycling safety information on its website, MTO has provided minimal information regarding efforts that have been made to improve cycling conditions in the province.

No Measurable Targets

While the Strategy contains several broad aspirational goals, it does not provide any quantifiable targets against which progress can be measured. For example, although one goal is for cities and towns across the province to have interconnected networks of safe cycling routes, no indication is provided as to how progress toward this goal will be monitored or measured, or how the province will determine that this goal has ultimately been achieved. This approach can be contrasted with Quebec’s bicycle policy which contains very specific, quantitative targets; such targets provide a yardstick against which efforts to improve cycling conditions in the province can be assessed.

The ultimate objective of any cycling strategy is to increase the number of people choosing biking as a mode of transportation. Quebec has, therefore, established a 50 per cent increase in the modal share of the bicycle in major centres as a target. For example, in Montreal, this increase would boost

the number of trips by bicycle from 1.2 per cent to 1.8 per cent in 2020. With regard to cycling networks Quebec established a target to increase the total number of kilometres of bikeways by 30 per cent by 2020. Moreover, people are not going to cycle unless they feel safe doing so; accordingly, Quebec established a target to reduce serious injuries and deaths by 30 per cent by 2020, while the City of Copenhagen adopted a qualitative target to increase the percentage of cyclists that feel safe while riding in traffic.

Although the Strategy indicated that specific performance metrics and indicators would be included in each multi-year action plan, no such metrics were contained within the first action plan. While some actions have a specified year by which they are to be completed, many others are broad and open-ended, with no firm timeline attached.

No Dedicated Funding for Cycling Infrastructure

The Strategy identifies funding for cycling infrastructure as a critical area. However, the Strategy provides no firm funding commitment, nor does it establish a dedicated funding mechanism, to expand current cycling infrastructure. Instead, the government states it will work to develop a funding partnership with the other levels of government. In this regard, the Strategy effectively reiterates the 1992 *Bicycle Policy*, which also spoke of the role of funding partnerships without making any firm funding commitments.

The experience of Quebec reveals that a strong provincial commitment plays a critical role in expanding cycling infrastructure. In Quebec, for example, a long-term funding commitment by the Ministère des Transports helped drive the development of the 5,000 kilometre Route Verte cycling network, as well as numerous municipal cycling infrastructure projects. The ministry has also earmarked approximately one per cent of its highway budget for the provincial cycling network.

While the Strategy did not contain a funding commitment, the first action plan announced the launch of a three-year program to build municipal and provincial cycling infrastructure. According to MTO, \$25 million will be made available over three years for cycling infrastructure. Of this amount, \$15 million will be used to improve cycling facilities on provincial highways and bridges. The remaining \$10 million will be provided to municipalities to expand local cycling routes. With 444 municipalities in the province, the ministry plans to hold consultations to determine how best to allocate these monies.

No Requirement for Municipal Complete Street Policies

The design and development of cycling infrastructure is closely linked to land use planning; it is important that the Strategy is aligned with, and supported by, other provincial planning initiatives. The *Provincial Policy Statement* (PPS) provides direction on land use planning and development for the entire province. In the past, the ECO has discussed the 2005 PPS's guidance to municipalities with regard to planning public streets for cycling. For example, in Section 5.3.2 of the Supplement to our 2007/2008 Annual Report, the ECO pointed out that while the 2005 PPS states that streets "should be" planned to meet the needs of cyclists, it did not require municipalities to provide safer cycling infrastructure. As a result, the ECO concluded that many municipalities have been less than ambitious in providing the necessary facilities.

In January 2014, a new PPS was approved (for a review of this decision, please refer to Section 1.4.1 of this Supplement). In general, the 2014 PPS places an increased emphasis on promoting and supporting active transportation. What remains unchanged, however, is the use of discretionary language with regard to planning public streets. In this respect the 2014 PPS reiterates that public streets "should be" planned to facilitate cycling, and other forms of human-powered travel, rather than requiring them to be planned in such a manner.

Despite this lack of mandatory direction, an increasing number of municipalities are beginning on their own accord to incorporate some complete streets concepts into their own planning documents. Under a complete streets approach, roads are designed to be safe for all ages, all abilities, and all modes of travel. Of critical importance, a complete streets approach does not treat these considerations as an afterthought to road design, but rather as an integral part of the entire road planning process. Therefore, while the cycling Strategy recognizes the importance of a complete streets approach neither it, nor the revised PPS, makes it a requirement to plan streets that are supportive of active transportation.

No Responsibility for Ministry of Education

The Strategy recognizes that for people to feel safe riding a bicycle, it is important to provide education and skills training, particularly at a young age. Despite this necessity, no explicit responsibility is placed on the Ministry of Education to ensure this education occurs. Using almost the same language that was contained in the 1992 *Bike Policy*, which spoke of “encouraging bicycle education as a life skill in the school system,” the Strategy indicates that the province will again “encourage” that bicycle education occurs in schools and at the community level. In the absence of a stronger requirement that such training occur, and a commitment to provide the resources necessary to make it happen, the level of cycling education provided within schools and communities may well remain the status quo.

Public Participation & EBR Process

The draft cycling strategy was posted on the Environmental Registry for a 60-day comment period in November 2012. The proposal generated a high level of public interest with 1,106 comments submitted from a broad range of individuals, municipalities, health agencies, and organizations. MTO held a stakeholder workshop in June 2013 with 24 stakeholder organizations to solicit further input.

While there was unanimous support for a new cycling policy, many commenters expressed disappointment that the draft strategy did not meet their expectations. Several commenters stated that the draft merely reiterated current practices, rather than presenting a vision for the future. As the City of Thunder Bay argued, due to its weak language and the tone used, the draft strategy “implies that current practices are adequate and meeting the needs of the Province... but clearly, more needs to be done.” Many also questioned how any successes would be monitored or measured due to the complete lack of specific goals, measureable targets or timelines.

Increased education was frequently mentioned as a key issue. Along with concern that driver training is insufficient and that the driver’s handbook is out of date, many commenters called for a broad public education campaign that builds support for cycling as a socially acceptable transportation option. Numerous commenters asserted that more support should be given to provide cycling courses, such as CAN-BIKE, and that cycling education must begin at an early age. Many commenters urged the Ministry of Education to make cycling education a part of the compulsory school curriculum.

For municipalities, a key area of concern was whether additional financial resources would be forthcoming to assist them in expanding their cycling infrastructure. Many municipalities argued that, while they have developed transportation master plans that support and enhance alternatives such as walking and cycling, they are constrained due to a limited amount of funding and the competing demands placed on the funds that are available. Several funding alternatives were suggested such as dedicating a portion of the provincial gas tax to cycling projects and reforming development charges so they could be used to expand cycling infrastructure. Several commenters pointed out that if the strategy is truly to be a provincial commitment, funding should not be the

sole responsibility of MTO, but spread across other ministries that have responsibility for complete communities, healthy living, reduced air pollution, tourism and sport. One commenter suggested that both MTO and the Ministry of Tourism should allocate a fixed percentage of their operating and capital budgets to cycling initiatives.

Numerous commenters identified the need to reform the *Highway Traffic Act*, including changes to allow cyclists to legally ride on paved shoulders on highways, to include a one metre rule for vehicles when passing cyclists, and to clarify the legality of contraflow bike lanes. The policy question of whether helmets should be made mandatory for cyclists over the age of 18 drew the greatest number of comments, with near unanimity expressed by health agencies as to the merits of this approach. Other commenters argued this would reduce the number of cyclists on the road and called for promotion of their use instead.

Most commenters argued that the current state of infrastructure (e.g., the paucity of dedicated cycling lanes, unpaved shoulders on highways, and limited signage) presents a significant barrier to cycling. As well, the design and development of cycling infrastructure was seen to be closely linked to good land use planning and so many argued that the Strategy needs to be aligned with, and supported by, other planning initiatives such as the *Provincial Policy Statement* and the *Growth Plan for the Greater Golden Horseshoe*. Others expressed disappointment that, despite being the provincial coroner's first recommendation, the draft strategy did not require that a complete streets approach be followed when planning new and redeveloped communities.

In its decision notice, MTO indicated how the final Strategy addressed some of the issues raised. For example, the vision statement was broadened such that it no longer focused primarily on safety issues, but rather contains an explicit recognition that cycling is valued as a core mode of transportation that provides multiple benefits for individuals and society. MTO strengthened the document by clarifying that it is a government-wide priority that depends upon collaboration by other ministries.

In response to concerns about the need for increased education, MTO indicated that the province will work towards better educating all road users and will encourage more cycling education in schools and communities. MTO also revised the Strategy to recognize that schools could play a role in educating cyclists.

Statement of Environmental Values

In its Statement of Environmental Values (SEV) consideration note, MTO stated that the Strategy supports key elements in the ministry's SEV including protection of the natural environment, integrated and multi-modal transportation planning, and education and promotion of safe cycling initiatives. Under the heading "natural environment" however, MTO curiously gave no recognition to the role that increased cycling may play in terms of reducing environmental impacts, managing congestion or reducing transportation-related air emissions. Instead, the SEV focused primarily on the issue of cycling safety.

Other Information

In October 2013, the Ministry of Tourism and Recreation posted a proposal notice on the Environmental Registry seeking public input to update the Ontario Trails Strategy. Within the discussion document provided, trails are very broadly defined to include on-road bicycle routes, as well as utility corridors and former rail lines.

In March 2014, Bill 173, the *Keeping Ontario's Roads Safe Act* was tabled for First Reading. The proposed legislation would result in numerous amendments to the *Highway Traffic Act*, some of

which are designed to enhance cycling safety and promote it as a transportation option. Proposed amendments include increasing the penalty for hitting a passing cyclist when opening a car door, requiring all drivers maintain a one-metre distance when overtaking a cyclist, allowing municipalities to establish contraflow bicycle lanes, and permitting cyclists to ride on the paved shoulders of provincial highways (despite the fact that many cyclists currently do so, it is technically illegal for them to ride on this portion of the highway). With the prorogation of the provincial legislature in May 2014, however, Bill 173 died on the order paper.

ECO Comment

The ECO applauds the government for producing *#CycleON: Ontario's Cycling Strategy* and for moving forward with the release of the first action plan. Combined, these documents articulate a vision for the future of cycling in the province and reflect an understanding of the challenges that need to be overcome. Climate change, rising fuel costs, increased traffic congestion in large cities, poor air quality and growing public health concerns all point to making cycling a more viable mode of transportation.

The ECO urges the government to work systematically to remove the barriers that continue to hinder more people from cycling. Twenty years ago, the government identified numerous barriers that existed to prevent the expansion of cycling as a viable transportation option; disappointingly, many of these barriers remain today.

Central to the success of the Strategy is a transportation and land use planning system that incorporates cycling as a key element. While the official plans of seventeen of Ontario's largest municipalities contain many elements of a complete streets policy, smaller municipalities may require assistance to develop and implement such policies. As such, the ECO is encouraged to see recognition of the need for complete streets policies across all municipalities, and the intention of the province to partner with municipalities to implement them. Nevertheless, the ECO is concerned that even where such policies have been adopted, the language used is often weak or ambiguous and that the implementation of sustainable transportation policies at the local level often results in a watered down, transportation-as-usual approach.

On a more fundamental level, the ECO is concerned that the government's promise to improve cycling infrastructure rings hollow in the absence of a firm, long-term commitment to fund these improvements. A significant portion of provincial transportation funding is typically devoted to expanding, upgrading or maintaining roads for motor vehicles; by contrast, the amount that would be required for cycling infrastructure would constitute a very small fraction of the provincial road program, yet could achieve major progress towards fulfilling the provincial vision for cycling outlined in the Strategy. While the ECO is pleased to see the promise of some infrastructure funding within the first action plan, the amount is both limited and short term in nature; a much stronger commitment to funding will be required.

While the Strategy properly identifies the broad areas for action, it is within the action plans that these strategic directions are to be translated into specific projects and initiatives. In this regard, the first action plan presents a fairly comprehensive overview of the various efforts currently underway to enhance cycling at the provincial level. Despite the promise contained within the Strategy, however, the first action plan fails to include specific performance metrics or indicators by which progress will be measured.

Going forward, it is incumbent upon MTO to establish and publish concrete, measurable, implementation-oriented indicators or benchmarks; such indicators can provide a clear metric against which progress can be assessed. For example, the Strategy calls for an improvement in cycling infrastructure which will require, among other things, more kilometres of bike paths, cycling

routes and highways with paved shoulders. In order to assess whether progress is being made, it will be imperative to know how many kilometres currently exist, and how many more are added over time. In the absence of such metrics, progress will be a slippery concept to measure and will be based more on perception and anecdotal evidence rather than reality. Once these measurable indicators have been established, it will be incumbent upon the government to then take the next step and establish future targets and timelines. Such targets could relate, for example, to the percentage change in modal share towards biking, number of people biking, number of utilitarian bike trips, and the number of kilometres of bikeways.

One of the Strategy's goals is for an Ontario city to rank among the 10 most bike-friendly in the world by 2033. Given that not one city in the province currently ranks in the top 100, the enormity of the task ahead is clear. Similar to a shiny new bike, the Strategy holds much promise. Hard pedalling is now required.

SECTION 2

REVIEWS OF APPLICATIONS FOR REVIEW

SECTION 2: REVIEWS OF APPLICATIONS FOR REVIEW

2.1 Ministry of the Environment

Review of Application R0334:

2.1.1 Classification of Chromium-containing Waste as Hazardous (Review Undertaken by MOE)

Background

Overview

In November 1995 – almost 19 years ago – two individuals from the tanning industry submitted an application under the *Environmental Bill of Rights, 1993* requesting a review of Regulation 347 (General – Waste Management), made under the *Environmental Protection Act*. The applicants suggested that different forms of chromium waste should be regulated according to their toxicity. The ECO forwarded the application to the Ministry of the Environment (MOE). The ministry agreed to undertake a review in 1996, but has still not reached a final decision.

Chromium

Chromium is a metal that is used for a variety of purposes, including the production of stainless steel, chrome plating, and as a catalyst in the dyeing and tanning of leather. There are a number of different chromium compounds, but only some forms are toxic. Hexavalent chromium, for example, is known to cause health effects, such as: skin rashes; allergic reactions; respiratory problems; kidney and liver damage; and lung cancer, particularly in people who work in the steel and textile industries. Hexavalent chromium was declared toxic to the environment and a danger to human life or health under the *Canadian Environmental Protection Act*.

Summary of Issues

In Ontario, if a waste's total chromium level in a leachate test exceeds five milligrams per litre, the waste is considered "hazardous" under Regulation 347, regardless of whether the waste contains the toxic or non-toxic form of chromium. The applicants noted that leather tanning uses only the trivalent form of chromium and less than five per cent of the chromium in tannery waste is typically available for leaching. However, under Regulation 347, tannery waste is usually designated as "hazardous," and must be transported and disposed of at a higher cost than non-hazardous waste.

The applicants argued that continuing to classify the non-toxic form of chromium as hazardous "places an unnecessary economic burden on industry" for managing chromium-contaminated waste and diverts resources away from "more legitimate environmental concerns." The applicants noted that other jurisdictions, including the United States, differentiate between toxic and non-toxic forms of chromium.

Ministry Response

In 1996, MOE agreed to undertake the review, advising the applicants that the ministry's review would be "coordinated and harmonized with the federal review of the national hazardous waste definition." In 2005, the federal government updated the national hazardous waste regulations,

which did not include an exemption for tanning waste containing chromium. Despite this federal decision – which ostensibly was the cause of the delay of the ministry's review – MOE still has not made a decision on this application.

ECO Comment

In past reports, the ECO has repeatedly criticized MOE for its unprecedented delay in making a final decision on this *EBR* application. In February 2013, the ministry told the ECO that MOE staff had been asked to review the file one more time prior to making a final decision; however, a spring 2014 ECO inquiry resulted in a ministry statement that there was no update at this time. The ECO once again urges MOE to make a decision and close this application.

The ECO will review the handling of this application in a future Annual Report, once the ministry has made a final decision.

Review of Application R2008014:

2.1.2 Need for Air Pollution Hot Spots Regulatory Reform (Review Undertaken by MOE)

Background/Summary of Issues

In January 2009, two applicants requested a review of the need for a new regulatory framework to fill gaps in Ontario's air pollution laws related to cumulative impacts of pollution, particularly air pollution "hot spots." Hot spots are described by the applicants as "multi-pollutant, multi-facility areas with significant background levels of pollutants or pollutant levels from local sources that exceed toxic air pollutant standards and areas impacted by persistent, bioaccumulative, toxic air pollutants from industrial sources."

The applicants are concerned that air pollution hot spots in Ontario threaten the physical and psychological health of people living in those areas, and compromise their right to live in a healthful environment. As evidence of significant deficiencies in Ontario's air pollution regulatory regime, the applicants cited the environmental health crisis in the Aamjiwnaang First Nation community in Sarnia, Ontario, an air pollution hot spot area known as "Chemical Valley." The applicants assert that the current regulatory framework is "unable to adequately protect the environment or human health from the dangers associated with air pollution."

The applicants asked the Ministry of the Environment (MOE) to:

- identify Pollution Hot Spots areas in Ontario requiring pollution reduction plans;
- regulate air pollution in hot spot areas using a cumulative effects approach;
- require that any assessment, report or estimate of emissions and/or pollutant concentrations include background levels of pollution;
- require MOE standards to be ratcheted down over regulated enforceable timelines;
- make the reduction of emissions of persistent and bioaccumulative pollutants a priority;
- require that "maximum achievable control technologies" and "lowest achievable emission rates" be used to achieve a reduction of overall emissions;
- require ongoing monitoring of emission sources at industrial facilities;
- engage community members and industry in the development of pollution reduction plans;

- prohibit the issuance of new or amended Certificates of Approval (now called Environmental Compliance Approvals) while pollution reduction plans are being developed, unless the approvals would result in a reduction of emissions; and
- ensure that pollution reduction plans set out maximum limits on pollution that can be approved by MOE under the approval process.

The ECO forwarded the application to MOE.

Ministry Response

By letter dated May 11, 2009, MOE notified the applicants that it would undertake the requested review. MOE stated that it is "committed to developing the long-term tools, including science, policies and guidelines to support the application of an ecosystem approach, including consideration of cumulative effects. As such, the ministry is currently reviewing how it applies the principles of its Statement of Environmental Values (SEV), including cumulative effects assessment and the ecosystem approach, in its environmentally significant decision making."

The ministry advised the applicants that, as part of its review of the environmental decision-making process, it would review the matters raised in the application. The ministry noted that if the review concludes that the current framework warrants revision, the ministry "will actively engage the regulated community, local residents, and other stakeholders."

In May 2010, the ECO requested an update from MOE on the status of its review. MOE informed the ECO that the ministry was working on its SEV Guiding Principles Review, which included considering "how to best operationalize the SEV principles, including consideration of cumulative effects." MOE stated that as part of the SEV project, the ministry was looking at new approaches, examining experiences in other jurisdictions, and actively considering the proposal presented in the application for review.

A year later, when MOE had still not completed its review, the ECO requested another update from the ministry. MOE responded that it was continuing to consider the issues raised in the application as the ministry determines how best to incorporate cumulative effects assessment in its decision-making processes. MOE also responded that "the ministry is working on a number of initiatives that are expected to incorporate a cumulative approach, including its work with [the Canadian Council of Ministers of the Environment (CCME)] regarding proceeding with an Air Quality Management System, participation in a research consortium on aquatic cumulative effects and requiring proponents to undertake formal cumulative effects assessments on a case by case basis."

In May 2012, MOE informed the ECO that it still had not completed its review of the application because it is tied to initiatives related to the assessment of cumulative effects and the Air Quality Management System.

In February 2013, when asked again about the status of this review, MOE told the ECO that the review was still in progress. In May 2013, the applicants sent a letter to MOE also requesting a progress update on the review. The Minister of the Environment responded in July 2013 that the review was still ongoing, and that the ministry would provide a notice of the results of the review within 30 days of its completion.

In March 2014, the ECO again asked MOE for an update on this review. In May 2014, MOE responded that there was no update at this time.

Other Information

In October 2010, the CCME announced that federal, provincial and territorial Ministers of the Environment were “moving forward with a new collaborative air management approach to better protect human health and the environment.” The CCME stated that the proposed new air quality management system would: include more ambitious Canadian air quality standards and consistent industrial emissions standards across the country; and establish regionally coordinated airsheds and air zones within individual provinces and territories.

In October 2012, Canadian jurisdictions, with the exception of Quebec, agreed to begin implementing the CCME-developed Air Quality Management System to improve air quality in Canada. This comprehensive approach, which is the product of collaboration between the federal, provincial and territorial governments and stakeholders, is to include:

- new Canadian Ambient Air Quality Standards to set the bar for outdoor air quality management across Canada;
- industrial emission requirements that set a minimum level of performance for major industries;
- six regional airsheds collectively covering all of Canada to coordinate efforts to reduce transboundary air pollution and report on regional air quality; and
- a framework for a place-based air zones approach to managing air quality that enables action tailored to specific sources of air emissions in a given area. In 2012, the CCME released a document providing guidance on air zone management under the Air Quality Management System.

In September 2013, MOE indicated that through air zone management, Ontario will collaborate on a toolkit to support local actions to improve air quality. MOE also indicated that a discussion document would be posted on the Environmental Registry for public comment about Ontario’s proposed approach to implementing air zone management. As of June 2014, no such document had been posted on the Registry.

ECO Comment

While the ECO is pleased that MOE agreed to undertake this review, more than five years have passed since the application was submitted. Moreover, several years have gone by since MOE last updated the applicants and the ECO on the review’s progress. These delays are completely unreasonable. The ECO strongly urges MOE to complete the review. The ECO will report on the ministry’s handling of this application and the outcome of the review once it is completed.

Review of Application R2009016:

2.1.3 Request for a New Regulation Providing for Stays Pending Decisions on Leave to Appeal Applications filed under the *EBR* (Review Undertaken by MOE)

Background/Summary of Issues

The applicants filed a request for a new regulation under the *Environmental Bill of Rights, 1993* (*EBR*) that would provide jurisdiction to stay a decision subject to a leave to appeal (LTA) application

made under the *EBR*. A “stay” would suspend any activities permitted by an instrument while an LTA application challenging the decision to issue the instrument is being considered. If leave is granted, the *EBR* already provides for an automatic stay pending the outcome of the appeal.

LTA applications under the *EBR* are adjudicated by administrative tribunals such as the Environmental Review Tribunal (the “Tribunal”). Although the Tribunal attempts to render decisions on LTA applications within 30 days of receiving an application, many factors can prolong deliberation on whether to grant leave.

Delays in the LTA process are problematic because there is currently no way for the Tribunal to stay the government’s decision pending a determination on whether leave should be granted. The applicants contend that this lack of jurisdiction leads to uncertainty, and can give rise to “a situation where significant harm can be inflicted on the environment pending a decision on leave to appeal.” The applicants cited an example in which a Permit to Take Water (PTTW) for an area near a provincially significant wetland was completely acted upon before residents had an opportunity to challenge the merits of the permit in a formal hearing before the Tribunal.

The applicants noted that Cabinet has the power, under subsection 121(1)(s) of the *EBR*, to make regulations “providing for stays pending decisions on applications for leave to appeal.” However, to date, no regulation has been made. The applicants argued that a new regulation providing for stays pending LTA decisions would be in the public interest and would support the purposes of the *EBR* to protect and restore the environment and to enhance public participation.

Ministry Response

Under the *EBR*, the Ministry of the Environment (MOE) was required to make a decision on whether to undertake the requested review by March 19, 2010 (i.e., 60 days after receipt of the application). On March 22, 2010, the responsible Assistant Deputy Minister (ADM) in the ministry’s Integrated Environmental Policy Division wrote to the applicants and explained that MOE was unable to make a decision by March 19, 2010, and that a decision would be provided to the applicants and the ECO by May 14, 2010. On May 14, 2010, the ADM notified the applicants that MOE had still not made a decision but would be in a position to render a decision by July 30, 2010.

On August 23, 2010, MOE finally provided the applicants with its preliminary decision on the application. The ministry informed the applicants that it would undertake the requested review, but only as it relates to PTTWs. The ministry explained that it would be limiting the review to PTTWs, as they are instruments that may potentially be implemented or expire before a LTA request is heard by the Tribunal, and because PTTWs were not affected by the ministry-wide Modernization of Approvals program underway at the time.

MOE initially indicated that it would need 12 months to complete the review. However, on August 16, 2011 (just days short of the 12-month mark), the ministry informed the applicants that it was aligning the review with another more comprehensive review of the *EBR* and its regulations that the ministry had agreed to undertake in March 2011 (for more information on that application, refer to R2010009 in Section 2.1.4 of this Supplement to the Annual Report). The ministry stated that “the issues contemplated in a review of the need for any new regulation providing for stays pending leave to appeal decisions would be within the scope of a review of the *EBR* itself.” The ministry stated that it would begin its review immediately, and that it anticipated requiring 12 – 16 months to complete the review.

The ministry did not complete the review within 12 – 16 months. In February 2013 – 19 months after MOE agreed to undertake this review in conjunction with the more comprehensive review of the *EBR* – MOE reported to the ECO that it was “currently finalizing the scope and approach for its

review of the EBR.” However, in May 2014 – over two and a half years after MOE combined the applications and over three years after MOE originally agreed to undertake the review – the ministry advised the ECO that it was unable to provide any estimated timeframe for completion of the review.

ECO Comment

MOE is long overdue in completing this review. Despite our requests for updates, MOE has been reluctant to provide the ECO with any information about its progress on the combined review.

The ECO will review the handling of this application once the ministry has completed and provided a decision on its review.

Review of Application R2010009:

2.1.4 Review of the *Environmental Bill of Rights, 1993* (Review Underaken by MOE)

Background/Summary of Issues

In December 2010, the ECO received an application from two staff members of the Canadian Environmental Law Association requesting a review of the *Environmental Bill of Rights, 1993 (EBR)* and its regulations.

