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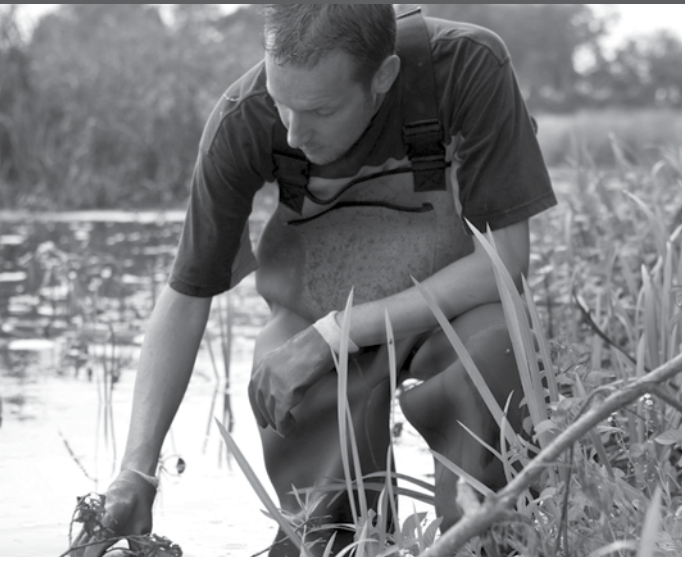
ANNUAL REPORT 2012/2013 | **SUPPLEMENT**



Environmental
Commissioner
of Ontario

"The government is us;
we are the government, you and I."

–Theodore Roosevelt

ABBREVIATIONS

Legislation

ARA *Aggregate Resources Act*
CEAA *Canadian Environmental Assessment Act, 2012*
EAA *Environmental Assessment Act*
EBR *Environmental Bill of Rights, 1993*
EPA *Environmental Protection Act*
ESA *Endangered Species Act, 2007*
FWCA *Fish and Wildlife Conservation Act, 1997*
GEGEA *Green Energy and Green Economy Act, 2009*
LRIA *Land and Rivers Improvement Act*
NMA *Nutrient Management Act*
OWRA *Ontario Water Resources Act*
PLA *Public Lands Act*
PPCRA *Provincial Parks and Conservation Reserves Act, 2006*
PQCA *Pits and Quarries Control Act, 1971*
proposed *GLPA* proposed *Great Lakes Protection Act, 2012* and proposed *Great Lakes Protection Act, 2013*
SARA *Species at Risk Act, 2002*
SDWA *Safe Drinking Water Act, 2002*
TSSA, 2000 *Technical Standards and Safety Act, 2000*
WDA *Waste Diversion Act*

Provincial Ministries

ENG Ministry of Energy
MMAH Ministry of Municipal Affairs and Housing
MNDM Ministry of Northern Development and Mines
MNR Ministry of Natural Resources
MOE Ministry of the Environment
MTO Ministry of Transportation
OMAFRA Ontario Ministry of Agriculutre, Food and Rural Affairs

Terms and Titles

AAQC ambient air quality criteria
ADM Assistant Deputy Minister
ANSI Area of Natural and Scientific Interest
AOC Area of Concern
AQ air quality
AQMS air quality management system
BC British Columbia
CAAQS Canadian Ambient Air Quality Standards
C of A Certificate of Approval
CCME Canadian Council of Ministers of the Environment
CFIA Canadian Food Inspection Agency
Class EA Class Environmental Assessment
CO carbon monoxide
CO_2 carbon dioxide
COA Canada-Ontario Agreement Respecting the Great Lakes Basin Ecosystem
COSEWIC Committee on the Status of Endangered Wildlife in Canada
COSSARO Committee on the Status of Species at Risk in Ontario
CWS Canada-Wide Standards
dB decibels
EA environmental assessment
EASR Environmental Activity and Sector Registry
ECA Environmental Compliance Approval
ECO Environmental Commissioner of Ontario
EIS Environmental Impact Study
ENGO environmental non-government organizations
EPR extended producer responsibility
ERT Environmental Review Tribunal
FIT Feed-in Tariff
FMZ Fisheries Management Zone
GHG greenhouse gas
GLWQA Great Lakes Water Quality Agreement
GPS Global Positioning System
HOV high occupancy vehicle
Hz Hertz
IEB Investigation and Enforcement Branch, Ministry of the Environment
IFO industry funding organization
IPR individual producer responsibility
kg kilograms
km kilometres
kW kiloWatts
LaMPS Lakewide Management Plans
LSEMS Lake Simcoe Environmental Management Strategy
LSPP Lake Simcoe Protection Plan

LTA leave to appeal
LTEP Long-term Energy Plan
LUS Ontario Living Legacy – Land Use Strategy
m metres
m^2 square metres
m^3 cubic metres
mg/l milligrams per litre
MHSW municipal hazardous or special waste
MOH Medical Officer of Health
MW megawatts
NHA natural heritage assessment
NHRM Natural Heritage Reference Manual
NO_X nitrogen oxides
NPRI National Pollution Release Inventory
OBC Ontario Biodiversity Council
OFAH Ontario Federation of Anglers and Hunters
OISSP Ontario Invasive Species Strategic Plan
OMB Ontario Municipal Board
OPA Ontario Power Authority
O. Reg. Ontario Regulation
PCBs polychlorinated biphenyls
PET polyethylene terephthalate
PM particulate matter
$PM_{2.5}$ particulate matter less than 2.5 microns in diameter
PPS Provincial Policy Statement, 2005
PTTW Permit to Take Water
RAPS Remedial Action Plans
REA renewable energy approval
R-SEA Regional Strategic Environmental Assessment
SARO Species at Risk in Ontario
SEV Statement of Environmental Values
VKT vehicle kilometre traveled
VOCs volatile organic compounds
WDO Waste Diversion Ontario
WEEE waste electrical and electronic equipment
WHO World Health Organization
WHPA wellhead protection area

SECTION 1

ECO REVIEWS OF SELECT DECISIONS ON ACTS, REGULATIONS, POLICIES AND INSTRUMENTS

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

Review of Posted Decision:

1.1 Discussion Paper: Healthy Great Lakes, Strong Ontario

Decision Information

Registry Number: 010-6105
Proposal Posted: March 18, 2009
Decision Posted: June 8, 2012
Comment Period: 59 days
Number of Comments: 128
Decision Implemented: n/a[1]

Keywords: Great Lakes; Bill 100 - *Great Lakes Protection Act, 2012*; Great Lakes Strategy

Description

Overview

In March 2009, the Ontario government embarked on a process of developing new goals and strategies to guide the province's long-term actions in protecting and restoring the Great Lakes. The first step in the process was to release a discussion paper, Healthy Great Lakes, Strong Ontario, to solicit input from stakeholders, the public and Aboriginal communities on the province's long-term vision for the Great Lakes. The province would use the public's input "to move forward on future Great Lakes initiatives."

Background

Why the Great Lakes Matter:
The Great Lakes basin (defined here as: Lakes Superior, Michigan, Huron, Erie and Ontario, as well as the rivers, streams, and smaller lakes that connect and drain into them, their watersheds, the Ontario portion of the St. Lawrence River and the surrounding land) represent the Earth's largest fresh water system. Covering 244,100 square kilometres, the lakes themselves form the longest freshwater coastline in the world, and comprise about 20 per cent of the world's surface fresh water. The Great Lakes basin, spanning 750,000 square kilometres, supports a diversity of over 4,000 plant and animal species, and is home to 98 per cent of Ontarians (over 12 million people) – including over 60 Aboriginal communities, many of whom fish for food and participate in Ontario's commercial fishery.

The Great Lakes are vital to Ontario's economy, and impart important cultural and recreational benefits. Perhaps most significantly, the Great Lakes provide necessary ecological services: they are a source of drinking water for over 80 per cent of Ontarians; they provide food; they supply renewable and non-renewable energy; and they moderate the climate.

Great Lakes Protection, Past and Present:
The Great Lakes are under stress from a multitude of threats. Population growth and development in the Great Lakes Basin put pressure on the ecosystem. Habitat loss, fragmentation and

1 MOE posted a decision notice for this policy proposal on June 8, 2012. However, because the proposal consisted of a discussion paper only, there is no clear implementation date associated with this decision.

degradation, as well as the introduction of invasive aquatic species, also affect ecosystem health and biodiversity. Deposition of toxic chemicals and massive algal growth along shorelines degrade water quality of the lakes. Finally, climate change – in the form of higher temperatures, reduced ice cover, increased evaporation, changing water levels and bigger storm events – poses significant challenges for the Great Lakes ecosystem. All of these threats affect Ontarians' use and enjoyment of the Great Lakes, including the substantial economic benefits derived from them.

For decades, Canada, the U.S. and the provinces and states surrounding the Great Lakes have worked together to protect and restore the Great Lakes. First recognizing the need for action to protect water quality in response to algal blooms in Lake Erie in the 1960s, Canada and the U.S. signed the first Great Lakes Water Quality Agreement (GLWQA) in 1972. That agreement has been revised over the years – most recently in September 2012. (See Other Information, below – to reflect new and evolving challenges facing the Great Lakes.)

Over the last 40 years, Ontario has also worked with the federal government to support Great Lakes protection and restoration through the Canada-Ontario Agreement Respecting the Great Lakes Basin Ecosystem (COA). The COA, which is intended to assist Canada in meeting its obligations under the GLWQA, was most recently renewed in 2007; that agreement expired in June 2012, but the Canadian and Ontario governments have committed to negotiating a new COA over the coming months. The ECO wrote about the COA in our 2005/2006 and 2007/2008 Annual Reports.

Other agreements and initiatives, such as the Great Lakes Charter (1985) and Annex to the Great Lakes Charter (2001), the Great Lakes Binational Toxics Strategy (1997), the Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement (2005) and the Great Lakes-St. Lawrence River Basin Water Resources Compact (2008), have united Canada, the U.S. and the Great Lakes provinces and states in working to address environmental issues in the Great Lakes.

Ontario, in collaboration with local, federal and binational organizations, has reported some successes in protecting and restoring the Great Lakes environment. For example, historic releases of polychlorinated biphenyl (PCB) waste and mercury have been reduced by 90 per cent since 1993, and a reduction in the invasive sea lamprey has allowed for the rehabilitation of Lake Superior's lake trout and the economic recovery of some fisheries. Three of seventeen Areas of Concern (AOCs; areas identified as toxic hot spots) have also been cleaned up, while two AOCs are in recovery and several other AOC clean ups are in progress.

However, the Great Lakes continue to be threatened by new, ongoing and increased sources of stress. Their health, with the exception of Lake Superior, is now considered to be, in some respects, in decline. Some scientists are concerned that the lakes are at a "tipping point," meaning that the resilience of the lakes (i.e., their ability to respond to changes and stresses) is under threat, primarily due to climate change, pollution, invasive species, and habitat loss.

In Part 2.1 of the ECO's 2010/2011 Annual Report, we outlined a number of actions that Ontario could unilaterally initiate to improve Great Lakes health within the existing legislative and policy framework, and urged the provincial government to seize the opportunity to engage the many solutions that lie within its own powers, such as expanding the Lake Simcoe protection approach to the Great Lakes, getting serious about combined sewer overflows, and building full-cost recovery into the water taking charge.

The Ontario Government's Vision – Great Lakes Discussion Paper:
In anticipation of the renewal of the GLWQA and the COA, the Ontario government commenced the process of developing a long-term (20-30 year) vision of sustainability for the Great Lakes. In March 2009, the Ministry of the Environment (MOE), in cooperation with the Ministry of Natural Resources (MNR) and the then Ministry of Agriculture, Food and Rural Affairs (OMAFRA), released

Healthy Great Lakes, Strong Ontario, a discussion paper intended to share the province's vision for the Great Lakes with the public and to solicit public feedback.

The discussion paper proposes five long-term goals for the Great Lakes, which "concentrate on protecting and increasing the many benefits that healthy Great Lakes give us":

1. **A resilient ecosystem**: The Great Lakes can respond to changes and stresses without losing important species, ecosystem functions and amenities.

2. **Human health and well-being**: Ontarians enjoy safe Great Lakes beaches, drinking water, food and fish, and recreational, cultural and spiritual benefits.

3. **Green, diverse economies**: The Great Lakes Region is a centre of economic activity and its quality of life attracts and keeps the workforce for a vibrant and innovative economy.

4. **Sustainable natural resources**: Resources like fish and wildlife, water quantity and energy generation potential are sustained over the long-term.

5. **Strong communities**: Great Lakes' communities are thriving and attractive, and practice good stewardship of the lakes.

The discussion paper outlines nine strategies for achieving the proposed goals, summarizes "key threats" related to each strategy, and identifies potential activities for carrying out each strategy (see Table 1). The paper specifically reminds readers that the proposed goals and strategies "can be implemented using various kinds of tools – from policy changes to new collaborations and commitments."

Table 1. Proposed Strategies for Achieving Ontario's Proposed Goals for the Great Lakes (Adapted from MOE discussion paper, Healthy Great Lakes, Strong Ontario, 2009)

Strategy	Potential Activities to Carry out Strategy
1. Clean up Great Lakes hot spots and the legacy of past pollution	• Continue clean-up of toxic hot spots and polluted sediment so that harbours and waterfronts are safe, healthy places for people, plants, fish and wildlife • Activities may be achieved through Lakewide Management Plans (LaMPs) and Remedial Action Plans (RAPs)
2. Protect human and ecosystem health from toxics and pathogens	• Stewardship action to address stormwater that picks up pollution from lawns and roads, or runoff from fields and orchards, before washing into lakes • Protecting Ontarians and the environment from substances of concern in consumer products like household cleaners, lawn care products and personal care products • Keeping beaches and coastal habitats like wetlands clean and healthy

Strategy	Potential Activities to Carry out Strategy
3. Restore Great Lakes habitats and protect biodiversity	• Protecting and restoring Great Lakes coastal wetlands, native fish species and other parts of the ecosystem • Securing important natural heritage features and landscapes • Completing and taking stewardship action on "biodiversity plans" for each Great Lake • Putting in place a more environmentally friendly water level regulation plan for Lake Ontario
4. Adapt to climate change	• Working towards achieving greenhouse gas emissions reduction targets • Translating Ontario's knowledge and understanding of projected impacts of climate change into action • Providing information, tools and resources to municipalities and communities • Sustaining past gains in environmental protection and restoration to allow ecosystems to adapt to climate-induced changes • Mainstreaming climate change adaptation considerations into plans, policies and programs
5. Understand and deal with ecosystem change	• Continuing to build Ontario's scientific capacity • Making investments and increasing collaborations with other governments and experts to understand the scope and implications of ecosystem changes to better position Ontario to respond to current changes and predict and prevent future problems • Factoring new understanding into decision making at all levels
6. Influence the binational agenda	• Working with other governments on various initiatives (e.g., the GLWQA, Binational Toxics Strategy, and binational institutions such as Great Lakes Fishery Commission and the Great Lakes Commission) • Participating in: the International Joint Commission's Great Lakes advisory Boards; the Great Lakes Binational Executive Committee, the Great Lakes Commission, and the Regional Body of premiers and governors overseeing implementation of the Charter Annex Implementing Agreement

Strategy	Potential Activities to Carry out Strategy
	• Strong partnerships to deal with binational Areas of Concern, Lakewide Management Planning and research of importance across the basin • Working with binational organizations to ensure lake levels are addressed, factoring in the potential impacts of climate change • Working with stakeholders and others on continuously improving lake-wide management planning and actions to take into account changing ecosystems and the state of fisheries and biodiversity
7. Enhance lake-based and watershed-based planning and action	• Identifying priority watersheds for each Great Lake and taking stewardship actions to address non-point source loadings in those watersheds • Implementing Ontario's Biodiversity Strategy, including a focus on natural heritage protection and stewardship in southern Ontario • Linking into the watershed approaches used in drinking water source protection planning and other processes
8. Increase appreciation and stewardship of the Great Lakes	• Enhancing learning about Great Lakes' natural and cultural heritage • Supporting public participation in activities to protect, restore and conserve the Great Lakes • Promoting the Great Lakes to Ontarians and to potential visitors from other parts of Canada and abroad, as tourist destinations and as a source of many recreational activities • Helping Ontarians live more sustainably (e.g., by conserving water)
9. Develop sustainable Great Lakes economic opportunities	• Promoting Great Lakes recreation and tourism • Applying water conservation and efficiency initiatives • Taking advantage of and promoting the benefits that can be achieved through the water technology sector • Quantifying and valuing the economic benefits of the lakes

The discussion paper concluded with 12 questions for the public to consider when providing feedback to the government. The paper also provided a list of government and non-government resources to assist the public in learning more about the Great Lakes.

On June 8, 2012 – more than three years after posting the discussion paper for public consultation – MOE finally posted a decision notice on the Environmental Registry. MOE indicated that public input received on the discussion paper was considered in the development of the proposed *Great Lakes Protection Act*, *2012* (Bill 100, which received First Reading in the Ontario Legislature on June 6, 2012) as well as Ontario's draft Great Lakes Strategy, which was required under the proposed Act. Notices for the proposed Act and Great Lakes Strategy were posted on the Environmental Registry (#011-6461 and #011-6418, respectively) for public consultation on June 6, 2012. For the ECO's review of the Great Lakes Strategy, see Section 1.4 of this Supplement.

MOE also stated that the public's feedback on the discussion paper was used to develop Ontario's position on amendments to the Canada-U.S. GLWQA (see Other Information below) and the COA.

Implications of the Decision

This discussion paper provides an overarching statement of Ontario's vision for the Great Lakes, intended to be "a starting point for a conversation with Ontarians." Indeed, this document is very much just a starting point; while the discussion paper set out some very broad strategies and activities, it did not include sufficient detail to allow one to evaluate if or how the proposed activities would actually achieve its vision.

The Strategies are Not Linked to Specific Goals

The goals and strategies are presented independently of one another. While the discussion paper states that the nine proposed strategies "are aimed at achieving the five Goals," it does not explain which goal(s) each of the nine strategies was developed to address. It is therefore difficult to assess whether the strategies are sufficient to meet the goals, or how a strategy's progress would be measured.

The Strategies and Potential Activities are Overly Broad

Several of the strategies (e.g., to "restore Great Lakes habitats and protect biodiversity," "protect human and ecosystem health from toxics and pathogens," and "adapt to climate change"), while laudable, are so broad that they could easily be considered goals themselves. Some of the potential activities associated with those strategies (e.g., "protecting and restoring Great Lakes coastal wetlands, native fish species and other parts of the ecosystem"; "translating our knowledge and understanding of projected impacts of climate change into action"; and "keeping beaches and coastal habitats like wetlands clean and healthy") are equally vague, providing little insight into what the government might actually do.

The Discussion Paper Lacks New Ideas

As many commenters noted (see Public Participation, below), the discussion paper lists strategies and actions that are – or should – already be taking place. In some cases, the paper proposes to simply "continue" existing actions. While it is valid that existing activities be included in any action plan for the Great Lakes, and that the province build upon those activities and their successes, the discussion paper is scarce on new or innovative ideas and approaches.

There is No Clear Link to other Great Lakes Agreements and Initiatives

While the discussion paper makes reference to several of the existing national and binational agreements and Great Lakes initiatives, and includes as a strategy to "influence the binational agenda," it is unclear how Ontario's vision fits into the extensive existing framework for Great Lakes protection in Ontario.

Despite these limitations, the public engagement facilitated by the discussion paper provided the government with insight into stakeholders' and the broader public's priorities and concerns for the Great Lakes, which it could then consider and incorporate into future decision making.

Next Steps

One of Ontario's next steps following consultation on the discussion paper was to use the public's input in drafting Bill 100, the *Great Lakes Protection Act, 2012* (the proposed *GLPA*) and the draft Great Lakes Strategy that would be required under the proposed *GLPA*.

With the prorogation of the Ontario Legislature in October 2012, however, Bill 100 died on the order paper. In December 2012, MOE decided to finalize the Great Lakes Strategy in the absence of the statutory mandate of the proposed *GLPA*. In the Great Lakes Strategy, MOE retains its overall vision of "healthy great lakes and a strong Ontario," but includes a more detailed statement of this vision, and proposes six new Great Lakes goals that differ from those proposed in 2009. The Great Lakes Strategy also includes more specific actions for achieving the Great Lakes goals than those articulated in the discussion paper, as well as some commitments for monitoring and reporting on specified performance measurements. For more information about Ontario's Great Lakes Strategy, please see Section 1.4 of this Supplement to the ECO's Annual Report.

In February 2013, the Minister of the Environment re-introduced the proposed *GLPA* in a new session of the Legislature as Bill 6, the *Great Lakes Protection Act, 2013*. MOE also updated the act proposal notice on the Environmental Registry (#011-6461) to allow for a new 60-day public review and comment period on the re-introduced bill. The public comment period remained open and Bill 6 had not yet been passed at the end of the ECO's reporting year.

For a discussion of Ontario's overall approach to Great Lakes restoration and protection, please see Part 5.1 of the ECO's 2012/2013 Annual Report.

Public Participation & *EBR* Process

MOE provided a 59-day public comment period on the Environmental Registry. The ministry also reported that, in the spring of 2009 (when the discussion paper was posted on the Environmental Registry), MOE, MNR and OMAFRA met with many Great Lakes stakeholders, Aboriginal communities and implementation partners to seek advice and feedback on Ontario's proposal for the Great Lakes.

MOE originally reported in its decision notice that it received a total of 144 comments from the public; however, it later corrected the notice to revise that number to 128. Commenters included municipalities, non-governmental organizations, conservation authorities, industry associations, residents' associations, and many individuals.

While several commenters heaped praise on the discussion paper, others dismissed it as too general and a mere restatement of old strategies that "fails to move the yardstick." One commenter characterized the paper as yielding "not much more than environmental platitudes." The majority

of commenters, however, expressed general support for the proposed goals and strategies, but pointed to gaps and flaws in the government's overall vision for the Great Lakes.

Some commenters expressed concerns about – and in some cases provided suggestions for – strategies and actions to address a range of specific Great Lakes issues such as: invasive species; stormwater management and sewage treatment; polluting effects of agriculture; safe drinking water; water conservation; ballast water; toxic substances; aggregate extraction; fisheries rehabilitation; ecosystem management; and others. Many commenters shared their personal stories about what the Great Lakes mean to them, and how local threats such as algae and fish species decline affect them personally. In particular, a considerable number of comments were submitted by year-round or seasonal residents of Lake Huron, who expressed deep concern about algae as an increasingly destructive threat to that lake and its beaches.

Some key or recurring comments included:

- An oversight body, such as a Ministry of the Great Lakes, should be established to act as the coordinating agency for Great Lakes issues;
- The fundamental principles of precaution, prevention, accountability and transparency should be applied in working to achieve Ontario's Great Lakes goals;
- The goals need to be more specific, measurable, achievable, resourced and time-limited (SMART);
- Ontario should explain the relationship between all of the agreements related to the Great Lakes, explain which agreement takes precedence, and then act on any identified redundancies and gaps;
- Ontario needs to align its work and collaborate with other governments;
- The strategy on climate change articulated in the discussion paper should focus on mitigation, not just adaptation;
- Resources should be focused primarily on protection, not restoration;
- Improved data collection and monitoring is needed;
- Public education about the Great Lakes is needed;
- The discussion paper does not sufficiently recognize the importance of economic activity in the Great Lakes; and
- The government needs to be cautious about developing economic opportunities around the Great Lakes at the risk of the environment.

In its decision notice, MOE did not specifically explain how the ministry considered the public's comments in taking its next steps, or whether the public's feedback resulted in any changes to the government's plans or priorities for protecting and restoring the Great Lakes. Rather, MOE simply stated that the public's feedback was used to develop Ontario's position on amendments to the GLWQA, the extension of the COA and the development of the proposed *Great Lakes Protection Act, 2012* and Great Lakes Strategy.

SEV

MOE explained in a Statement of Environmental Values (SEV) consideration form how the discussion paper is consistent with the ministry's SEV, including the principles of: environmental management; pollution reduction/environmental restoration; strategic management; social, economic and other considerations; and opportunities for consultation. The ministry contends that "environmental protection and restoration is at the heart of the discussion paper."

Other Information

Great Lakes Water Quality Agreement Renewed

On September 7, 2012, the U.S. and Canadian governments signed a renewed GLWQA. The agreement, initially signed in 1972 and last amended in 1987, is intended to identify shared priorities and coordinate actions to protect and restore the Great Lakes.

The updated agreement, representing a "shared vision and common objectives" to help protect and restore the Great Lakes, establishes clear commitments for the U.S. and Canada to take action on threats to water quality and to prevent ecological harm. The new agreement includes an expanded range of issues, including new provisions on aquatic invasive species, habitat degradation and climate change impacts, among other things. The updated agreement also provides new opportunities for public participation in Great Lakes protection.

Ontario Government Adopts Water Conservation and Efficiency Goals and Objectives

On November 8, 2012, MOE posted a policy decision notice on the Environmental Registry (#010-6350) reporting that Ontario has adopted basin-wide water conservation goals and objectives. These goals and objectives, tailored to reflect Ontario's *Water Opportunities and Water Conservation Act, 2010*, were developed in accordance with binational water conservation goals and objectives agreed to in 2007 under the 2005 Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement.

ECO Comment

The health of the Great Lakes is a very meaningful – even emotional – subject matter for many Ontarians. The ECO is pleased that the Ontario government recognizes the environmental, social and economic significance of the Great Lakes and the pressing need for strong strategic action to restore and protect them.

The ECO also appreciates that Healthy Great Lakes, Strong Ontario was intended to share the government's over-arching vision for the Great Lakes with the public, and perhaps was not intended to present a detailed plan of action. However, many of the strategies and activities it suggests are so obvious as to go without saying; of course Ontario should be "keeping beaches and coastal habitats like wetlands clean and healthy" – but how will it actually do that? As MOE itself has acknowledged, the Great Lakes may be at a tipping point. The time has passed for superficial declarations and vague solutions. The public – and the ECO – expected more.

The ECO is therefore disappointed that it took over three years for the government to transform its broad vision for the Great Lakes into a more specific – yet still lacking in some respects – plan of action in Ontario's Great Lakes Strategy. Releasing a more detailed action plan for the Great Lakes sooner may have given the public greater confidence that the Ontario government not only has a clearer vision of what the province wants for the Great Lakes, but knows the path it intends to take to achieve that vision. At a minimum, MOE could have posted a decision notice for the discussion paper on the Environmental Registry much earlier in the process to explain its next steps to the public.

Review of Posted Decision:

1.2 An Update of Ontario's Composting Guideline and Regulatory Framework

Decision Information

Registry Number: 010-6658
Proposal Posted: November 24, 2009
Decision Posted: September 25, 2012
Comment Period: 60 days
Number of Comments: 43
Decision Implemented: September 24, 2012

Keywords: compost; composting; nutrient; biosolids; standards; guideline; *EPA*; *NMA*

Description

In September 2012, the Ministry of the Environment (MOE) finalized a new compost framework for Ontario. It includes new Ontario Compost Quality Standards (Compost Quality Standards) and a Guideline for the Production of Compost in Ontario (Compost Guideline or Guideline) , as well as supporting amendments to Regulation 347 (General – Waste Management) under the *Environmental Protection Act* (*EPA*) and O. Reg. 267/03 under the *Nutrient Management Act, 2002* (*NMA*). MOE also released a number of supporting technical documents. The ministry's goals for the new framework were to: expand the range of organic wastes that can be composted in Ontario in an environmentally safe manner; bring the province's compost quality standards into line with those endorsed by the Canadian Council of Ministers of the Environment (CCME); and improve both the operation of compost facilities and municipal organics collection programs through the provision of technically sound and comprehensive guidance.

Background

Benefits of Composting:
Composting has many environmental benefits. It is an effective means of diverting the organic component of the waste stream from landfills, freeing up much-needed landfill space and reducing the amount of leachate produced. Ontario set a goal in 2004 of 60 per cent waste diversion by 2008; yet, in 2010, the province's diversion rate was still stuck at about 24 per cent. Organics make up approximately one-third of the waste stream; without an effective organic diversion strategy, the province will likely never meet its diversion goal.

Furthermore, the finished product (i.e., compost) is an extremely valuable soil amendment and organic fertilizer. The use of compost in both agriculture and turf management (e.g., sports fields, parks, and residential lawns) has been shown to build organic matter, promote healthier soils, reduce the need for chemical fertilizers and pesticides, and increase soil's resiliency (e.g., drought and disease resistance). (For a detailed description of compost's many benefits, see Part 6.4 of the ECO's 2009/2010 Annual Report.)

From a climate change perspective, composting greatly reduces greenhouse gas (GHG) emissions, particularly methane, which has more than 20 times the GHG impact of CO_2, compared to landfilling. Landfills have historically generated three to 4 per cent of Ontario's total GHG emissions. Moreover, composting organics is a much more effective GHG-reducing strategy than flaring landfill gas, or even producing energy from it (for a full discussion of this issue, see Appendix 5 of the ECO's 2011 Annual Greenhouse Gas Progress Report).

Finally, composting can improve the quality of organic materials before they are land applied, by: stabilizing the organic matter; eliminating odours; minimizing nutrient loss through leachate; and reducing pathogens to safe levels. The process can even break down and render harmless many of the hazardous contaminants in its feedstock materials. These properties of the composting process improve the beneficial incorporation of organic matter and nutrients into the soil.

Composting and Organics Residuals Generation in Ontario:
Composting as a waste management practice has been growing rapidly in Ontario. Over the past decade, numerous municipalities across the province have expanded their composting programs from simple leaf and yard waste to collecting a range of household organic waste materials (e.g., food waste, tissues, diapers, etc.). Between 2002 and 2012, the amount of organic materials collected annually from Ontario residences rose from about 360,000 tonnes to more than 1,000,000 tonnes. By the most recent count, Ontario has 43 approved aerobic composting facilities of varying sizes and employing several different composting methods.

As the compost industry has expanded, it has faced significant challenges. Many composting facilities have struggled with odour issues – with some facilities having to suspend operations for extended periods to implement abatement solutions or, in some cases, completely shut down. As a result of these negative experiences, the siting of new compost facilities frequently faces opposition from local communities. Furthermore, some members of the public have expressed strong opposition to the composting of certain types of raw materials, particularly municipal sewage biosolids (i.e., the solid residual material from sewage treatment plants), pulp and paper biosolids (i.e., residuals of the wood-pulping process), septage (i.e., human-waste residuals from septic tanks), diapers, sanitary napkins and pet waste collected through the municipal waste stream. Opponents argue that the compost produced from these materials presents risks to human health and the environment.

Despite the growth in the compost industry, most organic materials are still either being sent to landfill or are being directly applied – untreated – primarily on agricultural lands. Composting facilities in Ontario currently only capture between 22 and 39 per cent of the organic residuals generated by residences and by the industrial, commercial, and institution sector. Moreover, of the approximately 300,000 tonnes (dry weight) of sewage biosolids that are generated in the province each year, none has traditionally been composted, about 40 percent is directly land applied, and about 60 per cent goes to landfill or incineration.

Overview of the New Compost Framework

The new Ontario Compost Quality Standards and new Guideline for the Production of Compost in Ontario form the core of the new compost framework. Together, these documents replace the previous Interim Guidelines for the Production and Use of Compost in Ontario (the Interim Guidelines). The Interim Guidelines, released in 1991 and updated in 2004, provided basic guidance for compost facility operators, as well as some quality standards for compost feedstock (i.e., the raw organic material fed into the composting facility, such as food scraps, yard wastes, manures, etc.) and for the finished compost product.

The new Compost Quality Standards and Guidelines provide updated, more detailed, and comprehensive quality standards and guidance for the compost industry.

New Compost Quality Standards:
The previous Interim Guidelines included a single set of quality standards, namely: maximum concentrations for 11 different metals for both compost feedstock and the finished product; maximum concentration for polychlorinated biphenyls (PCBs); maximum foreign matter content (e.g., plastics, glass, etc.); minimum temperature requirements (55°C) for pathogen reduction; and minimum standards to ensure compost stability (also known as maturity). Previously, if a facility's

compost met all the Interim Guidelines' quality standards, MOE considered the finished compost a product, which was therefore exempt from the requirements under Regulation 347 for waste transportation and use. Compost that failed to meet the Interim Guidelines' quality standards, however, was considered a "waste" under Regulation 347, and thus subject to all of the rules for transporting and managing wastes, including requirements to obtain a Certificate of Approval (now called Environmental Compliance Approval, or ECA) to apply the materials to land.

The new Compost Quality Standards now establish three categories of compost that will enable a broader range of organic materials to be composted:

- Category AA – the highest-quality compost category, which may be transported and used anywhere without restrictions or approvals;
- Category A – the second-highest category, which also may be transported and used without approvals, although some restrictions apply; and
- Category B – the third and lowest category of compost, which will continue to be deemed a "waste" and require government approval for transportation and use.

The new Compost Quality Standards establish quality criteria for metals, foreign matter, pathogens, and maturity, but these now include values for all three categories. However, the new Compost Quality Standards no longer include a requirement to test for PCBs.