Since the *EBR* came into force in 1994, it has never undergone any formal review. Despite the identification of shortcomings in the legislation over the years and changes to societal values and environmental priorities, the statute has remained largely unchanged. The applicants urged the Ministry of the Environment (MOE) to undertake a formal public review of the *EBR* to solicit input on key changes to the current *EBR* regime and better achieve the broad purposes of the legislation.

The applicants identified ten key issues, listed below, that should be formally reviewed by MOE in an open and public review of the *EBR*:

1. Updating the purposes of the *EBR*.
2. The lack of environmental rights in the *EBR*.
3. Complying with meaningful Statements of Environmental Values.
4. Use, misuse and avoidance of the Environmental Registry.
5. Fixing the “EA Exception” under section 32 of the *EBR*.
6. Revisiting the leave test and funding for third-party appeals.
7. Enhancing the powers of the ECO.
8. Prescribing additional ministries and statutes under the *EBR*.
9. Improving responses to applications for reviews and investigations.
10. Facilitating access to environmental justice.

The applicants stressed that this list is not exhaustive, but merely the “Top 10” issues that are “illustrative of the types of systemic problems which require consideration within the requested review.” For each issue, the applicants described their concerns and suggested potential reforms to address them.

The ECO forwarded the application to MOE.

Ministry Response

On March 1, 2011, MOE advised the applicants that it had concluded that the requested review was warranted. MOE agreed with the applicants that “the EBR is generally sound and it would not be appropriate to conduct a wholesale reconsideration of the Act in its entirety,” and stated that “the Ministry’s review will examine certain components of the EBR, as determined necessary by the Ministry after further deliberation and references to some of the matters raised in your application.”

In its preliminary decision letter, MOE did not provide an estimated time for completion of its review. However, in August 2011, MOE advised a different set of applicants who had submitted an application regarding *EBR* leave to appeal rights that the ministry would be incorporating its review of *EBR* leave to appeal rights into the ministry’s broader review of the *EBR*. MOE stated that it anticipated that the review would take 12 – 16 months to complete from that date. For more information on the related review, see R2009016 in Section 2.1.3 of this Supplement to the Annual Report.

The ministry did not complete the review within 12 – 16 months. In February 2013 – 19 months after MOE combined the applications and 23 months after MOE originally agreed to undertake the review – MOE reported to the ECO that it had met with the applicants in December 2012 to “determine [the] applicants’ review priorities,” and was “currently finalizing the scope and approach for its review of the EBR.” However, in May 2014 – over two and a half years after MOE combined the applications and over three years after MOE originally agreed to undertake the review – the ministry advised the ECO that it was unable to provide any estimated timeframe for completion of the review.

ECO Comment

MOE is long overdue in completing this review. Despite our requests for updates, MOE has been reluctant to provide the ECO with any information about its progress on this application.

The ECO will review the handling of this application in a future Annual Report, once the ministry has completed its review.

Review of Application R2012005:**2.1.5 Regulations Related to Hydraulic Fracturing
(Review Undertaken by MOE and MNR)****Background/Summary of Issues**

In October 2012, the ECO received an application requesting a review of the need to improve current laws and adopt new laws to protect Ontarians and the environment from the potential adverse effects of hydraulic fracturing (i.e., “fracking”). The applicants requested a review to ensure the development of a complete regulatory approach that is organized around the “cradle to grave” principle of waste management. The ECO forwarded this application to the Ministry of Natural Resources (MNR) and the Ministry of the Environment (MOE).

The applicants specifically requested a review of:

- the definition of “oil field brine” and sections 2 and 3 of R.R.O. 1990, Regulation 341 (Deep Well Disposal), made under the *Environmental Protection Act (EPA)*;
- the definition of “liquid industrial waste” in section 1 of R.R.O. 1990, Regulation 347 (General – Waste Management), made under the *EPA*; and
- the definition of “oil field fluid” under the *Oil, Gas and Salt Resources Act*.

The applicants argued that these regulations pre-date modern fracking practices and, thus, they are ill-equipped to manage the potential adverse effects from fracking operations.

The applicants also noted that the current regulations make fracking-produced waters exempt from regimes for “hazardous waste” and/or “liquid industrial waste” under the *EPA* and its associated regulations. The applicants proposed several changes that could be made to the regulations in order to eliminate these exemptions.

Ministry Response

In January 2013, in a joint response, MNR and MOE agreed to undertake this review. The ministries concluded that the public interest warrants the requested review of the above-mentioned sections of Regulation 341, Regulation 347, and the *Oil, Gas and Salt Resources Act*.

Initially, neither ministry provided the applicants with a timeline for the expected completion of the review. However, upon follow-up by the applicants, both ministries indicated that “the review involves complex matters that will require significant consideration and analysis, therefore we expect it will take a number of months.” As of April 2014, the completed review remained outstanding.

ECO Comment

The ECO will review the handling of this application once the ministries have completed their review.

Review of Application R2012013:

2.1.6 IC&I Source Separation Programs (Review Undertaken by MOE)

Background/Summary of Issues

On August 29, 2012, an application was submitted requesting a review of O. Reg. 103/94 (Industrial, Commercial and Institutional Source Separation Programs), made under the *Environmental Protection Act (EPA)*. The ECO forwarded this application to the Ministry of the Environment (MOE).

The applicants argued that the regulation is too lenient on small businesses. They pointed out that this regulation does not require those retail establishments, retail shopping complexes or office buildings that occupy premises of less than 10,000 square metres to either operate a source separation program for their wastes or to ensure that such a program is implemented, nor are these small businesses covered by any other Ontario regulation pertaining to source separation and recycling. The applicants stated that waste diversion has become a high priority in the province for several good reasons and that, in their opinion, businesses of all sizes should do their part in diverting waste.

Ministry Response

On February 18, 2013, the ministry informed the applicants that it had concluded that a review is warranted and will be conducted. MOE further stated that the review is consistent with the ministry's Waste Action Plan, announced on February 9, 2012, and with the ministry's goal to consider all available options for maximizing diversion.

In response to a request from the ECO on November 26, 2013 for an update on the status of this review, the ministry replied that any decisions on how to proceed with the *EBR* review would be made after consultation with the stakeholders and the public on the draft Waste Reduction Strategy and the proposed new *Waste Reduction Act* (Bill 91).

ECO Comment

As the ministry's review was not complete at the end of our reporting year, the ECO will review MOE's handling of this application in a future report.

Review of Application R2012018:**2.1.7 Environmental Compliance Approvals Issued to a Nepheline Syenite Mine
(Review Denied by MOE)**

See also in this Supplement: Review of Application for Investigation I2012004 (Air Quality and Noise Issues Associated with a Nepheline Syenite Mine), Section 3.1.2; and Review of Application R2013001 (Review of Standards in Air Quality Regulation and Noise Guidelines), Section 2.1.8.

Background

On March 19, 2013, two applicants submitted an application requesting a review of the various Environmental Compliance Approvals (ECAs) authorizing the operations of Unimin Canada Ltd ("Unimin"), a mining company with operations located near Nephton, Ontario, northeast of Peterborough. The applicants also requested a review of the standards for airborne particulate matter set out in O. Reg. 419/05 (Air Pollution – Local Air Quality), under the *Environmental Protection Act* (EPA).

The company mines and processes nepheline syenite, a non-metallic mineral used primarily in glass production. The raw ore is quarried from open-pit mine sites in the Nephton area and transported to processing facilities located at each of the two sites, where it is crushed to product specifications. Dust from the process is collected in baghouses that discharge to the air, and waste rock (i.e., "tailings") are applied as slurry to designated tailings disposal areas at both sites. The finished product is transported to market in bags or in bulk.

The Ministry of the Environment (MOE) has issued several permits for each of the two processing sites including: ECAs for air; ECAs for industrial sewage (the tailings), and Permits to Take Water (PTTWs).

Kasshabog Lake is just south of the mining operations in question and its perimeter is home to almost 700 cottages. Most of the cottages are used as seasonal residences but some are year-round permanent homes.

Summary of Issues

The applicants argued that noise and dust emissions from Unimin's facilities are causing environmental and health problems for residents in the area. The alleged impacts include: impairment of residents' enjoyment of their properties caused by both noise and dust; significant deposition of dust causing soiling; occasional visibility issues caused by blowing and suspended dust; and possible health issues related to the smallest suspended dust particles. The applicants sought a review of the ministry approvals issued to Unimin for its disposal of mine tailings and its air emissions, which they argued are insufficient to protect the environment and human health.

Issues with the Mine Tailings

The applicants raised concerns with the disposal of Unimin's mine tailings. The applicants believed that these mine tailings were regulated through the company's landfill approval, and therefore sought a review of that approval. However, the disposal of the tailings is regulated through the company's sewage approvals and the dust emissions from the tailings piles are regulated through the company's air approvals.

Regardless, the applicants expressed concerns with the disposal of the tailings, noting that many of the materials being disposed of at the site are toxic, as revealed by the company's 2011 report to Environment Canada's National Pollutant Release Inventory (NPRI). They stated that the company reported disposing of 67 kilograms (kg) of arsenic, 40 kg of cadmium, 0.906 tonnes of lead, 18 tonnes of manganese, 6.5 kg of mercury, and nearly 33,000 tonnes of zinc at the site for the annual reporting period. The applicants raised concerns about the possibility of these toxic materials becoming airborne and of dust emissions from the tailings disposal area. Accordingly, the applicants sought a review of the company's approvals related to the tailings, and also recommended that the disposal of tailings should be relocated to some "sheltered site" on Crown land at least "1 or 2 miles away from Kasshabog and Bottles Lakes" to reduce dust problems in the area.

Dust Issues

The applicants raised several concerns with the company's air approvals, specifically with respect to the company's emissions of particulate matter (both the larger dust particles and the finer particulate matter).

The applicants argued that the limits on "total suspended particulate" (TSP) as set out in O. Reg. 419/05, and as adopted in Unimin's air approval, are average-based standards and, thus, they allow for short-term high-level emissions of contaminants. The applicants argued that these standards are not protective of the environment or human health and that they permit emission levels that may cause "adverse effects." The applicants pointed out that both section 14 of the *EPA* and section 45 of O. Reg. 419/05 prohibit emissions that would cause an "adverse effect," as defined in the *EPA*. The applicants referred to a 2013 Provincial Officer's Report, which noted that a momentary episode of extremely high concentration may pose unique health or environmental effects, even if, on average, the requirements under O. Reg. 419/05 are met (for a brief summary of this report, see a Review of an Investigation I2012004: Air Quality and Noise Issues Associated with a Nepheline Syenite Mine in Section 3.1.2 of this Supplement).

The applicants contended that dust emissions from the facility have been occurring for years and that section 45 of O. Reg. 419/05 "may have been contravened on a repeated basis for the past seven years and MOE may have been unaware of this because of a lack of monitoring of the facility." Accordingly, the applicants recommended that, as part of a review of Unimin's air approvals, MOE should require the company to retain an independent consultant to conduct

regular monitoring and report the results on a regular basis to the residents' association and the ministry, with the results also posted online.

The applicants also noted that the provisions of O. Reg. 419/05 do not specifically apply to the smallest fractions of the particulate matter emitted, which are known as PM_{2.5} (meaning that the diameter of the particles is 2.5 micrometres or less), and that these very small particles are the most dangerous to human health. Therefore, the applicants also sought a review of O. Reg. 419/05 itself as it relates to fine particulate matter.

Finally, the applicants pointed out that, while Unimin's earlier 2003 air approval required the company to report any complaints to the ministry, the 2008 air approval does not include this requirement (although the company must keep a record of the complaint and the subsequent actions taken). They said that, as a result, the ministry is less aware of environmental complaints made to the company. They requested that the 2003 ECA provision requiring notification of the ministry of any and all complaints be re-instituted in an amended ECA and that a further requirement be added that all such information be posted on the company website and kept on file by the company for a minimum of seven years.

Noise Issues

The applicants also requested that MOE review its requirements for noise emissions. The applicants pointed out that noise is considered a contaminant under the *EPA* and that excessive noise can be harmful to a person's health and well-being, as well as their use and enjoyment of their property. They summarized Ontario's regulatory framework for noise, which for rural areas is based on MOE's guideline *Sound Level Limits for Stationary Sources in Class 3 Areas (Rural)*, Publication NPC-232 (since replaced by MOE's *Environmental Noise Guideline, Stationary and Transportation Sources – Approval and Planning*, NPC-300 in October 2013). The maximum noise levels set for rural areas is 40 decibels (dBA) between 7:00 p.m. and 7:00 a.m. and 45 dBA between 7:00 a.m. and 7:00 p.m.

The applicants acknowledged that the company had hired a consultant to prepare a report in response to noise complaints it had been receiving and that this report had concluded that the noise levels were below the limits set out in the MOE guideline. However, they stated that sound travels very easily over water and that the lakes create an echo effect. They stated that they thought it unlikely that other cottagers in the Muskoka or Kawartha regions have to endure this kind of industrial noise.

The applicants stated that the lack of consideration of the lake's effect on noise emissions is a flaw in the guideline and requested that MOE take this into account in the development of the new guideline (NPC-300, referenced above). They stated that new provisions in this regard are necessary to protect the mental and physical health of residents living in the vicinity of the mining operation.

Evidence in Support of the Application

The applicants provided a health history for one of the applicants, who had been unable to visit her cottage for the previous two years due to her health and the air quality in the area. They reported that she suffers from both bronchiectasis and Wegener's granulomatosis, conditions characterized by her doctor as "severe lung conditions with ...significant risk of progression in an adverse direction, even to the level of death." They also referred to a message that they had received from the Medical Officer of Health for the region, who had written to the residents saying that "exposure to this dust has the potential to cause adverse health effects, especially for individuals with underlying respiratory or cardiovascular conditions."

They also expressed concern that long-term exposure to dust from the mine may have been the original cause of the applicant's diseases described above. In support of these concerns, they cited a

study that suggested a number of health effects resulting from the inhalation of very small silicon-based particles. They also referred to a new literature review on particulate matter exposures by Public Health Ontario, which they stated supported their request for a review

The applicants asserted that MOE's Statement of Environmental Values supported their application, including the principles of "adopting an ecosystem approach," "adopting the 'precautionary principle,'" and "considering the use of a wide range of measures to protect the environment."

The applicants attached photos of the dust deposited on outdoor furniture at their cottages, as well as a video of a dust storm over the lake. They also provided electronic copies of two reports: *A Review of Air Quality Index and Air Quality Health Index* by Public Health Ontario; and *Report of a Provincial Officer*, the MOE report documenting the air impacts of the dust from the mine during the summer and fall of 2012 (refer to Section 3.1.2 of this Supplement).

Ministry Response

On May 28, 2013, MOE denied the application for review. The ministry stated that its preliminary assessment indicated that the company's current approvals, in combination with a recent Provincial Officer's Order, provide the necessary controls for the problems described. The ministry also stated that it had made the decision to issue the relevant approvals to Unimin within the past five years, and that the ministry had also recently conducted a review of the policies and mechanisms in place to manage fine particulates. For these reasons, MOE concluded that the public interest does not warrant the requested review.

The ministry's official response included: background information on the company as well as the regulatory framework within which it operates; a chronology of the dust issues in the area and the ministry's actions taken in response; a similar chronology for noise issues (for details on these chronologies, see Review of Application for Investigation I2012004 in Section 3.1.2 of this Supplement); and preliminary assessments of the applicants' requests.

Review of ECAs

The ministry observed that the applicants' main concern was fugitive dust. Although the applicants appear to have believed that the dust from the company's tailings piles is (or should be) regulated through the waste approval, MOE noted that these emissions are in fact regulated through the company's air approvals. Nonetheless, the ministry stated that the applicants concerns regarding the fugitive dust emissions were clear, and the ministry proceeded with its preliminary assessment by reviewing the company's air approvals for the two facilities operated by the company.

With respect to the dust issues, MOE noted that both ECAs include a condition that requires procedures to minimize fugitive emissions, as well as to inspect, schedule preventative maintenance, minimize odour, and keep records. In addition, the ECA of one of the facilities includes a specific condition requiring the company to develop a Best Management Practice Plan for fugitive dust control.

With respect to the noise concerns, the ministry stated that both air ECAs contain conditions for control of noise that require that all noise and vibration emissions from the facility meet limits set out in the ministry's applicable noise guidelines. It also noted that both sites are located at a distance of more than 1,000 metres from the nearest residence, which means that the company was not required to conduct an Acoustic Noise Assessment as part of the ECA application.

The ministry stated that its preliminary assessment of the ECAs indicated that they had been issued less than 5 years before the receipt of the application and that they contained the appropriate

measures to protect the environment, both with respect to air quality and noise. MOE also stated that the company had recently applied for amendments to one of its air ECAs and it would soon be applying for amendments to the other one. These proposals would be posted on the Environmental Registry for public comment in the near future.

Moreover, MOE stated, fugitive dust emissions do not have to be included in an Emission Summary and Dispersion Modelling Report “where the emissions have been minimized through effective implementation of a fugitive dust control plan, consistent with best management practices, and the nature of the emissions is such that they are not likely to pose a health risk.” In this case, the ministry stated, both conditions apply, as the dust is non-metallic in nature (and therefore not classified as hazardous) and the company has implemented a Best Management Practices Plan. However, the ministry went on to say that it could, on a case-by-case basis, “require any facility to assess the significance of components of fugitive particulate based upon site-specific conditions.”

Finally, the ministry concluded that: the company’s existing ECAs compels it to take action; effective dust control measures are capable of solving the problem; and the controls available through the existing ECA and the Provincial Officer’s Order mean that there would be “no additional merit in carrying out an *EBR* review of the ECAs.”

Need for PM_{2.5} Standard

Regarding the requested review of O. Reg. 419/05 and the associated lack of a standard for PM_{2.5} in Ontario, MOE stated that in 2012 it conducted a review of the policies and mechanisms in place to manage PM_{2.5} and concluded that the framework currently in place is adequate (see Section 2.2.4 in the Supplement to our 2012/2013 Annual Report). In addition, MOE stated, ongoing implementation of Ontario’s Toxics Reduction Strategy, updated standards under O. Reg. 419/05, and upcoming initiatives such as the national Air Quality Management System will “provide additional tools to address fine particulates.” Finally, the ministry stated that since it had completed its 2012 review less than five years preceding the date of the application, a review is not warranted.

The ministry further stated that its current standards for total suspended particulate (TSP), as provided in O. Reg. 419/05, are based on visibility rather than health protection (TSP refers to all particulate matter less than 44 micrometres in diameter.) The ministry noted that Ontario sets standards for certain substances that form particulates in air, such as volatile organic compounds, as well as for metals, but does not set standards specifically for “fine particulates” as a general category. The ministry explained that fine particulates are regional pollutants, affected by such things as vehicles and residences, and thus not effectively managed under O. Reg. 419/05, which deals with air emissions from point sources.

The ministry concluded its assessment of this request by stating that it “is currently considering how to best address the potential for short-term peak exposures to contaminants that may occur within longer averaging periods of the air standards in Schedule 3.”

For the full text of the ministry decision, please see our website at www.eco.on.ca.

ECO Comment

The ECO agrees with the ministry’s decision to deny the review because: the ministry was already working with the company to address the issues; a proposal for an amended ECA was under development; the guideline document for noise in rural areas had just been updated; and the ministry had just completed a review of the need for a PM_{2.5} standard. Given these recent activities, the review requested by the applicants would be redundant. Nevertheless, as with the two other

EBR applications relating to this company (see beginning of this review) the ECO has important concerns with regard to this application.

The ECO is concerned that fine particulate matter (PM_{2.5}) generated during short-term peak emissions from the facility could pose an on-going health risk to residents in the area. Because the company is not required to model or monitor specifically for PM_{2.5}, the avoidance of potentially dangerous PM_{2.5} exposures depends on the assumption that PM_{2.5} levels are closely correlated with any monitored (and more easily visible) TSP emission levels. However, this relationship may not always be the case. In addition, frequent high levels of short-duration exposure to this contaminant could be “hidden” in the averaged TSP emissions, as clearly demonstrated by the ministry’s own monitoring.

The ECO appreciates that the health-related issues associated with fine particulate such as PM_{2.5} are difficult to manage using point-of-impingement standards, as fine particles can travel large distances and they come from a variety of sources, such as vehicle emissions. Despite these regulatory challenges, the ECO reiterates our previous comments urging MOE to take a firmer approach to addressing PM_{2.5} emissions. As we previously suggested, MOE should, at a minimum, adopt more protective PM_{2.5} objectives and develop a policy for including conditions in ECAs that seek to prevent ambient levels of PM_{2.5} from exceeding provincial guidelines (refer to Section 2.2.4 of the Supplement to our 2012/2013 Annual Report).

Finally, the ECO sympathizes with the noise concerns raised by the applicants. Despite the fact that independent testing indicates compliance with the ECAs, noise issues are very subjective and can be particularly bothersome to certain individuals. Noise travelling over water can vary considerably according to a number of factors, including weather, season and specific location, and at least some of the residents feel that the noise that they experience is excessive for a rural setting. The ECO urges the ministry to continue to take noise complaints seriously and to keep working with the local residents until the matter is completely resolved.

Review of Application R2013001:

2.1.8 Review of Standards in Air Quality Regulation and Noise Guidelines (Review Denied by MOE)

See also in this Supplement: Review of Application for Investigation I2012004 (Air Quality and Noise Issues Associated with a Nepheline Syenite Mine), Section 3.1.2; and Review of application R2012018 (Environmental Compliance Approval Issued to a Nepheline Syenite Mine), Section 2.1.7.

Background

On May 5, 2013, two applicants submitted a request for a review of Schedules 2 and 3 of O. Reg. 419/05 (Air Pollution – Local Air Quality), made under the *Environmental Protection Act (EPA)*, and of the Ministry of the Environment’s (MOE) noise guidelines, *Publication NPC-232 – Sound Level Limits for Stationary Sources in Class 3 Areas (Rural)*. These requests were made with particular reference to the manner in which the regulation and the technical guidance were being applied to the operations of a specific mining company, Unimin Canada Ltd. (Unimin), located near Nephton, Ontario, northeast of Peterborough. The applicants also requested a review of MOE’s decision to grant the company a “regulatory speed-up,” which allows the company to rely on the air standards in Schedule 3 of O. Reg. 419/05, rather than Schedule 2.

Schedules 2 and 3 of O. Reg. 419/05

Ontario Regulation 419/05 regulates industrial air emissions as they affect local air quality. Sections 19 and 20 of the regulation set out specific prohibitions against discharges of contaminants to the environment that result in a concentration that exceeds the standards set out in the schedules to the regulation. Schedule 2 sets out a maximum concentration for each contaminant based on a half-hour averaging period. This regulatory language means that all the measurements of a particular contaminant taken within a half-hour period are averaged for comparison with the standard. Schedule 3 sets out an alternate standard for each contaminant based on variable averaging periods of one-hour, 24-hours, or other time period (as indicated).

The Schedule 2 standards were developed based on an older, less precise air dispersion modeling system. These Schedule 2 standards are gradually being replaced with the standards set out in Schedule 3, which are based on facilities using a newer, more robust and more precise air dispersion model to calculate the concentration of the emitted contaminants. Currently, most emitters are still required to meet the Schedule 2 standards. However, the regulation contains a phase-in period for adoption of the newer dispersion modelling and the associated Schedule 3 standards by the industrial sector, so that eventually all emitters will be required to meet the newer modelling and Schedule 3 standards. In addition, an individual facility may request permission from MOE to move from Schedule 2 to Schedule 3 in advance of the mandatory phase-in period, known as a "regulatory speed-up."

One of the categories of contaminant regulated in O. Reg. 419/05 is total suspended particulate (TSP), which is defined as airborne particles less than 44 microns in diameter. The half-hour standard for TSP in Schedule 2 is 100 µg/m³, and the 24-hour standard for TSP in Schedule 3 is 120 µg/m³.

Operations of Unimin Mines

Unimin mines and processes nepheline syenite, a non-metallic mineral used primarily in glass production. The raw ore is quarried from open-pit mines and transported by truck to two nearby processing facilities located in the Nephron area, where it is crushed to product specifications. The finished product is transported to market in bags or in bulk. Dust from the process is collected in baghouses and waste rock (i.e., tailings) are applied as slurry to designated tailings disposal areas.

The Ministry of the Environment (MOE) has issued several permits for each of the two processing sites: Environmental Compliance Approvals (ECAs) for air; ECAs for industrial sewage (the tailings), and Permits to Take Water (PTTWs).

Kasshabog Lake is just south of the mining operations in question and its perimeter is home to almost 700 cottages. Most of the cottages are used as seasonal residences but some are year-round permanent homes.

Summary of Issues*Air Quality Issues*

The applicants argued that the limits for total suspended particulate (TSP) set out in O. Reg. 419/05 are insufficient to protect the environment and human health. The applicants further argued that the longer averaging time in Schedule 3 (as opposed to Schedule 2) exacerbates these failures by further reducing the level of protection.

In support of their arguments, the applicants referred to a Provincial Officer's Report prepared by an MOE officer that documented the air impacts of the dust from the Unimin mine during the

summer and fall of 2012 (for a summary of this report, see the review of I2012004 in Section 3.1.2 of this Supplement). The applicants asserted that the MOE report indicates that the scheduled limits "do not meet the intended protections provided in the *Environmental Protection Act*." The applicants argued that the short-term "spikes" in air emissions can cause health effects even where the longer-term averaging of the emissions are compliant with the regulation. The applicants quoted the MOE report, which stated: "A momentary episode of extremely high concentration may pose unique health or environmental effects while averaging out to a '419 compliant' result."

In addition, the applicants argued that the regulation does not include specific standards for particles that are below 44 microns in diameter, yet the most serious potential health effects arise from exposure to these smaller particles. The applicants cited the MOE Report, which stated: "Particles below 1 micron in diameter can cross into the human bloodstream from the lungs and can cause damage"; "...high momentary values of smaller sized particulate have the potential to harm human health,..." and "Ontario does not have scheduled health standards for the smallest fractions of particles that have been observed."