Category AA compost is subject to the same metal criteria as compost under the previous Interim Guidelines, although the metal concentrations allowed in the feedstock of Category AA compost have been relaxed (see Table 1 for a summary and comparison of the compost and feedstock metal standards for all three compost categories and for the Interim Guidelines). Despite the less stringent feedstock standards, Category AA compost is explicitly prohibited from containing any amount of sewage biosolids, pulp and paper biosolids, or septage.

Table 1. Summary of Old (Interim Guidelines) and New (Ontario Compost Quality Standards) Maximum Allowable Metal Concentrations for All Categories of Compost and Feedstocks

Metal	New Standards					Old Standards
	Category AA compost	Category A compost	Category B compost	Category AA compost feedstock	Categories A & B compost feedstock	Category A compost & feedstock
	mg/kg dry weight					
Arsenic	13	13	75	75	170	13
Cadmium	3	3	20	20	34	3
Chromium	210	210	1060	1060	2800	210
Cobalt	34	34	150	150	340	34
Copper	100	400	760	760	1700	100
Lead	150	150	500	500	1100	150
Mercury	0.8	0.8	5	5	11	0.8
Molybdenum	5	5	20	20	94	5
Nickel	62	62	180	180	420	62
Selenium	2	2	14	14	34	2
Zinc	500	700	1850	1850	4200	500

The allowable foreign-matter content for Category AA compost has been reduced by half from the previous compost standards (see Table 2). For pathogens, the standard has been revised to include tests for *E. coli* and salmonella, in addition to the time and temperature requirements previously stipulated.

Table 2. Summary of Old (Interim Guidelines) and New (Ontario Compost Quality Standards) Requirements for Pathogens, Foreign matter, and Maturity

Parameter	New Standards			Old Standards
	Category AA	Category A	Category B	Category A
Pathogens[1]	**(a)Temperature requirements:** - In-Vessel, 55°C for 3 consecutive days; - Windrow, 55°C for 15 non-consecutive days, plus 5 turns; - Aerated static pile, 55°C for 3 consecutive days, pile covered **(b) Testing requirements:** - Max 1000 CFU[2] E. coli or MPN[3]/grams total solids on a dry weight basis; and, - Max 3 MPN[3] Salmonella/4 grams total solids on a dry weight basis, with analysis of all 4 grams required			- Minimum temperature of 55°C must be maintained (*no duration specified*)
Foreign Matter	- Total >3 mm, max 1.0%; - Plastic max 0.5% -(both on dry weight basis), and - max length 25 mm per 500 ml		- Same as AA & A, except total >3 mm, max 2.0% mm per 500 ml	- Non-biodegrad. particulate content > 8 mesh screen size[4] max - plastic 1.0% - other 2.0%
Sharp Foreign Matter	- "no material of a size or shape that can reasonably cause human or animal injury"		- "maximum of 3 pieces of sharp foreign matter per 500 ml", and - max dimension of 12.5 mm	- "no material of a size or shape that reasonably can cause human or animal injury, or damage to equipment"
Maturity[5]	- Curing process is considered to have commenced immediately after compost has been discharged from initial processing. - Compost is mature if it has been cured for a minimum of 21 days and the respiration rate is: - less than or equal to 400 milligrams of oxygen per kilogram of volatile solids (on a dry weight basis) per hour; or, - less than or equal to 4 milligrams of carbon in the form of CO_2 per gram of organic matter (on a dry weight basis) per day.			- methods recommended, but no standard set

[1]Compost made exclusively from leaf and yard wastes has to meet either (a) or (b) under the pathogen reduction parameter; all other composts must meet both sets of requirements.

[2]CFU = Colony Forming Units (Note: A measure of the viable bacterial cells in a sample, since a colony is derived from a single progenitor cell. Source: Biology On-Line)

[3] MPN = Most Probable Number (Note: A statistical value representing the viable bacterial population in a sample through the use of dilution and multiple tube inoculations. Source: Mosby's Medical Dictionary, 8th edition).

[4]#8 Mesh screen size is 2.38 mm

[5]Compost made exclusively from leaf and yard wastes can use these maturity definitions, but is also considered mature after having been cured for six months.

The maturity testing standards have also been revised. The Interim Guidelines mentioned various procedures for assessing maturity but did not specify any standards and a six-month curing period

was the default criterion. The new Compost Quality Standards require both a minimum curing time of 21 days and the ability to meet a specific measured respiration rate (for leaf and yard waste only, a six-month curing period is still an alternative). The assumed intent of these changes is to bring more consistency and certainty to the process of assessing compost maturity. Immature compost can be odorous and harmful to plants; the new standards should eliminate the possibility of immature compost being sent to market.

When comparing the standards for Categories AA and A, they are for the most part the same, with the following exceptions allowed for Category A: slightly higher concentrations of zinc and copper in the final product; up to 25 per cent of the feedstock (on a dry-weight basis) can be biosolids; and higher metal concentrations in the feedstock materials. To mitigate any risk involved in the higher allowable zinc and copper concentrations, Category A compost must include a label (if bagged) or a bill of lading (if sold in bulk) that specifies: a maximum application rate; identification of any biosolids used in the feedstock; and a warning stating that this compost should not be used on soils with elevated copper or zinc concentrations. According to MOE, the maximum application rate stated on the label (or bill of lading) has been calculated to prevent a potentially harmful build-up of these metals in soils.

The allowable metal concentrations for Category B are higher than AA and A (as can be seen in Table 1, they are the same as the feedstock standards for Category AA). The foreign matter standards are slightly more relaxed. Total foreign matter greater in size than three millimeters cannot exceed 2 per cent on a dry-weight basis, as opposed to 1 per cent for AA and A, and the compost can contain up to three pieces of sharp foreign matter per 500 milliliters, whereas AA and A compost cannot contain any "material of a size or shape that can reasonably cause human or animal injury." There are no limits to the amount of biosolids that can be used as a feedstock for this category.

Regulatory Amendments Supporting the Compost Quality Standards:
To support the new composting framework, amendments were made to two regulations to redefine the status of compost under Part V of the *EPA* (Waste Management) and under the *Nutrient Management Act, 2002* (*NMA*).

Regulation 347 under the *EPA* both designates and exempts materials as "wastes" for the purposes of approvals and restrictions. Previously, compost that was transported to be sold to meet "a realistic market demand" was exempted from the "waste" requirements pursuant to the retail sales exemption in Regulation 347. This loophole has now been closed: the retail sales exemption has been amended to exclude compost and a new paragraph has been added to the Regulation that states that compost is exempt from the definition of "waste" only if it meets all of the requirements for Category AA or A, as set out in the new quality standards.

The amendments also included a transition provision that provides existing composting facilities the time to comply with the new foreign matter and maturity standards. Until July 1, 2015, compost that meets the Category AA standards for feedstock quality, metal concentrations, and pathogens, as well as meet their obligations under their current Environmental Compliance Approval (ECA), will be exempt, even if the compost does not meet the new foreign matter and maturity standards.

No exemption was created for Category B compost. This means that it is considered a waste and requires a permit for transportation and for both on-farm and off-farm application.

Similarly, O. Reg. 267/03 under the *NMA* was amended to include a complementary exemption for Category AA and A compost used on agricultural lands. Under O. Reg. 267/03, the application on agricultural land of materials that are defined as either "agricultural source materials" (ASMs, such as manure) or "non-agricultural source materials" (NASMs, such as biosolids) are subject to certain controls (for a full discussion of how the *NMA* and O. Reg. 267/03 control applications of these

materials, see Part 6.3 of the ECO's 2009/2010 Annual Report). The amendments to O. Reg. 267/03 exclude Category AA and A compost from the definitions of NASMs and ASMs. When used on agricultural land that is required to have a Nutrient Management Plan or a NASM Plan, however, both compost categories are considered nutrients and must be applied in accordance with those plans. In general, the only restrictions to the application of AA and A compost to farmland are: set-backs from wells; setbacks or vegetated buffer zones between the areas of application and bodies of water; and winter spreading restrictions for Category A (if made with sewage biosolids or septage). The label or bill of lading specifications for Category A also apply.

Category B compost is classified as a Category 3 NASM and can be applied under an approved NASM plan, which has specific requirements for pathogen analysis. Transportation of Category B compost requires the hauler to have either an ECA or an Environmental Activity and Sector Registry (EASR) registration. In addition, Category B Compost was classified under the NASM Odour Guide as an "OC1", which represents materials with the lowest level of odour.

Guideline for the Production of Compost in Ontario:
Whereas the Interim Guidelines provided only the most basic guidance for compost facility operators, the new Compost Guideline provides expanded and far more detailed advice for the managers and operators of composting facilities, including detailed guidance with respect to siting, design, operation, maintenance, and record-keeping.

The new Guideline has four parts:

- Part I provides an introduction to the Guideline (purpose, objectives, scope), an overview of the legislative framework within which composting facilities must operate, and a brief set of instructions on how to apply for a waste ECA;
- Part II addresses the issues that must be considered by a proponent at the planning and development stage of a composting operation;
- Part III outlines currently acceptable composting best management practices (BMPs); and
- Part IV specifically addresses odour issues.

Part I states that "the purpose of this Guideline is to protect the environment by recommending planning, design, and operational practices for composting facilities." It is important to note that the advice presented in the Guideline is in the form of recommendations, not rules; this advice only becomes law when it is adopted or adapted in an ECA. This allows MOE the flexibility to adapt to different situations as well as to emerging technologies and practices.

Part II discusses in very general terms the issues that a proponent needs to consider when siting and designing a potential composting facility and highlights some relevant legal requirements of which the proponent should be aware. The focus of the Guideline is to clearly identify the issues that need to be addressed in an ECA application and to present recommended options or ranges of solutions. Site-selection issues include: minimum separation distances; watershed planning; sewage management; and off-site traffic considerations. Site-design issues discussed include: typical supporting documents required; receiving design and procedures; feedstock pre-processing options; recipe development; processing procedures, e.g., turning, aeration, temperature control, monitoring, etc.; curing methods; site capacity; leachate management; prevention and control of adverse effects; and other site-related considerations, such as security and access.

Part III provides direct advice on best management practices for composting. Acceptable feedstocks are listed (including biosolids, septage, and pulp and paper biosolids for Categories A and B). Examples of unacceptable feedstocks are also provided, and include: hazardous wastes; Specified Risk Material, or animals infected with bovine spongiform encephalopathy; and materials with metal concentrations that exceed the feedstock limits set out in the Standards. The use of plastic

and biodegradable plastic bags for organics collection are also discussed; once again no hard rules are set, but warnings and advice on how to manage these inputs are provided. Advice regarding issues such as noise, litter, dust, fire, traffic, vermin and vectors is provided. Part III also provides some advice and objectives for good complaint response procedures, and states that site operators are typically required to create (and keep on site) contingency plans for dealing with the issues mentioned above (noise, litter, dust, etc.), and sets out the reporting and record-keeping requirements for a typical facility.

Part IV focuses on odour prevention and control and is thus one of the key sections of the Guideline, as control of odour has historically been the biggest challenge faced by composting facilities. Specifically, composting facilities require an air ECA under section 9 of the *EPA* (in addition to their waste ECA), since they may discharge contaminants (such as odour) into the atmosphere. Contaminant-specific concentration limits have been established under O. Reg. 419/05 (Air Pollution – Local Air Quality) made under the *EPA*. This section of the Guideline advises proponents as to what is likely to be required for the air ECA process. These requirements begin with an Emission Summary and Dispersion Modelling report, which projects off-property concentrations of air-borne contaminants. This must be followed by an Odour Impact Assessment (air concentrations are not sufficient to predict odour impacts). Further planning must include methods for odour prevention, containment, treatment, monitoring and mitigation. The options available to accomplish these objectives are discussed in this section in some detail.

Implications of the Decision

Promote Composting of Additional Materials, Particularly Biosolids

The three categories of compost in the new Compost Quality Standards are designed to promote the composting of a greater range of materials. Under the previous Interim Guidelines, if a compost facility used any amount of biosolids (i.e., sewage sludge, pulp and paper biosolids, or septage) as feedstock, the resulting compost product would be considered a "waste" under the *EPA*, subject to all of the rules for transporting and managing wastes. This is because the Interim Guidelines required every feedstock material to meet the same metals criteria as the finished compost in order to "prevent dilution of contaminated feed materials", and biosolids generally cannot meet those criteria. As "waste" compost has a limited number of low- or negative-value markets (such as landfill cover or land reclamation projects), there was a strong disincentive for facilities to compost any biosolids (or other lower quality feedstock).

Under the new framework, feedstock criteria for the Category A compost have been relaxed (see Table 1), allowing facilities to use up to 25 per cent biosolids in its production. As long as the final product criteria are met, Category A compost will still be considered a marketable product that does not require any government approvals. The potential markets for this compost, therefore, should be roughly the same as those for AA compost, with a few exceptions, such as where the slightly higher copper and zinc levels might pose a problem, or where the potential user does not feel comfortable with the biosolids component. The major current markets for Category AA and A compost are landscaping (200,000 tonnes per year), agriculture (175,000 tonnes per year), and horticulture (130,000 tonnes per year).

Category B compost can contain up to 100 per cent biosolids. Like previous "below standards" compost, Category B product will still be considered a "waste". There is one major difference, however: Category B compost has met a set of standards, albeit lower ones. These metal, pathogen, foreign matter, and maturity criteria should provide greater guidance, clarity, and potential acceptance of Category B composted biosolids, as will its classification as a minimum-odour material under the NASM Odour Guide. This clarity will make it easier for potential users to get the necessary

permits. While Category B is of a lower quality, it can be quite useful for many purposes. Compost has the ability to prevent erosion, stabilize slopes, and degrade contaminants, making it valuable for land reclamation, mining rehabilitation and reforestation.

Accordingly, the new framework should result in a substantial increase in composting of the roughly 530,000 dry tonnes of sewage and pulp and paper biosolids generated annually in Ontario. Currently sewage biosolids (300,000 dry tonnes) are either incinerated (50 per cent), land applied (40 per cent), or sent to landfills (10 per cent); pulp and paper biosolids (230,000 dry tonnes) are largely sent to landfills or incinerated (60 per cent), while a smaller but still substantial fraction (20 per cent) are land applied. Composting is used to process only about 5 per cent of the pulp and paper residuals and, up to now, virtually none of the sewage biosolids.

The amount of material that currently operating Ontario facilities can handle at full capacity is about 1,200,000 tonnes per year and growing. To compost all of the roughly 300,000 dry tonnes of biosolids that currently go to disposal would require at least a 50 per cent increase in that capacity, if only Category B compost is made, and more than a doubling, if a significant portion is incorporated into Category A compost. Although this is very unlikely to happen in the near future, the fact that it is now possible to consider diverting these huge quantities of carbon-rich and nutrient-laden material from disposal and putting them back into the soil is a major environmental implication of the new composting framework.

Continue to Protect Environment

Composting, while beneficial, can result in negative environmental impacts if not managed properly. According to MOE, while the new Compost Quality Standards allow for a greater range of composted materials, they continue to maintain adequate environmental protection. The maximum allowable concentrations for metals for the new Category A were derived from the 1996 CCME Guidelines for Compost Quality. The metal criteria in these guidelines are based on average background soil levels. If the concentration of any particular metal in compost does not have a higher level than the typical background level for that metal in the soil, there will be no gradual build-up. In this way, the criteria are designed to avoid what is known as cumulative effects. The CCME Guidelines are considered by MOE to be quite stringent and they are used almost everywhere else in Canada as a guide for unrestricted compost use.

Concerns regarding the various kinds of contaminants in biosolids are addressed in a number of ways. The metal criteria, which are slightly elevated for zinc and copper (metals that tend to be high in biosolids), are still quite stringent for Category A, which can have up to 25 percent biosolids in its feedstock. The labeling requirement is intended to address the concern regarding these higher zinc and copper levels (which are still considerably lower than the Category B levels). The label must warn the user that Category A compost should not be used where soils are already elevated for these parameters. Category B compost can only be used in areas where there is limited opportunity for human contact. In addition, its application always requires a permit.

Pathogen levels are another common biosolids-related concern. The scientific literature, however, supports the MOE position that a properly operated composting process will reduce pathogens to the point where they are no longer dangerous to people or the environment. A related concern has been that some pathogens may survive the composting process or be reintroduced afterwards and then regrow to dangerous levels. However, several studies have shown clearly that pathogen regrowth only occurs if the compost has been sterilized (which is not done in practice); this is because the high levels of beneficial microbes in mature compost out-compete and suppress pathogens, preventing them from re-establishing in significant numbers.

The other significant concern with respect to biosolids has to do with the presence of various organic compounds, such as pharmaceuticals and personal-care products (PPCPs), household

cleaning products, pesticides, and some industrial chemicals. Again, the scientific literature supports MOE's position on this matter: the levels of these contaminants are low to begin with (most are water soluble and are removed with the treated effluent at sewage treatment plants) and those that remain are degraded to harmless levels during the composting process.

In addition, increasing the volume of organic materials being composted should result in many benefits to the environment. These include (but are not limited to): more organic matter and nutrients returned to Ontario soils, thereby increasing soil fertility; less application to agricultural land of fertilizer or raw manure (nutrient sources that contribute much more to run-off than compost), thus reducing water pollution and GHG emissions; less fertilizer produced, reducing GHG emissions (fertilizer production is energy-intensive); less land application of uncomposted biosolids (thus reducing odour, nutrient run-off, and pathogen concerns); and less organic material landfilled, again reducing GHG emissions. In addition, for every ten tonnes of compost regularly added to an acre of land, about 1,000 pounds of stable carbon is added to the soil, removing almost two tonnes of carbon dioxide from the atmosphere. If the approximately 500,000 tonnes of compost currently applied to agricultural soils and turf in Ontario annually could be increased by 50 per cent, it would mean that the province's compost use alone would annually sequester the equivalent of 150,000 tonnes of atmospheric CO_2, or the output of almost 30,000 passenger cars.

Better Guidance for Compost Industry

The new Guideline fills a needed gap in the composting industry by clearly setting out the best practices for facility siting, design, maintenance, and management, so that these can easily and consistently be incorporated into new ECAs. The emphasis on odour prevention and management is also welcome, as this Guideline sets a high bar for newcomers to the industry. Odour issues have plagued many composting facilities and have, in some regions, given composting and compost a bad reputation. If composting is to become the standard process for managing organic residuals, the industry has to manage this challenge effectively. The Guideline provides a sound basis for the development of an effective, consistent approach to odour.

Public Participation & *EBR* Process

MOE posted the proposal on the Environmental Registry for 60 days beginning November 24, 2009. The proposal received 43 comments. In addition, the ministry hosted consultation sessions in London, Ottawa and Toronto in late 2009 and early 2010. The consultations provided feedback that appears to have had a substantial impact on the ministry's final decision.

Many of the commenters felt that the proposal was too complex and needed better organization. Some also felt that the document was not clear enough with respect to what was required versus what was simply recommended. They also felt that the relationship of Regulation 347 and O. Reg. 267/03 to the end use of compost both on- and off-farm was not clear enough. As a result of these comments, the ministry divided the draft guideline into two documents: the Compost Quality Standards which describe the regulatory requirements; and the Compost Guideline, which provides best management recommendations and advice.

Some commenters, primarily from environmental organizations, stated that the proposed inclusion of biosolids as feedstock in the composting process weakens environmental protection. Alternatively, representatives of the composting industry and of municipalities generally stated that the science supporting the composting of biosolids is very clear and that biosolids should be allowed as a feedstock in all categories, as long as the final product meets the appropriate set of standards. In response to these comments about composting biosolids, the ministry pointed out in the decision notice that the current body of scientific evidence supports the benefits of composting biosolids and

that composting, when done properly: reduces pathogens by between 99 and 99.999 per cent; reduces odours; reduces the bioavailability of some metals (e.g., cadmium and lead); reduces the potential for leaching and run-off by promoting the formation of complexes of phosphorus and nitrogen that bind more tightly to soil; may reduce some emerging substances of concern, such as those found in many personal care products; and generally results in a product with a low health risk.

Some industry commenters expressed concerns regarding the proposed new standards for sharp foreign matter, stating that they were unreasonable and impossible to meet. Accordingly, MOE left the old sharps criteria from the Interim Guidelines in place.

With respect to odour, some individuals with homes located near current composting facilities stated that the proposed separation distances were not great enough to prevent odour problems. Industry representatives, on the other hand, generally stated that the distances were too strict and that a composting facility should be permitted to have shorter separation distances if it can prove that odour will not be an issue. The waste management industry stated that smaller municipalities should be able to compost potentially odorous materials in outdoor windrows. The ministry responded to these various concerns by stating that the new compost framework has many elements that can help to minimize the odour problem, including: a better maturity standard for all compost categories; better guidelines for siting, design, and operation; flexibility, to allow MOE to work with facilities to tailor solutions to individual systems; and clarification of the separation distances, which continue to be from a minimum of 250 metres to 1,000 metres.

SEV

The ministry provided a detailed Statement of Environmental Values (SEV) Consideration Form. In that document, MOE pointed out that many of the principles and objectives in its SEV had been followed in the course of this initiative. These principles included: an ecosystem approach; cumulative effects assessment (with respect to metal accumulation); consideration of both current and future generations; the precautionary/science-based approach; the pollution prevention approach; the principle of polluter pays; the concept of continuous improvement; and ensuring transparency and engagement. The ministry also discussed how it had integrated social and economic considerations with its environmental mandate, and how it had conducted an open and transparent consultation process.

ECO Comment

The ECO is pleased with MOE's new composting framework. The ministry's mandate to protect the environment and "ensure healthy communities, ecological protection and sustainable development for present and future generations of Ontarians" must surely include the conservation and replenishment of the province's soils. Returning organic matter and nutrients to our soils, as composting does, is essential to environmental and economic sustainability: soils provide many essential and cost-effective ecological functions in addition to being fundamental to human food security. Accordingly, the clear recognition of compost's multiple soil-related environmental benefits in the new composting framework is very welcome, especially as it was not obvious in the previous Interim Guidelines that these benefits were fully understood and appreciated.

MOE's mandate to protect the environment, however, also includes regulating the release of contaminants into the environment to prevent adverse effects to ecosystems and/or harm to human and animal health. Therefore, the ministry must ensure that compost use does not result in such adverse effects. Biosolids and septage usually contain higher levels of contamination than other

organic residuals, such as food and yard wastes; their inclusion in composting processes, therefore, must be carefully considered, as compost is always returned to the environment, often on agricultural lands.

In this light, the creation of three categories for finished compost is a good compromise on what has long been a tough issue. In developing the new framework, MOE has successfully balanced public concerns regarding potential soil contamination, resulting from the inclusion of biosolids in compost, with opportunities for substantial environmental benefit, by increasing the volume of potentially compostable materials. By creating two unrestricted-use categories, the higher (designated AA) without biosolids, and the lower (designated A) with a maximum 25 per cent biosolids and mandatory labeling, the ministry has found a useful compromise. The categories allow sewage, septage, and paper mill biosolids to gain a foothold in the higher-value, unrestricted-use compost marketplace, without opening the door all the way.

In addition, the creation of Category B compost, which can include up to 100 per cent biosolids, further supports the goal of returning organic matter and nutrients to the soil, where they are needed. By establishing minimum standards for this compost product and continuing to classify it as a waste, with all of the restrictions and considerations that this designation requires, the ministry has facilitated the beneficial use of these materials while ensuring that the environment is still protected.

Finally, the ECO is very pleased with the new best management Guideline, and in particular with respect to the management of odour, which provides much-needed additional guidance. Hopefully, this guidance should help improve the success rate (and popularity) of compost operations in the province. The ECO supports the flexible approach used in the Guideline, allowing the ministry flexibility in permitting with an industry that is evolving and improving its processes rapidly; however, that flexibility is a double-edged sword. The broad operational flexibility permitted in the Guideline could be a problem if the approvals process is not always conducted with the appropriate measures of diligence and caution. For instance, new technologies and methods, or those newly imported from other jurisdictions, should receive significant scrutiny before the necessary permits are issued. The ECO will be monitoring this very important concern in years to come.

Review of Posted Decision:

1.3 Site Specific Air Standard for Emissions of Cadmium and Cadmium Compounds

Decision Information

Registry Number: 011-5585
Proposal Posted: January 27, 2012
Decision Posted: January 30, 2013
Comment Period: 150 days
Number of Comments: 0
Decision Implemented: January 30, 2013

Keywords: air emissions; site-specific standard; cadmium; *Environmental Protection Act*; Sudbury

Description

Overview

In January 2013, the Ministry of the Environment (MOE) approved a site-specific air standard for cadmium emissions from Xstrata Canada Corporation's (Xstrata) smelter facility in Falconbridge, near Sudbury. The site-specific standard of 0.190 micrograms per cubic metre (μg/m^3) (24-hour averaging period) was issued for a period of five years, after which the facility is expected to be able to comply with the provincial cadmium air standard set out in O. Reg. 419/05, as a result of completed technological upgrades.

Background

Ontario's Local Air Quality Regulation:
Industrial air emissions in Ontario are regulated through O.Reg. 419/05 made under the *Environmental Protection Act*. This regulation establishes the amounts, concentrations or levels of contaminants that industries are allowed to emit into the atmosphere. The air standards set out in O.Reg 419/05 are based only on health and environmental effects and do not consider the potential technological or economic challenges associated with compliance.

Facilities that cannot meet the regulated air standards because of technological or economic reasons can apply for a site-specific standard that is less stringent. Site-specific standards are considered to be an interim measure with a "goal of continuous improvement toward achieving the effects-based standard over time" (for more information, see Chapter 5.2 of Part 2 of the ECO's 2011/2012 Annual Report). The ministry can only approve a site-specific standard for a contaminant if the facility's emissions will not exceed the upper risk threshold defined in the regulation.

Cadmium and its Compounds:
Cadmium particulates are released into the atmosphere through manufacturing, mining and fossil fuel combustion. Cadmium oxide is the most common compound of concern found in the environment; other compounds of concern include cadmium chloride, cadmium sulphate and cadmium sulphide. Cadmium is a persistent heavy metal, which builds up in the local environment.

Humans can be exposed to cadmium and cadmium compounds through inhalation of particulate matter, however, cadmium particulates do not remain suspended for very long. Emitted cadmium easily falls to the ground, so humans can also be exposed by ingesting food that was grown on contaminated soil, especially cereals, rice and potatoes. Populations living near certain industries, such as ore smelters or metal refineries, are exposed to higher levels of cadmium, but the highest exposure occurs in occupational settings.

Cadmium is a highly toxic substance that affects human lungs and kidneys. Exposure to cadmium is associated with a number of health risks including kidney dysfunction, osteoporosis, cancer and heart disease. Cadmium has a half-life of 10–30 years in the human kidney, so even low-level exposure poses a serious threat.

Set in 1990, Ontario's previous standard for cadmium emissions was five μg/m^3 (half-hour average). In 2007, the government introduced new standards for cadmium, with a phase-in period ending February 1, 2013. The new half-hour standard for cadmium was set at 0.075 μg/m^3, while the new 24-hour standard was set at 0.025 μg/m^3. According to MOE, these standards are more protective of human and environmental health.

Request for Site-Specific Cadmium Standard

Xstrata's operations in the Sudbury area consist of two mines, a mill and a smelter. Nickel and copper are the primary metals produced from these operations. The smelter converts nickel-copper concentrate into a high grade matte that is shipped elsewhere for refining. Cadmium emissions are a by-product of smelting operations. Other air emissions from Xstrata's metal production processes include sulphur dioxide, nitrogen oxides, carbon dioxide, lead, zinc and arsenic.

In October 2011, Xstrata submitted a request to MOE for a site-specific standard for cadmium emissions from their smelter site. As required by section 33(1) of the regulation, Xstrata submitted a number of supporting documents with their request, including:

- an Emission Summary and Dispersion Modelling report, which contains the emissions results from a monitoring and modelling study, as well as an assessment of the magnitude and frequency of exceedances of the standard;
- a technology benchmarking report, which assesses and ranks technical methods for reducing contaminant emissions and provides an assessment of feasible technologies;
- a public consultation report, which summarizes the results of Xstrata's mandatory public meeting with the local community; and
- an action plan to implement the site-specific standard and monitor progress.

Xstrata has indicated that, 90 per cent of the time, the facility is in compliance with the regulation's generic standard for cadmium of 0.025 µg/m^3 (24-hour averaging period). The maximum level of cadmium emitted from the facility is 0.190 µg/m^3 (24-hour averaging period), which is below the upper risk threshold of 0.25 µg/m^3 (24-hour averaging period) set out in the regulation. In its application, the company stated that it would be able to meet the provincial air standard for cadmium after completing the activities listed in its action plan.

MOE approved the company's application on January 30, 2013. After an in-depth technical review and consultation, the ministry concluded that it was not technically and economically feasible for the company to comply with the regulation's generic air standard for cadmium. As such, MOE approved a site-specific standard for cadmium of 0.190 µg/m^3 (24-hour averaging period), with an expiry date of December 31, 2018. By then, the company is expected to have completed technology upgrades that will enable it to meet the more stringent cadmium air standard of 0.025 µg/m^3 (24-hour averaging period). Pollution control technologies that Xstrata will implement at the smelter site include: installation of an additional baghouse and primary hood to filter emissions; installation of four secondary hoods to collect fugitive emissions; and, stack refurbishment to treat emissions. As a condition of the approval, the company must prepare a publicly available summary of the technology improvements that are carried out each year.

Implications of the Decision

Xstrata's site-specific cadmium standard of 0.190 µg/m^3 (24-hour averaging period) allows emissions from its smelter to exceed the regulation's 24-hour standard of 0.025 µg/m^3 for the next five years. Therefore, it is possible that people living near this facility may periodically experience higher levels of cadmium exposure than if the facility were required to operate pursuant to the regulation's generic cadmium standard. While the facility is expected to comply with the provincial air standard for cadmium by the end of 2018, the company can apply for a renewal of the site-specific standard, which could potentially extend this term, if approved.

Although cadmium can be a bioaccumulative contaminant, the 2009 Sudbury Soils Study determined that there is no immediate risk to local wildlife populations from current smelter

emissions. However, the same study also found that "historic impacts of smelter emissions on plant communities have affected habitat quality, and, therefore, may be having a continued influence on birds and mammals." In addition, the Sudbury area is a hot spot for the mining and smelting of nickel and copper. Besides Xstrata's smelter in Falconbridge, there are two other smelter sites located nearby; one of which is still operational. Therefore, it is possible that cumulative impacts may still occur even though these facilities are individually complying with the regulation.

Public Participation & *EBR* Process

The company consulted directly with the public at a meeting held on October 17, 2011. The company provided notice of the meeting in three local newspapers, by mail and through a door-to-door campaign. A total of 12 people attended the public meeting. A number of topics related to the company's application for the site-specific standard were discussed at the meeting. Attendees raised concerns regarding the cancer risk posed by cadmium exposure. The company responded that cadmium exposure levels at the smelter site and in the community "are lower than the threshold that causes cancer." Participants also had questions about Xstrata's Action Plan and about when the company would meet the new standard.

In addition to the public meeting, Xstrata also met with the Falconbridge Citizen's Committee, Wahnapitae First Nations, MOE, and other key stakeholders, including the Sudbury District Health Unit, the City of Sudbury and Laurentian University.

MOE initially posted an instrument proposal notice (#011-5585) on the Environmental Registry on January 12, 2012 for a 120-day comment period. Because of an update to the proposal, however, the notice was re-posted on December 19, 2012 for an additional 30-day comment period. The public did not submit any comments during either comment period.

SEV

MOE stated that the following principles from its Statement of Environmental Values were considered in the decision to approve this site-specific standard for cadmium: environmental management, pollution reduction, environmental restoration, and strategic management. The ministry also stated that it considered technical and economic factors in making this decision.

ECO Comment

The ECO supports the regulation of Ontario's air quality based on health and environmental effects, but recognizes that in certain cases, it may be challenging for some facilities to meet the standards set out in O. Reg. 419/05. The ECO has previously reported that "MOE should only approve site-specific standards when compliance with the generic air standards is truly not feasible." It appears that the ministry's decision to issue this site-specific standard was reasonable, given that Xstrata: could not feasibly comply with the regulation's generic air standard for cadmium by the phase-in date; will only exceed the generic cadmium standard approximately 10 per cent of the time; will remain within the upper risk threshold; and has committed to implementing action plan items that will allow it to achieve full compliance in the near future.

The ECO believes that this case exemplifies the intended purpose of the site-specific standard to be used as an interim solution for facilities that are unable to meet the provincial air standards within the phase-in period. The company's facility is permitted to exceed the 24-hour air standard for cadmium emissions, but only until 2018, when the facility is expected to be in full compliance with

the provincial cadmium standard under O. Reg. 419/05. This standard should allow the company to continue operations in the interim, while maintaining environmental protection and supporting the goal of continuous improvement.

Review of Posted Decision:

1.4 Ontario's Great Lakes Strategy

Decision Information:

Registry Number: 011-6418
Proposal Posted: June 6, 2012
Decision Posted: December 17, 2012
Comment Period: 62 days
Number of Comments: 86
Decision Implemented: December 17, 2012

Keywords: Great Lakes; Great Lakes Strategy; Bill 100; *Great Lakes Protection Act, 2012*; Bill 6; *Great Lakes Protection Act, 2013*

Description

Overview

The Great Lakes are an integral part of life in Ontario: they provide drinking water to over 80 per cent of Ontarians; they help generate 80 per cent of Ontario's electricity; they are home to over 4,000 species of fish, plants and wildlife; and they provide opportunities for countless recreational activities. Containing nearly 20 per cent of the Earth's fresh surface water, and comprising over 10,000 kilometres of shoreline in Ontario, the Great Lakes are also considered the foundation of Ontario's economy. Sadly, the health of the Great Lakes is under increasing threat from multiple pressures, with some experts warning that they are at a "tipping point" of irreversible decline.

Consequently, on June 6, 2012, the Ministry of the Environment (MOE) launched public consultation on two major initiatives to protect and restore the Great Lakes:

1. Bill 100, the *Great Lakes Protection Act, 2012* (the proposed *GLPA*), which received first reading in the Ontario Legislature that day. Among other things, Bill 100 proposed the creation of a Great Lakes Strategy to assess the environmental conditions of the Great Lakes, set goals, and identify actions to achieve the purposes of the proposed Act*;* and

2. A draft Great Lakes Strategy, as envisioned by the proposed *GLPA*.

MOE posted notices of both proposals on the Environmental Registry (#011-6461 and #011-6418, respectively) for a 62-day public comment period ending in August 2012. Bill 100 subsequently died on the order paper when the provincial legislature was prorogued in October 2012. Nevertheless, MOE decided to finalize its Great Lakes Strategy (the Strategy) in December 2012.

Background

The Strategy was initially conceived as a statutorily mandated plan of action for achieving the goals of the proposed *GLPA*: namely, protecting and restoring the ecological health of the Great Lakes, and creating opportunities for individuals and communities to become involved in that protection and restoration work. These purposes include:

(1) protecting human health and well being through the protection and restoration of the ecological health of the Great Lakes-St. Lawrence River Basin;
(2) protecting and restoring wetlands, beaches, shorelines and other coastal areas of the Great Lakes-St. Lawrence River Basin;
(3) protecting and restoring the natural habitats and biodiversity of the Great Lakes-St. Lawrence River Basin; and
(4) advancing science relating to existing and emerging stressors, such as climate change, that improves understanding and management.

Although the Strategy was ultimately finalized as a stand-alone policy document of the Government of Ontario, independent of legislation, it still serves the same intended function: to empower action by a variety of actors, from provincial ministries to local service clubs, to keep the Great Lakes healthy now and for future generations.

While MOE was responsible for consulting the public on the Strategy, the actions to be carried out under the Strategy are to be led by a vast team of ministries, including the ministries of: Environment; Natural Resources; Agriculture, Food and Rural Affairs (now the separate ministries of Agriculture and Food, and of Rural Affairs); Municipal Affairs and Housing; Infrastructure; Aboriginal Affairs; Economic Development and Innovation (now the separate ministries of Economic Development, Trade and Employment, and of Innovation); Tourism, Culture and Sport; Health and Long-Term Care; Transportation; and Intergovernmental Affairs.

Roughly half of the 67-page Strategy is devoted to background information about the importance of, and key threats to, the Great Lakes, as well as past initiatives to protect them. In particular, the Strategy describes a number of current challenges that the Great Lakes are facing today:

- Population growth around the Great Lakes;
- Loss of fish and wildlife habitat;
- Invasive species;
- Climate change;
- Chemicals such as flame retardants and pharmaceuticals entering Great Lakes waters;
- Changing water levels;
- Algal growth, including potentially toxic blue-green algae; and
- Excessive bacteria levels in the waters of Great Lakes beaches.

The remaining portion of the Strategy sets out Ontario's plan of action.

Figure 1: The Great Lakes and their watersheds. (Source: Ministry of Natural Resources, 2009)

Great Lakes Vision, Goals, and Priorities for Action:
The Strategy includes a vision statement for the Great Lakes: "Healthy Great Lakes for a stronger Ontario – Great Lakes that are drinkable, swimmable and fishable." It establishes six Great Lakes goals to achieve that vision, outlines Ontario's priorities for action for each goal, and lists 113 future actions to address those goals. The Strategy also establishes performance measures for each goal to monitor the Strategy's progress. Each Great Lakes goal is described in Table 1 below, as well as the government's corresponding priorities for future action, examples of actions under those priorities, and the key results that will be monitored.

Table 1. Summary of Ontario's Great Lakes Goals, Priorities for Action, and Performance Measures (Source: Government of Ontario, Great Lakes Strategy, December 2012)

Great Lakes Goal	Priorities for Future Action and Examples of Future Actions	Performance Measures
Engaging and empowering communities To create opportunities for individuals and communities to become involved in the protection and restoration of the ecological health of the Great Lakes-St. Lawrence River Basin.	• **Funding local community action** – e.g., providing funding to community groups and other local organizations, as well as First Nations and Métis communities, to undertake numerous small scale projects to restore and protect the Great Lakes and help connect people to the Great Lakes. • **Building awareness** – e.g., creating ways for school boards to use the Great Lakes as the context for teaching and learning. • **Collaboration and partnerships** – e.g., partnering with various players (First Nations and Métis communities; municipalities;	The number of community projects undertaken will be monitored to demonstrate increased public awareness and engagement on Great Lakes issues.

Great Lakes Goal	Priorities for Future Action and Examples of Future Actions	Performance Measures
	environmental organizations; federal government; etc.) on Great Lakes matters.	
Protecting water for human and ecological health To protect human health and well being through the protection and restoration of the ecological health of the Great Lakes-St. Lawrence River Basin.	• **Protecting drinking water** – e.g., providing support for the effective and ongoing implementation of source protection plans under the *Clean Water Act, 2006*; supporting culturally appropriate drinking water source protection in First Nations communities, where relevant; reviewing and consulting the public about drinking water standards. • **Reduce stormwater and wastewater impacts** – e.g., assist municipalities and other actors in reducing the volumes and impacts of stormwater through a variety of specified actions; continue to work with municipalities and stakeholders on solutions to minimize discharges of untreated sewage (such as overflows of combined sewers, and sewage bypassing a treatment plant) through a number of specified actions. • **Reduce excessive nutrients** – e.g., increase understanding about agricultural stewardship programs and practices and develop partnerships to encourage the uptake of best management practices; promote rural and agricultural environmental stewardship practices. • **Protect water quality by reducing toxic chemicals** – e.g., fulfill Ontario's commitments under the Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement; consider Ontario's approach to managing the cumulative impact of water takings in stressed watersheds in light of the new water quantity science	The government has identified three key results to be monitored for this goal: • Drinking water meets a high standard of safety, demonstrated by municipal residential drinking water systems meeting provincial drinking water standards; • Reduced levels of harmful pollutants in the Great Lakes ecosystem, demonstrated by declining fish tissue contaminant levels, declining fish consumption advisories, and localized improvements in priority areas; and • Phosphorus trends and the frequency and severity of algal blooms in priority areas.

Great Lakes Goal	Priorities for Future Action and Examples of Future Actions	Performance Measures
	produced by source protection committees under the *Clean Water Act*, *2006* and consult broadly on any potential changes. • **Improve water quantity management** – e.g., fulfill Ontario's commitments under the Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement; consider how to manage the cumulative impact of water takings in Ontario's stressed watersheds.	
Improving wetlands, beaches and coastal areas To protect and restore wetlands, beaches, shorelines and other coastal areas of the Great Lakes-St. Lawrence River Basin.	• **Beaches** – e.g., work with partners to share successful and innovative best management approaches on beaches; undertake research on sources of high E. coli and other beach impairments such as algae, to guide beach management actions. • **Wetlands** – e.g., through the current review of the Provincial Policy Statement, 2005, consider provisions that support Great Lakes protection such as prohibiting development in coastal wetlands; conduct new and updated wetland evaluations and provide technical advice and information for municipal planning. • **Other coastal areas** – e.g., identify priority areas for nearshore protection; develop provincial shoreline guidance to support the provincial policy framework, and share best management practices on coastal protection and restoration.	Performance measures for this goal include: • Great Lakes beaches are available for public use for more of the season, demonstrated by a reduction of beach postings (indicating that it is unsafe to swim due to high bacteria levels); and • continued progress on cleaning up Great Lakes Areas of Concern, demonstrated by restoring impaired beneficial uses.
Protecting habitats and species To protect and restore the natural habitats and biodiversity of the Great Lakes-St.	• **Protecting habitats and species** – e.g., pursue opportunities to improve habitat protection and restoration methods to help decrease loss, degradation and fragmentation of natural areas and landscapes in the Great Lakes Basin; complete binational biodiversity	To measure performance, key results to be monitored will be: • habitats and native species are identified, protected, conserved and restored, supported by policies and programs to identify and

Great Lakes Goal	Priorities for Future Action and Examples of Future Actions	Performance Measures
Lawrence River Basin.	conservation strategies for Lake Erie and Lake Superior. • **Address invasive species in the Great Lakes Basin** – e.g., implement the Ontario Invasive Species Strategic Plan, focusing on priority actions in the plan for managing invasive species in the Great Lakes. • **Prevent new invaders** – e.g., work with other governments to review and address gaps in laws governing invasive species in trade; enhance existing coordination of and develop common research priorities for invasive species research across the Great Lakes Basin. • **Detect invaders that have entered Ontario** – i.e., work with partners to develop and implement scientifically defensible surveillance activities in areas at high risk of introductions of invasive species. • **Respond rapidly to new invasions** – i.e., develop a rapid response framework to assist Ontario in responding to new invaders. • **Manage and adapt to the presence of invaders that have become established** – i.e., where eradication of invaders is not feasible, develop mitigation and adaptation measures.	take action on priority habitat, and by enhanced information; and • the threat of aquatic invasive species to Great Lakes ecosystems has been reduced, supported by actions to reduce impacts of existing invaders and to prevent and respond to new arrivals.
Enhancing understanding and adaptation To advance science relating to existing and emerging stressors, such as climate change, that improves	• **Delivering needed science** – e.g., continually assess and adapt science priorities in the Great Lakes by optimizing research investments and sustaining long-term monitoring capabilities; improve understanding of the sources and pathways of non-point source pollution to ensure management practices and resources are focused	Key results to be monitored include: • greater public access to monitoring results and scientific information on the Great Lakes, as evidenced by an increase in the number of publicly available Great Lakes studies and reports; and

Great Lakes Goal	Priorities for Future Action and Examples of Future Actions	Performance Measures
understanding and management of the Great Lakes-St. Lawrence River Basin.	appropriately. • **Sharing and communicating science** – e.g., sustain and improve the management, analysis and communication of Ontario's Great Lakes information and data; support Great Lakes experts in sharing their results at key conferences and through publications and other communication opportunities. • **Climate change impacts and adaptation** – e.g., continue to implement various adaptation actions under Climate Ready (Ontario's adaptation strategy and action plan); ensure that climate science information and data related to the Great Lakes is available to decision makers in Great Lakes communities to support planning.	• ongoing implementation of the adaptation actions contained in Climate Ready, as demonstrated in Climate Change Progress Reports.
Ensuring environmentally sustainable economic opportunities and innovation To enrich the quality of life in communities in the Great Lakes-St. Lawrence River Basin through support of environmentally sustainable economic opportunities and innovation and through environmentally sustainable use of natural resources.	• **Support the development of innovative water technologies, services and practices** – e.g., continue the implementation of the *Water Opportunities Act, 2010* and complementary measures; continue to support the research, development and demonstration of new innovative environmental technologies, services and practices. • **Promote tourism and recreation opportunities** – e.g., promote and support waterfront venues, attractions and activities that build Great Lakes engagement and foster shoreline sustainable use; continue to support waterfront trail systems that link communities and support local economies around the Great Lakes through walking, cycling and other trail activities. • **Ensure environmentally sustainable resources use** – e.g., continue support for sustainable	Progress in achieving this goal is to be measured by monitoring growth in the water sector, including innovative technologies and practices.

Great Lakes Goal	Priorities for Future Action and Examples of Future Actions	Performance Measures
	management and harvest of Ontario's Great Lakes commercial and recreational fisheries resources; further explore the value of ecological services to Ontario's economy.	

Guiding Principles:
The Strategy describes six guiding principles for achieving the Great Lakes goals, under the following headings: ecosystem approach; precautionary approach; accountability; adaptive management; collaboration and engagement; and recognition of First Nations and Métis communities.

The Strategy also notes that work will be done in accordance with the principles included in participating ministries' Statements of Environmental Values (SEVs) prepared under the *Environmental Bill of Rights, 1993* (*EBR*).

Periodic Review and Progress Reporting:
The Strategy acknowledges that "regular reviews of the Strategy will allow us to respond to emerging issues and new science, and to establish new milestones on the way to reaching our Great Lakes Goals." The Strategy also notes the importance of strong science, research and monitoring to provide the knowledge required to effectively protect and restore the Great Lakes.

The province has committed to reporting on the "key results" for individual goals every three years. The Strategy also states that the province will refine the performance measures used over time. The Strategy will be reviewed in year six; this timing is intended to align the Strategy with Great Lakes binational program timeframes.

Great Lakes Guardian Community Fund

On July 24, 2012, the Ontario government announced a new initiative called the Great Lakes Guardian Community Fund. The fund was initially intended to accompany the proposed *GLPA* and was mentioned in the draft Great Lakes Strategy. The $1.5 million fund makes grants of up to $25,000 per project available to help community groups, non-profit organizations and First Nations and Métis communities protect and restore the Great Lakes. The program supports up to 100 per cent of the cost of projects in Ontario within the Great Lakes-St. Lawrence River Basin that contribute to at least one of the following goals (as articulated in the draft Great Lakes Strategy): empowering communities; protecting water; improving wetlands, beaches and coastal areas; and protecting habitats and species.

The Strategy identifies the funding of small-scale community projects to restore and protect the Great Lakes through the Great Lakes Guardian Community Fund as one of the actions listed under the goal of engaging and empowering communities.

MOE has established eligibility criteria for projects that may receive funding; for example, eligible activities include projects to create hiking trails or canoe routes, replace invasive plants with native species in a wetland, plant trees to provide shade and habitat, and educate recreational boaters about pollution prevention. Infrastructure repairs and upgrades, strict beautification projects and land acquisitions are all ineligible. MOE has also outlined criteria for costs that may be covered by the fund.

MOE accepted funding applications until October 12, 2012 and began awarding funds in early December 2012. The 80 Great Lakes Guardian Community Fund recipients for 2012 received anywhere from as little as $1,072 (awarded to a Scout troop to remove garbage from streams and marshes and encourage youth to use freshwater resources for recreation) to the maximum of $25,000 (e.g., to a conservation foundation to create four wetland areas, install interpretive signage and clear nature trails). A second round of funding was announced on March 6, 2013, with slightly revised eligibility criteria to enhance the focus on environmental impacts of projects. The application period for the second round of funding closed on April 26, 2013.

Implications of the Decision

Finalized Strategy Demonstrates Province's Commitment to the Great Lakes

The decision to finalize the Strategy in the absence of the proposed *GLPA* demonstrates that the government is serious about moving forward with a plan to protect the Great Lakes. By finalizing the Strategy, the clock has started to run on the government's commitment to implement the actions described in the Strategy and to measure and report on its progress in meeting the province's Great Lakes goals.

Focus on the Community's Role in Protecting and Restoring the Great Lakes

The Strategy not only facilitates public awareness and community involvement in Great Lakes restoration and protection through its first Great Lakes goal – engaging and empowering communities – but it embraces the notion throughout the Strategy, providing opportunities for individuals and communities to participate in work to achieve every single goal under the Strategy. This approach could establish a greater connection between Ontarians and the Great Lakes and foster a greater level of public engagement in Great Lakes governance. It could also capitalize on the firsthand experiences and knowledge of people living in different areas of the Great Lakes – each area facing its own complexity of challenges and pressures – that might otherwise be left untapped. Perhaps most importantly, it builds upon decades of public participation and hard work already done by community groups to help protect and restore the Great Lakes; by acknowledging and promoting the community's role, the Strategy should help ensure that these groups remain involved.

The Great Lakes Guardian Community Fund in particular should encourage action to address local Great Lakes issues that, while significant, might otherwise not be addressed. Cumulatively, funded projects could contribute substantially not only to ameliorating conditions in different areas of the Great Lakes, but to the province's knowledge and understanding of certain Great Lakes issues. Further, by tying the funding to particular Great Lakes goals, the government can ensure that it funds projects that will ultimately work towards achieving the overall purposes of the Strategy.

Performance Measures Will Provide Feedback on Progress

Including performance measures – or "key results" – represents a marked improvement in the final version of the Strategy. Including metrics for measuring the province's progress in implementing the actions set out in the Strategy will help both the government and the public evaluate how well the Strategy is working, and whether the Great Lakes goals are being achieved. The ECO stressed the importance of performance evaluation in Chapter 6.4 (Evaluating Environmental Programs) of Part 2 of our 2011/2012 Annual Report.

However, some of the Strategy's performance measures are vague; for instance, it is not clear how the government plans to measure whether the threat of aquatic invasive species to Great Lakes ecosystems has actually been reduced by the government's actions. And because the Strategy does not establish defined targets, it is unclear how some performance measures will be used to assess progress. While the number of community projects undertaken will help the province measure whether there is an increased public awareness and engagement on Great Lakes issues, what number – or rate of increase – of such projects will be considered a success?

Reliance on Other Programs and Plans

The Strategy states that the province "will use a variety of tools to take action – including existing laws and programs, Great Lakes agreements, and other partnerships and collaborations." Indeed, several of the actions described in the Strategy are already required by, or being undertaken under, other government plans or programs. For example, the Strategy lists as an action under the goal of enhancing and understanding adaptation: "continue to implement adaptation actions under Climate Ready [Ontario's Adaptation Strategy and Action Plan]," and enumerates a number of actions under that plan specific to Great Lakes issues. Similarly, under the goal of protecting habitats and species, the Strategy states that "Ontario will implement the Ontario Invasive Species Strategic Plan," and lists priority actions under that plan for managing invasive species in the Great Lakes. Under the goal of ensuring environmentally sustainable economic opportunities and innovation, the Strategy lists as an action the continued implementation of the *Water Opportunities Act, 2010.*

Consequently, progress reporting on the Strategy will often be tied to achievements made under other programs; for example, one of the ways that performance is to be measured for the Great Lakes goal of enhancing understanding and adaptation is by monitoring the implementation of Climate Ready, "as demonstrated by progress updates contained in regular Climate Change Progress Reports."

Key Aspects of the Strategy Remain Vague, Uncertain

Although the final Strategy includes more specifics than did the draft, the Strategy still contains vague language and lacks certainty on some key issues. In particular, while some of the actions listed in the Strategy are detailed, others are too vague to anticipate what they might actually entail, if carried out. The action under protecting habitats and species to "pursue opportunities to improve habitat protection and restoration methods to help decrease loss, degradation and fragmentation of Great Lakes Basin natural areas and landscapes that provide habitat for species and valuable ecosystem services" is extremely broad and could encompass any number of more specific actions. As noted above, some of the performance measures – or how they will be evaluated – are also vague.

Finally, while the Strategy includes commitments to measure key results and report on progress every three years, it leaves uncertain who is responsible for monitoring and reporting on any particular goal or activity, or how that reporting shall be effected and communicated to the public. In fact, the Strategy lacks any real information about how it would be implemented; there is no assignment of responsibility to the various ministries partnering in the Strategy for certain goals or actions, and no anticipated schedule for initiating or completing specific actions. Considerable uncertainty remains about who will do what under the Strategy, and when.

Public Participation & *EBR* Process

MOE reported that it received 86 comments on the draft Great Lakes Strategy from members of the general public, environmental groups, conservation authorities and watershed groups, First Nations and Métis communities and organizations, municipalities and municipal organizations, industry associations and others. Some of the comments addressed both the draft Great Lakes Strategy and the proposed *GLPA*.

Summary of Comments

Most commenters were generally supportive of a Great Lakes strategy. In particular, commenters were pleased with the comprehensive approach to addressing Great Lakes issues, and were pleased with the emphasis on engaging and empowering the public in taking action on the Great Lakes. Some commenters also expressed support for the inclusion of both First Nations and Métis communities in the Strategy's activities. However, other commenters questioned the need for the Strategy, suggesting that it will simply create more red tape. Some were concerned about potential duplication of, and overlap with, other programs and activities on the Great Lakes. One conservation organization was concerned that the Strategy and proposed *GLPA* were developed too hastily, and urged MOE to "vest the Great Lakes Strategy in a broader framework of over-all watershed management in Ontario."

Several commenters expressed concern that the language used in the draft Strategy was too vague, and stated that the Strategy needs to define measurable goals, concrete steps and actions to be implemented, and deadlines for completion. Commenters also requested a commitment to frequent – even yearly – progress monitoring and reporting.

Several commenters noted the need for resources and funding to support the Strategy. One group urged the province to provide financial assistance to municipalities so that they can continue to protect water quality and improve wastewater and stormwater management, while another advocated for improved funding for conservation authorities to improve Strategy implementation and accountability. An industrial association recommended prioritizing initiatives under the Strategy based on a rigourous cost-benefit analysis.

Another common remark was about the need for MOE to re-engage itself in monitoring and research activities; one commenter noted that monitoring and analysis needs to be "built upon and expanded (not just sustained) so that science knowledge and capacity is enhanced." Commenters stated that the government needs to develop a standardized framework for gathering and storing data related to Great Lakes initiatives. They noted that good policy is based on sound science, and that dedicated funding for Great Lakes scientific research is needed. In particular, they noted the need for background data and the collection of new data every year to track trends in Great Lakes health. One commenter noted that the draft Strategy failed to define clear processes through which science-based decision making would be ensured.

Several commenters also expressed concerns about specific Great Lakes issues such as pollution from agriculture, declining water levels, wetlands protection and the need to encourage low impact development. Commenters also noted the need for education and public events celebrating the Great Lakes to promote appreciation for the lakes and their cultural and historic significance.

Ministry Consideration of Comments

In response to public comments, the government made a number of revisions to the Strategy, such as:

- including the six guiding principles for achieving the Great Lakes goals;
- adding performance measures for tracking progress in implementing actions to achieve each of the Great Lakes goals;
- specifying that progress will be reported every three years (the draft Strategy merely committed to reporting on progress "regularly"); and
- shortening the Strategy's review period from nine to six years.

The six goals listed in the final Strategy were also reworded slightly from the draft version, but MOE provided no explanation for these amendments.

SEV

In MOE's SEV Consideration Form, the ministry explained how it considered the following principles in developing the Strategy:

- Principles of Environmental Management: for example, MOE stated that the Strategy "aims to take an ecosystem/place-based approach to address cumulative impacts from many stressors at an ecologically appropriate scale, while targeting different Great Lakes issues in different parts of the province."
- Principles of Pollution Reduction/Environmental Restoration: MOE asserted that the Strategy "includes a focus on pollution prevention and environmental rehabilitation." MOE explained that the Strategy proposes actions related to both pollution prevention (e.g., actions that focus on strengthening municipal water, wastewater and stormwater management) and rehabilitation (e.g., actions related to cleaning up Areas of Concern and encouraging individuals and communities to get involved in projects to restore and protect the Great Lakes).
- Principles of Strategic Management: for example, MOE stated that the Strategy "links together current Ontario policies, programs, partnerships and agreements in a coordinated way," and that "it is designed to help focus government resources strategically across ministries, reflect the views of non-government partners, and engage First Nations and Metis communities and organizations."

MOE also explained how it considered social, economic and other considerations in accordance with its SEV, and described a range of activities that the ministry undertook to provide opportunities for public consultation on the Strategy.

Finally, MOE stated that "the MOE SEV on consideration of Aboriginal people was taken into account in development and implementation of the Great Lakes Strategy," and explained, as an example, that the Strategy acknowledges "that many First Nations and Métis communities have expressed an interest in exploring the use of Traditional Ecological Knowledge alongside western science to inform discussions and advance understanding of ecosystem change in the Great Lakes."

Other Information

Proposed GLPA *Re-Introduced in the Ontario Legislature*

In February 2013, shortly after the Ontario Legislature started a new session following its prorogation in October 2012, the Minister of the Environment re-introduced the proposed *GLPA* as Bill 6, the *Great Lakes Protection Act, 2013.* MOE also updated the act proposal notice on the Environmental Registry (#011-6461) to allow for a new 60-day public review and comment period on the re-introduced bill.

Bill 6, which was slightly revised from the Bill 100 version to align with the now-finalized Strategy, would require the Minister of the Environment to maintain the Strategy and ensure that a review of the Strategy is undertaken before December 17, 2018 (i.e., six years after the Strategy was released) and every six years thereafter. Bill 6 would also empower the Minister to make revisions to the Strategy at any time. Curiously, the Bill would only require the Minister to prepare progress reports on the Strategy "from time to time," and does not specifically align with the commitment included in the Strategy itself to provide three-year progress reports on key results. The public comment period on the proposed act remained open and Bill 6 had not yet been passed into law at the end of the ECO's 2012/2013 reporting year.

Prior Consultation on Great Lakes Discussion Paper

In March 2009, the Ontario government posted a discussion paper on the Environmental Registry entitled Healthy Great Lakes, Strong Ontario (#010-6105). The discussion paper, which proposed five goals for the Great Lakes (differing from the six Great Lakes goals found in the Strategy) and nine strategies for achieving those goals, was the province's first step in the process of developing a long-term vision of sustainability for the Great Lakes.

MOE did not post a decision notice for the discussion paper until June 2012, when it posted the draft Strategy and the proposed *GLPA* on the Environmental Registry for public consultation. MOE stated that it used the public's feedback on the discussion paper in the development of both the proposed *GLPA* and the Strategy.

For a detailed review of the discussion paper, please refer to Section 1.1 of this Supplement to the ECO's Annual Report.

ECO Comment

The ECO is pleased that MOE did not use last fall's prorogation of the Legislature as an excuse to delay action on the Great Lakes. Finalizing the Strategy independently of a *Great Lakes Protection Act* – as well as re-introducing the proposed *GLPA* at the earliest opportunity – sends a strong signal to Ontarians that the government is committed to establishing a plan of action for protecting and restoring the Great Lakes.

The Strategy is well organized and considerably more detailed than MOE's 2009 Great Lakes discussion paper. The ECO is pleased that the government has developed many ideas for advancing the government's priorities for each of the Great Lakes goals, and that that the government has integrated a process of program evaluation – critical to assessing how well the plan is working – into the Strategy. The ECO is also gratified to see that the Strategy addresses, at least in part, many of the suggestions we made for engaging solutions for the Great Lakes in Part 2.1 of our 2010/2011 Annual Report, by including actions to: minimize discharges from combined sewer overflows; make the best use of the *Clean Water Act, 2006*; protect wetlands; curb the effect of agricultural runoff on the water quality of public beaches; involve a broader range of ministries in Great Lakes restoration and protection activities; and champion the Great Lakes through public engagement opportunities.

The ECO is particularly pleased that the Strategy acknowledges that research and monitoring is essential in guiding effective Great Lakes protection and restoration. The ECO also believes that drawing on the various existing government ministries, programs, legislation and policies related to Great Lakes health and prosperity is sensible. Finally, promoting the involvement of individuals and

communities, including First Nations and Métis communities, in restoring and protecting the Great Lakes in all aspects of the Strategy should also be commended.

Despite all of the above, the Strategy is still more of a wish list than a road map for action. It is difficult to anticipate whether much in the way of new action will actually be accomplished under the Strategy, or when. While it has the potential to lead to great strides in Great Lakes restoration and protection, the Strategy's lack of specificity, targets and implementation planning provide inadequate assurance that this will happen.

The ECO urges MOE, together with its partner ministries on the Strategy, to develop and share with the public a detailed implementation schedule that outlines exactly who will do what, and when, for each of the Strategy's priorities for action. As new opportunities arise, particularly for community-based action under the Strategy, the implementation schedule can be updated to include additional actions and timelines. The implementation schedule should also outline dates and responsibilities for monitoring progress and reporting on that work – and, ideally, identify targets to be achieved within each three-year reporting timeframe. Such a schedule will provide the transparency and accountability needed to assure the public that the Strategy will indeed lead to measurable action on the Great Lakes. The ECO also encourages MOE to post all progress reports on the Environmental Registry.

The Strategy refers to itself as a "living document." The ECO hopes that, indeed, the Strategy will grow and transform over time as old challenges are addressed and new challenges and opportunities come to light. Given what is at stake, Ontario urgently needs this Strategy to deliver a bold plan of action, so that the province can get to work.

Review of Posted Decision:

1.5 Additional Amendments to the Renewable Energy Approvals Regulation under the *Environmental Protection Act*

Decision Information

Registry Number: 011-6509
Proposal Posted: July 20, 2012
Decision Posted: November 2, 2012
Comment Period: 45 days
Number of Comments: 42
Decision Implemented: November 2, 2012

Keywords: Renewable Energy Approvals; Provincially Significant Wetlands; Valleylands; Natural Heritage; Environmental Review Tribunal

Description

Overview

In 2009, the provincial government passed the *Green Energy and Green Economy Act, 2009* (*GEGEA*), which created the legislative framework for Ontario's green energy initiative. The *GEGEA* enabled the creation of a new Feed-in Tariff (FIT) program and instituted an approvals process to encourage the development of renewable energy, including wind, solar, and bioenergy. In March 2012, the Ministry of Energy released its two-year review of the FIT Program; its recommendations included additional changes to the environmental approval process for renewable energy projects.

As a result of these recommendations and the experience to date in implementing the Renewable Energy Approval (REA) process, a series of changes were introduced to O. Reg. 359/09, made under the *Environmental Protection Act* (*EPA*), which establishes the requirements for REAs. On November 2, 2012, a set of amendments came into force that introduced changes to: the draft site plans for wind projects; the natural heritage requirements; and the availability of clock-stopping adjournments in third-party REA appeals.

Description

The REA Application Process:
The REA application process consists of several stages: project scoping; completion of site assessments and other studies; completion of required reports; and application submission and review. Once a decision is made on whether to issue a REA, an appeal process may follow. Throughout the process, an applicant is also required to meet municipal, public and aboriginal consultation obligations.

Wind Turbine Locations – Draft Site Plans:
As part of the pre-application process for Class 4 wind facilities (i.e., land-based wind facilities with a name plate capacity of 50 kW or greater), applicants may choose to publish a draft site plan that documents all existing noise receptors (e.g., homes, health care facilities, etc.). By publishing a draft site plan, the proponent will not be required to consider any new noise receptors that come into existence after the issuance of the plan for the purpose of establishing a project's setbacks.

Previously, REA proponents only had six months from the date that a draft site plan was published to submit an application for the project, otherwise the project layout had to comply with the appropriate setbacks for all noise receptors existing at the time of application. However, a one-time extension of this period could be granted at the discretion of a Ministry of the Environment (MOE) Director.

The November 2012 amendments extend the deadline for submitting an application after publishing a draft site plan from six to eighteen months. In addition, the amendments allow proponents to publish updated plans to reflect changes in a project's layout. If changes are made within this eighteen month period, the proponent must prepare an updated draft site plan, provide public notice, and prepare and make available a draft noise assessment report. Provided that an application is submitted within eighteen months, there is no requirement for the applicant to consider new noise receptors to determine the appropriate setbacks. Notably, the ability of the Director to extend the application timeline has been removed. These amendments also clarify the minimum requirements for a draft site plan.

Natural Heritage Assessment and Protection:
One of the key elements of most REA applications is a natural heritage assessment (NHA). The NHA process is established under O. Reg. 359/09 and follows the procedures set out in the Ministry of Natural Resources' (MNR) Natural Heritage Assessment Guide for Renewable Energy Projects (NHA Guide). O. Reg. 359/09 identifies specific categories of natural heritage features that must be considered (e.g., wetlands, woodlands, wildlife habitat, areas of natural and scientific interest (ANSIs) etc.), and establishes setbacks for those features. The regulation also sets out development prohibitions within a "significant" or "provincially signiciant" feature and/or its setback. A small number of these prohibitions have been – at least until these amendments – absolute; however, the majority of these "prohibitions" include exceptions, allowing development provided that an Environmental Impact Study (EIS) is completed.

The NHA process for REAs begins with a records review and site investigation to identify natural features. If the project is within a feature's setback or in a feature itself, an applicant must assess

whether the feature is "significant" or "provincially significant". If so, the applicant then determines whether any development prohibitions exist and whether an exception can be applied by preparing an EIS. For further detail on the NHA process for REAs, refer to Section 1.12 of the Supplement to the ECO's 2011/2012 Annual Report.