The applicants concluded that the results of the MOE report clearly indicate the need for a review of Schedules 2 and 3 of O. Reg. 419/05, with the goal of updating the standards in order to protect the environment and human health. They quoted a public health advisory issued in August 2012 by the local Medical Officer of Health, which stated that the smaller particles included in airborne particulate matter (5 microns or smaller) can "reach the air spaces within the lungs and can cause damage," which in turn can result in adverse health effects. The advisory also stated that the local health unit had received 26 witness statements with regard to identified health concerns arising from the mining company's emissions.

With respect to the Unimin mine site specifically, the applicants argued that at a minimum the mining company should have to meet the Schedule 2 standards with the shorter averaging time, in order to mitigate the effect of the short-term high-level values found during the ministry's monitoring program. They noted that the MOE report identified at least one episode that "demonstrates a violation of the Schedule 2 standard for TSP" but that "it is not actionable" because the facility had been granted a "regulatory speed-up," allowing the shift from Schedule 2 to Schedule 3.

Noise Issues

The applicants argued that the sound limits for rural ("Class 3") areas set out in MOE's noise guideline, Publication NPC-232, were in need of revision. They argued that the averaging of noise impacts over one-hour intervals allows for intermittent periods of intolerable noise provided that the overall noise level is in compliance with the standard. They stated that the limits must be expanded to include momentary noises, plus one-minute averages, in order to address this shortcoming.

The applicants also stated that the daytime limits for rural areas are equivalent to the levels of noise expected in suburban and urban areas. Since most people own cottages so that they can occasionally escape the "light, noise and pollution of urban areas," having such high limits, combined with a lack of limits for intermittent noise, they asserted meets the definition of "adverse effect" under the *EPA*. The applicants stated that they therefore assume that the NPC-232 limits did not anticipate these outcomes and should be revised.

Ministry Response

On July 2, 2013, the ministry denied the application for review; the reasons given for each issue are summarized below.

O. Reg. 419/05 Schedules 2 and 3

The ministry explained that O. Reg. 419/05 requires regulated facilities to assess their emissions of contaminants to air through a process known as Emissions Summary and Dispersion Modelling. Facilities are required to demonstrate through this modelling that they meet the applicable standards set out in either Schedule 2 or 3.

MOE noted that Unimin, the company cited as an example by the applicants, had recently applied for and received approval to operate under Schedule 3. The ministry stated that it recognizes that "short-term periods of elevated exposure may occur over a 24-hour averaging period," but it argued that these instances could be controlled through the implementation of best management practice plans or dust control action plans, as per ministry guidance. MOE pointed out that the Unimin facility has implemented such plans and continues to do so.

MOE also stated that air standards for TSP are based on visibility rather than health protection. It acknowledged that health concerns are associated with particles of smaller sizes as per the applicants' concerns. However, the ministry argued that these fine particulates are considered regional pollutants from such varied sources as residences and transportation, and that they are not effectively managed by means of the point of impingement air standards included in O. Reg. 419/05. The ministry stated that Ontario has adopted the Canada-wide standard for fine particulate matter, or PM_{2.5}, and that this figure can be used to evaluate air quality and to "inform requirements to manage dust on site."

The ministry also addressed the issue of PM_{2.5} by pointing out that in May 2012, MOE had completed an *EBR* review on the effectiveness of the province's policy framework for addressing fine particulates, which found that the existing policy framework is comprehensive (see Part 5.8 of our 2012/2013 Annual Report). Moreover, MOE stated that several upcoming initiatives, such as the national Air Quality Management System, will provide added tools to address fine particulates. Finally, the ministry concluded this section of its response by stating that it was "considering how best to address the potential for short-term peak exposures to contaminants that may occur within longer averaging periods of the air standards in Schedule 3."

The Regulatory Speed-Up

The ministry noted that the models approved for use in association with Schedule 2 were older and less precise than those approved for use with Schedule 3. MOE explained that the adoption of the Schedule 3 requirements includes the obligation for facilities to use newer, more advanced and robust air dispersion models. The ministry noted that implementation of Schedule 3 is being phased in over time, and that all facilities will be required to meet Schedule 3 standards by February 1, 2020.

Ministry Noise Technical Guidance NPC-232

The ministry pointed out that NPC-232 is not a regulation; rather, it is a technical guidance document that contains "sound level limits for stationary sources in rural areas." As such, its limits are only enforceable when they are included in an ECA condition, as is the case in the Unimin approval.

The ministry stated that the sound level limits and one-hour averaging time used in NPC-232 were just reaffirmed in the recent development of MOE's Environmental Noise Guideline (NPC-300), a new technical guidance document released in October 2013 that replaces NPC-232 and two other existing noise guidelines. The development of NPC-300 included input from stakeholders through focus group sessions in 2009 and the initial draft was subject to inter-ministerial consultations and went through two rounds of stakeholder consultation via the Environmental Registry. For the full text of the ministry decision, please see our website at www.eco.on.ca.

ECO Comment

The ECO agrees with the ministry's decision to deny the review given that MOE had just completed reviews of both the province's framework for managing fine particulates and its environmental noise guidelines. MOE's decision regarding the "regulatory speed-up" for Unimin was also reasonable as this shift in monitoring and emission standards is generally considered a step forward in protection, rather than a step back.

Nevertheless, this application raises important issues regarding MOE's regulation of fine particulate matter. The ECO is concerned that fine particulate (PM_{2.5}) generated during short-term peak emissions can generate health risks. Because emitters are not required to model or monitor for PM_{2.5}, occasional high levels of exposure to this contaminant could be "hidden" in averaged TSP emissions, as clearly demonstrated by the ministry's own monitoring. The ECO appreciates that the health-related issues associated with fine particulate such as PM_{2.5} are difficult to manage using point-of-impingement standards as fine particles can travel large distances and they come from a variety of sources, such as vehicle emissions. For example, a measurement of PM_{2.5} taken near the mining operation may be out of compliance because of high background levels from sources other than the mine itself.

Despite these regulatory challenges, the ECO reiterates our previous comments urging MOE to take a firmer approach to addressing the issue of PM_{2.5} emissions. As we previously suggested, MOE should, at a minimum, adopt more protective PM_{2.5} objectives and develop a policy for including conditions in ECAs that seek to prevent ambient levels of PM_{2.5} from exceeding provincial guidelines (refer to Section 2.2.4 of the Supplement to our 2012/2013 Annual Report).

Finally, the ministry stated in its decision summary for this application that it is "considering how best to address the potential for short-term peak exposures to contaminants that may occur within longer averaging periods of the air standards ..." The ECO encourages the ministry to continue these considerations with respect to the air standards and also with respect to any other monitoring situations where averaging may result in the "hiding" of short-term adverse effects.

Review of Application R2013002:

2.1.9 Need to Amend Waste Disposal Site Provisions under the *EPA* (Review Undertaken by MOE)

Background/Summary of Issues

On July 8, 2013, an application was received by the ECO requesting a review under the *Environmental Bill of Rights, 1993* of section 27 the *Environmental Protection Act (EPA)*, which sets out permit requirements for waste management systems and waste disposal sites. The ECO forwarded this application to the Ministry of the Environment.

The applicants, representatives of the Canadian Environmental Law Association, the Concerned Citizens' Committee/Tyendinaga & Environs and the Mohawks of the Bay of Quinte, assert that section 27 of the *EPA*, as currently drafted, "is incomplete, outdated and inadequate to protect the environment and public health and safety." They argue that it should be amended by adding two provisions that:

1. Prohibit the establishment, use, operation, enlargement, alternation or expansion of a waste disposal site at locations that are hydrogeologically unsuitable.
2. Prohibit proponents from re-applying for approval of a new or expanded waste disposal site under Part V of the *EPA* where the facility, or a substantially similar facility, has been previously proposed at the same (or adjoining) location and has been refused approval under the *Environmental Assessment Act* or the *EPA* due to hydrogeological unsuitability.

The applicants argue that "the existing statutory framework and current regulatory standards do not necessarily prevent proponents from proposing landfills at hydrogeologically unsuitable sites across Ontario." Building landfills on such unsuitable sites, the applicants claim, can lead to groundwater contamination. For additional context, the applicants present a case study of the Richmond Landfill Site, located in the town of Greater Napanee, as part of their application, asserting that it demonstrates the need to review and revise section 27 of the *EPA*.

Ministry Response

On September 13, 2013 – the statutory deadline for the Ministry of the Environment to respond to the application – the ministry informed the applicants that it required more time to make a decision whether to undertake the review. On October 2, 2013, the ministry advised the applicants that it would not be undertaking the requested statutory review, but that it would instead "conduct a review of guidance materials related to the ministry's landfill approvals process, to determine if changes could be made to further enhance the level of protection to human health and the environment."

ECO Comment

As the ministry's guideline review had not been completed by the end of our reporting year, the ECO will review the Ministry of the Environment's handling of this application in a future report.

Review of Application R2013003:

2.1.10 The Management of High-Sodium Ground Sourced Brines (Review Denied by MOE)

Background

In July 2013, two applicants submitted an application under the *Environmental Bill of Rights, 1993* (*EBR*) requesting a review of the need for a new policy, act, regulation or instrument to address the use of ground-sourced brines (salt solutions) for dust suppression. The ECO forwarded this application for review to the Ministry of the Environment (MOE).

Road Salts in the Environment

Various types of salts are used on roads for both dust suppression and to melt ice and snow for safety purposes. However, the use of road salts can result in groundwater and surface water contamination, automobile corrosion, and may be toxic to plant and animal life. As such, road salts are considered “toxic” as defined under the *Canadian Environmental Protection Act* (although they have never formally been added to the List of Toxic Substances). However, in light of the importance of road safety, road salts that are used to keep roads clear of snow and ice are exempted in Ontario by Regulation 339 under the province’s *Environmental Protection Act (EPA)* from being treated as a “contaminant.” Even in light of winter road safety considerations, given the potential harm to the environment by road salts, the ECO advocated for a review of this exemption in Regulation 339 in our 2006/2007 Annual Report (see pages 136-139).

Sodium chloride, calcium chloride and magnesium chloride are three types of salts that can be used on roads. However, not all salts are created equal; these three substances have varying levels of effectiveness and pose different degrees of risk to the environment.

As a de-icer, calcium chloride has a lower freezing point than sodium chloride, produces more heat as it dissolves, melts more ice, and can be used at much lower temperatures. Sodium chloride is less effective than calcium chloride; therefore more sodium chloride must be applied to de-ice paved surfaces. However, sodium chloride is also much cheaper than other alternatives; hence it is typically utilized on winter roads.

Calcium chloride and magnesium chloride are also commonly used as dust suppressants on roads. These hygroscopic (i.e., water attracting) salts attract moisture from the atmosphere to help hold dust particles to the road surface. Calcium chloride also slows water evaporation and tightens the compacted soil. Sodium chloride is much less hygroscopic and, as such, is far less effective as a dust suppressant than either calcium chloride or magnesium chloride. Since more sodium chloride would be required at a more frequent application rate, it is not generally used as a dust suppressant.

All three types of salt can result in the presence of chlorides in soils, which can harm vegetation, contaminate ground and surface water and increase the uptake of mercury by aquatic organisms. However, sodium chloride must usually be applied in greater quantities than calcium or magnesium chloride, resulting in larger amounts of chloride in the environment. Furthermore, large sodium ions in the soil displace valuable plant nutrients, like calcium and potassium, and prevent clay particles from binding together. This causes clay particles to expand, thus negatively affecting soil structure, decreasing soil permeability and fertility and hindering plant growth.

Dust Suppressants in Ontario

The Need for Dust Suppressants:

Dust from unpaved roads can cause air pollution, and other environmental and economic effects. Fine airborne particles can reduce visibility and safety for drivers, affect crops and vegetation, and contribute to human health problems, such as respiratory illnesses. Dust suppressants are frequently applied on unpaved roads to minimize the release of airborne particles, thus improving road safety and reducing air pollution. Dust suppressants can also lessen road deterioration and associated maintenance requirements.

The Use of Wastes as Dust Suppressants:

A variety of materials – such as water, wastewater and road salts – can be used for dust suppression. While calcium chloride and magnesium chloride are commonly used dust suppressants, waste materials have also been used for this purpose. Waste products can provide a low cost, no cost, or even negative cost (where the owner of a waste would otherwise be required to pay for disposal) option, making these materials a popular alternative to purchasing a product for dust suppression.

For example, waste oil was the most popular dust suppressant used in Ontario up until 1989, when it was banned.

Recently, ground-sourced brines – a waste by-product from the oil and gas extraction process – are starting to be used as a dust suppressant. Ground-source brines are a natural salt solution found in underground geological formations, which may be pumped out by the natural gas and oil industries to create storage space for natural gas and oil, or can be a by-product when extracting oil or gas from marginally productive wells. These multi-chloride brines can contain magnesium and calcium chlorides, but are often rich in the less-hygroscopic sodium chloride.

Regulation of Dust Suppressants:

In general, anyone depositing a “waste” material on land, including for the purposes of dust suppression, is required to obtain an environmental compliance approval (ECA) from MOE under the *Environmental Protection Act (EPA)*. However, Regulation 341 (Deep Well Disposal) made under the *EPA*, specifically exempts oil and gas field brine from the definition of “waste” under the *EPA*. This exemption in Regulation 341 avoids regulatory duplication for the disposal of oil field brines in deep wells, which is already regulated under the *Oil, Gas and Salt Resources Act*; however, it also has the effect of leaving the disposal of oil field brines by other means largely unregulated. As a result, ground-sourced brine derived from oil or gas extraction can be used as a dust suppressant without requiring an ECA.

Conventional dust suppressants that are “products,” not “wastes,” (such as magnesium chloride or calcium chloride) do not require an ECA either. However, all dust suppressants must be applied in a manner that does not contravene the general provisions of the *EPA*. This includes the *EPA* prohibition of any discharge of a contaminant into the natural environment that causes, or may cause, an adverse effect.

MOE does not evaluate the relative benefits of different dust suppressant products. However, it has, on rare occasion, regulated or banned environmentally harmful dust suppressants as it did with waste oil in 1989.

In addition, MOE does provide some basic guidance on the use of waste materials as dust suppressants (*MOE Guideline C-9: Approval of Waste Management Systems for Dust Suppression Using a Waste Material*).

The Ministry of Transportation (MTO) also plays a role in the oversight of dust suppressants. MTO provides several guidelines and standards on the application of dust suppressants in order to minimize environmental harm. MTO's *Ontario Provincial Standard Specifications* for calcium chloride and magnesium chloride lays out how users of these dust suppressants should label, transport and apply the materials, while MTO's *Maintenance Best Practice for Gravel Surfaces (MBP-104)* outlines the appropriate frequency and rate of application for calcium chloride dust suppressants. MTO also provides *Dust Control: Environmental Reference for Contract Preparation*, which supplies guidance on the environmental considerations necessary when preparing a contract for dust suppression with MTO.

Furthermore, other non-provincial bodies provide guidance for the application of dust suppressants; for example, the Federation of Canadian Municipalities provides a best practices document entitled *Dust Control for Unpaved Roads*.

Summary of Issues

The applicants state that high-sodium ground-source brines derived from oil and gas wells are increasingly used in Ontario for dust suppression purposes. The applicants assert that ground-

sourced brines can be processed to concentrate their calcium and/or magnesium components, and therefore amplify their dust-suppressing properties. However, the applicants also contend that unprocessed ground-sourced brines – which retain high levels of sodium chloride – are sometimes being applied directly to roads for dust suppression.

As such, the applicants argue that, despite its poor performance, ground-sourced brine is being used as a dust suppressant essentially as a cheap means of disposal. Similar to waste oil, pumped-out ground-source brine is a waste by-product of the natural gas industry, which must be properly disposed. The applicants state that the cost of “disposing” of ground-sourced brine as a dust suppressant is lower than other allowable means of disposal, as well as costing less than other dust suppressants. As a result, the applicants contend that there is a potential for large amounts of ground-sourced brine to be disposed of as a dust suppressant.

Because unprocessed, high-sodium ground-sourced brines are ineffective dust suppressants, the applicants note that double the volume of brine is required to match the performance of concentrated calcium- or magnesium-only brines. The applicants further state that the higher volume of brine that must be applied results in greater environmental harm.

While sodium chloride and high-sodium brines are still not commonly utilized for dust suppression, the applicants contend that there is a trend towards increased use. In support of this assertion, the applicants included a summary table suggesting that in tendering contracts for dust suppression, several municipalities in Ontario are allowing the submission of proposals that would use high-sodium brines. The applicants state that these municipalities are soliciting proposals for twice the amount of brine than the amount of magnesium chloride or calcium chloride being tendered, thus indicating that a market is developing for such brines.

The applicants note that while ground-sourced brines may be exempted from being considered a “contaminant” under the *EPA* if used for melting snow and ice in winter, no such exemption exists for the use of brines as a dust suppressant. Furthermore, these high-sodium brines have been recognized as toxic under the *Canadian Environmental Protection Act*; therefore, the applicants argue that these ineffective, high-sodium brines “must not be allowed to be disposed of in the environment” as a dust suppressant.

Accordingly, the applicants request that the ministry undertake a review for the need for a new policy, act, or regulation that would provide guidance and/or restrictions on the use of ground-sourced brines as a dust suppressant on Ontario roads. The applicants specifically request that the policy, act, or regulation set out how ground-sourced multi-chloride brines can, and cannot, be stored, refined, treated, blended, used and disposed of. The applicants suggest that there is a need for more information in the marketplace and among purchasers of dust suppressants about the true costs and benefits of high-sodium ground-sourced brines.

The applicants refer to *MOE’s Guideline C-9 (Approval of Waste Management Systems for Dust Suppression Using a Waste Material)*, and suggest that a specific guide for waste brines would be appropriate. Similarly, the applicants cite several MTO dust suppression guidelines (such as the *Ontario Provincial Standards Specifications*) that provide some guidance to MTO and road authorities. However, the applicants note that none of these documents or guidelines address, or even refer to, high-sodium brines, nor sodium chloride, as dust suppressants.

The applicants also requested that MOE consider this application in conjunction with its current review of brines derived from the hydraulic fracking process (see box).

The Use of Wastewater from Shale Gas Fracking

While conventional oil and natural gas extraction currently takes place in Ontario, companies are increasingly examining the potential for obtaining natural gas through hydraulic fracturing ("fracking"). Shale gas, which is natural gas trapped in tiny spaces in impermeable rock, was previously inaccessible to industry but through improved, cost-effective techniques, can now be more effectively accessed.

However, fracking is also associated with environmental risks. Foremost among these is the issue of wastewater. Fracking injects large amounts of highly pressurized fluid, normally water, into the shale to fracture the rock and access the gas. Chemicals such as corrosion inhibitors, bactericides, acids, and gelling agents are also added to the water. After fracking, approximately 15-80 per cent of the water is recovered; this recovered water contains the chemical additives that were added and can include naturally occurring materials from the rock, such as metals, radionuclides or sodium brine. Therefore, the disposal of fracking wastewater can involve significant environmental risks (see our 2010/2011 Annual Report, Part 6.1, for an overview of the environmental effects of the fracking process).

While there has been limited drilling for gas in Ontario's shale rock to date (see Part 4.7 of our 2012/2013 Annual Report, for an update on the current state of fracking and shale gas in Ontario), public concerns and an application for review under the *Environmental Bill of Rights, 1993*, have prompted MOE and the Ministry of Natural Resources to conduct a review of the definition and regulation of oil field brine in light of the development of fracking (refer to Section 2.4.1 of the Supplement to our 2012/2013 Annual Report, for a description of the application for review).

The ECO forwarded the application to MOE as the applicants' concerns about the environmental impacts of ground-sourced brines and the use and disposal of toxic substances fall within the mandate of MOE.

Ministry Response

In September 2013, MOE informed the applicants that a review of the issue was not warranted. The ministry's assessment was based on information provided in the application, information from within MOE, and consultations with MTO staff on the use of ground-sourced chloride brines.

MOE noted that it already regulates the use of waste products as dust suppressants. The ministry explained that "if a dust suppressant is considered a waste, an Environmental Compliance Approval (ECA) is required under the *Environmental Protection Act (EPA)*." MOE also affirmed that any application of dust suppressants must not contravene the *EPA* or its regulations.

Further, MOE stated that MTO's *Maintenance Best Practice for Gravel Surfaces (MBP-104)* outlines the appropriate frequency and rate of application for calcium chloride dust suppressants and that MTO includes such specifications in contracts for dust suppressant application. In addition, MOE cited the Federation of Canadian Municipalities' best practices guide, *Dust Control for Unpaved Roads*, as another guideline for the application of dust suppressants. MOE therefore concluded that, "because existing guidelines address dust suppressant use adequately," there is no potential harm to the environment if the review is not undertaken. However, these various guidelines either do not address the use of sodium chloride as a dust suppressant or give no guidance for its application.

In relation to the applicants' concerns about the high volume of ground-sourced brine necessary for efficacy, MOE asserted that the Federation of Canadian Municipalities' guide provides a methodology for cost-benefit analysis based on the cost of the suppressant, application frequency

and other considerations. MOE stated that such a cost-benefit analysis can “address any confusion in the marketplace and among purchasers of dust palliatives as to the true costs and benefits of high sodium ground sourced brines.”

MOE also noted that unprocessed brines are not widely used as a dust suppressant because they are not effective. The ministry stated that, in fact, water is the most frequently used dust suppressant and that the two most common dust suppressant products are calcium chloride and magnesium chloride. Accordingly, the ministry does not consider potential pollution from ground-sourced brines to be a high risk. As such, MOE stated that its resources would be better directed to higher priority pollution issues.

The ministry also declined to consider the application under its joint review of brine derived from the fracking process, stating that the brines that originate from “underground gas well storage are different from high-volume hydraulic fracturing brines.” MOE did not specify how these brines differ.

For the full text of the ministry decision, please see our website at www.eco.on.ca.

ECO Comment

The ECO is extremely disappointed with MOE’s decision to deny this application for review. Inorganic chlorides, including sodium chloride, are a potentially harmful “contaminant” within the meaning of the *EPA*, and are also recognized as “toxic” under the *Canadian Environmental Protection Act*. Potential run-off can contaminate surface water and groundwater, and can harm animals and roadside plants. Therefore, the use of sodium chloride presents an environmental threat to terrestrial and aquatic ecosystems and poses a potential risk to clean, safe drinking water. It is discouraging that MOE did not take the opportunity to undertake a proactive review to ensure that the use of high-sodium brine as a dust suppressant is properly managed to minimize environmental contamination. This issue is especially relevant considering the history of harmful wastes disposed of as dust suppressants.

While MOE considers sodium chloride to be a substance worth exempting for its beneficial contribution to public safety in melting snow and ice, there is no equivalent *EPA* exemption for using sodium chloride as a dust suppressant. Despite MOE’s assurance that an ECA is required to dispose of any waste as a dust suppressant, MOE failed to note that Regulation 341 explicitly exempts ground-sourced brine derived from oil or natural gas extraction from the definition of “waste” under the *EPA*, and hence from requiring an ECA. Instead, the use of brine as a dust suppressant is only provincially managed by voluntary guidelines and best practices. As such, the application of high-sodium brines on roads is largely unregulated, unmonitored and untracked in Ontario.

The regulatory gap that this application highlights also sheds light on another area of concern: that without proper definition and control, fracking wastewater could be considered akin to conventional oil and gas field brine under Regulation 341 and could be similarly exempted from the *EPA*. This would allow brine that is not only high in sodium, but also other contaminants, to be disposed of on Ontario’s country roads and flow into fields, forests and aquifers. Accordingly, the ECO has previously recommended that MOE and the Ministry of Natural Resources review the regulatory framework related to fracking to protect water resources and the natural environment.

In recent years, MOE and MTO have made efforts to minimize the environmental effects of winter road salt. The applicants contend that a market for ground-sourced high sodium brines is increasing in Ontario. If accurate, MOE should examine the growing use of an ineffective, polluting dust suppressant that can contaminate drinking water supplies, and could potentially offset the benefits

achieved through reduced winter road salt use. Otherwise, the ministry will be allowing a substance deemed toxic under the *Canadian Environmental Protection Act* to be discharged into the environment with no provincial monitoring and with little benefit for Ontarians.

Review of Application R2013004:

2.1.11 Environmental Assessment of Genetically Engineered Glyphosate Tolerant Alfalfa (Review Denied by MOE)

Background

On July 24, 2013, two applicants submitted an application for review to the ECO, requesting new regulations under the *Environmental Assessment Act (EAA)* that would make activities related to the distribution and/or sale of genetically engineered (GE) glyphosate-tolerant alfalfa subject to the Act. The ECO forwarded this application to the Ministry of the Environment (MOE).

Genetically Engineered Crops

Farmers have always used selective breeding techniques to increase the prevalence of desirable traits in their crops. Over the last two decades, genetic engineering – introducing a new segment of DNA into the genetic sequence of an organism – has emerged as a novel method of creating crops with particular characteristics, while surmounting some of the limitations of traditional breeding. Proponents of GE crops assert that their use will increase yields, decrease agrochemical use and help meet the global food demand. However, there is ongoing debate and uncertainty about the validity of these claims, as well as about the environmental, health and socio-economic risks of GE crops.

A number of GE crops have been developed to address challenges faced by farmers that cultivate large-scale field crops. Several major crops have been designed to tolerate certain herbicides, allowing farmers to eradicate a broad spectrum of weeds without harming the crop itself. For example, several crops have been engineered to tolerate the popular broad-spectrum herbicide glyphosate (for more information on glyphosate refer to Chapter 2.11 of Part 2 of our 2011/2012 Annual Report). Other crops have been engineered to carry the *Bacillus thuringiensis* insecticidal toxin gene to increase insect-resistance. Some crop varieties are also available with “stacked” traits, usually a combination of herbicide resistance and insecticidal characteristics.

Currently, four GE crops are commercially cultivated in Canada – canola (herbicide tolerant), corn (herbicide tolerant, *Bacillus thuringiensis*, herbicide tolerant/Bt), soybean (herbicide tolerant) and sugarbeet (herbicide tolerant). In 2012, 11.6 million hectares of GE crops were cultivated in Canada, representing roughly a third of the country's cropland.

Regulation of “Plants with Novel Traits” and the Approval of Genetically Engineered Alfalfa

The Canadian Food Inspection Agency (CFIA) and Health Canada are responsible for the regulation of what the CFIA calls “plants with novel traits” (PNTs), which include GE plants. The CFIA assesses the environmental safety of GE plants based on five criteria, which are articulated in *Directive 94-08 (Dir 94-08), Assessment Criteria for Determining Environmental Safety of Plants With Novel Traits*:

- the potential of the plant to become a weed of agriculture or be invasive of natural habitats;

- the potential for gene flow to sexually compatible plants whose hybrid offspring may become more weedy or more invasive;
- the potential for the plant to become a plant pest;
- the potential impact of the plant or its gene products on non-target species, including humans; and
- the potential impact on biodiversity.

The CFIA will approve the unconfined release of a PNT if it determines that the release poses a “minimal apparent risk” to the environment (with the possibility of imposing conditions on the release to minimize risks). Conversely, the CFIA will refuse approval if the release poses an unacceptable risk to the environment. In 2005, GE glyphosate-tolerant alfalfa underwent food, feed and environmental safety assessments by the CFIA and Health Canada and received authorization for release.

GE crop varieties must also be registered under the federal *Seeds Act* in order for seeds to be sold in Canada. In April 2013, one variety of GE alfalfa was registered by CFIA, allowing the seeds to be commercially sold in Canada; four additional varieties of alfalfa were registered in August 2013.

The Ontario government does not play a role in the commercialization or regulation of GE crops.

Environmental Assessment in Ontario

Environmental assessment (EA) is a process that facilitates informed planning and provides a structured decision-making framework for certain undertakings that may have environmental effects. In Ontario, EA is governed by the *EAA*, which was enacted in 1975. The purpose of the 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.” The “environment” is defined very broadly in the Act – it not only includes air, land, water, and plant and animal (including human) life, but it also extends to social, economic and cultural conditions, and the interrelationships between these elements.

The Act primarily applies to undertakings by or on behalf of the provincial government, municipalities and other public bodies. The legal definition of “undertakings” includes more than just projects – its broad definition includes “enterprises” and “activities,” as well as proposals, plans or programs related to such enterprises or activities. The Act can also apply to the private sector if undertakings are either designated in a regulation under the *EAA*, or if a proponent voluntarily agrees to undergo an EA. The EA itself examines factors such as: the rationale for the undertaking and possible alternatives, potential environmental effects, and actions to prevent and mitigate environmental effects. The EA process also has requirements for public notice and consultation.

In addition to individual EAs for specific undertakings, the Act also allows for a streamlined, self-assessment process for defined classes of activities; these are known as Class EAs. Activities that fall under a Class EA may proceed provided that they follow the requirements set out in a Class EA document approved by the Minister of the Environment. According to MOE, Class EAs generally apply to activities that have “predictable and manageable environmental effects.” Ontario does not have a Class EA that applies to agricultural activities.

Summary of Issues

The applicants asserted that the distribution, sale and use of GE glyphosate-tolerant alfalfa would adversely affect the environment, or might reasonably be expected to adversely affect the environment, in a number of ways, including: contaminating conventional alfalfa; increasing herbicide use; and adversely affecting biodiversity. Compounding these concerns, the applicants

argued that there are limited prospects for remediating these environmental impacts once they occur. Moreover, the applicants argued that these potential environmental effects have not been properly assessed by the federal government, and that the federal approval process lacks transparency and accountability.

In addition to the environmental impacts, the applicants also argued that contamination of conventional crops by GE alfalfa will negatively affect farmers who choose not to grow the GE alfalfa, particularly those who must exclude the plant from their farms in order to maintain their livelihoods. Therefore, the applicants asserted that an EA that includes social, economic and cultural impacts is required.

As a result, the applicants requested new regulations under the EAA that would require activities related to the distribution and sale of GE alfalfa in Ontario to undergo a provincial environmental assessment. The ECO forwarded the application to MOE.

The Importance of Alfalfa in Ontario

The applicants provided context for their request for review by explaining the agronomic and economic importance of alfalfa. They noted that alfalfa is widely cultivated in Ontario, and described its wide variety of uses, including: hay and pasture for cattle, sheep, and horses; crop rotations to increase soil nitrogen; foods produced from alfalfa (e.g., sprouts and dietary supplements); and the production and sale of alfalfa seeds. The applicants concluded that alfalfa is “deeply integrated into Ontario’s whole food and farming system, with a high economic value as well as social and cultural importance.”

Adverse Environmental Effects of GE Glyphosate-Tolerant Alfalfa

Genetic Contamination:

The applicants asserted that if GE alfalfa is released on the market, the spread of glyphosate-resistance genes into conventional alfalfa will be unavoidable. The applicants outlined the various mechanisms by which genetic contamination may occur and asserted that there are “particular and pronounced risks of contamination with this perennial crop.”

For example, the applicants described the potential ways that GE alfalfa seed could “escape,” resulting in the contamination of crops and fields, including: spillage; equipment cleaning; hay transport; dormant seed; and animal vectors. The applicants also noted that alfalfa is a perennial, out-crossing, insect-pollinated crop, presenting the possibility that pollinators could transfer pollen from GE alfalfa crops to non-GE plants if crops are not consistently harvested prior to blooming. Further, they stated that since perennial crops flower multiple times, the risk of genetic contamination is increased. Finally, the applicants asserted that contamination can occur through volunteer and feral alfalfa (i.e., unintended plants that grow from escaped or dormant seed) – which could act as a “bridge” to facilitate long-distance gene flow.

The applicants also claimed that the *Coexistence Plan for Alfalfa Hay in Eastern Canada* (a voluntary framework developed by an industry association to guide stewardship and best management practices for the coexistence of organic, conventional and GE varieties) would not prevent GE alfalfa from contaminating conventional varieties. Accordingly, they concluded that “the biological characteristics of alfalfa converge to present a particularly potent risk of gene escape and, in addition to the many important considerations relating to the biology of alfalfa, the role of human behaviour in handling GE alfalfa seed is a known risk. The only way to prevent contamination is to stop the market release of GE alfalfa.”

Increased Herbicide Use:

The approved varieties of GE alfalfa are designed to tolerate glyphosate-based herbicides. The applicants argued that the introduction of glyphosate-tolerant alfalfa will increase the use of glyphosate in Ontario and accelerate the development of herbicide-resistant weeds. According to the applicants, for the most part, alfalfa is currently cultivated without pesticides because it is commonly grown in a mix of plants (including other grasses, herbaceous flowering plants, and forage legumes) that would be killed by herbicide application.

The applicants cited research demonstrating that since the introduction of GE herbicide-tolerant crops, herbicide use has increased substantially. For example, one of the studies cited by the applicants found that in the United States, between 1996 and 2011, herbicide-resistant crop technology led to a 239 million kilogram increase in herbicide use (mostly glyphosate), compared to the estimated herbicide use in the absence of herbicide-resistant crops. The applicants also provided research showing that similar increases in glyphosate have occurred in Ontario.

Glyphosate-resistant weed populations have proliferated concurrently with the increased use of glyphosate. The applicants argued that in addition to herbicide-resistant weeds, the unwanted escaped GE alfalfa plants themselves present a weed management problem. The applicants asserted that these challenges will ultimately lead to further increases in the use of glyphosate as well as other toxic herbicides, including 2,4-D and dicamba.

The applicants also noted that many farmers currently use glyphosate to kill alfalfa stands at the end of the alfalfa phase of a crop rotation. They stated that the use of GE alfalfa would eliminate this practice and require the use of additional herbicides.

The applicants also expressed concern regarding possible adverse effects of glyphosate on the environment and human health, as well as the potential effects of other chemical substances used in commercial glyphosate formulations.

The Impacts on Biodiversity:

Alfalfa is generally grown in mixed stands; however, the cultivation of glyphosate-tolerant alfalfa will require farmers to grow pure alfalfa stands as other grasses and plants would be killed by the application of glyphosate. The applicants argued that the use of GE alfalfa will result in an increase in monocropping, thereby adversely affecting Ontario's farmland biodiversity. The applicants also highlighted further potential impacts on biodiversity, including reductions in wildlife habitat, negative effects on insect and pollinator diversity, and downstream impacts on the food chain.

*Social and Economic Effects for Ontario Farmers**Increased Production Costs and Legal Risks:*

The applicants argued that the introduction of GE alfalfa will increase production costs for Ontario farmers. They predict increased costs of weed management to stop both unwanted volunteer GE alfalfa plants and glyphosate-resistant weeds. The applicants argued that organic and non-GE farmers of alfalfa will bear additional costs of employing GE avoidance and mitigation practices, such as creating buffer zones and testing for GE contamination.

The applicants also argued that some farmers may simply abandon growing alfalfa due to the threat of contamination and fear of litigation over patent infringement if GE alfalfa is found in their fields. According to the applicants, GE crops are unique among regulated substances as they combine "the autonomy of a living organism" with "legally protected corporate property" (i.e., a patented gene construct). The applicants asserted that these factors expose farmers to risk of litigation. The applicants asserted that this potential for GE contamination and the associated risk of litigation could similarly cause farmers to abandon the practice of seed saving.

Further, the applicants argued that the legal framework is contradictory and unbalanced because there is no liability regime in Canada to compensate farmers if GE products infiltrate their land and crops. Moreover, they noted that many farmers do not have the means to seek legal recourse.

They also argued that the potential for contamination might make it harder to sell the non-GE alfalfa, seed, and products grown from seed in the organic and non-GE markets. The organic agriculture market in Ontario is economically important and is growing rapidly. Organic certification under the Canada Organic Standards prohibits the use of GE seeds and feed. Therefore the applicants asserted that the potential for contamination from GE alfalfa is a threat to organic certification and could ultimately reduce the prevalence of organic farming in Ontario. These concerns extend to farms that depend on pasture for dairy and meat production (i.e., grassfed beef and lamb).

Finally, the applicants noted that mitigation strategies are limited, and that avoidance is largely out of the hands of the farmers who would be most affected by GE contamination. They asserted that once GE alfalfa appears on the land, it is difficult or impossible to eliminate, especially for organic farmers who cannot use herbicides. As a result, the applicants argued that the precautionary principle supports the need for an environmental assessment because introduction of GE alfalfa in Ontario would have irreversible environmental, social and economic effects.

Inadequacy of the Federal Environmental Safety Assessment

The applicants discussed the limitations and inadequacy of the federal assessment process for PNTs and noted that the regulatory framework has been the subject of criticism from Canadian public interest groups, the Auditor General of Canada, and the 2001 Royal Society of Canada's Expert Panel on the Future of Food and Biotechnology.

In particular, the applicants asserted that the CFIA's environmental safety assessment is a secretive process that relies on data provided by proponents. Further, they argued that the lack of public access to documentation and data undermines both the validity and accountability of the process. This concern is underscored by the absence of public consultation requirements. The applicants also stated that responsibility for long-term environmental effects is offloaded in the federal process. For example, the long-term effects of herbicide tolerance are left to be resolved by industry through stewardship plans.

Finally, the applicants highlighted that the federal process does not consider potential social, economic and cultural impacts – including potential market impacts. The applicants concluded therefore that "Ontario needs to assess the broader and systemic ecological impacts of [GE alfalfa], especially considering the potential economic impacts of widespread genetic contamination."

Ministry Response

On September 30, 2013, MOE wrote to the applicants to inform them that the ministry had concluded that a new provincial regulation making activities related to the sale and distribution of GE alfalfa subject to the *EAA* would overlap with existing federal regulation. The ministry stated that the public interest does not warrant the requested review and, therefore, it declined to undertake it.

The ministry noted that the CFIA and Health Canada are responsible for the regulation of GE crops, and provided a summary of the factors considered in the CFIA's environmental safety assessment and registration process. MOE stated that "plants with GM traits cannot enter the marketplace unless the CFIA and Health Canada's assessment determines whether seeds and plants are safe for

use as food, feed and release into the environment as other conventional plant varieties already being grown.”

MOE also listed the various approvals granted for GE alfalfa at the federal level, including regulatory approvals by the CFIA and Health Canada in 2005, approval for use of glyphosate on GE alfalfa in 2012, and registration of one variety of GE alfalfa in April 2013.

MOE did not comment on the validity of the applicants’ concerns, or whether the federal assessment process was sufficient to address all of the issues that were raised in the application. The ministry also provided no indication of whether there are any other regulatory mechanisms in place, federally or provincially, to address the applicants’ concerns.

For the full text of the ministry decision, please see our website at www.eco.on.ca.

ECO Comment

The ECO agrees with MOE’s determination that it would not be in the public interest for the Ontario government to duplicate the federal approval process for GE alfalfa. The responsible federal agencies assessed the environmental safety of the GE alfalfa plant – including the potential for genetic contamination and potential impacts on biodiversity – and concluded that the plant poses a “minimal apparent risk” to the environment. Provincial ministries should be able to rely on the review process of one of its federal counterparts. However, the applicants raised several valid issues that clearly fall outside the scope of the narrow federal safety assessment, including issues related to sustainable and organic agriculture, increased herbicide use, and related social and economic effects, which play no role in the CFIA’s authorization process for GE crops. The applicants also raised concerns regarding the lack of transparency and public participation in the federal process. The ECO is very disappointed that MOE failed to address any of these issues in its response to the application.

In theory, Ontario’s *EAA* has great potential to encourage informed, responsible and sustainable public planning; in practice, however, the government’s increasingly narrow application of the Act significantly undermines this potential. The ECO has long called for the Ontario government to revive the original purpose of the *EAA*: the *betterment* of the people of Ontario (for example, refer to Part 2.2 of our 2007/2008 Annual Report). Although using the *EAA* to regulate the distribution and sale of GE alfalfa would be a novel application of the Act, consideration of the environmental, social and economic issues raised by the applicants through an environmental assessment would be in line with the purpose and intent of the *EAA*. Furthermore, designating the distribution and sale of GE alfalfa under the *EAA* would provide some measure of transparency and an opportunity for public participation in the review process, something that is severely lacking in the federal process. Input from the public and the province’s farmers could help ensure that the decision to allow these activities is based on the best possible information.

Regardless, whether through a formal environmental assessment or some other forum, the cultivation of GE crops raises important environmental issues that warrant attention; the ECO has also previously expressed reservations about the sustainability of glyphosate-resistant GE crops (see Chapter 2.11 of Part 2 of our 2011/2012 Annual Report). The ECO encourages the Ontario government to play a more active role in regulating the sale and use of GE crops in the province, rather than simply following federal decisions that may not encompass provincial environmental goals and interests.

Review of Application R2013005:**2.1.12 Regulation of Compromised Soil
(Review Undertaken by MOE; Reviewed Denied by MMAH)****Background/Summary of Issues**

In November 2013, the ECO received an application from two Ontario residents, requesting a review of the need for a new province-wide policy to address the problem of compromised soil and to properly regulate the disposal of fill. The applicants asserted that there is currently a patchwork of regulatory oversight by provincial and municipal authorities, and that the failure to ensure the appropriate disposal of compromised soil creates significant environmental and health concerns.

The ECO forwarded the application to the Ministry of the Environment (MOE) and the Ministry of Municipal Affairs and Housing (MMAH).

Ministry Response

MOE and MMAH responded to the applicants on January 21, 2014. MMAH informed the applicants that it had decided to deny the application for review. However, MOE advised the applicants that it had decided to undertake the review, and that it anticipated the review would be completed within 12 to 18 months.

ECO Comment

The ECO will review the handling of this application in a future reporting year, once MOE has completed its review.

Review of Application R2013007:**2.1.13 Need to Reform Approach to Contaminated Site Liability Management
(Review Denied by MOE)****Background**

In December 2013, two residents of Ontario submitted an application under the *Environmental Bill of Rights, 1993* requesting a review of the *Environmental Protection Act (EPA)* provisions dealing with contaminated site liability. The ECO forwarded this application to the Ministry of the Environment (MOE).

A fundamental tenet of environmental law is the “polluter pays” principle: those responsible for allowing or causing pollution should be responsible for the associated costs (such as remediation costs). At its core, the principle is about fairness to innocent third parties affected by pollution. It may also encourage would-be polluters to change their behaviour to avoid polluting the environment in the first place.

The polluter pays principle is expressed in Ontario’s *EPA*; the ideal is reflected to some degree in most of the Act’s provisions relating to contaminated properties. For example, MOE is empowered under the *EPA* to issue environmental protection orders requiring polluters to undertake steps to

remediate a contaminated property. The ministry can also order a polluter to repay the government for any costs it accrued in the course of cleaning up a pollutant, or require that companies provide financial assurance to cover potential future costs before they are allowed to operate in the province.

This principle is not an absolute. Polluters can sometimes avoid liability for clean-up costs, including by declaring bankruptcy or insolvency under the *Bankruptcy and Insolvency Act* or by restructuring under the *Companies' Creditors Arrangement Act*. Recently, a Supreme Court of Canada decision, *Newfoundland and Labrador v. AbitibiBowater Inc.*, determined that environmental protection orders will usually be subject to the claims process which governs bankruptcy and restructuring cases. This means that MOE's orders are stayed (i.e., of no force and effect) during the bankruptcy proceedings, and then are treated as a regular claim among all the other creditors' financial claims on the insolvent's limited remaining funds. In practice, there is rarely enough money available at the conclusion of a bankruptcy or restructuring to cover the costs associated with fulfilling an environmental protection order.

Additionally, the Ontario Court of Appeal recently confirmed, in the case of *Kawartha Lakes (City) v. Ontario (Environment)*, that the EPA's fundamental purpose of protecting the environment supersedes the polluter pays principle. In this regard, the EPA allows the ministry to order anyone who ever owned, managed or controlled a given property or operation to pay the costs of clean up even if they were not responsible for the contamination (e.g., if it migrated from a neighbouring site); fairness, the court ruled, is not a relevant consideration. Although MOE seems reluctant to name innocent parties in clean-up orders as a matter of practice, it has also made it clear that it will do so where the polluter is unable to pay, be it due to a bankruptcy or for other reasons.

Summary of Issues

The applicants framed their concerns as encompassing "two separate but related problems with the current legislative scheme." First, the need to better ensure that polluters pay for the costs associated with their pollution. Second, how to best manage situations where it is not possible to make the polluter pay and costs fall on innocent third parties, be they governments or private parties.

The applicants acknowledged that the EPA allows MOE to require financial assurance from potential polluters to cover possible future clean-up costs. They noted, however, that use of these provisions is largely discretionary and does not specifically require that the funds be sufficient to cover the expected full expense of remediation. The applicants stressed the importance of ensuring that companies address the costs of contamination throughout a project's lifecycle, lest the province be unable to recover costs after the damage has been done.

The applicants argued that Ontario's potential liability for abandoned contaminated properties could reach into the billions of dollars and impede the province's ability to balance the 2017/2018 budget. In support of their position, the applicants pointed to the 2012 Commission on the Reform of Ontario's Public Services report, *Public Services for Ontarians: A Path to Sustainability and Excellence* (the "Drummond Report"). Recommendation 13-5 of the report suggests that Ontario should "place greater emphasis on prevention and the polluter-pay principle for contaminated sites using appropriate financial tools, such as financial assurance." Similarly, Recommendation 19-12 of the report encourages the Government of Ontario to incorporate a stronger focus on the polluter-pays principle into the regulatory framework, in order to "better protect the province against the costs of environmental cleanup."

In light of these considerations, the applicants said that a review of Ontario's approach to contaminated site liability management under the EPA is needed. Further, the applicants suggested

that the review should be a public endeavour and suggested that an expert task force may be appropriate.

The applicants concluded with a series of recommendations which they argued would “enhance prevention of environmental contamination and ... strengthen the application of the polluter-pays principle.” These recommendations included:

- Enact and implement stronger, clearer legislation that incentivizes the prevention of contamination and promotes remediation. Here, the applicants encouraged MOE to refer to the US *Comprehensive Environmental Response, Compensation, and Liability Act* (often referred to as the “superfund” legislation) and British Columbia’s *Environmental Management Act*.
- Introduce statutory mechanisms that provide for:
 - polluter liability for damages caused by injury to, destruction of, or loss of natural resources and ecosystem services;
 - a dedicated fund to cover remediation costs when the polluter cannot be forced to pay, financed through charges imposed on polluters;
 - the beneficiary principle, which allows MOE to hold liable parties who are not directly responsible for contamination but who benefit financially from it;
 - measures to discourage litigation over liability;
 - incentives to encourage brownfield decontamination and development; and
 - financial assurance requirements that are adequate to cover remediation costs.
- Make government spending on environmental remediation more transparent.
- Develop clear rules, consistent with principles of fairness and environmental protection, to govern situations in which no polluter is available to pay for remediation.
- Amend the *EPA* to state that the principle of fairness guides the issuance of ministerial orders regarding contaminated sites such that preference is given to naming polluters over third parties when issuing clean-up orders.
- Engage the Canadian Council of Ministers of the Environment to discuss a harmonized intergovernmental approach to financing of historic contaminated site remediation.
- Amend subsection 132(3) of the *EPA* to clarify that financial assurance requirements can be imposed through amendment of an existing order or approval, not only at the time the instrument is initially issued.

The applicants also argued that the recent Supreme Court of Canada decision in *Newfoundland and Labrador v. AbitibiBowater Inc.* clearly demonstrates a need for reform to federal insolvency and bankruptcy legislation. Accordingly, the applicants suggested that the province should make public its recommendations to the federal government to amend the federal bankruptcy and insolvency laws to clarify that environmental remediation orders take priority over all other creditors in insolvency proceedings.

In support of their application, the applicants submitted a report by Ecojustice, *Proposals for Strengthening Ontario’s Contaminated Site Liability*, which elaborates on much of the information provided in the application for review, including the basis for several of the recommendations. They also included a 2012 report prepared for the Office of the Premier of Ontario, *Implementing the Polluter pays Principle in Ontario: Options for Law Reform*.

Several organizations submitted letters of support for this application for review.

Ministry Response

On February 18, 2014, MOE advised the applicants that it had determined that the requested review was not warranted as “related efforts” were already in underway.

MOE reported that it “is currently considering the recommendations made in the Drummond report to strengthen the polluter pays principle. This review may address many of the application’s recommendations.” The ministry also explained that a number of initiatives relating to some of the applicants’ recommendations were already in progress; these include:

- implementing a new Public Sector Accounting Board standard related to environmental liabilities, effective April 1, 2014, which MOE states will improve transparency of government spending on environmental remediation;
- an ongoing initiative to identify contaminated sites that are the province’s responsibility that may carry financial liabilities;
- considering how to clarify the priority of MOE remediation orders in federal bankruptcy and insolvency laws;
- communicating with other provinces regarding effective mechanisms for addressing pollution liability issues;
- reviewing the current financial assurance program in order to strengthen the existing framework and consider alternative program delivery options; and
- reviewing contaminated sites in order to consolidate environmental clean-up activities across the province.

The ministry further observed that recent amendments to O. Reg. 153/04 (Records of Site Condition), made under the *EPA*, were intended to support the safe and efficient redevelopment of brownfield sites. The ministry explained, however, that the implementation of other mechanisms to encourage brownfield redevelopment, such as tax changes and introducing loan and grant opportunities, are beyond the purview of MOE.

MOE reiterated its position that fairness is secondary to the goal of environmental protection. The ministry explained that under its *Compliance Policy*, “environmental protection is of utmost importance when issuing orders.” The ministry argued that a mechanism to allocate legal obligations based on the degree of responsibility for contamination would not serve to prevent contamination or encourage remediation; furthermore, such an approach would not reflect the fact that MOE imposes liability on a range of parties regardless of whether or not they are polluters.

With respect to the applicants’ recommendation that the financial assurance provision in the *EPA* (subsection 132(3)) be amended to clarify that financial assurance requirements can be imposed through amendment of an existing order or approval, the ministry noted that language to this effect is already contained within the subsection.

In response to the recommendation that an expert task force be used to consider changes to the current regime, the ministry advised that “[s]taff resources are already being directed to identify options for related initiatives underway including the review of the Drummond report recommendations related to the polluter pays principle.” However, MOE did not provide any specific detail on these efforts or how the applicants or others might participate in any such initiatives.

For the full text of the ministry decision, please see our website at www.eco.on.ca.

ECO Comment

The applicants have identified important shortcomings in MOE's existing contaminated site liability regime. The applicants raised valid concerns about both the ministry's approach to ensuring that polluters pay for the costs of the contamination they cause to the extent possible (such as through financial assurance requirements), and MOE's approach to fairly allocating responsibility for contamination when it is not possible to make the polluter pay. In addition to the environmental and human health concerns arising from contaminated properties, the ministry's failure to address these shortcomings could result in significant potential costs to the province to remediate abandoned sites. Unfortunately, it does not appear that the ministry gave the application the full consideration it deserves. Given the significance of the issues raised, the ECO disagrees with MOE's decision to deny the application and believes that a full review would have been appropriate.

The ministry's decision to decline the applicants' request is particularly frustrating given that the ministry shares that it is already undertaking a review regarding the polluter pays-related recommendations made in the Drummond Report, as well as other issues identified by the applicants, such as potentially strengthening financial assurance requirements. There is no reason the ministry could not have agreed to undertake the applicants' review and incorporated it into whatever existing processes are underway. Incorporating any existing ministerial reviews with the *EBR* review process provides significant and unique accountability and transparency measures.