MOE stated that it was introducing amendments to the natural heritage protection and assessment standards for REAs "to reflect project insights, best practices, and lessons learned since the regulation came into force in 2009" and that "[t]he amendments are supported by the review of over 120 natural heritage assessment reports by the Ministry of Natural Resources."

The amendments to O. Reg. 359/09 made in November 2012 clarify that site investigation requirements are limited to the process of identifying and determining the type of natural features that are present. Previously, a site investigation report was also required to describe the type, attributes, composition and function of a natural heritage feature.

Prior to this amendment, the applicable setback for natural heritage features was 120 metres (50 metres for earth science ANSIs). These amendments reduce the applicable setback to 50 metres for the following:

- all components of Class 3 solar facilities;
- the construction, installation or expansion of a transmission or distribution line; and
- the expansion of an existing transformer station, distribution station or transportation system (i.e., roads).

In addition, the site investigation areas for these kinds of development have been aligned with the reduced setback. The 120 metre setback remains in place for all other development.

Previously, applicants were required to consider valleylands in a NHA. Valleylands perform a variety of ecological functions, including watershed drainage and providing natural heritage system linkages. Significant valleylands are also specifically protected from development and site alteration under the Provincial Policy Statement, 2005 (PPS). These amendments remove the requirement to consider valleylands as a natural feature.

In addition, prior to this amendment, there was an absolute prohibition on any development directly within provincially significant southern and coastal wetlands. The amended O. Reg. 359/09 now allows for the construction, installation or expansion of a transmission or distribution line, or the expansion of an existing transformer station, distribution station or transportation system within provincially significant southern wetlands and provincially significant coastal wetlands, provided that an EIS is prepared. The EIS must identify and assess any negative environmental effects, describe how these effects will be addressed, and explain why it is not reasonable for the project to be located entirely outside the wetland. The NHA guide has also been revised to reflect these new requirements, and sets out the detailed procedure for conducting such an EIS.

Although the policies of the PPS do not apply to REAs, the REA approach to natural heritage largely parallels the protection of natural heritage under the PPS, which applies to most development in Ontario. Technical guidance for implementing the PPS natural heritage policies is set out in MNR's Natural Heritage Reference Manual. While the manual does not set out strict standards, its approaches are recommended to ensure consistency with the PPS. The PPS and Natural Heritage Reference Manual prohibit development and site alteration in selected significant natural heritage features and their adjacent lands unless it can be demonstrated that there will be "no negative impacts" on the features or their ecological functions. However, it should be noted that the definitions of "development" and "site alteration" in the PPS generally exclude infrastructure such as transmission lines, provided that it is authorized under an environmental assessment process. For

more information on the Natural Heritage Reference Manual refer to Part 4.1 of the ECO's 2010/2011 Annual Report.

REA Appeals:
Under the *EPA,* any resident of Ontario may appeal a decision to issue a REA to the Environmental Review Tribunal (ERT). The ERT has six months to dispose of the appeal, otherwise the decision is deemed to be confirmed.

In addition to appealing a REA before the ERT, an application for judicial review may be brought before the Divisional Court if there are grounds to demonstrate that administrative or procedural errors took place in the issuance of the approval.

Prior to these amendments, parties to an appeal before the ERT were able to seek an adjournment from the Tribunal pending the resolution of an application for judicial review. Such an adjournment suspended the six month appeal timeline. The rationale that was frequently advanced for allowing such adjournments was to ensure that the resources of the ERT and parties were not expended on an appeal that could be rendered unnecessary if the Divisional Court found that a REA was not valid.

These amendments remove the ERT's ability to grant clock-stopping adjournments on the basis of a judicial review. Instead, appellants will have to seek a stay of ERT proceedings from the Divisional Court. However, the ERT retains the ability to grant clock-stopping adjournments on consent of the parties, or in other circumstances where it is the ERT's opinion that an adjournment is necessary to secure a fair and just determination of the proceeding on its merits.

Implications of the Decision

Draft Site Plans

The extension of the application deadline following publication of a draft site plan will allow wind proponents more time and flexibility to make changes to a project layout as a result of consultation and site assessment activities.

This extension may also have consequences for local landowners considering new construction. Individuals concerned about the proximity of a wind project may now have to wait until the eighteen month period has elapsed before a project layout is finalized and new development can be planned accordingly. However, the removal of the Director's discretion to extend the timeline contributes to a somewhat greater degree of certainty than previously existed. In addition, the new requirement to provide notice and make available a draft wind turbine noise assessment report may contribute to increased transparency.

Natural Heritage

Setbacks:
The reduction of setbacks for Class 3 solar facilities and selected infrastructure will have two key implications – less informed siting decisions and a greater potential for adverse environmental effects.

Siting decisions for these projects and components will now be based on less information as a result of the reduced area subject to (i) site investigation, and (ii) assessment under an EIS.

MOE suggests that the projects and project components subject to setback reductions have "limited operational and environmental impact." However, in addition to the impacts of construction and maintenance, there can be ongoing environmental effects that should not be ignored. For example: Class 3 solar projects are typically large, fenced facilities that may pose a barrier to wildlife movement; transmission and distribution lines can pose mortality risks to birds and degrade habitat; and expansion of existing transformer stations, distribution stations or transportation systems (i.e., roads) can contribute to habitat degradation and fragmentation. Allowing these developments closer to natural heritage features may result in an increased frequency and/or severity of such impacts. It should also be noted that the new setback distances are no longer consistent with those suggested in the PPS Natural Heritage Reference Manual for development and site alteration.

Valleylands:
As a result of these amendments, valleylands will no longer need to be identified or assessed, and no setback will be imposed. MOE states that "[b]ased on a review of project proposals, the continued protection of significant natural features and water bodies within valleylands, and the need for other permits or approvals by MNR and/or Conservation Authorities related to flooding and erosion, it was determined that [the valleylands] setbacks were duplicative of other requirements." However, it is not clear that the full ecological importance of valleylands will receive adequate protection through the consideration of other natural features contained within valleylands.

Provincially Significant Wetlands:
These amendments allow certain infrastructure for renewable energy projects to be located directly within provincially significant southern and coastal wetlands. Wetlands are highly sensitive ecosystems, and the activities now permitted under this regulation may pose risks to wildlife and wetland functions. For example, during construction machinery can crush vegetation and soils, introduce non-native species, and stir up sediments. Once installed, infrastructure in wetlands can pose a collision obstacle for water birds, and contribute to habitat degradation and fragmentation.

MOE stated that this change will align development prohibitions with the requirements of the PPS, which allows for infrastructure within provincially significant wetlands. The ECO has previously criticized this loophole in the PPS, which excludes infrastructure from the definition of site alteration and development (both of which *are* prohibited within provincially significant wetlands in southern Ontario).

Clock-Stopping Adjournments

The removal of the ERT's ability to grant clock-stopping adjournments pending the outcome of a judicial review will provide a greater degree of certainty to REA proponents with regard to appeal and project timelines. It will also help the government achieve its goal of ensuring a streamlined approval process for renewable energy projects.

Under the new rules, appellants may find that it is more challenging and costly to obtain a clock-stopping adjournment on grounds of a judicial review, as a stay of the proceedings must now be sought from the Divisional Court. However, because the amended regulation still allows for the stay of an appeal before the ERT, there appears to be minimal risk that parties will be required to expend time and resources on proceedings that could be rendered unnecessary by the outcome of a judicial review.

Public Participation & *EBR* Process

The Ministry of the Environment (MOE) posted this proposal on the Environmental Registry for a 45-day consultation period. It received a total of 42 comments from a wide variety of members of the public, as well as from industry, non-governmental organizations, and a municipality. Most commenters expressed opposition to the amendments, while industry commenters were generally supportive and offered suggestions for further refinements. Although it does not appear the ministry made any major substantive changes in response to the comments received, there were several clarifications made to the proposed changes, and a further amendment was introduced to align site investigation areas with the reduced setbacks.

Draft Site Plans

A number of commenters expressed their view that the interests of developers are being prioritized over community interests and rights. Many took issue with the extension of the timeline to submit an application after publishing a draft site plan, stating that it is unfair to local residents, and that if the application timeline is altered, the time for public comment should be extended as well. Others suggested that no changes should be allowed after the initial draft site plan is issued and that new receptors should have to be considered.

Industry commenters generally supported this extension. However, some commenters suggested that the possibility of extending the time to submit an application after releasing a draft site plan should be maintained, and that only projects with power purchase agreements should be allowed to apply for site plan crystallization.

Natural Heritage

There was widespread opposition to the setback reductions, the removal of valleyland considerations, and allowing infrastructure in provincially significant wetlands. In particular, commenters were concerned about adverse effects on wildlife and breeding areas. Many commenters emphasized that all natural features, including valleylands, should be identified and assessed in order to ensure that the public is fully informed. Others suggested that development prohibitions in setbacks should be absolute, and expressed concern that there is no consideration of cumulative effects.

Several individuals were concerned that the natural heritage amendments would interfere with the jurisdiction of conservation authorities, while one commenter suggested that imposing less stringent standards at the NHA stage would effectively mean that projects would be hampered at the design and implementation stage when seeking approvals from conservation authorities.

A number of commenters expressed their concern that natural heritage changes were being proposed without an adequate evidentiary basis. These individuals cited the fact that the proposed changes were based on only three years of experience, and were largely reliant on information from NHAs prepared by developers' consultants.

Some commenters suggested that the proposed natural heritage amendments were contrary to the mandate of MOE. One commenter stated that "[r]educing setbacks, allowing construction in provincially significant wetlands, and excluding the need for proper natural heritage feature evaluations are antithetical to the claim that the MOE is 'upholding our commitment to protecting the environment'."

Other commenters challenged MOE's assertion that these amendments would align the REA process with direction under the *Planning Act* and PPS, for example, by suggesting that an EIS is not

equivalent to an environmental assessment process. Many commenters also disagreed that valleylands would continue to receive adequate consideration and protection through other permitting and assessment requirements. A common criticism was that proponents of renewable energy projects would be subject to less stringent requirements than other developers, individuals, and municipalities.

A small number of commenters expressed their support for the natural heritage amendments, but requested clarification and additions to the proposed changes. For example, there were requests to clarify whether reduced setbacks apply to all components of Class 3 solar facilities, and the extent of "existing infrastructure" in the context of the amendments. Further suggestions were made regarding setbacks, including exempting transmission and distribution lines within a developed municipal road right of way, and applying the setback reduction to waterbodies.

Clock-stopping Adjournments

A number of commenters stated that removing the ERT's ability to grant clock-stopping adjournments would undermine due process and public participation. Some individuals also suggested that there should be no time limit to completing an appeal.

Other commenters expressed their support for limiting the availability of clock-stopping adjournments, and suggested that it will provide certainty for both the public and proponents, and encourage project momentum, financing and procurement.

Further Suggestions

Other suggestions to further streamline the REA process included: providing status updates on the REA review process; reducing the time for MOE to deem an application complete; and granting conditional approval for associated activities in advance of the complete REA. A commenter also recommended that the province should provide confirmation of whether site plans meet noise guidelines, and that developers should be required to share turbine and substation locations with adjacent projects and provide updates as site plans change in order to assist in addressing cumulative noise effects.

In addition, a number of commenters expressed their opposition to Ontario's renewable energy program and wind power in particular, and also voiced concerns about specific projects.

SEV

MOE stated that it considered the principles of: environmental management; pollution reduction and environmental restoration, strategic management; and social, economic and other considerations, as outlined in its Statement of Environmental Values (SEV). In its SEV consideration document, the ministry provided a description of how each of these principles was applied to the decision to amend O. Reg. 359/09.

The ministry stated that the amendments take an ecosystem and precautionary/science-based approach in that proponents are required to address potential environmental impacts, conduct EISs and assess/mitigate environmental effects. MOE also said that the amendments maintain a process to ensure that renewable energy facilities "are sited and operated in a manner that is protective of human health and the environment."

MOE emphasized that the amendments support the province's long-term energy plan of moving away from non-renewable energy sources, and that they "will further support Ontario's green

economy by providing additional flexibility and reducing the regulatory burden for the planning and development of renewable energy projects."

Other Information

An additional series of amendments to O. Reg. 359/09 came into force on July 1, 2012 (Environmental Registry #011-5932). A number of changes were made to the REA process, including:

- The notification requirements for proposed renewable energy projects were expanded.
- The requirements for the self-assessment process for archaeological and cultural heritage resources were clarified.
- Written confirmation and comment letters from MNR and the Ministry of Tourism, Culture and Sport no longer need to be available prior to a final public meeting; however, they will continue to be required as part of a final REA application.
- A process has been established to address proposed changes to a renewable energy project before, during and after the application and approval process. The Director now has the explicit discretion to require updated project documentation, additional notifications and additional public meetings.
- The definition of an odour or noise receptor has been revised. It now excludes landowners only if part of a renewable energy facility will be located on a landowner's property once constructed. Previously, the participating receptor exception applied if a landowner had entered into an agreement with a proponent to locate part of the project on their property.
- Solar name plate capacity is now defined as the lesser of the total design capacity of the solar panels or the maximum power output of the inverters.
- The relevant name plate capacity for determining the class of a solar facility has been changed from 12 to 10 kW.
- The requirements for spill containment around transformer substations have been clarified.
- Changes in location, increases in name plate capacity, or increases in sound power level for wind facilities approved prior to September 24, 2009 will now have to comply with the current minimum noise setback of 550 metres.
- Undertakings carried out by MNR in respect of roads (with the exception of roads for waterpower projects) and water crossings that provide access to a renewable energy generation or testing facility are now exempt from the *Environmental Assessment Act* and will be evaluated as part of the REA process.
- Renewable energy projects are exempt from REA obligations if the project activities are prescribed under the Environmental Activity and Sector Registry (EASR). A regulation adding small-scale ground mounted solar to the EASR process has been made under the EPA (for more information see Section 1.6 of this Supplement). Further regulations prescribing landfill gas electricity generation for purposes of the EASR have been proposed.
- Projects already in the application/approval process will be subject to transition provisions.

ECO Comment

The ECO fully supports the development of renewable energy in Ontario, and recognizes that it is a critical step in the transition away from fossil fuel-based energy production. Although MOE's willingness to adjust the REA process based on its experience is laudable, the ministry should first be very confident that changes will not come at the expense of natural heritage. The ECO is concerned that the amendments to the NHA standards may be premature, and feels that the ministry has not provided sufficient evidence to show that these changes are adequately protective of natural heritage.

These amendments do not simply represent a streamlined approval process, but rather, introduce reduced substantive standards for the protection of natural heritage. While MOE asserts that the new requirements will continue to be protective, the ECO is concerned that lowering these standards could lead to negative environmental effects. The ECO is particularly disappointed with the ministry's decision to allow the construction and expansion of infrastructure and roads within southern and coastal provincially significant wetlands. Rather than seizing an opportunity to provide greater protection to significant wetlands, these amendments effectively bring the standards applicable to REA projects down to the lowest common denominator. Given the ongoing degradation of and encroachment on natural areas throughout the province, the ministry should establish stringent protection measures for significant natural heritage features regardless of the type of development proposed.

It is no secret that Ontario's renewable energy initiative has been highly controversial. Amendments of this type may undermine the legitimacy of the REA process by eroding public confidence that the government will ensure renewable energy development is compatible with the protection of the province's natural heritage. The ECO continues to urge the government to ensure the responsible evaluation and siting of renewable energy projects – not only for the protection of natural heritage, but also in order to increase support for Ontario's renewable energy priorities.

Review of Posted Decision:

1.6 Expansion of the Environmental Activity and Sector Registry

Decision Information

Registry Number: 011-6567
Proposal Posted: July 25, 2012
Decision Posted: November 7, 2012
Comment Period: 45 days
Number of Comments: 16
Decision Implemented: November 18, 2012

Keywords: approvals modernization; environmental approval; registry; EASR; solar; printing; waste; stand-by power; Access Environment; environmental compliance approval

Description

Overview

In 2011, as part of an initiative to modernize its environmental approvals process, the Ministry of the Environment (MOE) created a new web-based Environmental Activity and Sector Registry (EASR) to regulate certain lower-risk, standard or less complex activities. In November 2012, MOE added three new industrial activities to the list of activities/sectors that will now be regulated under the EASR:

1. small ground mounted solar facilities;
2. lithographic, screen and digital printing facilities; and
3. non-hazardous waste transportation systems.

In addition, the ministry made amendments to clarify the operating requirements for standby power systems, which were already regulated for purposes of the EASR.

Background

Regulating Activities that Affect the Environment:
In Ontario, MOE is responsible for protecting the air, land and water, with the goal of ensuring healthy communities, ecological protection and sustainable development now and into the future. One of MOE's core functions is to regulate certain activities that affect the environment, such as emissions to air, discharges to sewage systems, and waste disposal. Such activities are generally regulated through the issuance of approvals that allow the activities to proceed subject to various conditions imposed to protect the environment. Anyone who wishes to engage in a regulated activity must obtain approval before establishing, operating or altering their operations. MOE receives about 6,500 applications for new or amended approvals each year. Until recently, all approval applications were individually reviewed and evaluated by ministry staff.

In 2011, in response to an ongoing backlog of applications for such approvals (previously called certificates of approval), MOE adopted a new, two-tiered framework for environmental approvals. While most activities continue to require an approval (now called an "environmental compliance approval," or ECA), select activities that are considered to be "lower-risk, standard or less-complex in nature" are now regulated through a registration process. Under the registration process (also known as permit-by-rule), anyone who wishes to engage in a prescribed activity must satisfy the regulatory eligibility criteria and register that activity with the ministry in order to lawfully undertake that activity. To maintain their registration, the registrant must operate in accordance with any requirements set out in the regulation prescribing the activity.

The ECO reviewed the modernization of MOE's approvals framework in detail in Part 5.2 of our 2010/2011 Annual Report.

The Environmental Activity and Sector Registry:
To allow for registration of prescribed activities and sectors, MOE established the EASR. A proponent (i.e., a company or individual engaging in a prescribed activity) must register their activity in the EASR through Ontario's online ONe-Source for Business portal. Once a proponent registers, MOE provides them with a confirmation of registration, which must be retained by the proponent and made available for inspection upon request.

Once a proponent registers their activity in the EASR, that information becomes publicly accessible via MOE's "Access Environment" search tool, accessed through MOE's website (www.ene.gov.on.ca). Members of the public can search for specific EASR registrations, ECAs or renewable energy approvals, and can restrict searches using criteria such as geographic location, project type or approval status.

Process for Prescribing New Activities and Sectors for Purposes of the EASR:
MOE has developed the following process for prescribing EASR activities and sectors:

1. Detailed scoping and technical assessment of activity, which includes:
    - Engineering analysis
    - Risk evaluation and modelling
    - Jurisdictional review
    - Evaluation of local concerns/complaints and past administrative non-compliance with requirement to obtain an approval
2. Development of draft requirements for registration
3. Public consultation on a technical discussion paper describing draft requirements
4. Development of a draft regulation
5. Public consultation on the draft regulation
6. Finalizing of regulation and implementation

When the modernized approval system was implemented, Cabinet initially prescribed just three activities/sectors for purposes of EASR registration: the automotive body, paint and interior repair and maintenance sector (i.e., automotive refinishing); provision of comfort heating in buildings (i.e., heating systems); and provision of standby power generation equipment in buildings (i.e., standby power systems).

In early 2012, MOE posted two policy proposal notices on the Environmental Registry to consult the public on additional activities and sectors to potentially prescribe for purposes of the EASR. "Group 2" activities and sectors (proposed on January 11, 2012, Environmental Registry #011-4926) included: waste collection and transportation; ready-mix concrete manufacturing; lithographic, screen and digital printing; and concrete product manufacturing. "Group 3" activities and sectors (proposed on April 2, 2012, Environmental Registry #011-5695), included: small ground-mounted solar; on-farm anaerobic digestion; and landfill gas electricity generation. In each notice, in accordance with the process described above, MOE provided technical discussion papers describing its rationale for potentially moving those activities and sectors to the registration process.

First Set of New Activities Added in November 2012:
In July 2012, MOE posted a regulation notice on the Environmental Registry proposing to prescribe, for purposes of the EASR, three of the additional activities/sectors proposed in the January and April discussion papers: 1) small ground-mounted solar; 2) lithographic, screen and digital printing; and 3) non-hazardous waste transportation systems. It also proposed amendments to the existing EASR regulation for standby power systems. In November 2012, MOE posted a decision notice explaining that it had gone ahead with prescribing all three new activities and amending the existing regulation for standby power systems. The new and amended regulations, described below, were filed on November 6, 2012 and came into force on November 18, 2012:

O. Reg. 350/12: Registrations Under Part II.2 of the Act – Solar Facilities – Public comments received during the Ministry of Energy's two-year Feed-in-Tariff (FIT) review prompted MOE to prescribe new ground-mounted solar facilities with a name plate capacity of between 10 kiloWatts (kW) and 500 kW for the purposes of the EASR process. Registered facilities must meet criteria in O. Reg. 350/12, such as design and operating specifications and detailed criteria related to location and size, setback distances and noise. In particular, eligible solar facilities must be located in developed areas such as properties zoned and used for industrial, commercial, institutional or agricultural uses, and must not be located within 30 metres of water bodies or 250 metres of archaeological sites.

O. Reg. 349/12: Registrations Under Part II.2 of the Act – Printing – Certain commercial printing facilities (i.e., screen, lithographic or digital printers, including any pre- or post-press operations in support of these printing processes) are now prescribed for purposes of the EASR. To be eligible, a proponent must meet the criteria in O. Reg. 349/12, including requirements related to minimum distances to the facility's property boundary and the property boundaries of nearby noise receptors, and to the management of wastewater. Facilities engaged in both screen printing and lithographic printing are not eligible to use the EASR process.

O. Reg. 351/12: Registrations Under Part II.2 of the Act – Waste Management Systems – Certain waste transportation systems (i.e., systems that transport non-hazardous waste by truck) are now eligible to register in the EASR system, subject to the requirements of O. Reg. 351/12 and Regulation 347, the general waste management regulation made under the *Environmental Protection Act*. Examples of operating requirements include: ensuring that trucks can receive and transfer waste without causing a nuisance; displaying the EASR registration number on all trucks; mandatory driver training; and maintaining documentation related to the waste transportation system.

O. Reg. 346/12: Registrations Under Part II.2 Of The Act – Heating Systems and Standby Power Systems – MOE made changes to the existing EASR regulation for standby power systems based on stakeholder feedback and additional technical analysis conducted since standby power systems were first prescribed in 2011. While eligibility criteria were unchanged, certain technical operating criteria were clarified in O. Reg. 346/12, including, for example, that a generator unit that uses propane or natural gas as fuel may discharge a maximum of 9.2 grams of nitrogen oxides per kW hour, and that only diesel and biodiesel generator units must conform to Tier 1 Emission Standards.

Automotive refinishing, heating systems and standby power systems were initially prescribed for purposes of the EASR in a single regulation, O. Reg. 245/11. However, with the addition of the new activities and sectors in November 2012, O. Reg. 245/11 was amended to apply generally to EASR registration, and new, separate regulations were made for each prescribed activity or sector (with the exception of heating systems and standby power systems, which are covered in a single regulation). MOE explained that this was done "to facilitate the addition of future EASR activity and sector regulations and to make the EASR regulations easier to use."

As of February 13, 2013, there were 2,236 registrations in the EASR, 18 of which relate to activities that were newly prescribed for purposes of the EASR in November 2012 (see Table 1).

Table 1. Number of Active Registrations in the EASR, by Project Type, as of June 1, 2013

Project Type	Number of EASR Registrations
Automotive Refinishing	491
Standby Power System	613
Heating System	1,253
Waste Management System*	69
Printing Facility*	0
Solar Facility*	16
TOTAL	**2,442**

*Prescribed and in force as of November 18, 2012

Compliance Monitoring of EASR Registrants:
MOE has indicated that it will ensure compliance with regulatory requirements for EASR registrants by providing guidance, using a post-registration quality assurance process to ensure that registrants' activities meet registration and operation requirements, and, when needed, taking steps to bring facilities into compliance. MOE has stated that it is planning to undertake annual audits of specific activities or sectors once sufficient numbers of registrations have been reached. Finally, MOE will continue to use its general complaints-based abatement and enforcement approach for EASR-registered facilities.

Implications of the Decision

Regulatory Burden Eased for More Activities/Sectors

Just as the government intended when it first introduced regulatory modernization in 2010, these changes should make doing business in Ontario easier for eligible proponents of the newly prescribed activities. MOE has reported that approval times for prescribed activities have been

reduced "from months to minutes" as applicants are no longer required to submit application forms for individual ministry review, which often resulted in lengthy delays. According to MOE, businesses can also save as much as $25,000 per registration, depending on the activity or sector, as the costly studies that were required to accompany individual approval applications have been replaced with up-front technical requirements.

However, EASR registrants continue to have obligations akin to a holder of an ECA; in fact, each regulation could be seen as a one-size-fits-all ECA for EASR registrants of a particular type of project. Much like individualized ECAs, the regulations contain mandatory "activity requirements" including operational specifications, as well as provisions for matters such as personnel training, record-keeping, and handling complaints from the public. Moreover, MOE asserts that the regulations for prescribed activities – which are carefully developed by looking at standards in other jurisdictions, consulting industry and technical experts, as well as undertaking extensive technical work and modelling – raise the bar in that they generally give way to higher standards than site-specific approvals.

More Actors are Being Regulated Overall

MOE has reported that approximately 50 per cent of registrants in the EASR system to date are "new clients"; i.e., proponents that previously operated without an approval, or, in some cases, new proponents bringing their operations to Ontario. As a result, a greater percentage of players involved in regulated activities in Ontario are on MOE's radar and should be operating within the parameters established by the ministry to protect the environment.

Ministry Staff and Resources can be Directed at More Environmentally Significant Activities

As the ECO noted in our 2010/2011 Annual Report, MOE has limited resources to meet the significant demands of Ontario's environmental approvals process. Prescribing additional activities for the EASR registration process should, in theory, allow MOE to focus even more of its staff and budgetary resources on reviewing a smaller number of approval applications for activities that have a greater potential to harm the environment. While MOE has acknowledged that the EASR has not yet resulted in any significant reductions in backlogs and turnaround times for environmental compliance approvals, the ministry is confident that reductions will come as the ministry develops modifications to the system to allow businesses to register multiple activities under a single registration, and as the ministry continues to make more activities eligible for the EASR process.

By the same token, however, MOE will need to ensure that sufficient resources are made available to monitor compliance with the eligibility criteria and ongoing regulatory obligations of an increased number of participants in the EASR process.

Ministry Responsive to Public Input on EASR Requirements

The amendments to the regulation for standby power systems demonstrate that MOE has been responsive to public concerns and may be willing to refine the regulatory requirements of EASR registration based on the feedback it receives. MOE indicated a similar willingness to consider public concerns when it delayed prescribing printing systems until this round of regulatory amendments; printing was originally part of the "Group 1" activities and sectors proposed for consideration in January 2011 – most of which were prescribed in June 2011 – but after reviewing public comments MOE decided to conduct additional analysis on the printing sector before proceeding with a regulation. Likewise, MOE has opted not to proceed with prescribing some activities following an initial round of public consultation (e.g., ready-mix concrete manufacturing, concrete product manufacturing, on-farm anaerobic digestion, and landfill gas electricity generation), at least in part as a result of public concerns.

Fewer Opportunities for Public Participation

As the ECO noted in our 2010/2011 Annual Report, the EASR process eliminates the public's rights under the *Environmental Bill of Rights, 1993* (*EBR*) to comment and/or seek leave to appeal approvals of individual facilities now subject to EASR registration. While this is somewhat tempered by the public's opportunity to comment on two stages of proposals to prescribe activities or sectors for purposes of the EASR, as well as the accessibility of EASR registration information on the Access Environment website, the EASR nevertheless represents a step backwards for public participation under the *EBR*.

Public Participation & *EBR* Process

MOE posted a regulation proposal notice on the Environmental Registry (#011-6567) on July 25, 2012 and provided 45 days for the public to submit comments. On November 7, 2012 MOE posted a decision on the Environmental Registry, reporting that it received 16 comments as a result of public consultation.

Many of the comments related to the proposed addition of small ground-mounted solar projects to the EASR registration process; while some commenters were supportive of the proposal, other commenters provided detailed critiques of specific aspects of the proposed regulation, including opposition to the proposed approach to archaeological resources. Other commenters provided specific suggestions regarding proposed requirements for the printing sector, and for waste management systems.

MOE stated that it considered all comments received during the comment period, and explained how public participation affected the ministry's decision on the final regulations. For example, the ministry reported that:

- In the regulation prescribing printing systems, MOE clarified certain descriptions of printing-related materials, and clarified that only doors and windows leading to the exterior of the building must be kept closed during operations.
- In the regulation prescribing waste management systems, MOE harmonized the documentation requirements with other EASR activities "to establish a consistent approach."
- In the regulation prescribing solar projects, MOE revised the eligibility criteria (after conducting additional technical analysis and jurisdiction review) so that the setback to a facility's property boundary was reduced from 30 metres to 15 metres. The ministry also added an option for facilities to be designed to meet either the noise setbacks or specific sound level requirements at the property boundary.

MOE also noted that it has developed guidance materials "to clearly communicate how stakeholders can determine if their activities are eligible, how to use the [EASR] registry and maintain their registrations." Subsequently, on the Environmental Approvals page of MOE's website, the ministry published a series of fact sheets, each two or three pages long, providing a plain language explanation of the EASR process and providing clear information about eligibility and conditions of registration for each prescribed activity. The fact sheets also explain the transition provisions for holders of existing ECAs, ministry enforcement, and how to obtain additional information.

No Decisions on Technical Discussion Papers for Potential EASR Activities and Sectors:
MOE stated that the regulations prescribing the three new activities were developed as a result of the public comments received on the technical discussion papers posted earlier in the year.

However, as of June 2013 MOE had not yet posted a decision notice related to either set of discussion papers explaining how the ministry decided to proceed, nor did it explain in the regulation decision notice how the public's comments on the discussion papers influenced the ministry's decision to propose the subsequent regulatory changes.

SEV

In its Statement of Environmental Values (SEV) consideration form, MOE explained how it had considered principles of environmental protection in making the decision, including the principles of: environmental management; pollution reduction/environmental restoration; strategic management; and social, economic and other considerations. In particular, MOE stated that it used a science-based approach to develop the regulations, including the consideration of potential impacts to air, noise and water for all registry candidates. The ministry also noted that it used an ecosystem approach in assessing the activities in various scenarios. MOE stated that the regulations include "specific design requirements such as upset limits for capacity, operational parameters and setbacks [that are] specifically chosen to reduce or eliminate any negative environmental impacts associated with the proposed activities prescribed for the purposes of the EASR."

MOE also noted that the regulations "provide clear rules that business can understand and follow to ensure compliance with environmental standards" and that the "standardized rule-setting enables advancement in compliance assistance and other forms of outreach and education to recognized activities."

MOE stated that it has and will continue to "consult extensively on all aspects of the new environmental approvals program," and listed numerous engagement initiatives for consultation with the public and various stakeholders.

Other Information

New Fees to Register an Activity

On November 6, 2012, MOE posted an information notice on the Environmental Registry (#011-6549) to notify the public that it had established a new "registration charge" to help the province recover its costs to develop and operate the EASR. As of November 18, 2012, applicants must pay a one-time fee of $1,190 to register an eligible activity in the EASR. MOE relied on the *EBR* exception for proposals that are predominantly financial in nature to explain the lack of public consultation on the registration charge.

Further Public Consultation on Proposed EASR Activities

On November 30, 2012, MOE posted a policy proposal notice on the Registry (#011-6615) to commence the first stage of public consultation on the proposed addition of three more activities for purposes of the EASR:

1. small electricity generators;
2. evaporative cooling equipment (cooling towers); and
3. dust collection systems at retail locations.

MOE's proposal notice included a technical discussion paper for each proposed activity, and provided a 45-day public comment period.

On April 16, 2013, MOE posted a notice on the Environmental Registry (#011-8592) to consult the public on a proposed regulation that would prescribe landfill gas power generation facilities for purposes of the EASR. Landfill gas electricity generation was one of the activities suggested in MOE's policy proposal notice and accompanying technical report in April 2012 (Environmental Registry #011-5695).

As of June 2013, MOE had not yet made a decision on either of these proposals.

ECO Comment

The ECO is encouraged by MOE's ongoing work on approvals modernization. The ministry appears to be striking an appropriate balance between reducing the administrative and financial burden on proponents of certain lower-risk environmental activities, gradually redirecting its own resources to focus on higher-risk activities, and – most importantly – continuing to impose high regulatory standards to protect the environment from harmful activities.

The ministry's two-step process for prescribing new EASR activities and sectors is laudable. By building in an early stage of policy-based consultation on potential activities and sectors, including discussion papers that outline the technical basis for considering each activity, the public has an opportunity to comment before the government becomes too entrenched in a particular course of action. If MOE waits to consult the public until after regulations are already drafted, the ministry may be less open to acting on public concerns that a particular activity or sector should not be prescribed at all. Providing a second stage of public consultation on the draft regulations themselves then allows members of the public to convey their thoughts about the specific regulatory requirements proposed by the ministry. The ECO cautions, however, that MOE must ensure that it promptly posts a decision notice on the Environmental Registry once it makes a decision about whether to proceed to a regulation for each proposed activity, explaining the effect of the public's comments on the ministry's decision.