In addition, the ECO is troubled by the ministry's comments regarding the place of fairness in the current environmental protection regime. The bankruptcies of some large companies in recent years have left Ontario and other third parties responsible for the costs of necessary environmental clean-up work. Currently, MOE states "liability is imposed not only on persons that cause or permit pollution but also upon owners and persons in management or control of a contaminated property or undertaking," regardless of their culpability in allowing the pollution to occur or persist. The applicants asked that the ministry reconsider the role of fairness when apportioning liability in these circumstances. Despite the central importance of this issue within the application, the ministry was wholly unwilling to consider any changes to the current regime, dismissing the notion out of hand as inconsistent with current MOE policy. In doing so, the ministry does not acknowledge that a reconsideration of its current position on this issue was the very point of the application.

The degree to which fairness factors into the ministry's decisions about how to allocate legal responsibility for these contaminated sites is a significant issue. The ministry's comments imply that fairness and environmental protection cannot co-exist as values imbedded within the *EPA*. The ECO does not believe that this is the case and supports the applicants' suggestion that, while environmental protection should remain the primary goal of the Act, the ministry should consider how it can best address situations where the polluter is unable to pay, and, in particular, clarify how it will make decisions about liability in such situations.

Review of Application R2013008:**2.1.14 Need for Odour Control Measures for Mushroom Compost Facilities
(Review Denied by MOE)**

See also in this Supplement: Review of Application for Investigation I2013002 (Mushroom Compost Facility Emitting Noxious Odours), Section 3.1.4.

Background

In December 2013, two residents of Ontario submitted an application under the *Environmental Bill of Rights, 1993 (EBR)* requesting a review of the need for a new act or regulation to require specified odour control measures from mushroom compost facilities. The ECO forwarded this application to the Ministry of the Environment (MOE) for consideration.

Mushroom Farming in Ontario

Mushroom farming is an economically important industry in Ontario; in 2012, the value of the province's mushroom crop was \$166.9 million. This far exceeds the value of most vegetable crops, including potatoes (\$101.9 million), field tomatoes (\$73.2 million) and carrots (\$34.4 million), and is only surpassed by the value of greenhouse-grown tomatoes (\$257.5 million) and greenhouse-grown cucumbers (\$203.3 million).

Mushrooms require a substrate (a physical substance upon which they can grow). This substrate is often composed of partially composted agricultural materials. In the case of mushroom farms, the composted materials used may include hay, corn cobs, corn stalks, cocoa oil, cocoa bean shells, chicken manure, stable bedding, gypsum, urea and/or dried grains. The composting process involves mixing the materials as they decompose, adding sufficient moisture, then placing the materials in windrows and turning periodically; unfortunately, this process can result in significant odours.

Regulatory Framework for Odour Emissions from Agricultural Operations

Mushroom farms are recognized as "agricultural operations" under the *Farming and Food Production Protection Act*, which is administered by the Ontario Ministry of Agriculture and Food (OMAF). The Act also identifies "the storage, handling or use of organic wastes for farm purposes" as part of agricultural operations. In an effort to encourage agriculture in Ontario and to protect farmers from nuisance complaints, the Act states that farmers are not liable for a disturbance – such as odours – from an agricultural operation as long as it is part of a "normal farm practice." The *Farming and Food Production Protection Act* establishes the Normal Farm Practices Protection Board to resolve any disputes involving agricultural operations, including determining what entails a normal farm practice. In further support of agricultural operations in the province, and in contrast to other industries, the *Environmental Protection Act (EPA)*, which is administered by MOE, also states that farms do not require an Environmental Compliance Approval if operations may discharge contaminants into the environment.

However, the *Farming and Food Production Protection Act* and the agricultural exemptions under the *EPA* are superseded by subsection 14(1) of the *EPA*, which states that "a person shall not discharge a contaminant or cause or permit the discharge of a contaminant into the natural environment, if the discharge causes or may cause an adverse effect." Subsection 1(1) of the *EPA* defines an "adverse effect" to include: harm or material discomfort; loss of enjoyment of normal use of property; and interference with the normal conduct of business. Agricultural operations are subject to the adverse effect prohibition in the *EPA*, despite the protections otherwise provided by the *Farming and Food Production Protection Act*.

The *EPA* also includes a general requirement for all waste management systems, which includes compost facilities, to obtain an Environmental Compliance Approval from MOE; however, Regulation 347 (General – Waste Management), made under the *EPA*, again exempts on-farm composting of agricultural wastes from the requirement to obtain ministry approval. In addition, MOE finalized a *Guideline for the Production of Compost in Ontario* in 2012, which includes extensive guidance on preventing and controlling odour emissions that may be included as legally binding conditions in the Environmental Compliance Approval for off-farm composting facilities

(see Part 5.6 of our 2012/2013 Annual Report). This guideline, however, is not applied to on-farm composting facilities, as they do not require MOE approval.

Summary of Issues

Despite the provision in the *EPA* that prohibits any discharge (including odours) that may cause an adverse effect, the applicants argue that Ontario does not have an act or regulation to control odour emissions from mushroom compost facilities. The applicants perceive this gap in MOE and OMAF's ability to regulate emissions from the on-farm composting to be the result of the protections from "nuisance" odour complaints provided under the *Farming and Food Production Protection Act*.

However, the applicants allege that some mushroom composting facilities also operate as large, centralized "factories" that produce compost not only for their own farming operations, but also for shipment and sale to other farms, both within and outside of Ontario. As an example, the applicants describe a mushroom farm and compost facility located in Ashburn, Ontario, which they report produces more than 1,500 tonnes of compost per week, most of which is destined for other mushroom farms (see Application for Investigation I2013002 in Section 3.1.4 of this Supplement).

The applicants state that the intense and offensive odours from these facilities, including the one in Ashburn, are causing an "adverse effect," as defined in subsection 1(1) of the *EPA*, to area residents. In the case of the Ashburn facility, the applicants specifically allege that the effect of the odours is widespread and that residents are experiencing adverse effects within a radius of five kilometres from the facility. The applicants corroborated their claims of a noxious odour with newspaper articles about the issue, a letter from the Mayor of the municipality, a letter from the area's Member of Provincial Parliament and an odour assessment from a consultant. The odour emissions from this facility have also been the subject of a lawsuit by residents.

Moreover, despite frequent complaints to MOE about the adverse effects relating to the Ashburn facility, the applicants allege that the ministry remains "on the sidelines" in this situation. The applicants do acknowledge, however, that MOE has used its powers under the *EPA* to issue a Provincial Officer's Report that documented the odour and its intensity, and a Provincial Officer's Order that directed the facility to complete an odour assessment review and odour control inventory within six weeks. Despite these measures, the applicants argue that the lack of appropriate regulatory controls, such as those applied to industrial and municipal compost facilities, prevents timely and effective control of odours from these mushroom compost "factories." Therefore, the applicants suggest that MOE should develop better, comparable regulatory tools for dealing with on-farm facilities.

More specifically, the applicants suggest that Ontario adopt an act or regulation that explicitly defines control measures for odour emissions from mushroom compost operations. The applicants note that in British Columbia, Regulation 413/08 (Mushroom Composting Pollution Prevention Regulation), made under the *Environmental Management Act*, provides such requirements. The British Columbia regulation includes requirements for mushroom composting facilities such as: the preparation and implementation of a pollution prevention plan; a covered storage area for organic materials; an enclosed building with an aerated floor for the compost; an air emission and treatment system, which consists of a wet scrubber and biofilter; and the requirement that organic materials are moved into the enclosed building on the same day they are mixed and that all stages of the composting process other than mixing occur indoors. The applicants propose that any act or regulation adopted by Ontario should be equal to or more stringent than British Columbia's regulation.

Ministry Response

In February 2014, the ministry denied the request to undertake a review. MOE asserted that a new law or regulation of this nature would duplicate existing provincial requirements already set out in subsection 14(1) of the *EPA* and O. Reg. 419/05 (Air Pollution – Local Air Quality), made under the *EPA*. MOE stated that the *EPA* offers a variety of tools, such as voluntary abatement, Orders, notices, investigations and prosecutions, to address odour issues that cause adverse effects. The ministry also noted that section 179 of the *EPA* directs that if there is a conflict between the *EPA* and any other legislation – such as the *Farming and Food Production Protection Act* – the *EPA* shall take precedence.

Since the applicants pointed to the Ashburn facility as a specific example of problem odours and ministry inaction, the ministry summarized the steps it has taken in response to complaints about the Ashburn facility. The ministry stated that between 2008 and the end of 2013, it conducted a variety of actions authorized under the *EPA* to address the applicants' situation. These included: informing OMAF and the mushroom farm of the date and time of odour complaints and conducting random field responses; using voluntary abatement methods to encourage the farm to employ odour control measures; issuing Provincial Officer's Orders for the facility to prepare an odour assessment review, odour control inventory and an assessment of the on-site process water management works and stormwater management works; conducting air sampling in 2009 and 2013; and establishing a Non-Standard Procedure to investigate all after-hours complaints and help the farm pinpoint potential odour sources. MOE also noted that in the spring of 2014 the facility is expected to begin construction on an enclosure for its entire composting operations, including a biofilter (also called a "scrubber"). In a subsequent letter to the applicants, MOE clarified that the enclosure was a commitment made by the facility, not a requirement imposed by the ministry.

MOE also stated, more generally, that OMAF continues to work with mushroom compost operators, while MOE investigates odour issues. MOE further noted that, under the *Farming and Food Production Protection Act*, the OMAF Minister can issue directives, guidelines or policy statements in relation to normal farm practices. The Normal Farm Practices Protection Board's rulings would then have to be consistent with these policies and directives, as well as consider any new odour-controlling technologies or practices.

Although MOE acknowledged that "developing effective solutions to deal with odour impacts is always a complex and time-consuming process," the ministry also stated that the issue can be addressed under the *EPA*. Similarly, the ministry asserts that a regulation such as that in British Columbia would merely duplicate the protections offered by the *EPA* and O. Reg. 419/05. MOE also noted that 98 per cent of the odour complaints it receives relate to only two facilities: the facility in Ashburn and another mushroom compost facility in Harley, Ontario, both of which continue to work with MOE and OMAF to resolve the underlying issues. Accordingly, the ministry asserts that a new act or regulation would be not only duplicative, but limited in application and contradict the provincial government's "Open for Business" initiative.

For the full text of the ministry decision, please see our website at www.eco.on.ca.

ECO Comment

The ECO disagrees with MOE's decision to deny the requested review. The ECO disputes the ministry's rationale that developing regulations for composting operations at mushroom farms would duplicate existing *EPA* provisions, particularly the "adverse effects" provision. The *EPA*'s broad adverse effects prohibition is a regulatory backstop of last resort; it is surely no substitute for the specialized regulation of individual activities. Indeed, if subsection 14(1) precluded the development of specialized regulatory requirements to prevent adverse effects, there would be no

basis for the multitude of existing regulatory and approval requirements under the *EPA*, including those that exist for municipal and commercial composting facilities. Specific regulatory requirements help prevent problems from arising in the first place and can provide quick and effective tools for enforcement when issues do arise.

The ECO is also unconvinced by the ministry's position that the review is unnecessary on the basis that odour complaints from mushroom compost operations in the province currently only relate to two facilities. In the continued absence of specific control mechanisms, there is nothing to stop other farms from starting up similar composting operations with all the same accompanying odour issues.

The ECO recognizes that promoting and protecting agriculture in Ontario is an important priority. Moreover, since ordinary agricultural operations can involve odours, sights or sounds that may be unpleasant to neighbours, the *Farming and Food Production Protection Act* and the Normal Farm Practices Protection Board serve key roles in facilitating responsible and effective agricultural operations.

Nonetheless, when mushroom farms are producing compost primarily for other farms rather than for on-site use, this raises important questions about whether these operations constitute "normal farm practices." This question was, unfortunately, not resolved by the Normal Farm Practices Protection Board (see Application for Investigation I2013002 in Section 3.1.4 of this Supplement). The requested review could have provided an opportunity for MOE and OMAF to jointly define the boundary between agricultural operations and industrial composting, and to consider whether the requirements placed on off-farm composting facilities (such as the requirement for an Environmental Compliance Approval and the adoption of odour control measures from the Compost Guideline) should apply to on-farm operations.

MOE concludes that the *EPA* offers sufficient tools to allow the ministry to effectively control mushroom farm compost facilities. Yet, the experience of the residents of Ashburn, who have spent 15 years – and counting – attempting to resolve the odour situation, demonstrates that the existing tools have failed to bring about a timely resolution of the odour issues.

Review of Application R2013009:

2.1.15 Need to amend the *OWRA* and its Wells Regulation (Review Pending by MOE)

Background/Summary of Issues

On January 2, 2014, an application was received by the ECO requesting a review under the *Environmental Bill of Rights, 1993 (EBR)* of the *Ontario Water Resources Act (OWRA)* and Regulation 903 (Wells), made under the *OWRA*. The ECO forwarded this application to the Ministry of the Environment (MOE).

The applicants, representatives of the Canadian Environmental Law Association, note that this application is an updated and expanded version of a similar *EBR* application for review denied by MOE in 2003 (see pages 223-233 of the Supplement to our 2003/2004 Annual Report). The applicants argue that, in the intervening years, the ministry has taken no meaningful steps to address the identified problems with the *OWRA* and Regulation 903.

The applicants assert that the current legislative and regulatory regime governing wells suffers from a variety of “serious interpretive problems, unacceptable loopholes, substantive shortcomings, and enforcement difficulties,” which place groundwater resources and Ontario well-users at risk. These issues, according to the applicants, include ambiguity resulting from a failure to define key terms, blanket exemptions from certain requirements, and unacceptably low standards for certain construction, repair or decommissioning work. They also argue that the best management practices set out in the draft *Test Holes/Dewatering Wells Manual* (finalized after the application was submitted; see Environmental Registry #011-5722) and *Manual for Water Supply Wells* should be legally mandated via direct incorporation into Regulation 903. Similarly, the applicants also assert that the well construction standards for brownfield sites that are currently set out in an *Environmental Protection Act* regulation should be incorporated into Regulation 903 such that all well-related requirements are set out in one place.

Ministry Response

On March 7, 2014 – the statutory deadline for MOE to respond to the application – the ministry informed the applicants that it required more time to make a decision whether to undertake the review. The ministry committed to advising the applicants of its decision in this respect by no later than May 7, 2014, but on May 9, 2014, MOE advised that yet more time was required; the ministry provided no updated information about when it expected to make a decision.

ECO Comment

As the ministry’s decision was not made by the end of our reporting year, the ECO will review MOE’s handling of this application in a future report.

Review of Application R2013010:

2.1.16 Reforming the *Environmental Assessment Act* and related Regulations (Review Denied by MOE)

Background

In January 2014, two applicants requested that the Ministry of the Environment (MOE) review and revise Ontario’s *Environmental Assessment Act* (EAA) and six regulations related to environmental assessments (EAs). The applicants argued that a review is in the public interest because “the current legislative and regulatory regime governing EA in Ontario is incomplete, outdated and inadequate to protect the environment.”

An EA is a widely used planning and decision-making approach that involves the consideration of a project’s potential environmental effects before the project begins. In Ontario, the government enacted the EAA in 1975 with the purpose of “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.” The Act requires the proponents of certain projects to prepare an EA document that includes a description of: the proposed project; its purpose and rationale; alternatives to the project; any predicted and potential environmental effects, advantages and disadvantages; and the actions necessary to prevent, change, mitigate or remedy those effects.

The EAA generally only applies to projects (referred to in the Act as “undertakings”) that are proposed by public sector proponents, such as provincial ministries and agencies, public bodies, and

municipalities. However, specific projects or proponents can be exempted through a formal declaration order or by regulation. The *EAA* does not generally apply to private sector projects, unless they have been specifically designated by regulation under the *EAA*, or if the proponent voluntarily agrees to undertake an EA. Examples of projects that are subject to the Act include: public roads and highways; transit projects; power generation projects and transmission lines; waste management projects; water and wastewater works; resource management; and flood protection projects.

The EA process involves several steps: the proponent submits a Terms of Reference document that outlines the proposed scope of the project, which must be approved by MOE; the proponent then submits the EA document to MOE; and then MOE coordinates public and government review and consultation before the Minister of the Environment and Cabinet can approve the project to proceed.

For large-scale, complex projects with the potential for significant environmental effects, proponents are required to prepare individual EAs. By contrast, specific types of “routine projects that have predictable and manageable environmental effects” are covered under a variety of proponent-led streamlined EA processes. Class EAs are one type of streamlined EA process. Projects falling under a Class EA do not require individual MOE approval provided that the proponent follows the requirements identified in the Class EA (also referred to as a parent Class EA document), which is approved by the Minister. Ontario currently has 11 Class EAs that cover frequently undertaken activities including: municipal road, sewage and water infrastructure; highway construction and maintenance; conservation authority works; and transit projects. Under the Act, members of the public can ask the Minister of the Environment to elevate (or “bump up”) the status of a Class EA project to an individual EA.

Summary of Issues

In their application, the applicants summarized: the general importance of the EA process; the purposes of the *EAA*; the intention of Ontario’s EA program; and the elements and characteristics of effective and credible EA requirements. Measured against these criteria, the applicants argued that “Ontario’s current EA regime falls short of the mark, and should therefore be reviewed and revised forthwith.” The applicants identified several specific issues as high-priority candidates for EA reform, many of which centered around themes of EA coverage, EA considerations, and public participation (outlined below).

To support their concerns, the applicants primarily cited criticisms of the *EAA* and EA process found in the ECO’s past Annual Reports and in the 2005 report released by the Environmental Assessment Advisory Panel (EA Advisory Panel), an expert panel created by the Minister of the Environment in 2004 to recommend ways to improve Ontario’s EA process.

EA Coverage

Wholesale Exemptions from the EAA:

Regulation 334 under the *EAA* exempts a variety of proponents and projects from all EA requirements. Amongst other things, the regulation exempts: district school boards; twelve provincial ministries (e.g., the Ministry of Education, the Ministry of Agriculture and Food, the Ministry of Health and Long-Term Care, etc.); numerous municipal projects (e.g., those costing less than \$3.5 million, agricultural drainage works, etc.); certain undertakings by conservation authorities (e.g., the development of conservation areas and campgrounds costing less than \$1 million); and undertakings carried out for the purpose of “research” (measuring, monitoring and testing).

Moreover, the Minister, with Cabinet's approval, can exempt specific municipal or provincial projects through either a Declaration Order or by regulation under the *EAA*. For example, project-specific regulations have exempted an energy-from-waste facility in Brampton, the remediation of the Hamilton harbourfront, and the Ontario Power Authority's Integrated Power System Plan.

The applicants argued that an excessive number of environmentally significant projects (and proponents) have been unjustifiably exempted from the *EAA*, undermining the scope and effectiveness of the Act.

Conditional Exemptions from Individual EAs:

Three regulations under the *EAA* conditionally exempt broad classes of projects from requirements to conduct individual EAs:

- O. Reg. 116/01 (Electricity Projects), which exempts proponents of certain electricity projects from carrying out full EAs, as long as a streamlined Environmental Screening Process is followed (see pages 89-91 of our 2001/2002 Annual Report);
- O. Reg. 101/07 (Waste Management Projects), which designates and exempts public and private waste disposal projects (e.g., mid-sized municipal landfills, some small incinerators) from individual EA requirements, conditional upon the proponent's completion of an Environmental Screening Process (see pages 40-41 of our 2007/2008 Annual Report); and
- O. Reg. 231/08 (Transit Projects and Metrolinx Undertakings), which exempts certain public transit projects from the *EAA* and subjects others to a more streamlined planning process (refer to Part 5.1 of our 2008/2009 Annual Report).

The applicants raised several concerns about these sectoral exempting regulations, including:

- Few, if any, public requests to elevate (or "bump up") an electricity project to an individual EA have been granted.
- The regulations' screening processes eliminate the requirement to assess the rationale ("need") for the project and "alternatives" to the project.
- O. Reg. 231/08 explicitly limits the grounds upon which public concerns will trigger the government to intervene (e.g., require further consideration or impose conditions), and adopts a "one size fits all" approach such that large transit projects are subject to the same assessment process as much smaller projects with fewer potential impacts.

Extensive Use of Class EAs:

Noting that the vast majority of undertakings are processed under Class EAs rather than individual EAs, the applicants argued that the widespread use of approved Class EAs has been accompanied by concerns about the adequacy of the notification, documentation and consultation steps taken by proponents. The application outlined these concerns by referring to criticisms raised by the EA Advisory Panel and the ECO in past reports. These concerns include:

- the lack of meaningful mechanisms under Class EAs for effectively resolving differences of opinion between proponents and concerned stakeholders for specific projects;
- the lack of mechanisms to turn down projects under Class EA processes;
- MOE's tendency to turn down requests to "bump up" a project to the more rigorous review of an individual EA; and
- prescribed ministries repeatedly failing to adequately consult the public via the Environmental Registry on the development of (and revisions to) Class EAs.

EA Considerations

Need for Improved EA Purposes and Policies:

The applicants pointed out that a number of key environmental principles have emerged since the *EAA* was enacted in 1975 such as: the ecosystem approach; the precautionary principle; the polluter-pays principle; and intra-generational equity; however, these principles have not been incorporated into the *EAA*. For that reason, the EA Advisory Panel recommended that the *EAA* be updated to include these principles to help direct EA decision making. Furthermore, the panel recommended that the Minister of the Environment establish sector-specific policies under the *EAA* to be taken into account by proponents and decision makers. Noting that the Ontario government has failed to act on these recommendations, the applicants argued that there is an immediate need to update the purposes and principles underlying the *EAA*, and to develop appropriate sector-specific policies to direct EA decision making.

Exclusion of the Consideration of "Need" and "Alternatives":

Under the *EAA*, the Minister of the Environment has the power to restrict what must be included in an EA, and to approve EA Terms of Reference that exclude matters such as: the rationale (or "need") for a project; alternative methods of carrying out the project; and the expected environmental impacts, advantages and disadvantages of the proposed project and alternatives. The applicants argued that the nature, scope and utility of individual EAs under the Act has been compromised by the overuse of "focused" Terms of Reference that wholly exclude key EA planning matters (e.g., need, alternatives to, and alternative sites) from the EA process. They reiterated a recommendation in the ECO's 2007/2008 Annual Report that MOE should reform the EA process to give renewed weight to upfront questions of "need" and "alternatives" for projects.

Inadequate Consideration of Cumulative Effects:

MOE's Statement of Environmental Values (SEV) requires the ministry to consider a number of important principles, including cumulative environmental effects, when making environmentally significant decisions. The applicants argued, however, that cumulative effects are not being adequately addressed in the ministry's EA program and that the *EAA* should be amended to ensure that cumulative effects are duly considered by proponents and decision makers in the EA process.

Public Participation

Barriers to Meaningful Public Participation in the EA Process:

The applicants raised concerns about the adequacy of public participation opportunities under the *EAA*. Although the *EAA* requires proponents to consult with "such persons as may be interested" when preparing Terms of Reference and EA documentation, the applicants pointed out that the Act fails to define or provide specific direction on what constitutes meaningful consultation or an "interested person."

The applicants also referred to public concerns identified by the EA Advisory Panel and/or the ECO regarding public participation, including that:

- Public consultation efforts are too short, complex, opaque and superficial;
- Key documents and technical studies are often inaccessible and/or flawed;
- Intervenor funding is needed in order for the public to meaningfully participate in the EA process; and
- The EA consultation system seems to favour proponents, and MOE seems unable or unwilling to insist on fairness.

The applicants observed that the government has failed to act on recommendations made by the EA Advisory Panel and the ECO to improve public participation in Ontario's EA program.

Barriers to the Public Participation Rights Afforded under the EBR:

The *EBR* gives the public the right to know about, comment on and appeal many environmentally significant permits and approvals. However, section 32 of the *EBR* exempts permits and approvals of projects that have been approved under the *EAA* from the mandatory public participation rights afforded by the *EBR*. Moreover, section 32 shields even the very broad range of activities explicitly exempted under the *EAA* from *EBR* public participation requirements. Accordingly, both the EA Advisory Panel and the ECO recommended that this exemption be amended because it “inappropriately shrouds environmentally significant decisions from public scrutiny.” The applicants argued that the EA exception under section 32 of the *EBR* has effectively blocked Ontarians from meaningfully reviewing or commenting on critically important details set out in ministry permits and approvals for projects that are subject to the *EAA*.

Lack of Public Hearings:

Under the *EAA*, any person may request that the Minister of the Environment refer a proposed undertaking (or related matters) to the Environmental Review Tribunal for a public hearing and decision. According to the EA Advisory Panel, “public hearings under the [*EAA*] are important mechanisms for gathering information, testing evidence, weighing competing interests, and making informed decisions about particularly significant or controversial undertakings.”

The applicants noted, however, that since 1996, it appears that only two matters have been referred to the Environmental Review Tribunal for public hearings, leaving virtually all EA applications to be decided by the Minister without any hearings. They argued that there has been “a persistent, inexplicable and unacceptable refusal” by the Minister to refer matters to public hearings even where the public has requested hearings in relation to controversial or large-scale undertakings that may cause adverse ecological, socio-economic or cultural impacts. The applicants therefore asserted that the *EAA*’s public hearing provisions must be reviewed and revised to ensure that public hearings actually occur under the Act.

Moreover, the applicants asked MOE to review and revise O. Reg. 206/97 under the *Environmental Protection Act (EPA)*. This regulation exempts waste disposal sites, waste management systems and sewage works that are subject to the *EAA* from mandatory hearings under the *EPA*. This exemption from *EPA* hearing requirements applies regardless of the level of public consultation, or lack thereof, that takes place under the *EAA*.

Need for Consolidated Hearings:

Where large-scale undertakings trigger more than one public hearing under Ontario’s environmental and planning statutes, Ontario’s *Consolidated Hearings Act* avoids multiple hearings by facilitating the creation of a single Joint Board to fulfil the various hearing requirements. The applicants argued, however, that in the EA context, the efficacy of this consolidated approach has disappeared because almost no public hearings have been held under the *EAA*, and because O. Reg. 206/97 dispenses with public hearing requirements for certain waste and sewage-related undertakings subject to the *EAA*. Pointing out that the government has not acted upon an EA Advisory Panel recommendation to review and update the *Consolidated Hearings Act* and rewrite O. Reg. 206/97, the applicants submitted that certain legislative and regulatory changes are needed to facilitate consolidated hearings involving undertakings subject to the *EAA*.