With more activities falling under the EASR system, it is increasingly important that the ministry has a solid plan for compliance monitoring and enforcement. The ECO is pleased that MOE is undertaking quality assurance of all new registrations and planning an annual audit process for individual sectors. The EASR system should be accompanied by a strong inspection program to ensure that registrants comply with their ongoing regulatory obligations as a condition of registration. A business-as-usual approach to inspection and enforcement of EASR registrants would likely mean that only a fraction of contraventions would be identified and dealt with by the ministry. Despite the ECO's recommendation in 2010/2011, MOE has not revised its Compliance Policy (Policy F-2) to include a compliance and enforcement policy specific to the EASR process.

Many stakeholders were skeptical when MOE first initiated its regulatory modernization program in 2010, concerned that the modernization process would simply allow certain activities to harm the environment with less government oversight. While it is still too soon to appreciate the full implications of using a permit-by-rule system for some activities, early indications suggest that the program is on the right track. At a minimum, more facilities are coming under the regulatory oversight of the ministry, and EASR registrants continue to be subject to high standards of environmental protection even as their regulatory burden is alleviated. The ECO hopes that MOE will follow through with a strong process for monitoring and enforcing compliance, to ensure that the EASR registration system ultimately provides at least the same level of environmental protection as the individual approvals process.

Review of Posted Decision:

1.7 Extended Producer Responsibility Regulation for the Collection of Post-Consumer Waste Pharmaceuticals and Sharps

Decision Information

Registry Number: 011-6671
Proposal Posted: August 1, 2012
Decision Posted: September 28, 2012
Comment Period: 47 days
Number of Comments: 33
Decision Implemented: September 28, 2012

Keywords: *Environmental Protection Act*; extended producer responsibility; pharmaceuticals; sharps; waste diversion

Description

On September 28, 2012, the Ministry of the Environment (MOE) filed O. Reg. 298/12 (Collection of Pharmaceuticals and Sharps – Responsibilities of Producers) under the *Environmental Protection Act* (*EPA*). This regulation implements an extended producer responsibility (EPR) approach that makes producers (i.e., product manufacturers, brand owners, and importers) of pharmaceuticals and sharps responsible for the management of wastes resulting from their products. MOE's stated purpose of O. Reg. 298/12 is to ensure that consumers have access to convenient locations to return waste pharmaceuticals and sharps so that these wastes are not improperly discarded in Ontario's land and waterways.

Background

According to Statistics Canada, in 2009 about 10 per cent of Ontarians – over one million people – discarded leftover or expired medication in the garbage or down the drain. When leftover or expired pharmaceuticals are thrown out, poured down the sink, or flushed down the toilet, their chemical components can end up in groundwater, surface water, or soil. And while the concentrations of these chemicals in the environment may be low, they could have unexpected and cumulative adverse ecological impacts (see pages 179-185 of the ECO's 2004/2005 Annual Report). Indeed, according to Health Canada, "there is increasing concern that chemicals from pharmaceuticals and personal care products may be affecting aquatic species, such as fish, mussels, and algae, and human health." Moreover, the improper disposal of other medical items – needles, syringes and other sharps – can harm waste handlers and the public, exposing them to injuries, infections, and diseases. As a result, there is a definite need to ensure that pharmaceuticals and sharps are managed in a safe and environmentally sound manner when consumers discard them.

With this in mind, on December 11, 2006 MOE filed O. Reg. 542/06 (Municipal Hazardous or Special Waste) under the *Waste Diversion Act, 2002* (*WDA*), which gave the Minister of the Environment the authority to require Waste Diversion Ontario (WDO) – a non-crown corporation created under the *WDA* – to develop a waste diversion program for municipal hazardous and special wastes. The regulation designated both "municipal special waste," which includes waste consisting of pharmaceuticals, sharps and other materials (e.g., paints, batteries, antifreeze, etc.), and "municipal hazardous waste," which includes corrosive, ignitable, and reactive materials. The next day, the Minister requested that WDO develop a waste diversion program for several "Phase 1" municipal special wastes (e.g., paint, oil filters, antifreeze, fertilizers, pesticides), and that the program be

developed and implemented in co-operation with Stewardship Ontario, an industry funding organization (IFO).

In February 2008, the Minister approved the Municipal Hazardous or Special Waste (MHSW) program Plan, and on July 1, 2008, Stewardship Ontario implemented Phase 1 of the program (for the ECO's review of this program, see Part 3.10 of the ECO's 2007/2008 Annual Report). To finance the costs of operating the program (e.g., collecting, transporting, and processing the wastes), Stewardship Ontario charges producers (i.e., product manufacturers, brand owners, and importers) "stewardship fees" based on their market share of the relevant products introduced into the Ontario marketplace. These fees, however, do not cover the costs municipalities incur collecting and managing MHSW disposed by residents in the garbage.

Since 2008, MOE has requested – and WDO has implemented, in co-operation with other IFOs – similar waste diversion programs for other materials designated under the *WDA*. The waste electrical and electronic equipment (WEEE) diversion program for used computers, televisions and other electronic equipment has been in operation since April 1, 2009, and Ontario's used tires program has been in place since September 1, 2009. These programs are based on the concept of EPR, which seeks to extend producers' responsibility to include the proper end-of-life management of their products.

In July 2008, the Minister requested that WDO amend the MHSW program (publicly referred to as the Orange Drop Program) to include all wastes that had been designated as hazardous or special in O. Reg. 542/06. This expanded list of wastes (Phases 1, 2, and 3) included pharmaceuticals and sharps. In September 2009, the Minister approved an amended MHSW Plan. On July 1, 2010 – the date this Final Consolidated MHSW Program Plan was implemented – some retailers chose to add a separate "eco fee" line to their receipts, presumably to indicate to consumers the amount they had increased retail prices to cover an anticipated increase in wholesale prices resulting from stewardship fees. These "eco fees" created widespread confusion and anger amongst the media and public, many of whom interpreted the fee as a "recycling tax" imposed by the government. Further outrage ensued when it was reported that Canadian Tire was charging widely variable "eco fees," some of which exceeded the amount expected to be charged to producers by Stewardship Ontario. For more information about the expanded MHSW program and the resulting "eco fees" controversy, see the ECO's 2010 Special Report, Getting it Right: Paying for the Management of Household Hazardous Wastes.

In October 2010, after much negative media and public outcry, MOE put an end to retailers' "eco fees" by suspending the levying of stewardship fees by Stewardship Ontario on Phase 2 and 3 producers. Although Stewardship Ontario continued to operate the Orange Drop Program in its entirety for almost another two years (until September 30, 2012), the costs it incurred collecting and recycling Phase 2 and 3 materials were covered by the provincial government – and therefore Ontario taxpayers – rather than producers. As of January 2012, the Orange Drop Program was collecting pharmaceuticals and sharps at over 3,000 collection sites, a number representing approximately 90 per cent of all pharmacies in Ontario. During the 2011 fiscal year, the program collected (through both return-to-retail and municipal channels, e.g., depots) approximately 504 tonnes of pharmaceuticals, sharps and syringes – a collection tonnage very close to the Consolidated MHSW Program Plan's Year 1 target of 525 tonnes.

In May 2012, the Minister of the Environment approved amendments to the consolidated MHSW Plan, absolving Stewardship Ontario of responsibility for managing Phase 2 and 3 materials (including pharmaceuticals and sharps) as of October 1, 2012.

O. Reg. 298/12 – Collection of Pharmaceuticals and Sharps – Responsibilities of Producers

In order to implement a new EPR approach for pharmaceuticals and sharps, MOE filed O. Reg. 298/12 under the *EPA* in September 2012. The regulation came into force on October 1, 2012 – the date Stewardship Ontario was released from responsibility for managing these wastes under the *WDA*.

The regulation requires each producer of a pharmaceutical/sharp to provide for:

- The collection of their pharmaceuticals/sharps from consumers who bring these wastes to "collection locations";
- The disposal of the collected pharmaceuticals/sharps; and
- The collection and recycling – or disposal – of containers in which consumers have brought the pharmaceuticals/sharps to the collection location (on the condition that the container used to return the sharp(s) is designed for the safe handling of sharps).

Since January 1, 2013, each producer of a pharmaceutical/sharp has been required to ensure that the number of locations at which their designated materials are collected is equal to at least 80 per cent of the number of retail locations or accredited pharmacies in Ontario at which the pharmaceutical or sharp is sold. By January 1, 2014, the number of collection locations must be at least 90 per cent of the number of retail locations or accredited pharmacies at which a producer's products are sold. In addition, producers must ensure that every Ontario municipality where a retailer sells their product has at least one location for collecting their designated waste. Collection sites must operate: free of charge to consumers; without limits on the quantity of waste that a consumer may bring in; and during business hours, if located within an accredited pharmacy. Producers are also required to ensure that information is made publicly available (on the producer's website and in print at collection locations) concerning the location of collection sites, as well as how consumers should safely store and handle the designated material before bringing it to a collection location. The regulation stipulates the conditions and approvals/agreements needed to operate a collection location, and provides exceptions for collection locations from certain *EPA* requirements that relate to waste management (e.g., regarding collection, storage, handling, treatment, transportation, processing and disposal).

By June 30, 2013, each producer must ensure that an interim report is prepared that:

- describes actions taken, and outcomes achieved, by the producer in respect of its obligations under O. Reg. 298/12;
- indicates the number and locations of collection sites where consumers can bring in wastes resulting from the producer's products; and
- is publicly available and free of charge on the producer's website for a minimum of one year.

In addition, by April 1, 2014 – and every subsequent April 1st – each producer must ensure that an annual report is prepared that includes:

- the number and locations of collection sites that operated in the previous calendar year;
- the total weight of pharmaceuticals, sharps and containers collected;
- a description of how the producer's designated material was handled, recycled or disposed;
- a summary of the actions taken by the producer to fulfil its regulatory obligations; and
- a description of the effectiveness and outcomes of these actions.

Interim and annual reports, however, may be prepared collectively on behalf of more than one pharmaceutical/sharp producer.

Implications of the Decision

Producers are Individually Responsible for Ensuring the Collection of Waste Pharmaceuticals and Sharps

Unlike MOE's historical approach to encouraging the collection, recycling, and safe disposal of designated wastes, O. Reg. 298/12 introduces a new – and radically different – approach for pharmaceuticals and sharps that does not require WDO to develop a ministry-approved, IFO-run, and producer-funded waste diversion program. Rather, O. Reg. 298/12 leaves it up to individual producers to design, implement and finance a collection and diversion program however they choose – either alone or in partnership with other producers – so long as they meet the standards and collection location targets specified in the regulation.

This kind of approach, known as individual producer responsibility (IPR), transfers program control – and liability – from an IFO to individual producers, giving them more flexibility in how they manage and integrate their regulatory obligations into their business practices and supply chain relationships. Moreover, making producers individually responsible for the collection and processing of their returned waste may encourage manufacturers to design their products with end-of-life management in mind, and innovate to minimize the costs of collecting and recycling them. Although small- and mid-sized companies may find it financially and logistically onerous to meet the requirements of the regulation on their own, producers have the freedom to partner with other producers, or contract a third party, to implement a collection and processing program for their products.

Penalties for Producers that Do Not Meet the Regulation's EPR Requirements

As discussed above, O. Reg. 298/12 enshrines in regulation EPR responsibilities for individual producers rather than IFOs. This means that manufacturers, importers and brand owners that do not meet their obligations under the regulation will be guilty of an offence under the *EPA*, and subject to the Act's penalties. Unlike in other waste diversion programs, where collection targets, diversion targets, and standards are contained in industry stewardship plans – and are therefore unenforceable – O. Reg. 298/12 requires by law that producers meet minimum performance obligations, including those related to the number and location of collection sites, operating standards, and reporting requirements. MOE, however, has made no mention of how the ministry intends to monitor and enforce compliance with this regulation.

Opportunities for Consumers to Return Unused Pharmaceuticals and Used/Unused Sharps

The regulation requires that by January 2014, the number of collection locations for waste pharmaceuticals and sharps in Ontario must be at least 90 per cent of the number of retail locations or accredited pharmacies where a producer's products are sold. As mentioned above, however, by January 2012, waste pharmaceuticals and sharps were already being collected at about 90 per cent of the pharmacies in Ontario. So while the regulation's collection requirements may now enshrine these requirements into law, thereby ensuring that the minimum number of collection locations in the province does not drop below existing levels, it seems unlikely that O. Reg. 298/12 will result in a major increase in collection sites.

While the amended MHSW plan included collection targets for pharmaceuticals and sharps (e.g., by the program's fifth year, Stewardship Ontario aimed to collect 97 per cent of the tonnes of sharps and syringes from the residential sector introduced into the Ontario market), O. Reg. 298/12 only contains requirements concerning the number and location of collection sites, not the quantity or weight of waste collected. Without regulated collection targets, there is nothing to compel producers to maximize the amount of waste collected. Quite the contrary, because while producers

must finance the collecting and processing of their collected wastes, they pay nothing for the management of wastes that are not collected through the program, such as those that end up in landfills. As a result, there is a perverse incentive for producers to minimize the amount of waste collected, perhaps by situating collection locations in inaccessible and inconvenient places.

No Regulated Role (or Financial Compensation) for Municipalities that Collect Sharps and Pharmaceuticals

Although some municipalities have collected and properly disposed of sharps and pharmaceuticals for years (e.g., through household hazardous waste depots, environment days, and other programs), O. Reg. 298/12 makes no mention of the expected role of municipalities in collecting these wastes. While the regulation does not preclude producers from contracting municipalities to operate collection sites on their behalf, the regulation does not require producers to cover the costs municipalities incur managing pharmaceuticals and sharps disposed of through the residual waste stream.

O. Reg. 298/12 Only Applies to Waste Generated by Residential Consumers

The regulation requires producers to provide only for the collection of pharmaceutical and sharp waste generated by residential consumers (i.e., individuals acting for personal, family or household purposes). Producers are not required to ensure – or finance – the collection of waste pharmaceuticals and sharps generated in other contexts, such as hospitals, doctor and dentist offices, veterinary clinics, funeral homes, morgues, and nursing homes. While the management of biomedical waste, which includes sharps used in health care facilities, is subject to a number of legislative and regulatory requirements (e.g., environmental compliance approvals, standards for disposal, registration with MOE's Hazardous Waste Information Network) and guidance (e.g., Guideline C-4: The Management of Biomedical Waste in Ontario), responsibility for the collection and safe disposal of biomedical waste is assigned to waste generators (e.g., hospitals) rather than producers (e.g., manufacturers). Moreover, Guideline C-4 does not include unused pharmaceuticals in its definition of biomedical waste. (For more information about Ontario's regulatory framework for managing biomedical waste see pages 85-88 of the ECO's 2002/2003 Annual Report, and Section 4.4 of the Supplement to the ECO's 2009/2010 Annual Report.)

O. Reg. 298/12 Could Provide a Test Case for Implementing an IPR Approach for Other Wastes

After the controversy caused by the July 2010 "eco fees" imbroglio, MOE has been looking for solutions to get EPR for Phase 2 and 3 MHSW back on track. Using an *EPA* regulation to require individual producers to meet specific collection outcomes represents a departure from MOE's typical *WDA* and IFO-controlled approach for designated wastes. If successful, this outcomes-based IPR approach could be explored as a model for diverting other types of designated wastes.

Public Participation & *EBR* Process

In August 2012, MOE posted a proposal notice on the Environmental Registry (#011-6671) soliciting comments on a proposal for an *EPA* regulation requiring producers to provide for the collection and proper management of post-consumer waste pharmaceuticals and sharps. During the 47-day comment period, MOE received 33 comments.

Commenters were generally supportive of the overall approach of using a regulation under the *EPA* to require producers to meet outcomes with respect to collecting and properly managing waste pharmaceuticals and sharps. For example, the Recycling Council of Ontario publicly commented that "utilizing the *EPA* to drive EPR outcomes is an effective way to provide the ministry with flexibility

in identifying and applying appropriate consequences for non-compliance to the regulation." Similarly, the Ontario Waste Management Association, which represents Ontario's waste management industry (including collectors, transporters, processors and recyclers), stated that the proposed regulation "puts forth Ontario's first true expression of Extended Producer Responsibility, making individual producers responsible/liable for managing their waste. It is a bold step for environmental policy in Ontario and should provide an effective platform for the safe management of these hazardous materials." Other positive comments came from a recycler of blue box plastics, who noted that the improper disposal of syringes presents a significant health and safety hazard to the plastics recycling industry, and the unit commander of a police drug squad, who commented that the regulation would be welcomed by the police community, as the movement of prescription drugs from private homes to the illicit market "has been a serious concern to police and public health agencies across Canada."

Several commenters were in disagreement, however, as to whether natural health products (e.g., vitamins, minerals, herbal remedies, probiotics, etc.) represent a threat to the environment and should be subject to the regulation, and whether companies with a low market share (such as the manufacturers and importers of natural health products) should be required to develop take-back programs. On these issues, one commenter argued that the regulation "is poised to discriminate against smaller manufacturers and importers, while at the same time unfairly penalizing the very products that are the best alternative for the environment." Commenters also disagreed as to whether containers used to return pharmaceuticals and sharps should be included in the regulation since their inclusion would be duplicative of other recycling programs (i.e., the Blue Box program). One organization representing pharmacists supported the inclusion of bottles and vials as "their exclusion represents a safety risk for pharmacy staff who could be exposed to biohazardous materials and aerosolized medication waste in the process of emptying the contents of these non-accepted containers and when opening the bins to deposit other waste items."

Commenters also raised various process and implementation issues, including the following:

- Pharmaceuticals and sharps used to treat companion animals (e.g., domesticated dogs and cats) should be exempt from the regulation.
- Product packaging should be required to include take-back program information to ensure high diversion.
- Because producers have no control over the operations of pharmacies and retailers (where, presumably, most collection sites would be located), the regulation should not hold producers responsible for ensuring a minimum number of collections sites or meeting other requirements regarding collection hours, service standards, and program promotion.
- The imposed time frame for putting a take-back program in place (three months after the regulation came into force) was unrealistic and conflicted with the principles of the Ontario Regulatory Policy.
- Producers should partner with their distributors and retailers to provide program information to consumers at point of sale.
- To ensure that education and promotion initiatives are working, the regulation should require producers to meet minimum program awareness targets, as measured by statistically valid population sampling.
- In accordance with the principle of full EPR, producers should be responsible for all municipal costs incurred for collecting waste pharmaceuticals and sharps disposed of through the municipal stream.
- MOE should implement measures to support the regulation, such as a disposal ban on these waste materials.
- Penalties for non-compliance need to be appropriate and enforced, and should also apply to producers in other jurisdictions.

- MOE must dedicate sufficient resources to support ongoing and frequent enforcement to ensure compliance of producers and service providers.
- Collection sites should follow guidelines for privacy safeguards to ensure that consumers' identities and medical information are kept confidential.

Several commenters also expressed frustration and disappointment that stakeholders and the public were not given the opportunity to review and comment on the text of a draft regulation.

Ministry Consideration of Public Comments

In the decision notice, MOE noted that the filed regulation does not vary substantively from the approach outlined in the proposal notice, but that minor details were changed based on stakeholder consultation. Some of these changes included:

- Requiring producers to report on continuous improvement regarding the number of collection locations that exceed the 90 per cent requirement;
- Making the regulation's definition of "sharps" more specific so as to exclude syringes to which no needle is attached (e.g., oral and ear syringes);
- Clarifying the definition of "pharmaceutical" to specifically exclude radiopharmaceuticals, anti-dandruff shampoos, sunburn protectants, mouthwash and fluoridated toothpaste; and
- Removing the requirement that, within five years of the regulation coming into force, producers ensure that the number of collection locations at which their designated material(s) are collected is equal to at least 95 per cent of the number of accredited pharmacies in Ontario where their products are sold.

Although the proposal notice mentioned that the ministry was considering including a minimum threshold to meet the definition of producer under the regulation (e.g., sales or units supplied over a specific amount), the final regulation specifies no threshold for defining producers. And with regard to commenters' requests that certain materials be excluded, MOE stated that "the ministry remains committed to ensuring that the scope and definitions in the existing Municipal Hazardous or Special Waste program continue. In this regard, the regulation continues to cover pharmaceuticals and sharps for humans and companion animals, natural health products, and containers that consumers use to bring back their waste pharmaceuticals and sharps."

SEV

MOE documented that it considered its Statement of Environmental Values (SEV) when making this decision. MOE explained that the regulation addresses the principles of environmental management in that producers are required to meet environmental objectives such as meeting collection, transportation and processing/destruction standards, ensuring the availability of collection locations, and providing promotional and educational materials to increase consumer awareness of the proper management of these wastes. Furthermore, the ministry pointed out that the decision is strategic, as it is outcomes-based, and adheres to the polluter-pays principle, since producers are required to pay for the costs of managing the wastes resulting from their products.

Other Information

Compliance with O. Reg. 298/12

Since January 1, 2013, O. Reg. 298/12 has required producers to: provide a minimum number of collection locations where designated pharmaceuticals (and their containers) and sharps can be

returned free of charge; and ensure that the location of these collection locations, and "a description of how consumers should safely store and handle the designated material of the producer before bringing it to a collection location," is made available on producers' websites and in print at each collection location. To meet their EPR requirements under O. Reg. 298/12, more than 100 producers have collectively engaged the non-profit Health Products Stewardship Association (HPSA) to administer the Ontario Medications Return Program (OMRP) and the Ontario Sharps Return Program (OSRP), using community pharmacies as collection locations.

To gauge the level of compliance with the requirements of O. Reg. 298/12 several months after they came into effect, in the summer of 2013 the ECO visited 48 pharmacies across Ontario (identified as collection locations on HPSA's website) and asked pharmacists: about their policies for accepting waste pharmaceuticals and sharps; and for printed information about the return of these wastes. The ECO found great variability in pharmacies' return policies, print information and knowledge of the return programs.

While most of the visited pharmacies confirmed that they collect waste pharmaceuticals and sharps for safe disposal, two stated that they do not accept any materials whatsoever, and four indicated that they would refuse – or charge a fee to accept – products purchased at another pharmacy. Moreover, several pharmacies indicated that they would not collect sharps or the containers in which consumers return pharmaceuticals – only the pharmaceuticals themselves.

When asked for any printed literature about the safe storage and return of waste pharmaceuticals and sharps, almost all pharmacists responded that there was no literature available and that that there was no formal return program; three pharmacies provided paper bags for returning pharmaceuticals (printed with information about storing and returning medications), one provided brochures on the OMRP, and one provided an outdated brochure about Stewardship Ontario's defunct program for returning sharps and leftover medications. No pharmacies provided print information about the location of collection locations. Although not a requirement of the regulation, the ECO observed that no pharmacies displayed posters alerting consumers that waste pharmaceuticals and sharps could be returned onsite.

ECO Comment

The ECO applauds MOE for finally taking a step forward to advance waste diversion and EPR in Ontario. After the consumer and media backlash caused by "eco fees" in July 2010, the government quickly retreated on its agenda for waste diversion, putting the costs for managing these wastes back on taxpayers, and stalling on its long-awaited plans to overhaul and improve the *WDA* (see Part 5.3 of the ECO's 2010/2011 Annual Report). In the years that have followed, little progress has been made in advancing waste diversion policy in Ontario – until now. Unlike the MHSW program under the *WDA*, which required producers to cover the costs of a waste diversion program over which they had little control, the new *EPA* regulation rightly shifts the onus for collecting and managing waste pharmaceuticals and sharps back onto the companies that made them, while still giving producers the flexibility to meet desired outcomes how they see fit. This approach should help ensure the proper management of pharmaceuticals and sharps, while avoiding many of the process-related problems that have strained stakeholder relations and plagued IFO-operated waste diversion programs in the past.

Nevertheless, despite the ECO's optimism about the benefits of this new approach to EPR, the ECO has some reservations about the program.

First, under O. Reg. 298/12, producers are only responsible for the costs of managing some of their products at end-of-life. Although MOE asserts that "the regulation implements an [EPR] approach

that requires producers of pharmaceuticals and sharps … to be responsible for the management of the wastes resulting from their products," the regulation does not make producers fully responsible for the management of these wastes, since municipalities manage (and incur the costs of managing) pharmaceuticals and sharps collected in the residual waste stream. Likewise, the regulation fails to make producers responsible for collecting and managing the large volume of waste pharmaceuticals and sharps generated in nursing homes, hospitals, doctor and dentists' offices, veterinary clinics, and other facilities in the IC&I sector. Excusing producers from the responsibility of managing wastes generated by some of their most significant consumers seems to be a glaring and unfortunate omission.

Second, the regulation does not require producers to meet any targets other than those related to the number of collection locations. While location targets ensure that opportunities to return waste pharmaceuticals and sharps exist, they do not actually compel producers to promote their take-back program or encourage consumer returns, since doing so could increase the amount of materials collected, in turn increasing the costs incurred by producers. Actual diversion targets are therefore essential to offset or reverse this disincentive. Although establishing a collection target for pharmaceuticals may be challenging (since medication is intended to be fully consumed), regulating collection targets for sharps and syringes – like the targets included in the Final Consolidated MHSW Program Plan – could compel producers to maximize the collection of these materials. Moreover, as suggested by one commenter, requiring producers to ensure that a minimum percentage of the Ontario population is aware of how and where to return waste pharmaceuticals and sharps would compel producers to widely promote the program and educate the public, thereby increasing the rate of returns. The lack of promotional materials found in collection locations visited by the ECO (see Other Information above) validates and reinforces the ECO's concern.

Finally, the ECO cautions MOE that, if the program is to succeed in meeting the desired outcomes, the ministry must maintain adequate enforcement, including charging penalties against non-compliant producers. As described above, several months after they came into effect, several collection locations were failing to deliver the collection and promotion/education provisions required of producers in O. Reg. 298/12. Given MOE's history of failing to monitor and enforce compliance with other waste diversion regulations under the *EPA*, and given the ministry's declining funding and capacity (see Part 2.3 of this year's Annual Report), the ECO lacks confidence that MOE will have the resources or inclination to enforce producer participation, and strongly urges the ministry to reverse this pattern.

The outcomes-based approach to EPR taken by MOE with O. Reg. 298/12 seems to be favoured by a variety of stakeholders, particularly producers. If this approach proves successful, MOE could consider applying a similar approach for other designated wastes. However, ensuring that waste materials are actually properly managed, and that the costs of this management are borne by producers, requires that MOE set appropriate targets, enforce these targets, and recognize and resolve the injustice of municipalities paying for the management of these wastes. The ECO applauds MOE for finally advancing EPR and waste diversion, and hopes that this regulation is just the start of innovative and thoughtful ways of minimizing the environmental impacts of waste in Ontario.

Review of Posted Decision:

1.8 Turtle River – White Otter Lake Provincial Park Management Plan

Decision Information

Registry Number: 011-0157
Proposal Posted: November 1, 2010
Decision Posted: August 13, 2012
Comment Period: 45 days
Number of Comments: 9
Decision Implemented: July 19, 2012

Keywords: Turtle River; White Otter Lake; recreation; fisheries management; *Provincial Parks and Conservation Reserves Act, 2006*

Description

Background

Turtle River – White Otter Lake Provincial Park is located in northwestern Ontario between Ignace, Mine Center and Atikokan. The park covers 49,294 hectares and is classified as a waterway class park under the *Provincial Parks and Conservation Reserves Act, 2006* (*PPCRA*).

The *PPCRA* directs that the maintenance of ecological integrity shall be the first priority, and the restoration of ecological integrity shall be considered in all aspects of park planning and management. According to the *PPCRA*, provincial parks will be managed to permanently protect biodiversity, provide opportunities for ecologically sustainable outdoor recreation, and encourage associated economic benefits.

A key function of Ontario's park system is to protect some of the province's most significant waterways. As such, waterway parks are intended to protect outstanding recreational water routes, representative natural features, and historical resources. Accordingly, these protected areas focus almost entirely on aquatic and shoreline environments. The government aims to establish at least one representative waterway park in each of Ontario's 71 ecodistricts; this park helps to meet the target for waterway class parks in Ecodistrict 4S-5.

Turtle River – White Otter Lake Provincial Park protects several lakes as well as the Turtle River water route, which runs from McNamara Lake to the headwaters of the Balmoral River to join the Turtle River near White Otter Lake. According to the Ministry of Natural Resources (MNR), "the Turtle River waterway has long been recognized as a significant canoe route and natural area." For example, a water-based section of the TransCanada Trail runs through the park. The park includes all lands within 200 metres of the waterway shoreline, although in some areas the boundary extends farther inland.

The ministry states that this park has natural and cultural features that are provincially and regionally significant. The park contains glacial features, peatlands, and transitional wetlands with species at the northern limit of their ranges. There are two species at risk in the park: bald eagle and lake sturgeon.

The most distinctive historical resource within the park is White Otter Castle, a three-story log structure completed in 1914. Although inaccessible by road, the castle is visited by an estimated 5,000 to 7,000 persons per year, contributing significantly to the local economies of Atikokan and

Ignace. A local non-profit group, Friends of White Otter Castle, worked with MNR in the past to manage the site, but this group disbanded in 2010.

This park is part of the traditional land use area of Wabigoon Lake, Lac La Croix, Seine River, Lac des Milles Lacs, Nigigoonsiminikaaning and Couchiching First Nations. The park also overlaps asserted harvesting territories of Lake of the Woods/Lac Seul and Rainy Lake/Rainy River Métis Nations of Ontario. In addition, there are 39 archaeological sites and 37 pictograph sites in the park, further evidence of the cultural significance of this area.

Turtle River – White Otter Lake is a non-operating park with minimal infrastructure and no permanent staff, but it is used extensively for recreation and tourism. Most of the visitors to the park are anglers. Common sport fish species include walleye, northern pike, lake trout and smallmouth bass. Other resource-based park activities include trapping, bait harvesting, and wild rice harvesting. The ministry states that it may consider making the park operational if the costs of hiring staff as well as those costs for building and maintaining infrastructure could be recovered from charging visitor fees.

Turtle River – White Otter Lake Provincial Park Management Plan

In July 2012, MNR finalized the Turtle River – White Otter Lake Provincial Park Management Plan (the Plan), which will guide park management for the next 20 years. The goal of the Plan is to protect the park's values and "to provide a wide variety of compatible heritage appreciation, ecologically sustainable outdoor recreation opportunities and scientific research activities."

The Plan states that the recreation objective for this park is to "provide ecologically sustainable high quality recreation travel and backcountry camping in an outstanding natural setting." MNR will achieve this objective primarily through zoning policies, which permit or prohibit different activities in each zone. As such, the Plan divides the park into five land use zones: natural environment, access, development, historical, and nature reserve.

Natural environment zones cover 89 per cent of the park and support a wide variety of activities that include boating, camping, hunting, fishing, trapping, bait harvesting, and commercial tourism. The Plan sets out a fisheries management goal to "maintain and enhance native, self-sustaining fish populations." Recreational fishing is subject to Ontario Fishing Regulations and the direction set out in the draft Fisheries Management Zone 5 (FMZ 5) Plan. The Plan permits trapping to continue in natural environment zones despite MNR's longstanding commitment to phase out trapping in protected areas by 2010. There are 19 traplines and 17 bait harvesting blocks within the park boundary. Commercial tourism services are provided through seven outpost camps located in these zones.

Anglers and other visitors may access the park's largest lakes at five designated areas that enable "extensive recreation". In addition to these access zones, there are eight remote access points located near existing and abandoned resource roads, which may continue to be used although they will not be maintained. The ministry states that it will monitor access and may impose restrictions to protect park values.

The Plan designates two development zones where hunting is not permitted since these areas support intensive day-use and car camping activities. Similarly, hunting is not permitted in the park's two historical zones, which protect White Otter Castle and a former World War II prisoner of war camp. Furthermore, the Plan does not permit recreation, hunting, and resource harvesting within nature reserve zones, which cover 6 per cent of the park.

Mechanized travel is permitted, except in historical and nature reserve zones. While there are no restrictions on the use of motorboats or aircraft in the park, motorized snow vehicles and all-terrain vehicles are restricted to existing trails.

MNR will suppress all forest fires within and adjacent to the park. The Plan states that prescribed burning may be considered to achieve ecological or hazard reduction objectives. Prescribed burning within natural environment and nature reserve zones may be used to maintain and restore park ecosystems, such as jack pine, trembling aspen, and red and white pine.

Implications of the Decision

Plan in Place After Two Decades

For the first time since its regulation in 1989, Turtle River – White Otter Lake Provincial Park has an approved management plan. During the 23-year planning process, recreational and commercial activities were carried out in the park despite the lack of a comprehensive resource inventory and management plan. Now that the Plan is in place, the ministry can begin to assess the impacts of park use and ensure that permitted activities within designated zones are ecologically compatible.