*Other Concerns**Inadequate Monitoring and Enforcement:*

The applicants asserted that there is inadequate monitoring and reporting under the *EAA* to ensure that EA terms and conditions are effective in protecting the environment and are being complied with by proponents. To explain and support these concerns, the application referred to past comments made by the EA Advisory Panel and the ECO (see pages 57 and 150 of our 2003/2004

Annual Report; page 46 of our 2007/2008 Annual Report; and pages 36-37 of our 2008/2009 Annual Report).

Lack of Integration Between the EAA and Land Use Planning Decisions:

Although many undertakings subject to the *EAA* may require rezoning or official plan amendments under the *Planning Act*, or may require approvals under other land use-related legislation, the applicants argued that there remains poor (or virtually non-existent) integration between the *EAA* and other land use planning regimes in Ontario. To support their argument, the applicants pointed out that the EA Advisory Panel and the ECO have also commented on the disconnect between the EA program and land use planning.

O. Reg. 616/98 (Deadlines) under the EAA:

Finally, the applicants requested that MOE review O. Reg. 616/98 under the *EAA*, which legislates various deadlines for proponents and for the Ministry of the Environment for EA processes.

Ministry Response

In March 2014, MOE denied the request for review and concluded that a review is not warranted because of “related efforts underway.” MOE did not respond to each of the applicants’ concerns in turn. Rather, in determining whether the public interest warrants a review, MOE considered the following factors, which are set out in the *EBR*.

The Ministry’s Statement of Environmental Values

MOE noted that its SEV includes the consideration of several principles, such as multi-generational effects, the polluter-pays principle and precautionary decision making. Related to the applicants’ concern that key environmental principles have not been incorporated into the *EAA*, the ministry stated that its updated EA Codes of Practice (documents that outline the legislative requirements and ministry expectations for proponents in the EA process) provide guidance to proponents on the importance of considering the ministry’s SEV.

The Potential for Harm to the Environment if Review is Not Undertaken

The ministry asserted that it has a robust EA and approvals process, which includes stringent requirements for proponents, and ministry monitoring and reporting conditions, to ensure environmental protection. Moreover, MOE pointed out that “the *EAA* is a living framework, allowing for a number of improvements over the years,” including: the Minister’s authority to require proponents who might otherwise be exempt to undertake an individual EA; the addition of screening regulations for transit, waste and electricity projects; and the ability for proponents to voluntarily undertake individual EAs for their projects.

With respect to the applicants’ concerns about inadequate monitoring and enforcement, MOE stated that it has a working strategy, developed in 2007, to improve EA compliance. According to MOE, this strategy is responsible for: a tracking system that allows the ministry to proactively check if proponents have met their EA conditions and take abatement actions in the event of non-compliance; requirements for proponents of individual EAs to report their progress towards meeting EA conditions and commitments; and an auditing program to randomly assess compliance. The ministry noted that its auditing program has revealed that most incidences of non-compliance are administrative with no negative environmental impacts.

Public Consultations, Reviews, and Recent Amendments

In its response to the applicants, the ministry pointed out that the *EAA* and its regulations were subject to public consultation when they were first developed, and have since undergone various public reviews – most recently the EA Advisory Panel review in 2005. As a result of this review, the ministry implemented some regulatory and administrative reforms, including the filing of O. Reg. 101/07, which instituted new EA requirements for proponents of waste diversion and disposal facilities. The ministry also pointed out that MOE last amended the legislation in 1996 and periodically reviews various aspects of the EA program to ensure continuous improvement, including:

- periodic and on-going reviews of parent Class EAs (documents that set out the pre-approval requirements of projects or activities subject to Class EAs), which the ministry ensures are consistent with current EA Codes of Practice; and
- periodic updates to the ministry's EA Codes of Practice.

The Resources Required to Conduct a Review

The ministry stated that MOE resources are currently focused on continuing improvements to the EA program within the existing legislative framework.

Other Matters the Minister Considers Relevant

The ministry explained that the *EAA* already provides considerable flexibility, for example to designate major projects or enhance consultation for specific projects. Moreover, MOE stated that it continues to pursue opportunities to improve the EA program, particularly with respect to: providing greater clarity to EA proponents about ministry and public expectations; pursuing better public engagement in the EA process; and exploring approaches to achieve effective Aboriginal consultations. MOE also noted that, to eliminate duplication and make the process more efficient and thorough, it undertakes joint EAs with the federal government under the Canada-Ontario Agreement on Environmental Assessment Cooperation where appropriate.

For the full text of the ministry decision, please see our website at www.eco.on.ca.

ECO Comment

The ECO disagrees with MOE's decision to deny this request for review. The applicants raised valid concerns with the existing EA process, many of which the EA Advisory Panel and the ECO brought to the ministry's attention years ago. Moreover, industry has complained for years about the costs and delays associated with EAs, and the ECO regularly hears from Ontarians that are frustrated with the EA process. The *EAA* has not been publicly reviewed in almost a decade and has not been amended in almost 20 years. A review is due.

The EA process has a crucial role to play in the lives of Ontarians. As the ECO once stated, the EA process "should be society's pre-eminent tool to carry out farsighted planning for public infrastructure in the name of the public good." Laudably, the *EAA* laid out a vision for anticipating and mitigating the potential impacts of public sector projects. Unfortunately, in the intervening decades since it was enacted, the process has been watered down and many shortcomings have been identified with its effectiveness in achieving this vision.

The ECO has previously commented at length on the numerous EA issues raised by the applicants. For example, in our 2007/2008 Annual Report, the ECO expressed concern over the many environmentally significant decisions that are not being made under the *EAA*. The ECO also raised

serious concerns about the failure of the EA process to consider the cumulative effects of individual projects. This failure arises not only in the context of numerous different projects, but also within single projects, particularly in the Class EA approach, which allows major regional infrastructure initiatives to be broken up into multiple small projects.

The ECO has also commented in the past on: the failure of EAs to consider a project's "need" and "alternatives;" the lack of mechanisms to turn down projects under Class EA processes; the poor integration between EA and land use planning processes; and the issuance of other approvals to proponents before obtaining EA approval, contributing to a *fait accompli* style of project planning (see Part 2.2 of our 2007/2008 Annual Report). Furthermore, the ECO has observed issues of non-compliance with EAs; the ECO recommended that MOE investigate its sister-ministry, the Ministry of Natural Resources, for blatant non-compliance with the *EAA* related to its approval for forest management (see Chapter 2.6 of Part 2 of our 2011/2012 Annual Report).

None of these issues have been addressed. Moreover, the EA Advisory Panel made 41 recommendations in 2005 on how to improve Ontario's EA process, a number of which have never been implemented, including: establishing an independent advisory body to provide impartial expert advice on EA-related matters; amending the *EAA* to allow fees to be imposed to fund or undertake EA-related activities; and creating a formal adjudicative process for elevating the status of a Class EA project to an individual EA.

Moreover, the ECO has also repeatedly expressed frustration with how ministries avoid public consultation by relying on section 32 of the *EBR* to avoid posting notices on the Environmental Registry for projects that have been approved or exempted under the *EAA*. Although, MOE is expected to consider this issue as part of its current review of the *EBR* (see Section 2.1.4 of this Supplement), this review has been ongoing for years. Meanwhile, ministries continue to use this loophole to inappropriately shroud environmentally significant decisions from public scrutiny (see Part 1.3 of our 2012/2013 Annual Report).

Given the unaddressed concerns and unfulfilled recommendations of the EA Advisory Panel, the ECO and many observers and stakeholders, the ECO believes it is long overdue for MOE to conduct a comprehensive and public review of the *EAA* – a review that utilizes the consultation power afforded by the Environmental Registry and that starts with open-minded listening to concerns from all sectors.

Review of Application R2013012:

2.1.17 Need for Measures related to Air Quality Protection from Aggregate Operations (Review Denied by MNR, MOE and MMAH)

This application was reviewed in conjunction with R2013011 (MNR) and R2013013 (MMAH). Please see Section 2.3.2 of this Supplement for the full review.

2.2 Ministry of Municipal Affairs

Review of Application R2013006:

2.2.1 Regulation of Compromised Soil (Review Denied by MMAH)

Background/Summary of Issues

In November 2013, the ECO received an application from two Ontario residents, requesting a review of the need for a new province-wide policy to address the problem of compromised soil and to properly regulate the disposal of fill. The applicants asserted that there is currently a patchwork of regulatory oversight by provincial and municipal authorities, and that the failure to ensure the appropriate disposal of compromised soil creates significant environmental and health concerns.

The ECO forwarded the application to the Ministry of the Environment (MOE) and the Ministry of Municipal Affairs and Housing (MMAH).

Ministry Response

MOE and MMAH responded to the applicants on January 21, 2014. MMAH informed the applicants that it had decided to deny the application for review. However, MOE advised the applicants that it had decided to undertake the review, and that it anticipated the review would be completed within 12 to 18 months.

ECO Comment

The ECO will review the handling of this application in a future reporting year, once MOE has completed its review.

Review of Application R2013013:

2.2.2 Need for Measures related to Air Quality Protection from Aggregate Operations (Review Denied by MNR, MOE and MMAH)

This application was reviewed in conjunction with R2013011 (MNR) and R2013012 (MOE). Please see Section 2.3.2 of this Supplement for the full review.

2.3 Ministry of Natural Resources

Review of Application R2012006:

2.3.1 Regulations related to Hydraulic Fracturing (Review Undertaken by MNR)

Background/Summary of Issues

In October 2012, the ECO received an application requesting a review of the need to improve current laws and adopt new laws to protect Ontarians and the environment from the potential adverse effects of hydraulic fracturing (i.e., “fracking”). The applicants requested a review to ensure the development of a complete regulatory approach that is organized around the “cradle to grave” principle of waste management. The ECO forwarded this application to the Ministry of Natural Resources (MNR) and the Ministry of the Environment (MOE).

The applicants specifically requested a review of:

- the definition of “oil field brine” and sections 2 and 3 of R.R.O. 1990, Regulation 341 (Deep Well Disposal), made under the *Environmental Protection Act* (EPA);
- the definition of “liquid industrial waste” in section 1 of R.R.O. 1990, Regulation 347 (General – Waste Management), made under the EPA; and
- the definition of “oil field fluid” under the *Oil, Gas and Salt Resources Act*.

The applicants argued that these regulations pre-date modern fracking practices and, thus, they are ill-equipped to manage the potential adverse effects from fracking operations.

The applicants also noted that the current regulations make fracking-produced waters exempt from regimes for “hazardous waste” and/or “liquid industrial waste” under the EPA and its associated regulations. The applicants proposed several changes that could be made to the regulations in order to eliminate these exemptions.

Ministry Response

In January 2013, in a joint response, MNR and MOE agreed to undertake this review. The ministries concluded that the public interest warrants the requested review of the above-mentioned sections of Regulation 341, Regulation 347, and the *Oil, Gas and Salt Resources Act*.

Initially, neither ministry provided the applicants with a timeline for the expected completion of the review. However, upon follow-up by the applicants, both ministries indicated that “the review involves complex matters that will require significant consideration and analysis, therefore we expect it will take a number of months.” As of April 2014, the completed review remained outstanding.

ECO Comment

The ECO will review the handling of this application once the ministries have completed their review.

Review of Application R2013011:**2.3.2 Need for Measures related to Air Quality Protection from Aggregate Operations
(Review Denied by MNR, MOE and MMAH)****Background**

In January 2014, two Ontario residents submitted an application under the *Environmental Bill of Rights, 1993 (EBR)* requesting a review of several laws and policies related to aggregate operations and their potential impacts on air quality. They requested a review of various sections of the *Aggregate Resources Act (ARA)*, the *Environmental Protection Act (EPA)*, the *Provincial Policy Statement (PPS)*, and numerous other related policies. The applicants also requested a review of the need for a new policy, act or regulation to control the impacts of aggregate facilities on air quality. The ECO forwarded this application to the Ministry of the Environment (MOE), the Ministry of Municipal Affairs and Housing (MMAH) and the Ministry of Natural Resources (MNR) for consideration.

The applicants also requested that various sections of the *Health Promotion and Protection Act* be reviewed; however, none of those sections of the Act are prescribed for applications for review under the *EBR* and, as such, the ECO did not forward this application to the Ministry of Health and Long-Term Care. The applicants also requested that the National Pollutant Release Inventory be reviewed; however, it is a mechanism of the Government of Canada and it is not subject to the *EBR's* application for review process.

Use of Aggregates in Ontario

Aggregate is a general term used to refer to a range of crushed stone materials such as gravel, sand, clay, shale, limestone and granite. As a key component in asphalt and concrete, aggregate is primarily used in construction projects, including roads and other infrastructure, and in all types of buildings. Aggregates are also used in manufacturing processes for products as diverse as metals, plastics, fertilizer and pharmaceuticals. In Ontario, the provincial and municipal governments are the largest consumers of aggregates, mostly for construction purposes. Aggregates can either be extracted directly from quarries or pits (i.e., "primary aggregates") or can be "recycled" from used construction materials (i.e., "secondary aggregates"). From 1989 to 2009, Ontario consumed over three billion tonnes of aggregate, or an average of 164 million tonnes per year.

Regulation of Air Quality Issues Relating to Aggregate Operations

Aggregate extraction and processing facilities can result in dust, fine particulate matter and other contaminants being released into the air. In addition to the impacts on local air quality, exposure to such particulates can contribute to negative health effects, including bronchitis, asthma, and reduced lung function.

Aggregate extraction is primarily regulated through the *ARA*, which is administered by MNR. Under this Act, every pit or quarry operator is required to obtain a licence from the ministry; MNR must consider a number of factors, including the effect of extraction operations on the environment and on nearby communities, when deciding whether to issue a licence to an operator. The Aggregate Resources Provincial Standards provide supporting guidance for the delivery of the *ARA*. These set out standard conditions requiring dust mitigation and suppression to be included in aggregate licences.

Currently, the provincial government is conducting a review on the *ARA*, with the intent of updating and improving the Act and its regulations. The Standing Committee on General Government released a report in October 2013 containing its recommendations for amending the *ARA*. In February 2014, MNR released a response to the Standing Committee's report. Neither the committee's report nor the ministry response specifically addressed air quality or public health concerns arising from aggregate operations. MNR will conduct stakeholder consultation as the next step of the *ARA* review.

In addition to the requirements of the *ARA*, any aggregate facility that will release contaminants into the environment must obtain an Environmental Compliance Approval under the *EPA*, which is administered by MOE.

Policy direction for aggregate operations also is found in the PPS, which is administered by MMAH and guides decisions on land use planning. The *Planning Act* requires that planning authorities (e.g., municipalities, MNR, etc.) must be consistent with the PPS in making decisions. For example, the 2014 PPS directs that "[a]s much of the mineral aggregate resources as is realistically possible shall be made available as close to markets as possible" and that aggregate "extraction shall be undertaken in a manner which minimizes social, economic and environmental impacts."

Summary of Issues

The applicants requested a review of the regulatory framework governing aggregate operations, specifically their potential impact on air quality and any associated adverse effects on the environment and human health. The applicants stated that, while the link between poor air quality and health and environmental effects is known, this relationship is inadequately reflected in the regulatory framework for aggregate operations. As a result, the applicants claimed that Ontario residents experience significant adverse effects from aggregate operations with few methods of recourse.

The applicants asserted that the *ARA* "makes no reference to the effects of an operation on public health and safety," nor does it require human health impact assessments or air quality technical reports as conditions for obtaining a licence. Furthermore, the applicants argued that while the *ARA* refers to environmental protections, it does not include any specific requirements regarding potential impacts from airborne contaminants. In addition, the applicants noted that the *ARA* does not require on-going air quality monitoring or cumulative effects studies of aggregate operations. While the applicants recognized that the *ARA* is currently being reviewed by the provincial government, they noted that the October 2013 recommendations made by the Standing Committee on General Government made no mention of protecting public health and the environment from airborne contaminants. Moreover, they suggested that the consultation process that informed these recommendations was biased in favour of industry.

The applicants also questioned whether dust control measures found in the Aggregate Resources Provincial Standards adequately address air quality issues. The applicants further stated that O. Reg. 419/05 (Air Pollution – Local Air Quality) under the *EPA* should also be reviewed to determine whether it sufficiently addresses environmental and health effects from aggregate facilities, since it is frequently consulted for the purposes of preparing air quality technical reports.

The applicants argued that greater clarity is required regarding the roles of provincial and municipal governments in addressing concerns about air quality. They reported that various governing bodies frequently deny responsibility for the matter or otherwise fail to address citizen concerns satisfactorily, leaving citizens without a mechanism to address their problems with aggregate operations. Similarly, the applicants asserted that MOE regularly defers to MNR on

matters relating to pits and quarries, even on air quality issues where MOE would normally be involved.

The applicants also contended that the only opportunity for the public to comment on air quality-related health and safety issues regarding aggregate operations is through the municipal zoning by-law amendment process for new operations, resulting in a case-by-case approach to reviewing proposed aggregate operations. Further, the applicants claimed that while the PPS allows for consideration of air quality impacts when considering zoning by-law amendments, the issue is seldom addressed until heard before the Ontario Municipal Board.

Finally, the applicants raised concerns about the recycling of secondary aggregate material. Unlike primary aggregate operations, which occur where natural deposits are found, the processing of secondary aggregates is not tied to a particular location. The applicants argued that such facilities are often located in close proximity to sensitive land uses and significant ecological features. The applicants also stated that secondary aggregates contain many contaminants that are not found at primary aggregate extraction sites, which may pose an increased risk to the environment. Therefore, the applicants argued that proper research, definitions and legislation are required to identify and regulate the risks from processing secondary aggregates.

In support of their application, the applicants referred to several studies and reports dealing with the impacts of particulate matter on air quality and human health. They also attached a number of materials, including Ontario government and non-government organization reports on particulate matter, the ARA and/or specific Ontario aggregate operations, as well as correspondence between individuals and government bodies and agents regarding aggregates, public health and/or environmental concerns.

Ministry Response

In March 2014, MNR, MOE and MMAH each informed the applicants that they would not conduct the requested review.

Ministry of Natural Resources

MNR pointed to the ongoing ARA review as the primary reason why this request for review was not needed. MNR noted that the Ontario government released a response to the Standing Committee on General Government's recommendations in February 2014 (after the application was submitted), which "outlines a collaborative approach to find solutions with municipal and stakeholder organizations and Aboriginal communities and organizations." The provincial response recommends measures and changes in several areas including: new applications; site plan changes; protection of water and farmland; rehabilitation; recycling; and fees.

MNR acknowledged that the Standing Committee report did not specifically address air quality, but the ministry committed to working with MOE and other ministries "to review the need for changes to other technical requirements under the *Aggregate Resources Act*, including those related to air quality, such as dust, noise and blasting."

MNR further stated that the provincial response to the Standing Committee recommendations was posted as an information notice on the Environmental Registry and that the public will be given the opportunity to comment on proposed policy changes in the future.

Ministry of the Environment

MOE stated that “Ontario has a robust framework for air quality management,” including a variety of compliance and enforcement tools under the *EPA*. Additionally, the ministry explained that fine particulate matter was the subject of a recent review, which found the existing framework of regulations and programs to be effective. MOE also reported that “Ontario is also in the process of implementing the National Air Quality Management System (AQMS). AQMS will provide additional tools to address fine particles including new standards published in May 2013 for fine particulate matter in outdoor air.” In addition, the ministry is updating guidance materials for O. Reg. 419/05 (Air Pollution – Local Air Quality) and committed to post these materials on the Environmental Registry for public comment in the future.

MOE further noted that there are already several mechanisms for public involvement and consultation in aggregate operations. First, the *ARA* offers opportunities for public comment during a mandatory public notification period. MOE also pointed out that members of the public may submit a complaint about a specific facility for investigation, and that the ministry has an operational procedure in place with MNR to “address environmental complaints regarding pit and quarry operations, including complaints related to dust.”

Finally, MOE indicated that it intends to work with MNR to address air quality issues as part of the stakeholder engagement process for the *ARA* review.

Ministry of Municipal Affairs and Housing

MMAH explained that the ministry recently completed an extensive review of the PPS including public consultation, and that the revised 2014 PPS was released in February 2014. As a result of this review, the ministry concluded that subsequent, further review would not be in the public interest at this time. Further, the ministry asserted that the 2014 PPS places a heightened emphasis on land use compatibility impacts related to resource extraction and sensitive land uses, which allows “municipalities or relevant provincial ministries to require proponents to conduct appropriate assessments related to air quality and potential mitigation of any identified impacts.”

Like MOE, MMAH also stated that it would work with MNR and MOE during MNR’s stakeholder consultations as part of the *ARA* review.

ECO Comment

The ECO agrees with the decisions of the ministries to deny this application for review. However, the ECO does share the frustrations expressed by the applicants related to the regulatory framework for aggregate operations. The ECO hopes that many of these types of concerns, including matters related to air quality, will be resolved through the government’s current review of the *Aggregate Resources Act*. The ECO has previously discussed environmental issues associated with aggregate extraction such as: poor rehabilitation rates for quarries; the lack of regulation for pits in northern Ontario or on private land; the weak compliance and enforcement system for aggregate facility operators; and land use conflicts between aggregate facilities, communities and environmentally sensitive areas. The *ARA* review provides MNR with a valuable opportunity to establish a more responsive regulatory system for aggregates.

In the course of its *ARA* review, the ECO specifically urges MNR to address the cumulative effects of aggregate extraction. Some communities experience a higher concentration of aggregate extraction than others partly because the PPS encourages the establishment of aggregate facilities as close to markets as possible. Several aggregate operations, each operating within the requirements of their individual permits, may result in amplified effects when combined. Therefore,

the cumulative impacts, including air emissions, of both existing and planned aggregate quarries and recycling facilities should be expressly addressed in the approvals process.

SECTION 3

REVIEWS OF APPLICATIONS FOR INVESTIGATION

SECTION 3: REVIEWS OF APPLICATIONS FOR INVESTIGATION

3.1 Ministry of the Environment

Review of Application I2012003:

3.1.1 Soil and Groundwater Contamination from an Electroplating Facility (Investigation Undertaken by MOE)

Background

On March 7, 2013, two individuals ("the applicants") submitted an application under the *Environmental Bill of Rights, 1993* requesting an investigation of possible contraventions of the *Environmental Protection Act (EPA)* and the *Ontario Water Resources Act (OWRA)* by Chromeshield and Strathan Corporation. The ECO forwarded the application to the Ministry of the Environment (MOE).

According to the applicants, industrial activity at the site involved the application of nickel plates to automotive parts. Another company, Rustshield, had begun the operations at the electroplating facility in Windsor, Ontario in 1971. In 1998, the operations were purchased by Flex-N-Gate, which renamed the business as Chromeshield. The land remained under the ownership of Rustshield, who leased the land to Chromeshield. Strathan Corporation purchased the land in 2002, with Chromeshield continuing the tenancy. In July 2008, Chromeshield renewed the lease for an additional ten years. However, operations were idled in October 2008, and Chromeshield abandoned the property in November 2010.

The applicants alleged that Chromeshield and Strathan Corporation had contravened sections 14 and 15 of the *EPA*; section 30 of the *OWRA*; and, subsection 21(3) of Regulation 903 (Wells), made under the *OWRA*.

Section 14 of the *EPA* states that "a person shall not discharge a contaminant or cause or permit the discharge of a contaminant into the natural environment, if the discharge causes or may cause an adverse effect." According to section 15 of the *EPA*, MOE must be notified of the discharge of a contaminant that is likely to cause an adverse effect "if the discharge is out of the normal course of events."

Section 30 of the *OWRA* states that it is an offence for anyone to discharge or permit the discharge of any material into any waters that "may impair the quality of the water" and that the ministry shall be notified of any such discharge. Subsection 21(3) of Regulation 903 requires a well owner to "immediately abandon the well if it is not being used or maintained for future use as a well."

Summary of Issues

The applicants alleged that Chromeshield's operations have resulted in soil and groundwater contamination of the site. They further alleged that both Chromeshield (the most recent tenant) and Strathan Corporation (the most recent property owner) were aware of the soil and groundwater contamination, but failed to notify MOE and failed to take remedial actions or contain the contamination. In addition, they claimed that on-site deep water wells may have been improperly abandoned, potentially allowing the groundwater contamination to spread.

The applicants' evidence included an MOE Occurrence Report from November 2000, which reported that some nickel sludge was entering catch basins and storm sewers on the site. At that time, MOE noted that while the City of Windsor had conducted sampling inside the facility, additional samples from the surrounding property were required. The report stated that MOE was going to follow up with the City or would perhaps provide assistance.

In addition, the applicants cited four consultant reports from 1997, 1998, 2002, and 2011 as evidence of the need for an investigation. The applicants included copies of these reports in their application. One of the reports found contaminated groundwater under one of the plating lines; the applicants assert that one sample in this report measured nickel and lead concentrations at 1,300 times and 60 times the allowable limits, respectively. Two other reports noted the potential for contaminated groundwater to flow off-site through abandoned sewer systems and fill materials, and raised concerns about possible aquifer contamination resulting from two improperly abandoned deep wells.

The applicants also referred to court documents showing that, as recently as 2011, Strathan Corporation and Chromeshield were in litigation over responsibility for addressing the environmental contamination of the site, among other matters. The applicants observed that neither company appears to be disputing the presence of contaminants at the site.

The applicants requested that MOE conduct an inspection to determine the extent of contamination and to assess the potential for off-site migration of contaminants through groundwater flows. Further, the applicants requested that MOE inspect the wells on the site to ensure that they were properly abandoned, as required by Regulation 903 under the OWRA.