Fisheries Management

MNR notes that White Otter, Eltrut, Dibble and Smirch lakes experience high fishing activity. In addition, the ministry reports that Pekagoning Lake, Nora Lake, Little Long Lake and Balmoral Lake either experience heavy fishing or are at risk of over-fishing. Although there is a spring fish sanctuary on White Otter Lake, a 1999 MNR report showed that angling might be affecting the natural age distribution of walleye in this lake. The Plan does not include any updated information on the status of walleye or other fish populations in the park.

The ministry states that "recreational fishing will be managed using techniques to ensure the maintenance of healthy natural fish populations," such as setting catch limits, amending regulations, and providing information to anglers. However, the Plan does not identify any specific fisheries management actions for this park. Rather, MNR relies on the general direction provided in the FMZ 5 plan, which as of May, 2013, is still only in draft form. It is possible that small-scale fisheries issues in the park may not be captured by the broad-scale FMZ 5 plan (for more information on recreational fisheries management, see Chapter 2.8 in Part 2 of the ECO's 2011/2012 Annual Report).

The Plan contains very little information regarding the impacts of angling on fish populations in the park. Moreover, the Plan does not include a monitoring program for sensitive fish populations, nor does it include a strategy to encourage scientific research. Instead, the Plan states that the ministry may conduct "ongoing biological data collection for fisheries monitoring" as resources become available. However, adequate resources may never become available, especially if the park does not become operational.

Recreation Management and Operational Status

The Plan states that recreation management policies will "prevent any compromise of significant natural and/or cultural heritage values," however, the Plan does not mention any specific policies. The Plan notes that visitation has increased dramatically in recent years, but since it is a non-operating park, information on park use are not available and there is no mention of when MNR will begin to collect such data. It is unclear how the ministry will be able to develop recreation management policies without first implementing a strategy for collecting visitor information. In

addition, MNR proposes to expand tourism "to the greatest extent possible without adversely affecting the park environment" while admitting it has limited knowledge of current use levels. Furthermore, the Plan does not contain details about what level of use would be required to justify the switch to operational status. The Plan states that if the park becomes operational, "a backcountry recreation plan may be developed as part of the park operating plan." Yet, the ministry acknowledges that this park is used extensively, suggesting it may already need policies for recreation management along with appropriate infrastructure and enforcement, even though it is currently a non-operating park.

Public Participation & *EBR* Process

In November 2010, MNR posted a proposal notice on the Environmental Registry (#011-0157) to seek public input on the development of a management plan for Turtle River – White Otter Lake Provincial Park. The notice invited comments for a 45-day period. The ministry received nine comments on its proposal. The following summary of comments reflects the range of issues brought forward by the public.

While one commenter was pleased with the level of protection proposed for the park, others were concerned with restrictions to access, trapping and bait harvesting activities. An association representing pilots stated that there were too many aircraft landing restrictions and that broader public access should be allowed since it is not a wilderness class park. A hunting and angling stakeholder organization supported the maintenance of hunting and fishing in the park, but was concerned about potential future restrictions on these activities.

A frequent park user noted large quantities of litter on campsites and urged MNR to increase restrictions and enforcement. Similarly, a local lodge urged the ministry to maintain the weir at Clearwater Lake, to enforce camping restrictions along the lake, and to clarify the definition of cached boats.

A superintendent from a different park stated that MNR should provide more information regarding the scientific features of interest mentioned in the plan; and that the decision to become an operational park should not depend on increased use.

The ministry posted a decision notice in August 2012, which stated that two comments resulted in changes to the Plan. MNR adjusted the layout of motorized snow vehicle trails to reflect actual usage and added a requirement for maintenance of the weir at Clearwater Lake. The ministry stated that no other changes were necessary.

SEV

MNR considered its Statement of Environmental Values (SEV). The ministry stated its proposal would "further the objectives of managing Ontario's resources on an environmentally sustainable basis." In consideration of its SEV, MNR often cited ongoing monitoring and evaluation as the mechanism for abiding by its principles of resource stewardship.

Other Information

In 1989, MNR established Turtle River Provincial Park and shortly thereafter proposed a management plan. The ministry invited the public to review terms of reference, background information and a preliminary plan. In 1990, MNR conducted information centres, public meetings,

advertisements in print media, and direct mailing to interested stakeholder groups, which resulted in almost 500 written comments. The ministry released a preliminary park management plan in 1992, but deferred plan approval during the "Keep it Wild" program that began in 1994 with a goal to establish additional protected areas. Park planning was again placed on hold during the development of Ontario's Living Legacy - Land Use Strategy (LUS).

In August 2000, MNR posted an exception notice (#RB00E1002) on the Environmental Registry to inform the public of changes to the park boundary as recommended from the LUS. The ministry's rationale for posting the exception notice was that aspects of the proposal were considered in an equivalent process of public participation. Based on the LUS recommendations, MNR added 9,242 hectares to the park in 2003 and changed the name to Turtle River – White Otter Lake Provincial Park.

ECO Comment

The ECO is pleased that Turtle River – White Otter Lake Provincial Park finally has an approved management plan. Recreational and commercial activities have been occurring in this park for 23 years without a proper plan or adequate monitoring and enforcement. The ECO urges MNR to move swiftly to implement a comprehensive inventory and monitoring program to establish baseline conditions, and to assess and mitigate the ecological impacts of both ongoing and future activities in the park.

The ECO believes that the ministry's failure to provide for specific fisheries management in the Plan is inconsistent with the *PPCRA*'s purpose of maintaining biodiversity and providing for compatible, ecologically sustainable recreation. The Plan does not assure Ontarians that fisheries in Turtle River – White Otter Lake Provincial Park will be sustained over the long term: MNR acknowledged that some lakes are at risk of overfishing, but did not propose solutions to address this problem. The ministry's deferral of fisheries management to the separate FMZ 5 plan is problematic, as the plan is not yet complete and its direction is unlikely to address fine-scale issues at the park level. Furthermore, the special protection afforded to parks to ensure their ecological integrity would suggest that a park's fisheries should be treated with more sensitivity than those in the surrounding FMZ. The ECO urges MNR to develop a fisheries management plan for this park based on updated, site-specific science.

The clear implication in this Plan is that the ministry will not allocate resources for park management unless it can recover those costs by charging user fees. For example, MNR will endeavor to make a regulation under the *Fish and Wildlife Conservation Act, 1997* (*FWCA*) to remove access, development, nature reserve and historical zones from both hunting and bear management areas, but only if there are sufficient resources to do so. Until such a time, the Plan discourages these activities, but there are no legal grounds for enforcement unless the FWCA regulations are changed. In addition, the ministry will not develop a backcountry recreation plan, nor will it undertake fisheries monitoring, values mapping, or data collection on park users unless resources become available. Unfortunately, the ministry will probably rely on park operation to obtain these resources.

The ECO disagrees with MNR's use of a cost recovery model for park management because this approach provides no assurance that ecological integrity will be maintained for protected areas that do not pay for themselves (see the ECO's 2003/2004 and 2006/2007 Annual Reports). Further, the ministry should demonstrate the ecological compatibility of current activities before seeking to increase visitation through park operation. The ECO believes that protected areas are an invaluable public resource, which should not be expected to generate revenues. The significance of a park's natural heritage is unrelated to visitation, therefore, MNR should develop and implement

appropriate management activities for all protected areas regardless of visitor frequency. The value of parks should not be measured in operational dollars and cents, but rather by the integrity of the ecosystems they are meant to protect.

Review of Posted Decision:

1.9 The Ontario Invasive Species Strategic Plan

Decision Information

Registry Number: 011-2884
Proposal Posted: May 4, 2011
Decision Posted: July 3, 2012
Comment Period: 47 days
Number of Comments: 13
Decision Implemented: April 12, 2012

Keywords: alien species; biodiversity; invasive species; wildlife management; non-native species; Ministry of Natural Resources

Description

In July 2012, the Ontario government released the Ontario Invasive Species Strategic Plan (OISSP or Strategic Plan), a strategic document that outlines actions and tactics to address the threats posed by invasive species in Ontario. The development of the OISSP was led by the Ministry of Natural Resources (MNR) but also involved the Ministry of the Environment (MOE), Ministry of Transportation (MTO) and Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA). According to MNR, the OISSP: highlights work already undertaken by these ministries; identifies gaps in current programs and policies; and outlines future actions necessary to address priority areas consistent with the goals of the Invasive Alien Species Strategy for Canada (the National Strategy).

Background

Alien (or non-native or exotic) species are plants, animals and micro-organisms introduced by human action to geographic areas outside their natural past or present distribution. Alien species whose introduction or spread threatens the environment, the economy or society (e.g., human health) are termed invasive species. Invasive species often have irreversible impacts and, once established, they can be extremely difficult and costly to control and eradicate, and, if unchecked, can inflict significant impacts on Ontario's biodiversity and species at risk (see pages 47-52 of the ECO's 2003/2004 Annual Report). Ontario has approximately 441 invasive plant species and 26 non-native freshwater fish, including the sea lamprey, round goby and northern snakehead.

The following are just a few examples of particularly harmful invasive species in Ontario:

- Zebra mussels (*Dreissena polymorpha*) have: negatively affected drinking water systems; contributed to the restructuring of nearshore ecosystems; displaced native mussels and cost millions of dollars in increased power operating costs;
- The emerald ash borer (*Agrilus planipennis*) has killed over one million trees in southwestern Ontario and is expected to cost the City of Toronto alone $37 million to cut and replace city-owned trees over five years; and
- Invasive *Phragmites* (the European common reed), a large perennial grass, has caused significant habitat losses for several species of wetland-dependent wildlife.

Other invasive threats, including Asian carp (several species of cyprinid fish) and the brown marmorated stink bug (*Halyomorpha halys*), have the potential to cause major harm if they establish in Ontario. Moreover, invasive pathogens can spread harmful diseases, such as Dutch Elm Disease; White Nose Syndrome in bats (see page 80 of Part 2 of the ECO's 2011/2012 Annual Report); and Chronic Wasting Disease, a degenerative brain disease that affects deer, elk, moose and potentially woodland caribou.

To address invasive species, a variety of approaches, including monitoring, management, education and regulation, are needed. Many of these strategies have been successfully applied in Ontario. For example:

- Exotic beetles were released in 1993 to significantly reduce the abundance of invasive Purple Loosestrife, a flowering plant that forms large colonies that negatively affect wetlands;
- In 2003, the Canadian Food Inspection Agency (CFIA) worked with MNR and other partners to rapidly and effectively respond to the discovery of Asian long-horned beetles (a wood-boring insect) in an industrial park near Toronto;
- Since 1992, MNR has partnered with the Ontario Federation of Anglers and Hunters (OFAH) to deliver a province-wide Invading Species Awareness Program to educate the public about invading species; address key pathways contributing to their introduction and spread; and facilitate monitoring and tracking initiatives; and
- Federal regulations governing the release of ballast water from ocean-going vessels have achieved recent compliance rates of almost 98 per cent, significantly reducing the risk of aquatic invasive species entering the Great Lakes via ships' ballast tanks.

Despite these isolated successes, addressing invasive species remains a significant and complicated problem involving many different species, points of entry, means of spread, stakeholders, industries, and levels of government. If the introduction of invasive species is to be reduced, and existing invasive species are to be contained and eradicated, numerous scientific, economic and political challenges must be overcome. For example: information about invasive species – their behaviour, preferred food and habitat, distribution, control and eradication – is often lacking or non-existent; taxonomic expertise in identifying and detecting pests is waning; property owners may be unaware or uninterested in how their behaviour can affect the spread of invasive species; jurisdictional and governmental responsibilities may be unclear, overlapping, or incomplete; protocols may be needed to ensure a rapid and effective response to new threats; and funding, resources and staff are necessary for research, monitoring, management, education and regulatory enforcement.

Given the scale and complexity of the problem, the ECO has been calling on the Ontario government to produce a provincial invasive species strategy for almost a decade. In our 2002/2003 Annual Report, the ECO urged MNR to develop an invasive species sub-strategy (containing "a clearly identified vision, objectives, detailed courses of action, measurable targets and public reporting requirements") as part of a comprehensive biodiversity strategy. When MNR failed to act on this issue, the ECO reiterated (in our 2003/2004 Annual Report) the reasons Ontario needed an invasive species strategy. These include ensuring that: all parties have the same priorities; appropriate and well-co-ordinated rules are in place to prevent entry of invasive alien species; invasive species are detected upon arrival; funds and resources are readily available; and effective control and eradication measures are implemented without delay.

In May 2004, MNR announced its intention to begin working on an invasive species strategy for release in 2005. The ministry explained that the strategy would complement the National Strategy (which was released by the federal government in September 2004), and would be a component of a broader biodiversity strategy. Indeed, when MNR released Ontario's Biodiversity Strategy in 2005

it included some provincial actions for implementing the National Strategy, including: improving capability to assess risks of invasions; building capability to quarantine; enhancing early detection capacity; and taking rapid action to eradicate invasive species. However, as the ECO pointed out in our 2008/2009 Annual Report, the strategy had serious shortcomings: it failed to specify the responsibilities of different ministries, set out timelines to accomplish objectives or establish measurable targets.

The Ontario Invasive Species Strategic Plan (OISSP)

In July 2012, the Ontario government released a comprehensive provincial plan dedicated to addressing invasive species issues. The Strategic Plan describes the need for an Ontario strategy, explains why Ontario is at risk, discusses the economic and ecological costs of invasive species, gives examples of past successes and current threats and describes Ontario's approach to addressing invasive species threats.

The three objectives of the OISSP are to: prevent new invaders from arriving and surviving in Ontario; slow, and where possible reverse, the spread of existing invasive species; and reduce the harmful impacts of existing invasive species. To meet these objectives, the OISSP is guided by four strategic goals, which mirror those of the National Strategy:

1. PREVENT – Prevent harmful introductions before they occur.
2. DETECT – Detect and identify invasive species before or immediately after they become established.
3. RESPOND – Respond rapidly to invasive species before they become established or spread.
4. MANAGE AND ADAPT – Implement innovative management actions and take practical steps to protect against impacts of invasive species.

These four goals translate into 27 strategic actions and almost a hundred tactics (see examples in Table 1), grouped into six activity categories: leadership and co-ordination; legislation, regulation and policy; risk analysis; monitoring and science; management measures; and communication and education. The intent of the OISSP is to provide details on how Ontario will meet the goals set out in the National Strategy as well as those in several national action plans, including the Canadian Action Plan to Address the Threats of Aquatic Invasive Species (2004); the Action Plan for Invasive Alien Terrestrial Plants and Plant Pests (2005); and Canada's National Wildlife Disease Strategy (2004).

Table 1. Examples of Strategic Actions and Tactics Included in the Ontario Invasive Species Strategic Plan (2012)

STRATEGIC ACTION	TACTIC	ACTIVITY CATEGORY
#2. Clarify roles and responsibilities of provincial ministries for invasive species issues.	OMAFRA will establish a clear contact as its lead on invasive agricultural species.	Leadership and Co-ordination
#7. Examine provincial legislative and policy framework for invasive species management.	Conduct a regulatory review of federal and provincial legislation to determine regulatory gaps and inconsistencies.	Legislation, Regulation and Policy
#13. Increase capacity to develop and implement risk assessment and risk analysis tools.	Ontario ministries will build Ontario-specific tools, or adapt federal tools, and build capacity to analyze Ontario-specific risks.	Risk Analysis

#15. Improve existing invasive species monitoring programs and develop a network of experts to identify species.	Investigate new technologies to inventory native and invasive species and detect hybridization.	Monitoring and Science
#23. Manage key pathways to prevent the introduction and spread of invasive species.	MNR will continue to work with other ministries and municipalities on policies and practices that reduce disturbance in natural areas and natural corridors, such as stream riparian areas and wetlands.	Management Measures
#27. Build communication networks with a wider range of interested communities and interest groups.	MNR will work to broaden partnerships with Ontario's Aboriginal communities.	Communication and Education

Implications of the Decision

Potential to Reduce the Threats Caused by Invasive Species in Ontario

Previous efforts to address the threats caused by invasive species in Ontario were piecemeal and uncoordinated. The province now has a comprehensive, logical and well-researched strategy dedicated to addressing this problem. Assuming that the OISSP's strategies and tactics are fully and effectively implemented, the Strategic Plan has the potential to help reduce the introduction, spread and impacts of invasive species by:

- clarifying departmental and ministerial roles and responsibilities;
- improving intergovernmental co-ordination and communication;
- strengthening invasive species legislation and policies;
- enhancing enforcement efforts and developing protocols to rapidly respond to newly detected invasive species;
- increasing capacity for risk assessments and analyses;
- improving and expanding monitoring of invasive species;
- enhancing research on the control and impacts of invasive species; and
- improving communication initiatives and building new communication networks.

No Implementation Plan

The OISSP provides a good, clear description of the issues related to invasive species and a decent and comprehensive analysis of what is needed to address them. However, the actions and tactics outlined in the Strategic Plan:

- are not species- or region-specific;
- generally do not identify the ministry or branch responsible;
- lack timelines for completion;
- fail to specify targets and indicators for measuring progress; and
- contain no public reporting requirements.

It is therefore difficult to have much confidence that the OISSP's objectives will be met, since it is unclear who will undertake specific tactics, when tactics are expected to be achieved, and how (or if) the government intends to evaluate and communicate progress to the public. For example, one of the OISSP's tactics is to work to ensure provisions are in place to better trace captive animals and identify individual escapees. Yet, it is unclear what species of captive animals will be targeted, when

the government intends to initiate and complete this tactic and – given the lack of licensing requirements for captive exotic animals in Ontario – who will be responsible for executing this task.

Because the draft OISSP "recognized that many of the actions and tactics identified in this strategy are high level and strategic," it included a commitment for MNR to co-ordinate the development of an annual implementation plan to identify and articulate priorities for implementation. However, references to annual implementation plans are noticeably absent in the final Strategic Plan. What still needs to be articulated, then, are the details that likely would have appeared in an implementation plan: species-specific actions, responsible branches/actors within ministries; deadlines for completion; and targets and indicators to measure progress. The OISSP also lacks a clear timeframe and indication of when it will be reviewed. By contrast, British Columbia's (BC's) Invasive Species Strategy specifies that the strategy is expected to remain relevant for at least five years, after which time it should be reviewed and updated if necessary.

New Invasive Species Policies and Management Plans

Implementation of the Strategic Plan will require the government to develop and implement a variety of policies and plans. For example, tactics in the OISSP include developing: rapid response protocols, best management practices and management plans for priority invasive species; best management practices for specific pathways (e.g., forest industry, shipping industry, farming community); policies and practices that reduce disturbance in natural areas and corridors; and restoration plans for ecosystems that have been significantly affected by invasive species. The development of these policies, plans and protocols will require public consultation and notices on the Environmental Registry.

Fulfillment of Other Commitments and Goals in Other Plans

In echoing the National Strategy's goals and strategies, implementation of the OISSP could help Ontario fulfil Canada's invasive species goals at the provincial level. Moreover, implementing the OISSP's actions and tactics should help Ontario meet goals found in other overarching plans and commitments, including the Ontario Government Plan to Conserve Biodiversity (2012), the Canada-Ontario Agreement Respecting the Great Lakes Basin Ecosystem (2007), Climate Ready: Ontario's Adaptation Strategy and Action Plan (2011) and MNR's strategic directions.

Use of Risk Analysis to Establish Priorities and Better Focus Government Efforts

In addition to the standard strategies found in government plans (i.e., improving leadership, co-ordination, legislation, monitoring, research and outreach), the OISSP commits the government to applying risk analysis to establish priorities. Risk analysis involves: 1) using the best available scientific information to assess the risk presented by an invasive species; 2) evaluating different management options to minimize that risk; and 3) communicating to the public and stakeholders the results of the analysis to help them make more informed decisions. Applying such an approach could lead to the more efficient use of government staff and resources to most effectively address invasive species threats. However, risk analysis could also be misused to justify lack of government action.

Reliance on the Canadian Government, Municipalities, and Other Stakeholders

As expected, the majority of tactics in the OISSP require tangible action by Ontario ministries. However, a few tactics involve the Ontario government encouraging, working with or co-operating with the federal government, municipalities, conservation authorities or other players to do something (e.g., develop ballast water treatment standards, increase capacity for inspections and enforcement at Canada's borders and key ports of entry, include invasive species prevention measures in municipalities' official plans). While the inclusion of such tactics is obviously necessary,

the implication is that, for some tactics, the power to ensure prompt achievement of underlying goals may be in the hands of some other authority.

Public Participation & *EBR* Process

In May 2011, MNR posted a policy proposal on the Environmental Registry soliciting public comment on a draft OISSP. During the 47-day comment period, MNR received 13 comments. Commenters and stakeholders were generally supportive of the draft and the government's multi-ministry effort to strategically address the issue of invasive species. As articulated by the Conservation Science Manager for Ontario Nature, an environmental non-governmental organization (ENGO) that promotes the preservation and conservation of natural areas in Ontario, the Strategic Plan is "a well-thought-out, well-researched, scientifically valid plan."

Commenters, however, offered several criticisms and suggestions to improve the draft, including:

- Ranking the species by level of threat, and prioritizing actions and tactics;
- Expanding and clarifying the roles of certain stakeholders, such as the CFIA, ENGOs, conservation authorities and the agricultural industry;
- Developing strategies and tactics based on ecozones (ecologically and geographically defined areas);
- Adding targets and deadlines for actions and tactics to make the goals more measurable and achievable; and
- Adding a tactic to develop a funding mechanism for on-the-ground invasive species control.

MNR's rationale for not addressing several of these comments in the final OISSP was that they were beyond the scope of the Strategic Plan. Other comments were considered and accepted in the development of the final document. Most notably, in response to concerns about the restriction and abuse of personal privacy, MNR removed a tactic to discuss options to allow government access to private property to address invasive species.

In addition to public consultation via the Environmental Registry, the government met with a few key stakeholders in December 2010 and held a consultation workshop with over 60 stakeholders in June 2011. Some suggestions that came out of the June 2011 workshop were for the government to:

- quickly establish concrete actions, timelines, and a clear allocation of responsibility;
- build partnerships with a broader range of stakeholders;
- establish an information clearinghouse;
- develop a tracking system for invasive species;
- set priorities to target the most important threats and pathways;
- communicate and educate through a variety of media; and
- report on the implementation of the OISSP at least every two years.

SEV

In its Statement of Environmental Values (SEV) consideration note, MNR provided a clear and thoughtful explanation of how various principles in its SEV (e.g., a sound understanding of natural and ecological systems, caution in the face of uncertainty, the ecosystem approach, knowledge sharing) were considered when developing the OISSP. For example, with respect to the principle of exercising caution, MNR explained that Ontario will use a risk analysis approach to make decisions on species prevention and control.

Other Information

In 2011, MNR, the CFIA, the Department of Fisheries and Oceans Canada, and the Canadian Forest Service branch of Natural Resources Canada signed a memorandum of understanding that outlines the need for greater co-operation and co-ordination of efforts to address invasive species issues. To advance this enhanced federal-provincial collaboration, in April 2011, the Canadian and Ontario governments established an Invasive Species Centre within the Great Lakes Forestry Centre in Sault Ste. Marie. The OISSP states that the Invasive Species Centre will play a pivotal role in delivering key actions identified in the Strategic Plan.

In December 2012, MNR released Biodiversity: It's In Our Nature, Ontario Government Plan to Conserve Biodiversity, 2012-2020 (the Biodiversity Plan). This plan sets out the actions and activities that ministries intend to implement over the next decade to advance biodiversity conservation and contribute to meeting the biodiversity goals articulated in Ontario's Biodiversity Strategy, 2011. Implementing the OISSP and supporting the Invasive Species Centre are listed as the two activities that support the Biodiversity Plan's action to "reduce the threat posed to biodiversity by invasive species."

ECO Comment

The ECO applauds MNR, OMAFRA, MOE and MTO for collaborating to develop a comprehensive invasive species strategy for the province. The ecological, economic and social costs posed by invasive species represent a significant problem for Ontario – one that necessitates a deliberate, comprehensive and co-ordinated solution. The Strategic Plan's goals, activities and tactics provide a logical and thoughtful framework for preventing, responding to and managing invasive species in Ontario.

Nevertheless, the ECO notes that the Strategic Plan lacks the specifics that instil confidence that responsible players will implement what is necessary to ensure success. While the ECO agrees with MNR that the OISSP provides a "conceptual framework for tackling Ontario's invasive species problem," the ECO does not believe that it includes a "detailed action plan designed to ensure progress toward specific outcomes." The ECO is disappointed that MNR and its collaborating ministries decided to remove from the Strategic Plan the government's intention to develop annual implementation plans. When questioned about this, MNR responded that this intention was removed because the ministry

> "recognized that a more efficient model was for planning to occur through regularized annual work planning and priority setting exercises. MNR will help to facilitate these discussions in collaboration with the other ministries. This will enable ministries to use business systems already in place to establish implementation priorities, reflective of needs, resources, partnership opportunities and respond to ever-emerging invasive species issues."

The ECO remains unconvinced; to ensure that the goals, actions and tactics outlined in the OISSP are promptly implemented, the ECO urges MNR, OMAFRA, MOE and MTO to revisit their original intention and commit to co-ordinating the development of a detailed and publicly available annual implementation plan.

Given the nature of some of the OISSP's tactics, the ECO is surprised and disappointed that the Strategic Plan seems to assign no invasive species responsibilities to the Ministry of Municipal Affairs and Housing (MMAH). For example, one management measures tactic is to "encourage municipalities to include invasive species prevention measures within their official plans." Others relate to working with municipalities on policies and practices to reduce disturbance in natural

areas and natural corridors, such as wetlands, and to develop and implement invasive species best management practices for municipal planning documents and zoning. Because these tactics relate to municipal land use planning – something clearly within the mandate of MMAH – the ministry should have been involved in developing the OISSP and specified as a ministry jointly responsible for implementing it.

Finally, the ECO is concerned that the laudable goals of the Strategic Plan will go unfulfilled without adequate funding. The ECO has reported several times before that MNR and MOE are chronically underfunded and lack the finances, staff, and expertise to effectively meet their mandates (see Part 5.1 of the ECO's 2010/2011 Annual Report; Part 2.7 of the ECO's 2007/2008 Annual Report; and the ECO's 2007 Special Report, Doing Less with Less: How Shortfalls in Budget, Staffing and In-House Expertise Are Hampering the Effectiveness of MOE and MNR). MNR is currently moving forward with a plan to "modernize its business and operate on a more cost efficient basis" that involves cutting its budget, staff, partnership funding, and facility locations over three years (for more information about the transformation of MNR, please see Part 2.1 of this Annual Report). In the face of cuts to staff and resources, there is clearly a need to strategically secure funding to ensure the effective implementation of the OISSP. Equally important, funding is needed for other partners (e.g., conservation authorities, municipalities, etc.) to fulfil some of the OISSP's strategic actions.

Other jurisdictions have made funding provisions an integral part of their invasive species strategies. For example, one of the five key actions of BC's Invasive Species Strategy is to "develop a long-term funding strategy for invasive species management in BC that includes baseline funding targets and possible funding mechanisms." The BC strategy also indicates that new funding mechanisms should include approaches that are both universal (applicable to all British Columbians) and targeted (linked to special interests, such as key pathways of introduction and spread). The ECO is disappointed that no comparable actions are included in Ontario's Strategic Plan. Indeed, an important and practical action to have included would have been for MNR to develop and implement the means to finance the prevention, detection and management of invasive species threats.

Review of Posted Decision:

1.10 MNR Delays Publishing Government Response Statement for Polar Bear as Required under the *Endangered Species Act, 2007*

Decision Information

Registry Number: 011-5243
Proposal Posted: May 24, 2012
Decision Posted: September 7, 2012
Comment Period: 46 days
Number of Comments: 13
Decision Implemented: n/a

Keywords: species at risk; polar bear; *Endangered Species Act, 2007*

Description

Overview

The Ministry of Natural Resources (MNR) was required under the *Endangered Species Act, 2007* (*ESA*) to publish government response statements by September 7, 2012 outlining the actions the Government of Ontario would take to protect and recover eight species at risk: bogbean buckmoth, eastern hog-nosed snake; four-leaved milkweed; horsetail spike-rush; lake sturgeon; Laura's clubtail; polar bear; and rusty-patched bumble bee. The ministry completed statements for only six of these species. MNR failed to complete statements for the protection and recovery of polar bear and lake sturgeon.

This ECO review examines the ministry's decision to delay the government response statement for polar bear.

Background

Polar Bears in Ontario

Polar bears (*Ursus maritimus*) are an icon of Canada's arctic and wildlife heritage and have great cultural, spiritual and economic significance to First Nations across Canada's north. Polar bears are also seen as an important indicator of the effects of climate change in Ontario's Far North and circumpolar areas around the globe. Canada is home to 13 of the world's 19 subpopulations of polar bear, including two subpopulations in Ontario, which are the most southern breeding in the world: (1) a small portion of the western Hudson Bay subpopulation, which ranges largely in Manitoba, estimated at 935 individuals; and (2) the southern Hudson Bay subpopulation, which ranges in Ontario, Quebec and Nunavut, estimated at 681 individuals for the Ontario coast.

The species is considered globally vulnerable; the polar bear is a species of 'special concern' under the federal *Species at Risk Act, 2002* and is designated as 'threatened' under the United States *Endangered Species Act*. Canada has a further obligation to protect and monitor polar bears under the 1973 International Agreement on the Conservation of Polar Bears.

The species has been regulated as a 'threatened' species under the Species at Risk in Ontario List (SARO List; O. Reg. 230/08) since September 10, 2009. As part of its assessment, the Committee on the Status of Species at Risk in Ontario (COSSARO) raised significant concerns due to reported declines in bear body condition and survival rates, as well as projected population declines that conclude there is a high probability the species will be extirpated from Hudson Bay within 45 years. The primary threat to polar bears in Ontario is habitat alteration due to climate change, which is expected to lead to: reduction of mating and feeding habitat due to loss of sea ice; loss of maternal den sites in terrestrial habitats; and loss of prey species. (For more on Ontario's polar bears and other marine mammals, see pages 52 to 57 of Part 2 of the ECO's 2011/2012 Annual Report).

The majority of human-caused mortality for polar bears is through regulated subsistence harvesting by First Nations peoples. The southern Hudson Bay subpopulation is managed jointly by the governments of Ontario, Nunavut and Quebec and their respective Aboriginal communities. Informal kill limits for Treaty 9 First Nations on the James Bay and Hudson Bay coasts are set at 30 individuals per year (by restricting sales of over 30 bear hides), although MNR estimates that an average of eight bears per year have been harvested annually since the 1990s. Over the last decade, fewer than 50 bears per year were harvested from the subpopulation per year (inclusive of Ontario, Quebec and Nunavut). However, according to the International Union for Conservation of Nature Polar Bear Specialist Group, in 2011 a recent peak of 104 bears were killed from the southern Hudson Bay population: an estimated 108 per cent increase in harvest over the 10-year period from

2002 to 2011. In 2012, the governments of Nunavut, Ontario and Quebec (along with Inuit and wildlife management organizations) came to a voluntary agreement to keep the overall annual harvest level of the subpopulation to 60 bears.

Recovery Strategies

Under the *ESA*, MNR must ensure a recovery strategy is prepared within two years of a threatened species being listed. Recovery strategies are prepared by independent authors and provide recommendations to the ministry on species recovery and protection, as well as suggest areas to be protected through a habitat regulation.

The final recovery strategy for polar bear was not posted as required by September 10, 2011 (i.e., within two years of the species being listed). When the ECO contacted the ministry in December 2011 to inquire why the recovery strategy was late in being posted, MNR indicated that the strategy had been prepared by the legislated deadline, but its publication on the Environmental Registry had been delayed due to the provincial election. The final polar bear recovery strategy was published on December 7, 2011; almost three months past the statutory timeline (see Figure 1).

The recovery strategy for polar bears in Ontario recommended a number of prioritized actions essential for polar bear recovery to address threats to the species, as well as fill necessary knowledge gaps. Some of the critical (highest priority) actions included: promoting and setting greenhouse gas reduction targets in Ontario; developing guidance policies and best management practices to reduce the impacts of development, such as mineral exploration, within polar bear habitat; enhance participation of Ontario and First Nations in inter-jurisdictional management and monitoring; and undertaking a number of key research activities, including monitoring of body condition, population trends and population size.

Government Response Statements

Within nine months of a recovery strategy being released, MNR is required to publish a statement outlining the actions the Government of Ontario will take in response to the recovery strategy for each species (the government response statement). In contrast to recovery strategies, a government response statement may evaluate social and economic factors in determining the feasibility of particular recovery actions as recommended in the recovery strategy.

On September 7, 2012, MNR did not finalize the government response statement for polar bear as required. The ministry stated that a decision was made to delay the government response statement for polar bear because more extensive engagement was needed with the public and First Nations. MNR promised that the government response statement for polar bear would be addressed in a new proposal on the Environmental Registry, and that the final statement was anticipated to be completed in June 2013.

The ministry further stated that the habitat regulation for polar bear had not yet been developed, although it was due to be at least proposed by September 10, 2012. In an information notice (Environmental Registry #011-7001), the ministry stated that additional time was required to prepare habitat regulation proposals for polar bear, lake sturgeon and eight other species at risk "to ensure that adequate time and resources … will be devoted to describing the area to be protected as habitat in each of the regulation proposals." MNR estimated that a polar bear habitat regulation proposal would be prepared by May 1, 2014.

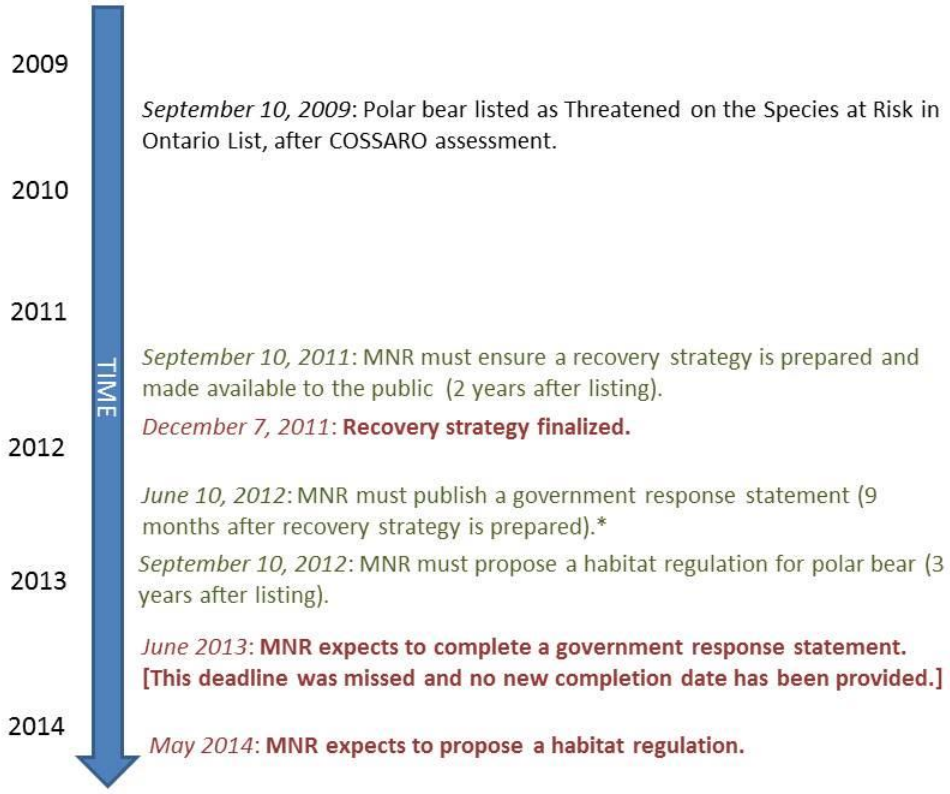


Figure 1: Discrepancies between statutory deadlines under the *Endangered Species Act, 2007* and completion dates for recovery planning elements by the Ministry of Natural Resources. Lighter text indicates original timelines, based on the date the species was first regulated as threatened; darker text indicates the adjusted deadlines due to delays throughout the process. *Note: The due date for the polar bear government response statement provided is based on recovery strategy being finalized on date originally required.

Implications of the Decision

Failure to Meet Statutory Deadlines for Recovery Planning

MNR failed to meet the *ESA*'s timelines for polar bear recovery planning. The ministry was first late in having the species' recovery strategy prepared, which had a domino effect on later planning requirements. The *ESA* does allow for the ministry to take additional time to ensure recovery strategies are prepared, provided it posts a notice on the Environmental Registry outlining its reasons for needing more time prior to the deadline. However, MNR did not post any such statement on the Registry.

MNR then missed its required timeline to publish its government response statement for polar bear within nine months of the recovery strategy being prepared. In contrast to recovery strategies, the *ESA* does not authorize the ministry to take any additional time to publish a government response statement. As of July 15, 2013, the ministry had not yet introduced new proposal notices on the Environmental Registry regarding polar bear or lake sturgeon and MNR therefore missed its own extended deadline of June 2013. It has now been an entire additional year beyond the two years and nine months normally expected under the *ESA* process and MNR has provided no updated information about when it expects to produce the government response statement.

The ministry's delays will have further downstream effects on future *ESA* recovery planning elements. The *ESA* requires MNR to review the progress towards the protection and recovery of a species five years after the government response statement for that species is published; the timeline for these required reviews of progress will now likely be pushed back.

The ministry also expects to be late in meeting its deadline to propose a habitat regulation for polar bear. Rather than taking the legislated three years, the ministry expects it will take at least four years and eight months to post a proposal notice on the Environmental Registry, provided MNR posts a notice by May 1, 2014 to which it has committed.

No Direction Regarding Recovery Activities or Priorities

The purpose of government response statements is to summarize the actions that the Government of Ontario intends to take in response to recovery strategies and its priorities with respect to taking those actions. Since there has been no such direction provided for polar bear, there is virtually total uncertainty as to what recovery activities can or should be undertaken by MNR, third-party organizations and First Nations. Without a government response statement, recovery activities, and their funding, may be held up until the response statements are complete.

Public Participation & *EBR* Process

MNR posted a proposal notice on the Environmental Registry for a 30-day comment period for a first stage of consultation; then re-posted the proposal with draft government response statements for a 46-day comment period at a second stage of consultation, excluding polar bear. The ministry also held stakeholder consultation sessions in Toronto, Thunder Bay and Sudbury; sessions were also held with First Nations, the federal government and U.S. state governments.

The ministry reported it received 13 comments via the Environmental Registry posting, including nine responses to its online survey. However, the ministry also solicited written comments during its stakeholder consultation sessions, which it provided to the ECO on request.

Comments from the polar bear survey were generally supportive of all recommended recovery actions. Some commenters raised questions about how the ministry would address human-bear conflict in the region. Many noted that addressing climate change, the primary threat to polar bear, would require policies and actions beyond the provincial level.

SEV

MNR stated that it considered its Statement of Environmental Values (SEV) in its decision to prepare government response statements for six species at risk (bogbean buckmoth; eastern hog-nosed snake; four-leaved milkweed; horsetail spike-rush; Laura's clubtail; and rusty-patched bumble bee), but it does not appear that the ministry considered its SEV for its decision to postpone finalizing its statement for polar bear.

ECO Comment

Timelines under the *ESA* are legal requirements. The ECO is extremely disappointed that MNR failed to meet required deadlines to publish its response statements for polar bear and lake sturgeon. This is not the first time that MNR has breached the *ESA*'s binding timelines for species recovery. Moreover, the ECO has previously found government response statements for other species to be

insufficient for the task of protecting and recovering species: weak, vague and simply reiterating the responsibilities the government already has under the *ESA*. But worse, for polar bears, the government has failed to even prepare any statement at all. The ministry's delays will have a domino effect on polar bear conservation, the net result being a delay in government action to protect and recover the species.

There is no doubt that polar bear conservation presents complex issues that garner much attention and warrant extensive consultation and discussion. But the Act's intent is for government to move swiftly to act in the interests of Ontario's species at risk. The *ESA*'s requirements are reasonable: the Act explicitly specifies that government should consider feasibility, including social and economic factors, when determining the actions it will take to protect and recover species. The government's plans for protecting these threatened species – based on what it deems to be feasible – need to be put in writing and clearly articulated for the public; the government's lack of will in doing so is unjustified.

Ontario is steward to globally significant polar bear populations that are imperiled. Our conservation efforts, or lack thereof, attract international interest. Immediate action is needed to prevent the extirpation – the complete loss – of polar bears from the province within only a few decades. Complex problems, like polar bear conservation, require tough choices to be made: that is why we have a Ministry of Natural Resources entrusted with making decisions on how to best protect and recover species at risk. To delay dealing with the problem will not make it go away – it will only make the situation worse for a species already in peril.

Review of Posted Decision:

1.11 MNR Delays Publishing Government Response Statement for Lake Sturgeon as Required under the *Endangered Species Act, 2007*

Decision Information

Registry Number: 011-5243
Proposal Posted: May 24, 2012
Decision Posted: September 7, 2012
Comment Period: 46 days
Number of Comments: 13
Decision Implemented: n/a

Keywords: Far North; species at risk; sturgeon; waterpower; polar bear; *Endangered Species Act, 2007*; *Far North Act, 2010*

Description

Overview

The Ministry of Natural Resources (MNR) was required under the *Endangered Species Act, 2007* (*ESA*) to publish a government response statement by September 2012 outlining the actions the Government of Ontario would take to protect and recover eight species at risk: bogbean buckmoth; eastern hog-nosed snake; four-leaved milkweed; horsetail spike-rush; lake sturgeon; Laura's clubtail; polar bear; and rusty-patched bumble bee. The ministry completed statements for only six of these species. MNR failed to complete statements for the protection and recovery of polar bears and lake sturgeon and instead stated in its decision notice that it would be delaying delivery of these documents.

This ECO review examines the ministry's decision to delay the government response statement for lake sturgeon.

Background

Lake Sturgeon in Ontario:
Lake sturgeon (*Acipenser fulvescens*) is the largest freshwater fish species in Ontario and occurs throughout the province. Lake sturgeon mature late in life and reproduce relatively infrequently; individuals born today won't mature until about 2030 and will spawn only every 5 to 9 years after that. Lake sturgeons are also very long-lived: the oldest individual ever caught in Ontario was reported to be over 150 years old. These attributes make lake sturgeon populations sensitive to disturbances.

Lake sturgeon experienced drastic population declines due to commercial fishing in the late 1800s and early 1900s. Sturgeon populations across many regions in Canada were severely depleted, and some extirpated, by the early part of the 20th century; most have never recovered. Commercial fishing for lake sturgeon was ended in three of Ontario's Great Lakes in the 1970s and closed in Lake Huron in 2009. Current threats to lake sturgeon in Ontario include habitat alteration and fragmentation, pollution, illegal harvest, exploitation, species invasions and climate change.

There are three distinct populations of lake sturgeon in Ontario, each regulated under the *ESA* since September 10, 2009: the Great Lakes/Upper St. Lawrence River population (threatened), the northwestern Ontario population (threatened) and the southern Hudson Bay/James Bay population (special concern). Only the two threatened populations receive explicit protection under the *ESA*; however, capture of the southern Hudson Bay/James Bay population is prohibited under Ontario's fishing regulations; MNR only permits catch and release fishing of this population.

Habitat alteration and fragmentation associated with dam construction and operation is considered a significant threat to lake sturgeon. Hydro-electric stations and dams can impede migration to spawning grounds, accidentally trap or entrain sturgeon and can have negative effects on egg survival. Hydro-electric power currently makes up the bulk of Ontario's total renewable energy supply. The province's Long Term Energy Plan notes that more hydro-electric power capacity will be added to Ontario's electricity system in the next eight years than the total added over the previous 40 years, including small scale projects.

Recovery Strategies:
Under the *ESA*, MNR must ensure a recovery strategy is prepared within two years of a threatened species being listed. Recovery strategies are prepared by independent authors and provide recommendations to the ministry on species recovery and protection, as well as suggest areas to be protected through a habitat regulation.

A recovery strategy for lake sturgeon (northwestern Ontario and Great Lakes/Upper St. Lawrence River populations) was expected to be completed by September 10, 2011 (i.e., within two years of the species being listed as threatened). The final strategy was not published until December 7, 2011, almost three months past the statutory timeline.

The recovery strategy for lake sturgeon in Ontario recommended a number of possible actions, including: utilizing best management practices and new technology (in waterpower operations) to minimize lake sturgeon mortality; developing tools to evaluate cumulative impacts of in-stream development on lake sturgeon populations; and, where appropriate, increasing lake sturgeon abundance through habitat improvement, mitigation or removal of factors resulting in mortality.

Government Response Statements

Within nine months of a recovery strategy being released, MNR is required to publish a statement outlining the actions the Government of Ontario will take in response to the recovery strategy for each species (the government response statement). A government response statement may evaluate social and economic factors in determining the feasibility of particular recovery actions as suggested in the recovery strategy.

The government response statement for lake sturgeon was not completed on September 7, 2012 as required. The ministry stated that a decision was made to delay the government response statement for lake sturgeon because more extensive engagement was needed with the public and First Nations. MNR promised that a government response statement for lake sturgeon would be addressed in a new proposal on the Environmental Registry and that the final statement would be completed in June 2013. MNR did not meet this deadline and has not provided a revised expected date for completion for the government response statement.

MNR also stated that a habitat regulation for lake sturgeon had not yet been developed, although it was due to be at least proposed by September 10, 2012. The ministry stated that additional time was required to prepare the habitat regulation for lake sturgeon, as well as for polar bear and eight other species at risk, "to ensure that adequate time and resources … will be devoted to describing the area to be protected as habitat in each of the regulation proposals." MNR estimated a lake sturgeon habitat regulation proposal would be prepared by May 1, 2014.

Agreements for Hydro-Electric Generating Stations

The *ESA* prohibits harming or harassing threatened or endangered species, or damaging or destroying their habitat. However, prior to July 1, 2013, under O. Reg. 242/08, operators of existing hydro-electric generating stations had a time-limited general exemption from these *ESA* provisions, provided the operation met certain conditions. The exemption extended three years from the date a species was listed on the SARO List, or three years from the earliest date the species existed at the station – whichever was later. Any new hydro-electric stations built after a species became regulated as threatened or endangered under the *ESA*, in areas where the species is known to occur, required a permit under the Act prior to beginning construction. However, if a new hydro-electric generating station was built and operators only later discovered the threatened or endangered species present at the location, the three-year general exemption would then begin (from the time the species is known to exist at the station).

After the three year exemption expired, a continued exemption was conditional on the waterpower operator having an agreement in place with the Minister of Natural Resources. These species-specific *ESA* agreements would provide standard monitoring and reporting conditions as well as specific mitigation requirements (see Environmental Registry #011-3334).

Changes to Rules for Hydro-Electric Generating Stations

On May 31, 2013, MNR made significant amendments to O. Reg. 242/08. Under the revised regime, which took effect on July 1, 2013, hydro-electric operators no longer require an agreement or permit in order to harm or harass most species at risk, including lake sturgeon. Rather, they must register their activity and follow a set of rules prescribed in regulation.

These amendments reduce the level of ministry oversight of the impact of waterpower operations on lake sturgeon. Previously, O. Reg. 242/08 had required that the Minister, prior to entering into an agreement, must be of the opinion that the operations would not jeopardize the survival or recovery of the species, and that the agreement would not conflict with the implementation of any action set out in the government response statement. The amendments removed these important

conditions and make the role of the government response statement in administering waterpower exemptions less explicit.

Implications of the Decision

Failure to Meet Statutory Deadlines for Recovery Planning

MNR failed to meet the *ESA*'s timelines for lake sturgeon recovery planning. The ministry was first late in having the species' recovery strategies prepared, which had a domino effect on later planning requirements. The *ESA* does allow for the ministry to take additional time to ensure recovery strategies are prepared, provided it posts a notice on the Environmental Registry outlining its reasons for needing more time prior to the deadline. However, MNR did not post any such statement on the Registry. When the ECO contacted the ministry in December 2011 to inquire why the recovery strategies were nearly three months late in being posted, MNR indicated that although the strategies had been prepared by the legislated deadline, their publication on the Environmental Registry had been delayed due to the provincial election.

MNR then missed its required timeline to publish its government response statement for lake sturgeon within nine months of the recovery strategies being prepared. In contrast to recovery strategies, the *ESA* does not authorize the ministry to take any additional time to publish a government response statement. The ministry also missed its deadline to propose a habitat regulation for lake sturgeon in September 2012.

The ministry's delays will have further downstream effects on future *ESA* recovery planning elements. The *ESA* requires MNR to review the progress towards the protection and recovery of a species five years after its government response statement is published; the timeline for these required reviews of progress will now be pushed back.

No Direction Regarding Recovery Activities or Priorities

The purpose of government response statements is to summarize the actions that the Government of Ontario intends to take in response to recovery strategies and its priorities with respect to taking those actions. Since there has been no such direction provided, there is virtually total uncertainty as to what recovery activities for lake sturgeon can or should be undertaken by both MNR or other third-party organizations. Without a government response statement, recovery activities, and their funding, may be held up until the response statements are complete. Moreover, proponents of development are left in the dark on what may or may not be an appropriate activity that potentially affects the conservation of lake sturgeon and its habitat. Coupled with the reduced ministry oversight under the revised exemption regime, there has been an almost total absence of MNR-led involvement on protection and recovery actions for lake sturgeon.

No Certainty for Waterpower Operators

On September 10, 2012 – three years after lake sturgeon became regulated under the *ESA* – the general exemption for hydro-electric generating stations from the section 9 and 10 provisions under the *ESA* for lake sturgeon expired for sites with known populations. To continue operating under the exemption, waterpower stations affecting protected lake sturgeon were then required to have an *ESA* agreement in place (unless lake sturgeon were found at the site at a date after the species became regulated; the three-year exemption starts at the earliest date the species is known to exist at the station). Without an approved agreement or permit, these sites would have been in a state of non-compliance within the *ESA*.

Although MNR posted a number of information notices regarding proposed agreements for lake sturgeon on the Environmental Registry in April 2011 (#011-3334), July 2012 (#011-6793) and December 2012 (#011-7518), no agreements were ever signed for lake sturgeon. MNR reported to the ECO in July 2013 that only four waterpower agreements had been issued since the *ESA* had been passed (inclusive of all potentially impacted species at risk, e.g., American eel, black redhorse, wood turtle, etc.).

Following the changes to O. Reg. 242/08, agreements are no longer required as hydro-electric operators must now only register their activities. As a condition of operation, however, they must prepare a mitigation plan which addresses all species at risk on the site, as well as follow steps to minimize adverse impacts to protect species.

MNR's failure to publish the government response statement for lake sturgeon on time may have been a barrier to developing efficient and transparent *ESA* agreements for waterpower operators. For example, at the ministry's early engagement sessions with stakeholders and First Nations, there were several questions about where direction for agreements would come from in the absence of a government response statement. MNR responded that the "best available information" would be used, directing waterpower operators to work with the ministry's local district offices. This vague advice created an atmosphere of uncertainty for waterpower operators.

Under the new proponent-driven exemption process, the absence of a government response statement leaves operators without valuable guidance on intended protection and recovery activities which might be taken into consideration in developing a site-specific mitigation plan. Although the government response statement is no longer an explicit consideration in the exemption process, many of the concerns about guidance for agreements may also apply to the development of fulsome and appropriate mitigation plans. An industry association has attempted to address this lack of information by creating its own industry best management practices guide for mitigating negative impacts on lake sturgeon in the province. While laudable, it is the responsibility of government to create and approve best management practices for a given species at risk.

Public Participation & *EBR* Process

MNR posted a proposal notice on the Environmental Registry for a 30-day comment period for a first stage of consultation; then re-posted the proposal with draft government response statements for a 46-day comment period at a second stage of consultation, excluding lake sturgeon. The ministry also held stakeholder consultation sessions in Toronto, Thunder Bay and Sudbury; sessions were also held with First Nations, the federal government and U.S. state governments.

The ministry reported it received 13 comments via the Environmental Registry posting, including nine responses to an online survey. However, the ministry also solicited written comments during its stakeholder consultation sessions, which it provided to the ECO on request.

Most of those providing comments on the lake sturgeon survey self-identified as belonging to the "industry" sector. Some commenters noted that the government response statement should be considered within the context of Ontario's Long Term Energy Plan.

SEV

MNR stated that it considered its Statement of Environmental Values (SEV) in its decision to prepare government response statements for six species at risk (bogbean buckmoth; eastern hog-nosed

snake; four-leaved milkweed; horsetail spike-rush; Laura's clubtail; and rusty-patched bumble bee), but it does not appear that the ministry considered its SEV in its decision to postpone finalizing its government response statement for lake sturgeon.

ECO Comment

Timelines under the *ESA* are legal requirements. The ECO is extremely disappointed that MNR failed to meet required deadlines to publish its response statement for lake sturgeon. The ministry's delays will have a domino effect on planning for lake sturgeon recovery, the net result being a delay in government action to protect and recover the species.

The *ESA*'s requirements are reasonable: the Act explicitly specifies that government should consider feasibility, including social and economic factors, when determining the actions it will take to protect and recover species. The government's plans for protecting these threatened species, based on what it deems to be feasible, need to be put in writing and clearly articulated for the public; the government's delay in doing so is unjustified. Indeed, there is nothing in the *ESA* that would prevent MNR from updating its government response statement – at any point – with changes or new information resulting from ongoing consultation with stakeholders and First Nations.

Moreover, it is difficult to imagine that there are no hydro-electric stations that may be harming lake sturgeon in Ontario. However, no agreements were signed with MNR in the three-year window, ending in September 2012, exempting facilities from the requirement to obtain a permit under the ESA. The recent regulatory amendments, in July 2013, lowered the exemption standard further by relieving facilities from any direct scrutiny by MNR, as operators are now only required to register their activity with the ministry. Combined with the lack of a government response statement, the result is that lake sturgeon have arguably received little, if any, protection under the ESA, let alone any tangible recovery action.

Review of Posted Decision:

1.12 Regulating Habitat for Reptile Species at Risk

Decision Information

Registry Number: 011-5306
Proposal Posted: December 21, 2011
Decision Posted: June 11, 2012
Comment Period: 47 days
Number of Comments: 193
Decision Implemented: July 1, 2012

Keywords: species at risk; snakes; lizards; reptiles; habitat; recovery strategy

Description

Overview

In June 2012, the Ministry of Natural Resources (MNR) finalized a regulation prescribing the habitats for seven species or species subpopulations classified as endangered or threatened under the *Endangered Species Act, 2007* (*ESA*):

- Bent spike-rush, vascular plant – Endangered;
- Common five-lined skink (Carolinian Population), reptile – Endangered;
- Eastern foxsnake (Carolinian Population), reptile – Endangered;
- Eastern foxsnake (Georgian Bay Population), reptile – Threatened;
- Gray ratsnake (Carolinian Population), reptile – Endangered;
- Gray ratsnake (Frontenac Axis Population), reptile – Threatened; and
- Rapids clubtail, insect – Endangered.

This ECO review examines the habitat regulations for the five reptile populations above.

Background

Ontario's Reptiles and the Endangered Species Act, 2007

Ontario is home to 24 species of reptiles, including snakes, turtles and one species of lizard; this reptile diversity is more than any other Canadian province. Most of the province's reptile species are concentrated in southern Ontario.

Three-quarters of Ontario's reptile species are currently considered to be at some level of risk under the *ESA* (see Table 1). Some major conservation concerns for reptiles across Canada include: habitat destruction; road mortality; contaminants; the illegal pet trade; and deliberate killing. One snake species in Ontario has already been extirpated: the timber rattlesnake (*Crotalus horridus*) was eradicated from Ontario by the 1940s due to deliberate hunting and killing by humans.

Table 1. An Overview of the At-Risk Status of Ontario's Reptile Species

Taxonomic Group	Number of Native Species in Ontario	Species at Risk	Percent of Ontario's Species that are at Risk
Lizards	1	1	100%
Snakes	15	10	67%
Turtles	8	7	88%
Total	**24**	**18**	**75%**

Note: Number of species here does not include subspecies. "Species at Risk" includes species classified under O. Reg. 230/08, made under the *Endangered Species Act, 2007*, as endangered, threatened or special concern.

The eastern foxsnake, gray ratsnake and common five-lined skink were regulated under the Species at Risk in Ontario List (SARO List; O. Reg. 230/08) in September 2009. The *ESA* prohibits killing or harming any species regulated as endangered or threatened, or damaging or destroying their habitats.

Recovery strategies for these species were published on September 10, 2010. As required under the *ESA*, recovery strategies were authored by independent individuals or groups (i.e., not by MNR), and include a description of a suggested area to be regulated as protected habitat for species at risk. The government's response to the recovery strategies (government response statements) were finalized on June 14, 2011. (For more information on government response statements under the *ESA*, see pages 34 to 38 of the ECO's 2010/2011 Annual Report.)

Some protections already existed for these species and their habitats prior to their inclusion on the SARO List. For example, these species are regulated as "specially protected reptiles" under the *Fish and Wildlife Conservation Act, 1997*, and therefore cannot be hunted or trapped. Further, the Provincial Policy Statement, 2005 (under the *Planning Act*) prohibits development and site alteration in "significant wildlife habitat" such as hibernacula of some snake species, in addition to being prohibited in the significant habitat of endangered and threatened species.

Protecting Habitat under the Endangered Species Act, 2007

In the *ESA*, "habitat" is defined as either:

- "an area on which the species depends, directly or indirectly, to carry on its life processes, including life processes such as reproduction, rearing, hibernation, migration or feeding" (general habitat, described in section 10 of the *ESA*); or
- an area prescribed by regulation as the habitat of a particular species (regulated habitat, described in section 56 of the *ESA*).

General habitat protections come into effect the day that a species is regulated as endangered or threatened on the SARO List; this automatic protection applies only to areas currently occupied by a species. Unlike general habitat, regulated habitat can apply to areas that were historically occupied by the species or areas where the species is believed to be capable of living. Regulated habitat can include an area that is larger than, smaller than or equivalent to the area that would apply as general habitat.

If no habitat regulation has been made for a particular species, then the general habitat protections will apply. If a habitat regulation is made for a particular species, the regulated habitat protections will replace those of the general habitat. After the species is newly listed, MNR is required to post a proposal on the Environmental Registry giving notice it is developing habitat regulations within two years for endangered or three years for threatened species.

During development of a habitat regulation, the *ESA* requires the Minister of Natural Resources to consider any recovery strategy and government response that has been published for a species. Further, MNR policy states that when identifying and describing habitat, the government will consider: (a) the area protected under the general definition of habitat; (b) the best available scientific information on the species; and (c) the social and economic implications of the habitat regulation. (For more information on habitat regulations under the *ESA*, see pages 54-55 of the ECO's 2009/2010 Annual Report.)

A regulation describing the habitat for five reptile species populations was filed in June 2012 (in O. Reg. 122/12, amending O. Reg. 242/08 [General] under the *ESA*).

Gray Ratsnake:
The gray ratsnake (*Pantherophis spiloides*) is the largest snake in Canada, with most adults reaching lengths of 1.5 to 1.8 metres. There are two identified populations of gray ratsnake in Ontario: the Carolinian population and the Frontenac Arch population. Ratsnakes require a mosaic of habitat features to carry on life processes, including: forest and edge habitat; oviposition (egg-laying) sites, which are typically rotten interior cavities of trees or compost piles; and hibernation sites. The snakes overwinter underground in communal hibernacula for up to seven months (October to April) each year; researchers believe that gray ratsnakes may have been returning annually to undisturbed hibernacula for hundreds of years. Identified threats to the gray ratsnake in Ontario include: habitat degradation, fragmentation and loss; direct mortality; road mortality; and disturbance or destruction of hibernacula.

The government's goal for the recovery of the gray ratsnake is "to maintain a viable self-sustaining Frontenac Axis population and to halt the decline of the Carolinian population." The government also "supports investigating the feasibility of increasing the distribution and size of the Carolinian population." In its government response statement, the government committed to lead certain recovery initiatives specific to gray ratsnakes, including to: develop a protocol to protect hibernating snakes if accidentally unearthed; develop a survey protocol to be used by third parties to detect the presence or absence of gray ratsnakes; and to conduct a monitoring program for gray ratsnakes at priority Ontario Parks locations to determine species presence, distribution and habitat use.

Eastern Foxsnake:
The eastern foxsnake (*Pantherophis gloydi)* is restricted to the Great Lakes region, with about 70 per cent of its global range in Ontario. The eastern foxsnake is smaller than the gray ratsnake, commonly reaching lengths of 0.9 to 1.4 m. Eastern foxsnakes are associated with shorelines, islands or wetlands near the Great Lakes, and like gray ratsnakes, require a number of habitat types, including: open foraging habitat; thermoregulating (basking) sites; hibernation sites; egg-laying sites; and natural corridors linking these areas together. Eastern foxsnakes are good tree climbers and swimmers and are known to swim long distances across bays and between islands. Like the gray ratsnake, the species' population in the province is broken into regional populations: the Carolinian population in southern Ontario (Essex-Kent and Haldimand-Norfolk) and a separate population along the eastern Georgian Bay coast. Identified threats to the eastern foxsnake in Ontario include: wetland drainage for agriculture; impacts resulting from housing and cottage development; road mortality; human persecution; and collection for the pet trade.

The government's goal for the recovery of eastern foxsnake is to "ensure the persistence of the species and to maintain the current range of occupancy and connectivity of its habitat within both the Carolinian and Georgian Bay populations." In its government response statement, the government committed to developing a protocol to protect hibernating eastern foxsnakes (or other snake species at risk) if accidentally unearthed and to developing a survey protocol to be used by third parties to detect the presence or absence of the snakes.

Common Five-lined Skink:
The common five-lined skink (*Plestiodon fasciatus*) is the only lizard native to Ontario. Skinks are small, growing to about 8 cm, with five cream-coloured stripes running down the length of their back. Juveniles have brightly coloured blue tails which fade in colour with age; these tails can be shed by the skink if attacked by a predator, but can re-grow over time. There are two identified populations of five-lined skink in Ontario: the Carolinian population, which consists of only five known occurrences in southern Ontario, including in Rondeau Provincial Park and Point Pelee National Park, classified as endangered; and the southern Shield population, in 84 locations, classified as special concern. As a species of special concern, the southern Shield population does not receive habitat protections under the *ESA*; the habitat regulation for five-lined skink applies only to the Carolinian population.

The common five-lined skink is associated with openings or edges of deciduous forests, including rocky outcrops, sand dunes and riparian forests. The Carolinian population is found in sandy areas. Identified threats to the five-lined skink in Ontario include: destruction or removal of its microhabitat components (such as cover rock or woody debris); illegal collecting; predation by dogs, cats and raccoons; and road mortality.

The government's goal for the recovery of the common five-lined skink is "to ensure the long-term viability and survival of both designated populations in Ontario." In its government response statement, the government committed to develop a survey protocol to be used by proponents and partners to detect the presence or absence of the skinks.

Habitat Regulations for Eastern Foxsnake, Gray Ratsnake and Five-Lined Skink

The final regulation included several components of each species' habitat, delineated in a number of ways (for additional detail, see Table 2):

- **Geographic restrictions** are provided for each of the species' populations, by naming the geographic areas or municipalities in which the habitat occurs. In the case of the five-lined skink, the habitat regulation also refers to MNR's Ecological Land Classification for Southern Ontario for identification of particular ecological community types;
- **Known or currently used features or sites,** such as hibernacula, nesting or egg-laying sites;
- **Buffer zones**, including those around identified hibernacula, nesting or egg-laying sites; protections for certain areas around specific habitat features (e.g., for gray ratsnake [Carolinian population], areas that provide suitable foraging, thermoregulation or hibernation conditions within 2000 meters of areas that the species depends on to carry out life processes);
- **Specific types of environments that a species directly depends on for its life processes**, such as meadow, forest, hedge row, shoreline, old field and wetland; and
- **Corridors** between areas of known use.

The regulated habitat also includes some habitat that was known to be used in the past, but is not currently in use; for example, natural hibernacula and egg-laying sites known to have been used by gray ratsnakes in the last three years. The regulation also distinguishes between "naturally occurring" sites and "non-natural" sites (e.g., compost piles, building foundations): non-natural sites are generally only protected during the season in which the habitat is actively being used by an individual of the species, while natural sites have longer-term protection, even when not used.

Specific exclusions are also provided for certain areas, such as lake and river habitat below the historic low water mark, or areas currently used for growing agricultural row crops.

Table 2. Final Regulated Habitats for Five Reptile Populations (Source: O. Reg. 242/08, made under the *Endangered Species Act, 2007)*

Species and Geographic Area	***Hibernaculum***	***Egg-Laying/Nesting Sites***	***Basking and Shedding Sites***	***Habitat for Other Life Processes***
Gray ratsnake (Carolinian population - endangered) Brant, Elgin, Haldimand, Niagara, Norfolk and Middlesex	Hibernacula and 150 metre radius around hibernacula.	Naturally occurring egg laying site that is being used, or has been used at any time in the previous three years. Non-natural egg laying site being used from the time it is used until the following November 30. The area within 30 metres of the egg-laying site.	Naturally occurring communal shedding or basking site that is being used, or has been used at any time in the previous three years. Non-natural communal shedding or basking site from the time it is used until the following November 30. The area within 30 metres of the site.	Any part of a meadow, forest, hedge row, shoreline, old field, wetland or similar area being used or on which a gray ratsnake (Carolinian population) directly depends to carry on its life processes; and areas that provide suitable foraging, thermoregulation or hibernation conditions within 2,000 metres around those areas. Movement corridors between regulated areas. Excludes lakes and rivers below the historical low water mark.
Gray ratsnake (Frontenac Axis population - threatened) Leeds and Grenville, Central Frontenac, Frontenac Islands, South Frontenac, Kingston, Drummond-North Elmsley and Tay Valley	*Same as Carolinian population.*	*Same as Carolinian population.*	*Same as Carolinian population.*	Any part of a rock barren, forest, hedge row, shoreline, old field, wetland or similar area being used or on which a gray ratsnake (Frontenac Axis population) directly depends to carry on its life processes; and areas that provide suitable foraging, thermoregulation or hibernation conditions within 1,000 metres around those areas. Movement corridors between regulated areas. Excludes [most] currently used agricultural crop lands and areas of a lake or river below the historical low water mark.