Ministry Response

On May 10, 2013, MOE decided to conduct an investigation based on the evidence provided by the applicants and other information available to the ministry. On August 9, 2013, the ministry advised the applicants that the investigation was complete and provided a summary of the results.

After reviewing the available information and conducting a site visit, MOE confirmed that there is "undisputed on-site soil and shallow groundwater contamination," in contravention of section 14 of the *EPA* and section 30 of the *OWRA*. The ministry stated that "this contamination is likely a culmination of impacts from activities occurring on the property by chrome electroplating operations since the early 1970s." MOE did not find evidence of an identifiable spill out of the normal course of events, therefore, the ministry concluded that there was no violation of section 15 of the *EPA*. The ministry also found that two on-site wells were improperly abandoned, contrary to subsection 21(3) of Regulation 903.

MOE noted that although some of the contaminated soils have been removed, the extent of the soil and groundwater contamination has not been determined. Therefore, some areas still demonstrate the potential for off-site migration of contaminants from sewer lines, perched shallow groundwater and from areas where previous remedial activity took place. MOE pointed out that the technical reports produced do not agree about the direction of groundwater flow and this information needs to be confirmed, particularly since only one of the three sewer systems were tested as possible vectors for off-site contaminant migration.

On May 16, 2013, MOE issued a Provincial Officer's Order to Strathan Corporation requiring the company to hire a qualified consultant by May 31, 2013 and to provide the ministry with a written report by October 15, 2013 that included:

- the delineation of on-site soil and groundwater contamination;

- a determination of whether contaminants are migrating off-site and methods for preventing off-site contamination if such is occurring;
- an assessment of and recommendations for remedial options; and
- an implementation schedule for site remediation, including the proper abandonment of on-site wells in accordance with Regulation 903.

On August 9, 2013, MOE notified the applicants that the investigation was complete. MOE indicated that it would continue to monitor compliance with the order and might issue additional orders if the report revealed evidence of off-site impacts. The ministry committed to providing the applicants with a summary of the report.

On November 22, 2013, MOE informed the applicants that it extended Strathan Corporation's compliance deadline to December 13, 2013. The company advised MOE that it needed the extension to install additional sampling wells that would provide better data for the report.

On February 10, 2014, the ministry provided the applicants with a summary of the report's findings. The report established the extent of the soil and groundwater contamination and confirmed off-site contamination on adjacent lands located to the east and south of the property. Reportedly, the extent of off-site contamination is limited to lands owned by Strathan Corporation; therefore, the ministry asserted that there are no impacts to other private or municipal lands. In addition, MOE is satisfied that the on-site wells were appropriately decommissioned as water samples taken from the aquifer below the abandoned wells showed no evidence of contamination.

MOE stated that Strathan Corporation must submit an Action Plan to remediate all contaminated areas. The ministry will ensure that Strathan Corporation carries out all activities specified in the Action Plan.

For the full text of the ministry decision, please see our website at www.eco.on.ca.

ECO Comment

The applicants raised valid concerns in their application for investigation under the *EBR*. The ECO is pleased that MOE undertook this investigation and commenced actions to bring the site into compliance (for more information about MOE's compliance regime, refer to Part 4.1 of this Annual Report). The ECO commends the ministry for carrying out follow-up actions and for keeping the applicants informed, even after the *EBR* investigation was technically complete. The ECO encourages MOE to provide the applicants with updates regarding the company's implementation of the Action Plan.

Nevertheless, it is troubling that the ministry has been aware of potential contamination at this site since November 2000. Had MOE conducted an investigation at that time, the contamination could have been remediated much sooner. Further, it is possible that remediation would have been delayed for even longer if the applicants had not submitted this application for investigation.

Review of Application I2012004:**3.1.2 Air Quality and Noise Issues Associated with a Nepheline Syenite Mine
(Investigation Denied by MOE)**

See also in this Supplement: Review of Application R2012018 (Environmental Compliance Approval Issued to a Nepheline Syenite Mine), Section 2.1.7 and Review of Application R2013001 (Review of Standards in Air Quality Regulation and Noise Guidelines), Section 2.1.8.

Background

On March 11, 2013, two applicants submitted a request for an investigation of the operations of Unimin Canada Ltd., a mining company located near Nephthton, Ontario, northeast of Peterborough.

The applicants alleged that the company has discharged several contaminants to the air and generated excessive noise in the area of Kasshabog Lake, in contravention of section 14 of the *Environmental Protection Act (EPA)*, as well as O. Reg. 419/05 (Air Pollution – Local Air Quality) made under the Act.

Section 14 of the *EPA* states that “a person shall not discharge a contaminant or cause or permit the discharge of a contaminant into the natural environment, if the discharge causes or may cause an adverse effect.” The Act defines “adverse effect” as “harm or material discomfort to any person; an adverse effect on the health of any person; and, loss of enjoyment of normal use of property,” among others. Similarly, section 45 of O. Reg. 419/05 prohibits the emission of any air contaminant to an extent that may cause discomfort or loss of enjoyment of normal property use.

The company mines and processes nepheline syenite, a non-metallic mineral used primarily in glass production. The raw ore is quarried from open-pit mines and transported by truck to either of two nearby processing facilities, where it is crushed to product specifications. The finished product is transported to market in bags or in bulk. Dust from the process is collected in baghouses and waste rock tailings are applied as slurry to designated disposal areas at each of the sites.

The Ministry of the Environment (MOE) has issued several permits for each of the two sites: Environmental Compliance Approvals (ECAs) for air emissions and industrial sewage (the tailings); and Permits to Take Water.

Summary of Issues**Air Quality Concerns**

Kasshabog Lake is just south of the company's mining operations and its shores are home to almost 700 cottages. Most of the cottages are used as seasonal residences, but some are year-round, permanent homes. Beginning in the spring of 2012 and continuing through the summer and fall, the applicants state that residents of the area noticed periodic “dust storms,” which were severe enough that the dust could be tasted as well as seen. Some residences also experienced “soiling,” or the deposition of large amounts of dust on outdoor furniture.

In August 2012, residents received a letter from the Peterborough County-City Health Unit (the “Health Unit”) advising them about a number of episodes of exceptionally high levels of dust in the area that had occurred since March 2012. The letter explained that these episodes usually lasted for several hours at a time. The correspondence also indicated that MOE had confirmed that these

episodes originated from the local mining operation and that the dust levels had periodically exceeded jurisdictional standards.

The applicants, after looking into the matter further and talking to local authorities (including MOE and municipal officials) and the company, became concerned that the impacts to human health were substantive, and moreover, that these impacts were not being fully addressed by authorities. In particular, they expressed concern regarding the release of particulate matter that is less than 10 or 2.5 microns in size (known as PM₁₀ and PM_{2.5}), and nepheline syenite.

The applicants pointed out that PM₁₀ and PM_{2.5} have been identified by the United States Environmental Protection Agency, Environment Canada, Health Canada, and MOE as being serious threats to human health and welfare. They referred to a document published by MOE in 1998 that had estimated that these contaminants were responsible for about 1,700 deaths, 500,000 asthma attacks, and 25 million acute respiratory symptoms annually in Ontario. The applicants noted that at least 26 area residents had already documented health impacts resulting from the high levels of dust exposure, according to the local Health Unit.

With respect to nepheline syenite, the applicants expressed concerns that exposure to nepheline syenite can lead to emphysema and death due to the presence of silica in the emitted particulate matter. They noted that the company manufactures a commercial compound that is 60 per cent silica, and that MOE had not yet revealed the composition of the mine's emissions. Furthermore, they stated that the ministry's Material Data Safety Sheet on nepheline syenite indicates that this substance can cause injuries to both lungs and eyes.

Noise Concerns

The applicants stated that the noise from the mine frequently reaches levels that "disrupt sleep and hinder normal conversation." Since the mine operates on a 24-hour basis, noise levels at night had caused some residents to insulate rooms, close their windows even on hot nights, and use fans to mask the mine's noise. They argued that the local Health Unit's recommendation "to stay indoors and use a HEPA-type air cleaner" is completely impractical for a summer cottage environment.

Provincial Officer's Report

The applicants attached a MOE Provincial Officer's Report, dated February 15, 2013, on the impacts of the mining company's emissions on Kashtabog Lake between May 24 and November 1, 2012. During that period, the Regional Air Quality Unit of the ministry deployed monitoring equipment on the properties of two residents who had complained of soiling and reduced visibility due to dust storms. The equipment recorded one-minute concentrations of airborne particulate in various size fractions, including PM₁₀, PM_{2.5}, and PM_{1.0}.

The provincial officer noted that the only regulated limits for particulate matter in Ontario are set out in schedule 2 and schedule 3 of O. Reg. 419/05. Schedule 2 sets a limit of 100 micrograms per cubic metre for total suspended particulate (TSP, defined as particles with a diameter of 44 microns or less), based on a half-hour averaging period. Schedule 3 sets a limit of 120 micrograms TSP per cubic metre, based on a 24-hour averaging period. The latter is the limit that the company is required to meet under its current ECA.

The report concluded that the company was in compliance with its ECA during the monitoring period (based on the Schedule 3 24-hour averaging period), but that there were occasions when the half-hour Schedule 2 average had been exceeded. In addition, the report indicated that emissions from the mining operation had on occasion resulted in levels of PM₁₀, PM_{2.5}, and PM_{1.0} "that approach or exceed levels of concern in several jurisdictions." Since such short-term exposures represent potential health concerns, the officer stated in his report that these "...values may pose a

hazard not fully contemplated in the schedules of O. Reg. 419/05, and may constitute a unique situation requiring the consideration of section 14 [of the *EPA*]. Part III, section 45 of O. Reg. 419/05 is also applicable in this situation.”

Ministry Response

On May 28, 2013, MOE denied the application on the grounds that the requested investigation would duplicate the past, present, and planned abatement work being carried out by the ministry. MOE stated that it was already aware of the alleged contraventions, had been actively investigating them, and was already taking “strong abatement actions” to ensure that the concerns were addressed.

To support its decision, the ministry provided chronologies for both the dust and noise issues, including key dates and ministry actions.

Dust Chronology

In the spring of 2012 the ministry began receiving complaints, which continued through the summer and fall. During that time, MOE stated that it conducted approximately 50 field inspections in response to the complaints, and met with company officials to ensure that they developed a 2012 Tailings Dust Control Action Plan. That plan included dust suppression measures for the tailings piles and area roads, a commitment to retain a consulting firm for dust monitoring, and a commitment to apply for MOE approval to modify its tailings deposition plan to better control dust.

In early May 2012, the ministry began its dust monitoring program. When preliminary results became available in August, they were shared with the local Health Unit and the Chief of Environmental and Occupational Health for Public Health Ontario. This sharing of data led to the local Health Unit communiqué to the Lake Kashtabog cottagers’ association mentioned in the application. The ministry pointed out that the communiqué noted that the dust did not contain silica. MOE also stated that the company spent the winter of 2012-2013 studying additional dust control measures.

The ministry released a Provincial Officer’s Report in February 2013 (described above) and indicated that the measures implemented to date by the company had had some positive effects, but they had not resolved the issues. The report also concluded that the air contaminants from the mine had resulted in adverse effects, in contravention of section 14 of the *EPA* and section 45 of O. Reg. 419/05. The report was sent to the company, the local Health Unit, the Township, and the cottagers’ association.

In March 2013, the ministry issued a Provincial Officer’s Order to the company requiring it to: “take all measures necessary to control dust emissions from the tailings areas;” prepare an updated 2013 Tailings Dust Control Action Plan and implementation schedule; and prepare and submit a plan to monitor the effectiveness of the above. The company complied and submitted a Tailings Dust Control Action Plan for both sites in March 2013. The measures included tailings irrigation, establishment of vegetation over a “significant portion of the exposed tailings,” and contouring and application of coarse rock to slopes. The ministry reviewed the plan and found it satisfactory, whereupon the company began implementing these measures.

In April 2013, Public Health Ontario commented that the company’s emissions, as documented in the Provincial Officer’s Report, may produce “health effects such as eye, nose and throat irritation.” The same month the company submitted a report that systematically identified the best possible solutions for controlling pollution from the tailings areas, some of which were already in place or were planned as part of the 2013 Tailings Dust Control Plan. A few days later the company applied

to the ministry for an amendment to its air approvals and sewage approvals that would allow it to implement these new technologies. The ministry stated that it was in the process of reviewing and evaluating these applications. On May 1, the company also submitted the environmental and air monitoring plan required by the Provincial Officer's Order.

Furthermore, the ministry stated that it had initiated air quality monitoring again in the spring of 2013, was reviewing the company's plans for the upcoming year, and had referred the off-site dust impacts to the ministry's Investigations and Enforcement Branch for further investigation.

Noise Chronology

The ministry began to receive noise complaints in October 2012, whereupon it conducted field visits and required the company to investigate. The company hired a consultant who conducted noise monitoring both at the mining sites and at the homes of the complainants. In March 2013, the consultant reported that the noise levels were in compliance with the company's ECA and the ministry's noise criteria. Days later, the company submitted a second report that stated there had been instances of "non-compliance with the ministry's noise criteria at some receptor locations."

The company installed silencers at one of its processing facilities in January 2013 and it also carried out additional noise monitoring. By April 2013 a report from the company to the ministry indicated that both mine sites were compliant with the noise criteria. The ministry's preliminary assessment of the data indicated that this conclusion was correct; however, the ministry stated that a more detailed review would occur as part of the review of the company's application for an ECA amendment. The ministry also asked the company to audit noise levels to ensure that the modeling results are accurate. Finally, the ministry reported that the company is continuing to look for ways to further reduce noise levels.

For the full text of the ministry decision, please see our website at www.eco.on.ca.

ECO Comment

The ECO agrees with the ministry's decision to deny the investigation, based on the fact that an investigation was already underway. Both the ministry and the company have taken measures to try to address the dust issues, however, some serious concerns remain. The applicants continue to assert that Unimin's dust issues have not been fully resolved, producing photographs that indicate significant dust deposition on their property. The ECO strongly encourages the ministry to resolve this issue expeditiously and permanently; local residents should not have to endure continuing air quality issues of this kind. Moreover, the ECO believes that this application for investigation and the other two applications for review related to these operations raise important issues regarding MOE's regulation of fine particulate matter.

The ECO is concerned that fine particulate matter (PM_{2.5}) generated during short-term peak emissions from the facilities could pose an on-going health risk to residents in the area. Because the company is not required to model or monitor specifically for PM_{2.5}, the avoidance of potentially dangerous PM_{2.5} exposures depends on the assumption that PM_{2.5} levels are closely correlated with any monitored (and more easily visible) TSP emission levels. However, this relationship may not always be the case. In addition, frequent high levels of short-duration exposure to this contaminant could be "hidden" in the averaged TSP emissions, as clearly demonstrated by the ministry's own monitoring.

The ministry argues that these risks can be managed through its enforcement of best management practice plans and, if necessary, by use of the "adverse effect" provisions under the EPA and O. Reg. 419/05. However, a reactive approach to complaints of local residents should be a solution of last

resort. If the ministry relies on a response-based approach, by the time action is taken, individuals may have received levels of exposure that could be harmful, particularly to those with pre-existing breathing issues. To address this concern, the ECO reiterates our previous suggestion for MOE to adopt more protective PM_{2.5} objectives and to develop a policy for including conditions in ECAs that seek to prevent ambient levels of PM_{2.5} from exceeding provincial guidelines (see Section 2.2.4 of the Supplement to our 2012/2013 Annual Report).

The ECO sympathizes with the noise concerns raised by the applicants. Despite the fact that independent testing indicates compliance with the ECAs, noise issues are very subjective and can be particularly bothersome to certain individuals. Noise travelling over water can vary considerably according to a number of factors, including weather, season and specific location, and at least some of the residents feel that the noise that they experience is excessive for a rural setting. The ECO urges the ministry to continue to take noise complaints seriously and to keep working with the local residents until the matter is completely resolved.

Finally, the ECO's long-standing position is that where a ministry investigation is already underway, rather than deny the application for investigation, the ministry should consider integrating the *EBR* application with its existing investigation. In this way, the ministry can satisfy the applicants and increase transparency, while perhaps also enriching its own process with the information offered by the applicants (see our 2009/2010 Annual Report, page 162).

Review of Applications I2013001:

3.1.3 Emitting Air Contaminants Causing an Adverse Effect (Investigation Denied by MOE)

Background

On May 2, 2013, two individuals from the Aamjiwnaang First Nation submitted an application under the *Environmental Bill of Rights, 1993 (EBR)* to the ECO requesting an investigation into alleged contraventions of the *Environmental Protection Act* and its regulations by Shell Canada Products Limited ("Shell") at its Sarnia manufacturing centre. The application alleged that on January 11, 2013 and April 26, 2013, chemical contaminants were released from the Shell facility into the air. The ECO forwarded the application to the Ministry of the Environment (MOE).

The applicants allege that Shell violated subsection 14(1) of the *Environmental Protection Act*, which states that "a person shall not discharge a contaminant or cause or permit the discharge of a contaminant into the natural environment, if the discharge causes or may cause an adverse effect." The applicants also allege that Shell contravened section 45 of O. Reg. 419/05 (Air Pollution – Local Air Quality), which prohibits "the emission of any air contaminant to such extent or degree as may, (a) cause discomfort to persons; (b) cause loss of enjoyment of normal use of property; (c) interfere with normal conduct of business; or (d) cause damage to property."

Shell's manufacturing centre in Sarnia is an oil refinery which produces a range of petrochemical products including: gasoline and diesel fuels; propane; benzene; toluene; and xylene. The facility is located in an area widely known as "Chemical Valley," so named for the high concentration of chemical-intensive industrial operations. As a result of this collection of facilities, the World Health Organization has reported that Sarnia suffers some of the worst air pollution in Canada.

Chemical Valley is also home to the Aamjiwnaang First Nation reserve (also sometimes referred to as the Chippewas of Sarnia), which is located immediately north of the Shell manufacturing centre. Members of the community report a wide range of health problems; many have speculated that these issues may be related to the pollution affecting the community. The community has a history of public battles to prevent further industrial development, and improve environmental protections for the area. In this respect, members of the Aamjiwnaang First Nation submitted an *EBR* application for review of legislation dealing with pollution hotspots (see Section 2.1.2 of the Supplement to this Annual Report), and are also involved in a court challenge of an MOE decision to issue air emissions approvals for facilities in the area.

Shell participates in a number of programs aimed at ensuring community safety in the face of unexpected situations, such as chemical releases into the environment. For example, Shell participates in a community notification network (through the “Community Awareness and Emergency Response” organization), whereby community members can subscribe to receive updates about industrial incidents and similar issues. Shell also participates in an emergency siren system to alert nearby communities, including the First Nation, about industrial emergencies requiring residents to “shelter-in-place” (i.e., stay inside, seal air exchanges and await further instructions). In addition, Shell participates in the Chemical Valley Emergency Coordination Organization (CVECO), an emergency planning and response organization made up of industry, municipal and provincial police, local fire departments, the City of Sarnia and the St. Clair Township. In case of emergency, participating companies, such as Shell, issue CVECO codes, which indicate the type of incident taking place and the level of response that is required.

Summary of Issues

January 2013 Incident

The applicants assert that on January 11, 2013, a chemical leak occurred from Shell’s Sarnia manufacturing centre, causing hazardous contaminants to be released into the air and negatively affecting residents of the Aamjiwnaang First Nation. On that day, the applicants explain, Shell reported an incident at the manufacturing centre to CVECO and the community emergency sirens were sounded.

The applicants allege that a strong rotten egg-like odour, as well as a gasoline smell, was evident several hours prior to and after the sounding of the emergency sirens for the Aamjiwnaang area. Physical symptoms reportedly included red eyes, headaches, nausea, throat irritation, dizziness, shortness of breath, coughing and skin irritation. Furthermore, the applicants report that the emergency sirens were not sounded in the area until almost an hour after the shelter-in-place advisory was issued. The applicants report that information from Shell and other sources (e.g., emergency radio broadcasts) differed or changed over the course of the day regarding what chemicals had been released.

The applicants state that MOE conducted air testing on the reserve after Shell reported that contaminant levels had dropped to “nothing” and after the air sirens had ended. They report that these tests revealed elevated levels of benzene, toluene, ethylbenzene and o-xylene, but that the ministry declared these levels to be within provincial guidelines. However, the applicants challenge the ministry’s reported position because, they argue, exceedances did occur and the ministry did not explain what guidelines it was referencing in concluding that levels were below applicable standards.

In support of their application, the applicants submitted a number of documents, including: an incident timeline credited to Shell (and distributed at a January 15, 2013 community meeting); CVECO code notification documents issued by Shell between January 10 and 15, 2013; MOE air

testing results from Aamjiwnaang for January 11, 2013; and, media reports relating to the January 11, 2013 incident and including quotations attributed to Shell.

The applicants note that a CVECO code was also called by Shell one day prior, on January 10, 2013, due to a leak from a crude oil tank. Further, the applicants point out that the CVECO materials relating to the January 11, 2013 incident also appear to refer to an incident from November 31, 2012 [sic].

April 2013 Incident

The applicants also requested that MOE investigate an alleged incident on April 26, 2013. On that day, the applicants report, a strong rotten egg odour was again noticed by several people in Aamjiwnaang. Although a CVECO code was issued, the emergency sirens did not sound. One of the applicants reports that she was advised by MOE that hydrogen sulphide and sulphur dioxide were released from the Shell facility. The applicants provided additional media reports, which state that Shell workers were sent to hospital because of the incident.

Ministry Response

MOE issued its decision denying the application for investigation on September 26, 2013. The ministry based its decision on the fact that the incidents identified in the application were already under investigation by the ministry's Investigation and Enforcement Branch (IEB), which investigates potential offences and decides whether charges should be laid, and that a separate *EBR* investigation would be duplicative of these measures. The *EBR* generally requires ministries to advise applicants that they are denying an application within 60 days of receiving the application; in this case, the 60-day deadline was July 8, 2013. However, the *EBR* states that "a minister need not give notice... if an investigation in relation to the contravention alleged in the application is ongoing apart from the application." Relying on this provision, the ministry did not notify the applicants until three months later.

Although the applicants only requested an investigation of the two particular incidents occurring on January 11, 2013 and April 26, 2013, the ministry reviewed five possible incidents occurring on: November 31, 2012 [sic]; January 10, 11 and 15, 2013; and April 26, 2013. The ministry concluded that the alleged November incident, as indicated on a CVECO report, was in fact an administrative error and no spills were reported at the Shell facility in late November or early December. The ministry confirmed, however, that it did respond to reports of discharges of contaminants from the Shell manufacturing centre on January 10, 11 and 15, 2013 and April 26, 2013.

January 2013 Incidents

With respect to the January 10, 2013 incident, the ministry advised that Shell reported an oil spill from a storage tank into the refinery's internal sewer system. At the time, ministry staff reviewed the actions taken by Shell and followed up with Shell to ensure all necessary measures were taken to reduce the potential for off-site odour impacts. Ministry staff received and investigated a report of a foul odour, but it was not possible to determine if the odour was related to the spill; the ministry did not identify any other odour impacts. The faulty tank was repaired and put back into service on January 12, 2013. The ministry states that it "was satisfied with the actions taken by the company in response to the spill and determined that no further abatement action was required. In the ministry's opinion, the incident did not warrant issuance of a Provincial Officer's Order or referral to IEB since the repairs were carried out in a timely manner and the reported odours were not detected by the Ministry's response person."

The ministry confirmed that, on January 11, 2013, it received a number of odour complaints from residents of Aamjiwnaang and that Shell reported a pipeline leak of sour water (i.e., wastewater produced during many refining processes). As a result of the pipeline leak, CVECO was notified, roads were closed and a shelter-in-place advisory was issued for the entire Aamjiwnaang First Nation reserve. The ministry did not comment on the applicants' allegation that the air sirens failed to sound for an hour after the advisory was issued. Following the incident, the ministry reported that air quality monitoring was conducted in the area surrounding the Shell facility, including on the reserve, and that these results were shared with Aamjiwnaang Environment staff. The ministry found that while total reduced sulphur levels were below levels which cause toxicological effects, it was nonetheless possible that individuals may have reacted to associated odours by exhibiting symptoms such as nausea, headaches, difficulty breathing and eye irritation. The ministry states that "these symptoms are not directly linked to chemical effects, but are related to how individuals react differently to odours." The ministry confirmed that elevated levels of toluene, ethyl benzene and o-xylene were detected, but stated that they were below schedule 2 standards set out in O. Reg. 419/05 (Air Pollution – Local Air Quality). In particular, the ministry noted that benzene levels were "orders of magnitude below concentrations associated with short term adverse effects."

The ministry also confirmed that on January 15, 2013, Shell reported a second leak from the same pipeline as on January 11 to the ministry. Following this spill, Shell conducted air monitoring and perimeter checks and contained the leak. The ministry conducted a site inspection and determined that no odours could be detected off-site or downwind of the facility. Furthermore, the ministry received no odour complaints. Following the January 15 incident, Shell took the pipeline out of service and replaced approximately 2,100 metres of pipeline on the site. Furthermore, Shell was required to inspect and assess all pipelines of similar age for a likelihood of failure; as a result of this process, an additional 2,600 metres of pipeline were also replaced by April 2013.

On January 29, 2013, the ministry referred both the January 11 and 15, 2013 incidents to the IEB for further investigation.

April 2013 Incident

With respect to the alleged April 26, 2013 incident, the ministry confirmed that Shell reported an incident at the manufacturing centre and that it received reports of odours at Aamjiwnaang. Shell advised the ministry that an unintended chemical reaction had occurred causing hydrogen sulphide and sulphur dioxide to be released into the air. The ministry reports that Shell conducted air monitoring at the facility and at Aamjiwnaang, but that the levels did not indicate a cause for health concerns beyond the manufacturing centre site. Ministry staff inspected the Shell facility to ensure required steps were taken to stop the air emissions, and Shell committed to no longer using the cleaning method that had led to the chemical reaction and release. MOE also reported that, according to the Ministry of Labour, seven workers at the Shell site sought medical attention as a result of exposure to emissions from the incident. The ministry advises that this incident was referred to the IEB for investigation on June 7, 2013.

The ministry committed to updating the applicants on the outcome of the investigations and any further abatement actions.

For the full text of the ministry decision, please see our website at www.eco.on.ca.

ECO Comment

The ECO agrees with the applicants that the January and April, 2013 incidents warrant investigation. The information provided by the applicants and MOE indicates that these events were serious and deserving of an IEB referral in accordance with the ministry's *Compliance Policy* (for

more on the *Compliance Policy*, see Part 4.1 of this Annual Report). The events of November 2012 and January 10 and 15, 2013 were not specifically included in the application, but it is diligent of the ministry to include them in its handling of this *EBR* application.

The ECO is disappointed that, although the ministry is investigating the incidents, it declined to conduct the investigation under the ambit of the *EBR*. This is particularly troubling with respect to the ministry's investigation into the April 26, 2013 incident, which was commenced a full month *after* the *EBR* application for investigation has been received. While the *EBR* does allow ministries to deny applications for investigation where it would "duplicate an ongoing or completed investigation," conducting an investigation pursuant to the *EBR* offers unique and important transparency and accountability rights. Accordingly, the ECO urges ministries to accept *EBR* applications for investigation even where a ministry investigation is underway such that members of the public may exercise their *EBR* rights.

Furthermore, the ministry seems to have unnecessarily delayed advising the applicants that their application was rejected. While this delay is allowable under the *EBR* as the Act allows for delayed notification where an investigation is ongoing, the logic of such an exception is to avoid potentially "tipping off" the subject of the ongoing investigation. In this case, however, the incidents in question were widely covered in the media, were reported to the ministry directly by Shell, and involved ministry visits to the facility at the time – it would seem obvious that a ministry investigation was possible and even likely. It is unclear what advantage the ministry gained by waiting to notify the applicants regarding the status of their application.

Of greatest concern, however, is that the ministry's response, to both these individual incidents and the application itself, lacks an acknowledgement of the wider historical context in which these events occurred and the daily realities of the pollution that affects this community. In this respect, the ministry's failure to address those aspects of the application dealing with more systemic issues is deeply troubling. For example, the ministry did not acknowledge or address the severity and persistence of the reported health symptoms, which do not appear to be fully explained by the ministry's suggestion that they may have been a reaction to odour alone. Furthermore, there is no acknowledgement of the reported failure to sound the emergency sirens at the time the shelter-in-place advisory was issued; nor any consideration of the possible cause of this problem. Finally, the ministry did not address the applicants' concerns about communication breakdowns and lack of information from both Shell and MOE regarding the chemicals involved in the incidents and interpretation of air testing results.

Each of these problems represents an important issue for the applicants and their community. The ECO believes it is important that the ministry acknowledge each of these valid concerns raised by the applicants, and to advise of any steps it has taken or intends to take in order to address these issues in the future. As it stands, the community is left facing a number of unknowns about their past exposure to toxic airborne chemicals and has no assurance that reported problems with the emergency warning system and ministry communications would not persist in potential similar situations in the future.

Review of Application I2013002:**3.1.4 Mushroom Compost Facility Emitting Noxious Odours
(Investigation Denied by MOE)****Background**

In December 2013, two residents of Ontario submitted an application for investigation under the *Environmental Bill of Rights, 1993 (EBR)*. The applicants alleged that a composting operation at a mushroom farm was contravening the *Environmental Protection Act (EPA)* by emitting noxious odours creating an adverse effect. The ECO forwarded this application for investigation to the Ministry of the Environment (MOE).

The applicants contend that odours from the mushroom farm are creating an “adverse effect” as defined by, and in contravention of, the *EPA*. Specifically, subsection 14(1) of the *EPA* states that “a person shall not discharge a contaminant, or cause or permit the discharge of a contaminant into the natural environment, if the discharge causes or may cause an “adverse effect.” Subsection 1(1) of the *EPA* defines “adverse effect” to include: harm or material discomfort; loss of enjoyment of normal use of property; and interference with the normal conduct of business.

Mushroom Farming in Ontario

Mushroom farming is an economically important industry in Ontario; in 2012, the value of the province’s mushroom crop was \$166.9 million. This far exceeds the value of most vegetable crops, including potatoes (\$101.9 million), field tomatoes (\$73.2 million) and carrots (\$34.4 million), and is only surpassed by the value of greenhouse-grown tomatoes (\$257.5 million) and greenhouse-grown cucumbers (\$203.3 million).

Mushrooms require a substrate (a physical substance upon which they can grow). This substrate is often composed of partially composted agricultural materials. In the case of the farm that is the subject of this application, the composted materials include hay, corn cobs, cocoa oil, chicken manure, stable bedding, gypsum, urea and dried grains. The composting process involves mixing the materials as they decompose, adding sufficient moisture, then placing the materials in windrows and turning periodically; unfortunately, this process can result in significant odours.

Regulatory Framework for Odour Emissions from Agricultural Operations

Mushroom farms are recognized as “agricultural operations” under the *Farming and Food Production Protection Act (FFPPA)*, which is administered by the Ontario Ministry of Agriculture and Food (OMAF). The Act also identifies “the storage, handling or use of organic wastes for farm purposes” as part of agricultural operations. In an effort to encourage agriculture in Ontario and protect farmers from nuisance complaints, the Act states that farmers are not liable for a disturbance – such as odours – from an agricultural operation as long as it is part of a “normal farm practice.” The Act establishes the Normal Farm Practices Protection Board to resolve disputes involving agricultural operations, including determining what entails a normal farm practice. However, the *FFPPA* is superseded by the *EPA*, which is administered by MOE; accordingly, agricultural operations cannot contravene the *EPA*, even given the protections provided by the *FFPPA*.

The *EPA* also includes a general requirement for all waste management systems, which includes compost facilities, to obtain an Environmental Compliance Approval from MOE; however,

Regulation 347 (General – Waste Management), made under the *EPA*, exempts on-farm composting of agricultural wastes from the requirement to obtain ministry approval. In addition, MOE finalized a *Guideline for the Production of Compost in Ontario* in 2012, which includes extensive guidance on preventing and controlling odour emissions that may be included as legally binding conditions in the Environmental Compliance Approval for off-farm composting facilities (see Section 5.6 of our 2012/2013 Annual Report). This guideline, however, is not applied to on-farm composting facilities, as they do not require MOE approval.

Summary of Issues

The applicants assert that composting operations at a mushroom farm and compost production facility in Ashburn, Ontario, have resulted in intense and objectionable odours that interfere with the ability of nearby residents to make use of and enjoy their properties. The farm is surrounded by residential, agricultural and industrial lands. The applicants allege that odour has been an ongoing issue since the facility first opened in 1994, and that this has resulted in several lawsuits commenced against the farm, as well as hundreds of complaints to MOE annually. The applicants claim that odour-related complaints have increased substantially since 2012, when the farm increased its compost production to supply other mushroom growing operations in Ontario.

The applicants provided a report, commissioned by a group of Ashburn residents and conducted by a consultant, to support their assertions about the strength and unpleasantness of the odour. This report stated that the downwind odours from the farm were “strong, very unpleasant and were obnoxious compared with the manure odour normally experienced in a farming community” and that such odours “are expected to significantly affect the quality of the environment as well as cause significant loss of enjoyment of property and material discomfort for local residents.” The applicants also provided newspaper articles detailing the complaints, as well as letters from the local Mayor and Member of Provincial Parliament to corroborate their claims of noxious odours.

The applicants assert that they, as well as other area residents, are experiencing adverse effects, as defined by the *EPA*. The applicants state that these effects can occur at any time of the day or night and as a result, they cannot spend time outdoors, organize events, or even open windows when an odour from the farm is present. As a result, the applicants argue that they have experienced a loss of enjoyment of normal use of their properties in contravention of the *EPA*. Furthermore, the applicants report that the Durham Region Health Department is concerned that a health hazard may exist for residents near the farm from hydrogen sulphide levels and/or other contaminants in the air that may originate from the mushroom farm, and that the Health Department has requested that MOE undertake air testing.

The applicants also note that the compost produced at the facility is not solely intended for on-site use; much of the compost is shipped to other mushroom farms in Ontario. Local residents and concerned parties brought complaints about the farm to the Normal Farm Practices Protection Board between 2000 and 2008. The parties eventually reached a settlement in 2008, and the Board issued a Consent Order implementing the minutes of settlement. As a result of the settlement, the Board was not required to issue a formal ruling as to whether the operations – including the production of compost for other farms – constitute a normal farming practice.

The applicants included an MOE Provincial Officer’s Report dated February 18, 2009, which acknowledges both the odours and an apparent contravention of subsection 14(1) of the *EPA*. The applicants also provided an MOE Provincial Officer’s Order, similarly dated February 18, 2009, which directs the owners of the mushroom farm to prepare an odour assessment review and odour control inventory by no later than March 31, 2009. Despite these ministry actions, the applicants state that the composting facility continues to produce noxious odours.

Ministry Response

In February 2014, MOE confirmed that the odour emanating from the mushroom farm is a contaminant that is being discharged into the environment and that this discharge may cause an adverse effect. The ministry decided, however, that it would not undertake this *EBR* investigation, as to do so would duplicate the ongoing work being conducted by MOE.

In its response, MOE outlined the general chronology of events from the 1990s to present day. The ministry explains that, since OMAF is the lead ministry for issues regarding agricultural operations, earlier resident complaints were directed towards OMAF and the Normal Farm Practices Protection Board, with MOE becoming involved in the late 2000s when residents first sought relief under the *EPA*. MOE also noted that while it does not have the jurisdiction to decide what constitutes a normal farm practice, it does have the power under the *EPA* to address odours that cause an adverse effect. The ministry also stated that it would continue to work with OMAF "to ensure a long-term solution is implemented by [the farm] to reduce odour impacts."

Between 2008 and the end of 2013, MOE has made several efforts to address the odour issue at the site. These efforts included: informing OMAF and the mushroom farm of the date and time of odour complaints and conducting random field responses; using voluntary abatement methods to encourage the farm to employ odour control measures; issuing Provincial Officer's Orders to prepare an odour assessment review, odour control inventory and an assessment of the on-site process water management works and stormwater management works; and establishing a Non-Standard Procedure to investigate all after-hours complaints and help the farm pinpoint potential odour sources. In response to community health concerns related to hydrogen sulphide gases, the ministry also conducted a one-day sampling program in 2009 and determined that levels were within health based standards. An additional air monitoring survey conducted by the ministry in the fall of 2013 was expected to be finalized and released to the public in the spring of 2014.

As a result of its actions, MOE reported that the facility has undertaken, and continues to undertake, measures to address the issue of noxious odours. These efforts generally include: commitments to modernize the facility by covering the conveyor system, which transports compost material; installing an enclosure over the blending equipment; covering the chicken manure piles with tarps; and installing permanent doors for the compost bunkers with an ozone treatment system. However, despite the implementation of these measures, MOE notes that complaints again increased when the farm expanded its compost facility to supply other mushroom farms in 2012. As a result of continued work between the ministry and the facility, the farm committed that it would construct a building to enclose its entire composting operations, with construction expected to commence in the spring of 2014. MOE has since provided guidance to the farm on the design factors that should be considered for building the enclosure, such as performance data for a biofilter or scrubber. In a subsequent letter to the applicants, MOE clarified that the enclosure was a commitment made by the facility, not a requirement imposed by the ministry.

The ministry has also agreed to participate in the development of an Odour Management Plan. Finally, MOE pledged to continue working with the farm, OMAF, the local Health Department and residents to ensure appropriate monitoring.

For the full text of the ministry decision, please see our website at www.eco.on.ca.

ECO Comment

The ministry's decision to deny the investigation is reasonable given that MOE is already working with the facility to address the odour issue, and the owners of the facility have agreed to address some of the measures requested by the applicants, such as enclosing the entire composting

operations. The ECO encourages the ministry to continue a strong involvement in this case to ensure the timely completion of the enclosure of the entire composting operations.

The ECO is troubled, however, at the length of time that it is taking to resolve this issue. Residents have been lodging complaints for well over 15 years. The ECO recognizes that this delay is not the sole responsibility of MOE; until 2008, residents had been dealing with OMAF and the Normal Farm Practices Protection Board. However, given the clear record of numerous complaints to the ministry since 2008, it is simply unacceptable that the odours have persisted for so long.

Protecting agricultural land and associated farm practices is important in Ontario. The applicants indicate that they are not averse to having farm operations in their midst, including the mushroom farm upon which these tensions centre. Enclosing the composting operations will hopefully go a long way to alleviate adverse effects on residents and make the farm a better neighbour.

However, it is questionable whether a facility that produces compost both for on-site use, as well as for transport and/or sale to other farms, should be able to avoid the standards and guidelines to which other composting facilities are subject. The ECO urges MOE and OMAF to consider this issue further. (See our Application for Review R2013008 in Section 2.1.14 of this Supplement.)

Finally, the ECO's long-standing position is that where a ministry investigation is already underway, rather than deny the application for investigation, the ministry should consider integrating the *EBR* application with its existing investigation. In this way, the ministry can satisfy the applicants and increase transparency, while perhaps also enriching its own process with the information offered by the applicants (see our 2009/2010 Annual Report, page 162).

Review of Application I2013003:

3.1.5 Sewage Discharge from Septic Bed (Investigation Denied by MOE)

Background/Summary of Issues

On January 9, 2014, two Ontario residents submitted an application under the *Environmental Bill of Rights, 1993 (EBR)* requesting an investigation of a possible illegal discharge of sewage from a private septic system into Lake Huron. The applicants claim that contaminants from the septic system have been polluting the lake in the vicinity of their home, causing excess algal growth in the lake and negatively affecting their drinking water, which they draw from the lake. The applicants allege that the property owners had committed an offence under subsection 30(1) of the *Ontario Water Resources Act (OWRA)*, which states that "every person that discharges or causes or permits the discharge of any material of any kind into or in any waters or on any shore or bank thereof or into or in any place that may impair the quality of the water of any waters is guilty of an offence." They also allege that the Ministry of the Environment (MOE) is allowing this pollution to occur because it has not required the Sudbury & District Health Unit (SDHU) to have the system's problems corrected. The ECO forwarded the application to MOE.

More specifically, the applicants maintain that a neighbour's septic system and residence are too close together, violating the *Ontario Building Code (OBC)*. As a result, they stated, liquid sewage from the septic system has been leaking into the weeping tiles (porous pipes used for underground water collection or discharge) at the base of the neighbour's house, which are connected to a

drainage pipe that discharges onto the beachfront area of the property, from where the effluent can run into the lake.

The applicants attached a copy of a report by an independent engineering firm that they had hired to conduct an environmental assessment. This report summarized background information collected by the applicants and provided much of the detail in support of their application. The consultants' report stated that:

- after the neighbour purchased the lot with a sleep camp on it, they installed a washroom and septic system in 2006, and subsequently built a house on the same property in 2010;
- according to a statement made by the SDHU's Chief Building Inspector, the neighbour's septic bed is too close to the house;
- the Chief Building Inspector's conclusion was based on a visual site examination only (i.e., the septic bed was not excavated to measure the separation);
- a letter prepared by the SDHU stated that, because the septic system had been OBC-compliant when it was installed in 2006, and no changes have been made to it since, the SDHU does not have the authority to have the septic system exposed; and
- although the OBC requires a separation distance of 16 feet, a sketch attached to the SDHU's letter appears to show a separation of approximately 5 feet.

The consultants' report also indicated that the neighbour had recently installed a dry well (i.e., an underground collection area designed to temporarily hold run-off and gradually disperse it into the surrounding soil), and that it appeared that the liquids collected from the weeping-tile system were now being discharged into the well.

The report also documented the results of the consultants' own soil and water tests. They reported that they took two water samples from the lake: one directly in front of the neighbour's property; the other to the south of the applicants' property. They also took two soil samples, one from the drain outlet on the neighbour's property and one from the road allowance near the lake where the other drain outlet had discharged previously (before the dry well was installed). The samples were submitted to an accredited laboratory. The results showed: elevated phosphorus in the lake in front of the property, but not farther south in the lake; and, phosphorus and *E. coli* in the soil from the road allowance, but no detection of parameters of concern in the soil from the other discharge area. The consultants stated that past testing had not found *E. coli* in the lake water at these locations.

Based on all of the above, the consultants concluded that the testing supports the applicants' contention that the drainage pipe is transporting septic system effluent from the neighbour's house to an area near the waterline, from where it is leaching into the lake. They recommended that the septic system be replaced with one that meets OBC standards.

Ministry Response

In a letter dated March 14, 2014, the ministry informed the applicants that it was denying the investigation.

The ministry indicated that it had received a complaint on June 12, 2013, about a possible sewage discharge onto private property and subsequently into Lake Huron. On June 25, a Senior Environmental Officer from MOE conducted a site visit, accompanied by local municipal officials and representatives of the SDHU. Both the ministry and the SDHU representatives collected water samples from the end of the drainage pipe. They observed extensive deposits of algae along the shore, both local to the site and up and down the Lake Huron shoreline. Samples from the same area had been taken on May 29 by SDHU staff; those samples had been tested and found to not be

sewage. Subsequent testing of the samples collected by the SDHU on June 25 also showed that this material was not sewage.

The ministry reported that the Senior Environmental Officer had informed all of the relevant parties that the ministry does not regulate small privately-owned residential septic systems and that regulatory authority on these matters falls under the OBC and is administered by the Environmental Health Division of the SDHU. MOE also stated that the SDHU had informed the applicants' lawyer that based on the test results the septic system was functioning properly. Finally, the ministry reported that the Senior Environmental Officer had confirmed on August 9, 2013, via emails to the applicants, the SDHU, and the local municipality, that the slightly elevated phosphorus concentrations in the samples was unlikely to impair the lake's water quality. The reason the ministry provided for this conclusion was that the neighbour had complied with the Town's request to redirect the discharge from the pipe into a dry well, ensuring that it would not go directly to the lake.

The ministry disagreed with the applicants' contention, backed by their consultants, that the test results are indicative of contamination by sewage and stated that the observed levels of nitrogen and phosphorus might be due to some other source, such as the use of chemical fertilizer in the area. The ministry maintained that the results of the tests do not support the allegation of contamination of the soil or water by sewage. Nor do the observations regarding algae support this interpretation, the ministry further argued, because extensive accumulations of algae can be found all along the shoreline of Lake Huron, suggesting that other, more widespread, factors were at work. For these reasons, the ministry stated, the applicants' allegations that the ministry had erred in not directing the SDHU to have the use of the septic system stopped were not substantiated.

The ministry summarized its findings by stating that: *E. coli* levels from collected samples were well below those associated with fecal contamination; total nitrogen and ammonium levels confirm that the samples were not contaminated by sewage; and total phosphorus levels were slightly elevated but unlikely to impair the water quality of Lake Huron. With respect to the contamination found in the lake water, the ministry pointed out that the application of beach water standards (as proposed by the applicants' consultants) to lake water that is in contact with soils, as is the case in this instance, is not appropriate. Furthermore, with respect to the applicants' complaint that discharged sewage was negatively affecting the quality of the drinking water they collect from the lake, the ministry's established position is that drinking untreated surface water from a lake, river, or stream is never advisable. The ministry agreed with the consultants' recommendation that the applicants should ensure that their privately owned drinking water treatment system is capable of providing adequate disinfection.

The ministry concluded by stating that an investigation is not warranted because the septic system is not causing, nor likely to cause, any harm to the environment and that the ministry had already undertaken several activities in response to the allegations, which would be duplicated by the requested investigation. The ministry also stated that it would continue to work with the SDHU and would take appropriate action if new evidence arises regarding possible adverse effects from this septic system.

For the full text of the ministry decision, please see our website at www.eco.on.ca.

ECO Comment

The ECO agrees with the ministry's decision to deny the investigation for the following reasons: MOE had already responded to the applicants' complaint by visiting the site and taking samples; water samples collected by MOE and SDHU found no evidence of sewage in the discharged effluent; and the installation of a dry well has redirected the discharge, ensuring that it does not go directly

to the lake or to neighbouring properties. Accordingly, there does not appear to be sufficient evidence of a discharge impairing the quality of the water, in contravention of the *OWRA*, to warrant an investigation.

The above notwithstanding, the ECO is concerned that the house on the neighbour's property appears to have been built too close to the septic field, in contravention of the OBC. Since MOE is not responsible for regulating residential septic systems, and further, the OBC is unfortunately not fully prescribed under the *EBR*, this possible violation is beyond the scope of the *EBR* application for investigation process. However, the ECO is worried that this situation could result in episodes of water pollution in the future and therefore encourages the ministry to be fully attentive to any future complaints relating to this property.

Review of Application I2013004:

3.1.6 Investigation of a Wood Waste Disposal Site (Investigation Denied by MOE, Investigation Pending by TSSA)

Background/Summary of Issues

On January 22, 2014, the ECO received an application from two Ontario residents, requesting an investigation of an inactive wood waste disposal site in Hearst, Ontario (the "property").

The property is a former planing/sawmill site. In the 1970s, the Ministry of the Environment (MOE) issued a Certificate of Approval to the property owner for a wood waste landfill. In 1989, the approval was amended to include conditions requiring: the submission of a closure plan; an estimate of the associated costs; and financial assurance for these costs. These conditions were never fulfilled by the property owner, which filed for bankruptcy in 1992. The property was ultimately forfeited to the Crown in 2002. The Ministry of Infrastructure now has the responsibility for the lands, while the Public Guardian and Trustee of Ontario has the authority for personal property on the lands, including the wood waste. Infrastructure Ontario estimates that there are approximately 800,000 cubic metres of wood waste on the property.

The applicants assert that the property has numerous contaminants on site, including the wood waste and abandoned fuel storage tanks. They allege that the Province of Ontario, the Public Guardian and Trustee for Ontario, and Infrastructure Ontario are in violation of several environmental laws and regulations, specifically: Regulation 347 (General – Waste Management) under the *Environmental Protection Act*; the *Ontario Water Resources Act*; and the *Technical Standards and Safety Act, 2000*. The applicants also assert that the site is a serious fire hazard.

The ECO forwarded the application to MOE and to the Technical Standards & Safety Authority (TSSA).

Ministry Response

On March 31, 2014, MOE wrote to the applicants to inform them that it had decided to deny the application for investigation.

On March 4, 2014, TSSA wrote to the applicants to inform them that it had decided to undertake an investigation, stating that "the TSSA will conduct a non-intrusive (visual inspection) investigation of

the property during which time we will be able to better determine the presence of any fuel storage/handling equipment both aboveground and underground.”

ECO Comment

The ECO will review the handling of this application in a future reporting year, once the TSSA has completed its investigation.

Review of Application I2013006:

3.1.7 Investigation of a Concrete Plant (Investigation Pending by MOE)

Background/Summary of Issues

On March 7, 2014, an application was submitted requesting an investigation of a concrete plant located in Hamilton.

The applicants assert that the concrete plant is operating a batch concrete plant without an Environmental Compliance Approval (ECA) for air emissions, in violation of section 9 of the *Environmental Protection Act (EPA)*. The applicants also contend that the concrete plant may not be complying with subsection 6(1) of O. Reg. 127/01 made under the *EPA*, which specifies that the owner and operator of required facilities must prepare and submit an annual report on air emissions of contaminants to the Director of the Ministry of the Environment (MOE). The applicants also assert that the concrete plant is violating the *Ontario Water Resources Act* by discharging more than 10,000 litres of water per day without a permit for an industrial sewage works. Further, the applicants claim that the facility has been operating for over seven years without these necessary approvals from the ministry.

The ECO forwarded this application to MOE.

Ministry Response

As of March 31, 2014, the ministry had not responded with a decision as to whether or not an investigation would be conducted.

ECO Comment

The ECO will review MOE’s handling of this application in a future report.

3.2 Technical Standards & Safety Authority

Review of Application I2013005:

3.2.1 Investigation of a Wood Waste Disposal Site (Investigation Denied by MOE, Investigation Pending by TSSA)

Background/Summary of Issues

On January 22, 2014, the ECO received an application from two Ontario residents, requesting an investigation of an inactive wood waste disposal site in Hearst, Ontario (the “property”).

The property is a former planing/sawmill site. In the 1970s, the Ministry of the Environment (MOE) issued a Certificate of Approval to the property owner for a wood waste landfill. In 1989, the approval was amended to include conditions requiring: the submission of a closure plan; an estimate of the associated costs; and financial assurance for these costs. These conditions were never fulfilled by the property owner, which filed for bankruptcy in 1992. The property was ultimately forfeited to the Crown in 2002. The Ministry of Infrastructure now has the responsibility for the lands, while the Public Guardian and Trustee of Ontario has the authority for personal property on the lands, including the wood waste. Infrastructure Ontario estimates that there are approximately 800,000 cubic metres of wood waste on the property.

The applicants assert that the property has numerous contaminants on site, including the wood waste and abandoned fuel storage tanks. They allege that the Province of Ontario, the Public Guardian and Trustee for Ontario, and Infrastructure Ontario are in violation of several environmental laws and regulations, specifically: Regulation 347 (General – Waste Management) under the *Environmental Protection Act*; the *Ontario Water Resources Act*; and the *Technical Standards and Safety Act, 2000*. The applicants also assert that the site is a serious fire hazard.

The ECO forwarded the application to MOE and to the Technical Standards & Safety Authority (TSSA).

Ministry Response

On March 31, 2014, MOE wrote to the applicants to inform them that it had decided to deny the application for investigation.

On March 4, 2014, TSSA wrote to the applicants to inform them that it had decided to undertake an investigation, stating that “the TSSA will conduct a non-intrusive (visual inspection) investigation of the property during which time we will be able to better determine the presence of any fuel storage/handling equipment both aboveground and underground.”

ECO Comment

The ECO will review the handling of this application in a future reporting year, once the TSSA has completed its investigation.

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