Species and Geographic Area	***Hibernaculum***	***Egg-Laying/Nesting Sites***	***Basking and Shedding Sites***	***Habitat for Other Life Processes***
Eastern foxsnake (Carolinian population - endangered) Chatham-Kent, Essex, Haldimand, Lambton, Norfolk, Bayham and West Elgin	Hibernacula and 100 metre radius around hibernacula.	Naturally occurring egg laying site that is being used, or has been used at any time in the previous three years. Non-natural egg laying site being used from the time it is used until the following November 30. The area within 30 metres of the egg-laying site.	Naturally occurring communal shedding or basking site that is being used, or has been used at any time in the previous three years. Non-natural communal shedding or basking site from the time it is used until the following November 30. The area within 30 metres of the site.	Any part of a prairie, savannah, hedge row, shoreline, marsh, old field, forest, sand dune or similar area that is being used or on which an eastern foxsnake (Carolinian population) directly depends to carry on its life processes and an area that provides suitable foraging, thermoregulation or hibernation conditions within 1,500 metres around those areas. Movement corridors between regulated areas. Excludes lakes and rivers below the historical low water mark.
Eastern foxsnake (Georgian Bay population - threatened) Parry Sound, Sudbury Georgian Bay, Penetanguishene, Severn, Tay and Tiny	*Same as Carolinian population.*	*Same as Carolinian population.*	*Same as Carolinian population.*	Any part of a rock barren, open forest, old field, marsh, shoreline or similar area being used or on which an eastern foxsnake (Georgian Bay population) directly depends to carry on its life processes; and areas that provide suitable foraging, thermoregulation, or hibernation within i) 3,600 metres of those areas, no more than 500 metres above the high water mark of Georgian Bay); or ii) 1,500 metres from those areas within specific regional boundaries (described in regulation). Movement corridors between regulated areas. Excludes [most] currently used agricultural crop lands and areas of a lake or river

Species and Geographic Area	***Hibernaculum***	***Egg-Laying/Nesting Sites***	***Basking and Shedding Sites***	***Habitat for Other Life Processes***
				below the historical low water mark.
Five-lined skink (Carolinian population - endangered) Chatham-Kent, Elgin, Essex, Haldimand, Halton, Lambton, Middlesex and Niagara	Naturally-occurring areas being used, or having been used at any time in the past three years, by a common five-lined skink (Carolinian population) as a nesting or hibernation site and a 30 metre radius around the area. Non-natural areas used for nesting until the following Aug 31 and 50 metres around the area. Non-natural areas used for hibernation until the following May 31 and 50 metres around the area.		N/A	An area that is being used, or has been used at any time in the previous three years to carry on life processes other than nesting or hibernation and 50 metres around the area. If any area (nesting site, hibernaculum or area for other life processes; whether natural or non-natural) is designated in the Ecological Land Classification System for Southern Ontario as a beach/bar, sand dune, sand barren, tallgrass prairie, savannah or woodland forest, or cultural meadow, this entire classified area would be protected along with any adjacent "contiguous" areas or areas connected by swamp or marsh that are also one of those classifications.

Implications of the Decision

Similarities with Recovery Strategy and Government Response Statement

It appears that MNR has followed many recommendations from the recovery strategies in its development of the habitat regulations for these reptile species. As reflected in the recovery strategies, the habitat regulation explicitly protects both natural and non-natural sites. As these species have been documented to nest or carry on other life processes in human-altered sites (for example, eastern foxsnakes have been documented using abandoned vehicles, asphalt, masonry, canals and wells for processes such as hibernation, egg-laying and shelter), this approach seems to be precautionary. Although some buffer zones are not as large as was suggested, the final regulation provides protection for movement corridors between habitat features.

The habitat regulation does not automatically protect the habitat of newly discovered occurrences of at-risk reptiles outside of the designated geographic areas. Therefore, the regulation would not protect yet-unknown occurrences of the species (i.e., if MNR did not sufficiently delineate the current range extent) or if the range expands through recovery. This failure to include newly-found habitat appears consistent with the government's recovery goals for these species: both fail to address recovery beyond the currently known ranges of occupancy for the species. It would appear that the recovery goals for these species generally aim to simply stop their decline, rather than increase population numbers or ranges of occupancy.

Inconsistencies with Recovery Strategy

Some differences exist between the recommendations made in the recovery strategies and the aspects of habitat that are protected under the regulation. Although some aspects of the habitat regulation appear even more protective than was recommended, it is unclear why some of these variations from the recommendations were made. For example, no rationale was provided to explain why, for the gray ratsnake (Carolinian population), the regulation provides a longer period of protection for oviposition sites (three years from last know use) than was recommended in the recovery strategy (two years from last known use); or why regulated buffers varied between the Carolinian (2,000 metres) and Frontenac Axis (1,000 metres) populations around gray ratsnake habitat. The habitat regulations also protect communal shedding and basking sites, while this was not specifically identified in the recovery strategies for eastern foxsnake or gray ratsnake.

The explicit exclusion of agricultural lands from the regulated habitat of both snake species was not recommended in the recovery strategies for either of those species. Further, the agricultural exemption was not discussed in the proposal for the regulation; therefore, the public would have been unaware of this exemption and unable to provide comment. (A similar circumstance occurred in MNR's treatment of an exemption for residential development in eastern meadowlark and bobolink habitat; for more information, see pages 30-33 in Part 2 of the ECO's 2011/2012 Annual Report.)

Lack of Information Available on Habitat Use

The habitat regulations appear to assume that the ministry has access to accurate and up-to-date knowledge of habitat and features, as well as species' use patterns of these areas, from a broad scale (e.g., knowledge of the species' full range of occupancy) to a very fine resolution (e.g., individual hibernacula). However, some of the recovery strategies outline significant gaps in knowledge of species' habitat features: for example, the eastern foxsnake recovery team estimates less than 5 per cent of hibernacula have been identified for the Georgian Bay population and the "vast majority" of hibernation sites are unknown for the Carolinian population.

The lack of baseline data at this point could make it difficult for MNR to understand when a contravention has occurred. Further, without a dedicated and ongoing system of research, monitoring, data collection and analysis, MNR may generally have difficulty enforcing the habitat regulation at all. It is particularly important that MNR keep up-to-date annual records for these species' habitats due to the provision in the regulation that a documented three-year period of non-use would result in the habitat elements no longer being protected (e.g., gray ratsnake hibernacula).

The government has committed to developing a survey protocol for these reptiles to be used by third parties to detect the presence or absence of the snakes. This commitment may not be enough in itself to ensure that the essential monitoring and data collection will be undertaken, although it is necessary to effectively enforce the habitat regulation.

Additional Clarity for the Public

The simple fact that an area is prescribed in regulation does not mean it is off-limits to activities or development. If an activity is unlikely to damage or destroy a species' habitat, it would be acceptable to continue without any further requirements. If an activity is likely to damage or destroy an at-risk species' habitat, a person or proponent would be required to either: 1) obtain a permit, issued under section 17 of the *ESA,* to proceed with that particular activity; or 2) for qualifying activities, register under MNR's new permit-by-rule exemption regime as set out in O. Reg. 242/98 (for more information on how MNR determines whether or not an activity is likely to damage or destroy habitat, see Chapter 2.4 of Part 2 of the ECO's 2011/2012 Annual Report).

However, the language within the habitat regulation may not, in practical terms, provide clarity for landowners or others in terms of what activities may or may not be allowable.

To provide better clarity in how the habitat regulation is to be applied, MNR released "habitat protection summary" fact sheets at the time the amending habitat regulation was filed. The ministry has begun to develop such plain-language overviews for other recent species at risk habitat regulations as well (see links provided to MNR's website through Environmental Registry #011-5306 and #011-5625).

MNR's new practice of providing examples in species-specific habitat protection summaries, which identify what types of activities are and are not considered to "damage or destroy" a species habitat, may prove helpful. For example, MNR's fact sheet for gray ratsnake (Carolinian population) states that activities that are generally compatible within the regulated area might include: yard work such as lawn care and gardening; continuation of existing agricultural practices such as annual harvest; and renovations or the building of small structures such as a shed or a deck. The habitat protection summary also provides examples of activities that may not be compatible within regulated habitat; for example, non-compatible activities include: significant reduction or clearing of natural and semi-natural features; large-scale construction, such as a housing development or roads; and removal or alteration of documented nesting sites that may be found in rotting logs or compost piles.

By providing this simplified, species-specific information, MNR may avoid having to field numerous questions from citizens concerned about continuing their regular activities on their properties and also possibly avoid proponents applying for *ESA* permits unnecessarily. Further, this information provides some clarity and certainty for landowners unsure of how to proceed when their land is included within a regulation.

Public Participation & *EBR* Process

The proposal for this regulation was posted for 47 days, from December 21, 2011 to February 6, 2012, and MNR received 193 comments. Rather than providing the language of a draft regulation, MNR instead provided the proposal for the seven species and species subpopulations in a single plain-language information sheet. Although it is beneficial that the ministry provided an easy-to-understand overview, since it did not provide the draft language of the regulation, the public did not have the opportunity to comment on the details of the proposal. Some commenters noted that the timing of the notice and comment period over the winter holiday season was unreasonable; however, it appears the ministry accepted and incorporated comments received regarding this regulation even after the February 6th deadline. Some of these comments are summarized here.

Many commenters were responding to letters they had received as landowners with known or potential habitat on their property. Some of these commenters voiced concern about how their property rights would be affected by the habitat regulation. Several individuals predicted that regulating habitat would prove counterproductive, voicing concern that the looming habitat regulation, and associated uncertainty about its impact on private property rights, would only provide incentive to destroy the reptiles at risk and habitat if found on private property.

The Ontario Federation of Agriculture (OFA) noted that "farmers require, and deserve, certainty and clarity" regarding the proposed habitat regulation, but that it was discouraged by the "complete lack of information in the draft habitat regulations on how farmers and other rural property owners who find themselves under the scope of these regulations can continue to use their lands as they have in the past." The OFA stated that "providing no guidance on how

agricultural activities can be compatible with habitat protection is unacceptable." Several individual farmers also submitted comments echoing the OFA's concerns.

The Canadian Wildlife Service and Parks Canada also provided comments. These federal agencies questioned MNR's rationale for a few of the choices that were made in the regulation and suggested the ministry provide more detail regarding why particular features were or were not included in the proposed regulation. For example, the Canadian Wildlife Service wondered why the proposed regulation for eastern foxsnake (Carolinian population) did not include aquatic areas between current water level and high water mark, when the recovery strategy clearly indicates the species uses that habitat. Parks Canada also raised concerns that some of the proposed habitat regulation did not align with proposed federal critical habitat for the five-lined skink and suggested more work was required to cooperate and harmonize approaches.

The Ontario Home Builders Association (OHBA) commented that "the *ESA* has contributed to uncertainty and frustration with respect to both implementation and transition for the new housing and development industry." The OHBA noted that the habitat regulation should work in association with existing legislation and complement broader provincial goals and, specifically, that MNR should improve the approvals process for overall benefit permits under the Act.

Ontario Nature, David Suzuki Foundation and Ecojustice submitted a joint comment. They pointed out that although habitat regulations should serve the *ESA*'s purpose of protecting and recovering endangered and threatened species, the draft regulations do not include historic or potential habitat necessary for species recovery. The groups questioned, "How can we expect species at risk to recover if we are not including habitat in which species can expand their populations and, in some cases, are giving the green light to unregulated development in their known geographic range?" These organizations also suggested that the habitat regulations should be based on the recommendations of the recovery teams and the best available scientific information, should include the habitat of any new or unknown occurrences of threatened or endangered species, and should not prescribe an area that is smaller than that which would be protected under the general definition of habitat. The groups also made a number of specific suggestions regarding individual habitat regulations.

The Ministry of Transportation (MTO) expressed concern about a number of issues regarding the proposed habitat regulations, as well as the *ESA* in general. MTO questioned the inclusion of "non-natural" habitat within the proposed regulation, stating "it is unclear what the protection may entail for individual species and what impact that will have on regular MTO maintenance activities including mowing, vegetation removals, ditch clean-outs, etc. which are all intended to keep the highways safe and in good condition." MTO further pointed out that the inclusion of non-natural habitat within the regulation raised confusion regarding the habitat of the barn swallow (*Hirundo rustica*), which was recently regulated as threatened under the *ESA*, as it commonly nests on MTO structures. MTO suggested that section 16 of the *ESA* could be used to provide an agreement between MTO and MNR that could address measures to protect species at risk for common transportation undertakings. The ministry also questioned how the habitat regulations would be brought into force (i.e., as a transition from the current general habitat protections to regulated habitat protections), asking: "what happens once MTO has received all appropriate permits and approvals for construction, and then new habitat regulations come into play that could put the project in contravention?"

Two municipalities commented that they had not received direct notice from MNR of the proposed regulation or the affected areas in their region, even though local property owners and upper-tier municipalities had. One municipal commenter noted that council and staff need a clear understanding of the regulations as well as their impact and administration. Another municipality, the Township of the Archipelago, urged MNR to provide additional resources to the local district

office to effectively implement the *ESA* and habitat regulation for eastern foxsnake in Georgian Bay.

Other commenters:

- supported the protection of these species;
- suggested that buffer zones or other regulated areas should be expanded;
- expressed concern that MNR may not be able to monitor or provide evidence of species' habitat features such as hibernacula or nesting sites; in particular, that the ministry would not be able to document a "non-event" such as three years of consecutive non-use of a site; and
- described five-lined skink as being abundant or stable in Rondeau Provincial Park.

In its decision notice, MNR stated that it had revised regulatory provisions where appropriate to increase clarity and transparency. It noted that an exclusion was added to the habitat regulation for eastern foxsnake (Georgian Bay population) and gray ratsnake (Frontenac Axis population) for areas of existing row crops. The ministry also stated that it would provide greater clarity in associated notification materials "by including statements of supporting rationale, details of the regulation development process, and examples of activities that are generally compatible [or] incompatible with maintaining the function of habitat components."

SEV

MNR considered its Statement of Environmental Values in its decision to amend its regulation regarding species at risk habitat for these species. For example, the ministry considered its principle to recognize the finite capacity of natural systems in planning and allocation decisions, noting that "regulating the habitat of species at risk is based on the understanding that our resources and environment have limits and are not inexhaustible." Further, MNR stated that the regulation "considers the need to balance the sustainable use of natural resources in Ontario with the need for protection and enhancement of natural systems and the species that occupy these ecosystems. This is within [MNR's] vision of a healthy environment through sustainable development and mission of ecological sustainability in the context of species at risk."

Why Should We Protect Species at Risk that are Abundant South of the Border?

Wild plants and animals do not pay attention to human-identified borders; ecological zones cross our provincial and international boundaries. Sometimes, the argument is made that a species' classification as endangered or threatened under the *Endangered Species Act, 2007* (*ESA*) is unnecessary because it has a large range or healthy populations outside of Ontario's borders. Such is the case with the gray ratsnake.

When the Committee on the Status of Species at Risk in Ontario (COSSARO) classifies a species, it examines the health of populations outside of the province. Like its federal counterpart, the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), COSSARO takes into account "rescue effect": the possibility that immigration of individuals from outside the province could mitigate a species' decline. In fact, some species' classifications would have been at a higher risk status, according to quantitative criteria, if rescue effect had not been taken into account. For example, bobolink population declines met some quantitative thresholds for an endangered classification, but due to the potential for "rescue" from adjacent populations, the classification was downgraded to threatened. Further, COSSARO has its own criteria separate from that of COSEWIC that help identify Ontario's conservation responsibility in a regional (northeastern North America) or a global context.

Given current climate change projections, it may be prudent for Ontario to protect those species whose habitable conditions may be slowly shifting northwards. The province has a global responsibility to protect biodiversity; using the *ESA* to protect and encourage these species extending their northern range is only one tool to facilitate biodiversity conservation in Ontario.

ECO Comment

Ontario's reptiles are highly at-risk components of the province's biodiversity. Although it appears that MNR structured elements of the regulated habitat for these at-risk reptiles based on recommendations from the recovery strategies, there are some weaknesses that seem to stem from the government's own weak recovery goals for the species. As the ECO has noted in the past, a primary objective of the *ESA* is to help species recover to the point that they are no longer at risk. However, if the government's recovery goals for species serve only to maintain the status quo, new additions to the species at risk list may not be counterbalanced with de-listings. The ECO appreciates that MNR is authorized under the Act to decide on the actions it will take to recover a species – even if it chooses to do nothing – but if its "recovery" goals intend only to maintain populations at current levels, it seems contrary to one of the core purposes of the *ESA*.

Although the habitat regulations theoretically could provide enhanced protection for species, it will be difficult for MNR (or relevant planning authorities) to enforce the prohibitions in place within regulated habitat without up-to-date, reliable data regarding habitat features and how these reptile species are using them. Without accurate data to hold up in the case of dispute, the content of the habitat regulation is somewhat meaningless. The ECO echoes its previous calls for the ministry to commit to long-term monitoring of Ontario's biodiversity, particularly for species at risk. If some data collection is undertaken by third parties, the ECO urges MNR to commit not only to provide standard survey methods for use by all partners, but also to appropriately analyze and report on the collected data, over the long term.

Habitat regulations under the *ESA* should be only a small component of an overarching system to protect Ontario's species and spaces: the last "line of defence" in a broader structure of land-use planning that takes habitat, connectivity and ecosystem functionality into account. Unfortunately, as the ECO has previously discussed, Ontario's core land-use planning system does not sufficiently plan for biodiversity and ecosystem functionality to prevent the habitat loss that further endangers species. Further, the ECO is concerned that MNR's habitat regulations are not being integrated into the existing planning system. Although the ministry is making de facto land-use planning decisions by regulating particular areas as endangered or threatened species habitat, it does not seem to be providing the necessary tools or information to local planners to implement or enforce the regulations.

Given that so many of the province's species at risk occur in southern Ontario – a landscape dominated by agriculture – it is crucial that their protection and recovery be integrated with agricultural activities. The agriculture sector has been legitimately and predictably confused as to how to proceed as species are regulated under the *ESA*; it is MNR's reaction to this confusion that has been inappropriate. The ministry needs to integrate consideration of the agricultural sector within species at risk planning, rather than removing it from the system. Wholesale exemptions for the sector, on a recurring basis, do not provide clarity or transparency for farmers or other stakeholders, nor do they serve species at risk. Further, the ECO is disappointed in MNR's failure to properly consult the public on the exemptions provided in the case of these reptile species' habitats.

Habitat loss continues to be the primary threat to species in the province. It is clear that habitat protection under the *ESA* continues to be a contentious issue, associated with much confusion – not

only from the public, but from federal government agencies, other provincial ministries, municipalities and other stakeholder groups. The ECO believes that much of the unnecessary conflict around habitat protection could be ameliorated by proactive education and consultation with local citizens and stakeholders, and in some cases, even other provincial ministries. The ECO commends MNR for providing the public with plain-language, species-specific information about the habitat regulation, as well as examples of compatible activities, through its habitat protection summaries. The ECO was also heartened to see the ministry's commitment in its decision notice to provide greater clarity to landowners in future notification materials associated with *ESA* habitat regulations. As suggested by MTO, the ECO also encourages MNR to examine the use of stewardship agreements to pre-emptively deal with specific issues such as road maintenance.

Review of Posted Decision:

1.13 Lake Simcoe Fish Community Objectives

Decision Information

Registry Number: 011-5798
Proposal Posted: February 29, 2012
Decision Posted: September 5, 2012
Comment Period: 47 days
Number of Comments: 1
Decision Implemented: August 15, 2012

Keywords: Lake Simcoe; fisheries management; watershed planning; Lake Simcoe Protection Plan

Description

Overview

Lake Simcoe is the largest lake in southern Ontario and the most intensively fished inland lake in the province. Over many years, a variety of external pressures have contributed to the deterioration of the lake's water quality and ecological balance. As a result, the health of Lake Simcoe's fish community has declined and its future has become uncertain.

A concerted effort to restore Lake Simcoe's ecosystem and fish community has been underway since the mid-1980s. This process began with the implementation of the Lake Simcoe Environmental Management Strategy (LSEMS), and more recently resulted in the *Lake Simcoe Protection Act, 2008* (*LSPA*) and the Lake Simcoe Protection Plan (LSPP), released in 2009. The LSPP directed the Ministry of Natural Resources (MNR) to develop fish community objectives for Lake Simcoe and its tributaries.

In September 2012, MNR released the final Lake Simcoe Fish Community Objectives (the Objectives). The Objectives are intended to guide decision making by the Ontario government and other organizations with respect to the management of the fish community and fisheries resources of Lake Simcoe, its tributaries, and (where appropriate) Lake Couchiching. The document will also be used to inform planning, permitting and implementation of development activities in the Lake Simcoe watershed. The general focus of the Objectives is the protection and restoration of the fish community and the maintenance and improvement of recreational fishing opportunities, with an emphasis on encouraging naturally-reproducing native species.

Background

The Lake Simcoe Watershed:
Lake Simcoe is part of a watershed that is spread over an area of 3,576 square kilometres and crosses 23 municipal boundaries. The area currently is home to approximately 350,000 permanent residents, although the population grows to an estimated 400,000 each summer.

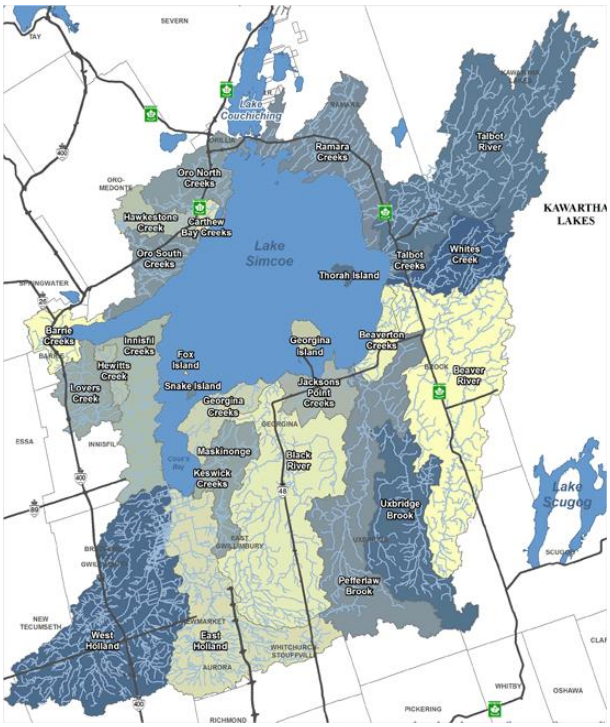


Figure 1: Lake Simcoe Watershed (Source: Ministry of the Environment)

The lake itself occupies approximately 20 per cent of the watershed. Roughly 48 per cent of land in the watershed is used for agricultural purposes; the remaining land consists of natural cover (approximately 35 per cent) and urban and rural development and roads (approximately 18 per cent). The lake's 35 tributaries play a key role in determining the ecological health of the lake.

Lake Simcoe's Fish Community and Fishery:
The lake's fish community is comprised of 52 species (at least five of which are non-native), which include coldwater, coolwater and warmwater fish. Coldwater populations require cold, well-oxygenated water, as well as clean spawning shoals for reproduction, and are particularly sensitive to poor water quality. Significant coldwater species in Lake Simcoe include: lake trout (*Salvelinus namaycush*); lake whitefish (*Coregonus clupeaformis*); and lake herring (or cisco; *Coregonus artedi*). Several warmwater and coolwater species are also found in Lake Simcoe, including yellow perch, northern pike, large and smallmouth bass and pumpkinseed.

Lake Simcoe's tributaries are habitat for a diverse warmwater population and several coldwater species, including brook trout. There are an additional 11 native fish species that reside in the lake's watershed. The tributaries provide a critical link to spawning and nursery areas for many of the lake's fish, such as redside dace, which is classified as 'threatened' under the *Endangered Species Act*, *2007*. (For further information regarding redside dace refer to Part 3.3.3 of the ECO's 2009/2010 Annual Report.)

Lake Simcoe historically supported a commercial fishery, but in the early 1900s it began to transform into what is now a significant recreational fishery. Today, Lake Simcoe's recreational fishery draws between an estimated 700,000 and 1 million angler hours per year. The fishery also makes a substantial contribution to the local economy; in 1995, the fishery generated an estimated $112 million.

The lake is classified as "specially designated waters" within Ontario's recreational fisheries framework, meaning that Lake Simcoe can be managed differently than the surrounding fisheries management zone. The fishery is cooperatively managed by a multi-agency team that includes MNR, Fisheries and Oceans Canada and the Lake Simcoe Region Conservation Authority. Two committees provide advice to MNR on the management of the fishery: the Lake Simcoe Fisheries Management Committee (a government committee that brings together scientists, policy makers and operational staff), and the Lake Simcoe Fisheries Stakeholder Committee (an external committee with members from stakeholder organizations, aboriginal communities, environmental organizations and ice hut operators).

Pressures on Lake Simcoe's Fish Community:
The decline in the health and abundance of Lake Simcoe's fish populations is the combined effect of many stressors, including: excess nutrients, pollutants, pathogens, invasive species, climate change, land use changes, water extraction and other human pressures (e.g., fishing, boating, fish stocking).

The ecological changes caused by these pressures resulted in drastic reductions in the abundance of the lake's vulnerable coldwater species. The second half of the last century saw a collapse of lake trout, lake whitefish, lake herring and rainbow smelt (an introduced species). Although the lake herring fishery has been closed since 2001, lake trout and lake whitefish remain popular targets for anglers.

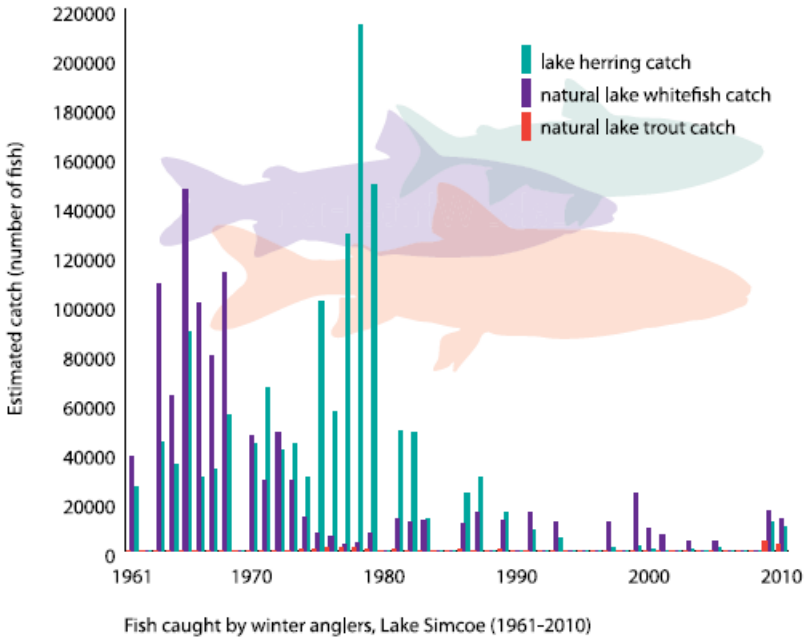


Figure 2: Fish caught by winter anglers, Lake Simcoe (Source: Ministry of the Environment)

MNR has maintained the lake trout and lake whitefish fisheries through stocking programs; lake trout have been stocked in Lake Simcoe since 1966 and lake whitefish since 1982. Recently, a small number of naturally reproducing lake trout (distinguished by their unclipped fins) have been observed. After a 2009 review of the coldwater stocking program, lake trout stocking was reduced

by 50 per cent in an effort to provide an opportunity for the naturally reproducing population to increase. This target will be reviewed again in 2013. While indications of natural reproduction are a hopeful sign, the population is still under threat.

In contrast, the warmwater fish populations in the Lake Simcoe watershed have been relatively stable, despite the stress imposed by shoreline modification and habitat loss. The exception among this fairly resilient fish community is muskellunge – their abundance in the lake steeply declined in the 1930s. However, efforts are underway to restore the population through stocking and the year-round closure of the fishery.

The key stressor in Lake Simcoe is the increased nutrient load in the form of excess phosphorus. Although phosphorus is naturally present in the lake, the current levels are extremely high – approximately three times pre-settlement levels. Phosphorus can originate from natural sources (e.g., atmospheric deposition, weathering of rock, soil erosion, decay of organic material), but the elevated phosphorus levels in the lake are largely attributable to anthropogenic sources (e.g., agricultural runoff, sewage treatment plant discharge, septic systems, etc.).

Increased phosphorus results in accelerated aquatic plant and algae growth. As these masses of plants and algae die off, the decomposition process consumes the oxygen present in the lake, resulting in substantial decreases in oxygen concentrations in the deep, cold water habitat of the lake. Decreased oxygen levels inhibit the survival of coldwater species. Excess plant growth may also impair the natural reproduction of these coldwater species, as eggs are unable to fall into protective crevices on spawning shoals.

Invasive species have also disrupted the lake's ecological balance by altering natural food webs and excluding native species from their habitats. Once established, control of invasive species is extremely difficult; accordingly, preventing their introduction into the lake's ecosystem is critical.

In addition to these long-established stressors, climate change is a growing threat to Lake Simcoe's fish community. Already, earlier spring warming, earlier ice-outs, earlier and extended lake stratification have been observed in Lake Simcoe; these effects may also result in further hypolimnetic oxygen depletion. Climate change models project increases in air temperatures and altered precipitation patterns in the watershed. The resulting changes in water quantity and temperature in the lake and its tributaries are anticipated to cause major shifts in population levels and species distributions.

For example, it has been predicted that by the year 2100 the volume of suitable habitat for the lake's coldwater species may be reduced by 26 per cent, 89 per cent of wetlands in the watershed will be vulnerable to drying and shrinking, and stream temperatures in the watershed may increase by as much as 1.3°C, reducing the distribution of coldwater species in the watershed. Such changes may also put rare species in the Lake Simcoe watershed at an increased risk of extirpation; for example, redside dace is considered to be extremely vulnerable to climate change.

Shifts in the abundance and diversity of species caused by climate change will likely affect the sustainable catch levels for the Lake Simcoe fishery. The viability of the ice fishery could also be affected as winters progressively become warmer and shorter.

In general, human activities in and around the lake have caused a wealth of problems in the watershed, including: burdens on water supply; loss of forest cover and natural areas; the spread of pathogens; and increased pollution. Over the past decade, the population within the watershed has grown substantially and this growth is expected to continue. For example, it is projected that in the Simcoe area alone the population will grow from 437,000 to 667,000 by 2031. Although portions of the watershed are protected under the Greenbelt Plan and the Oak Ridges Moraine Conservation Plan, areas not covered by these plans continue to experience intense development pressure.

Efforts to Protect and Restore Lake Simcoe:
The Lake Simcoe Environmental Management Strategy (LSEMS) was a multi-agency partnership that formally came into existence in 1990. It sought to: restore a self-sustaining coldwater fishery; improve water quality and reduce phosphorus loads; and protect natural heritage features and functions. The program was carried out in three phases between 1990 and 2008, and is credited with achieving substantial reductions in phosphorus inputs.

In December 2008, the *LSPA* came into effect. The purpose of the *LSPA* is to "protect and restore the ecological health of the Lake Simcoe watershed." The Act required the creation of the Lake Simcoe Protection Plan (LSPP), provided for the establishment of the Lake Simcoe Science Committee and the Lake Simcoe Coordinating Committee, created reporting responsibilities for the Ministry of the Environment (MOE), and empowered the province to regulate activities affecting the ecology of the watershed (for more information on the *LSPA*, refer to Part 3.2 of the ECO's 2008/2009 Annual Report).

The LSPP followed in June 2009 (for more information on the LSPP, refer to Part 4.5 of the ECO's 2009/2010 Annual Report). This plan sets out targets, indicators and policies organized into policy themes including: aquatic life, water quality, shorelines and natural heritage, other threats and activities (i.e., invasive species, climate change and recreational activities), and implementation. Implementation of the LSPP has been recognized by Ontario's government as a key action in protecting the province's biodiversity. One of the LSPP's strategic action policies set out the requirement for MNR to develop Fish Community Objectives for Lake Simcoe and its tributaries within two years. It should also be noted that the LSPP required MOE to develop a climate change adaptation strategy for the Lake Simcoe watershed within two years of the plan coming into effect.

In 2010, the Lake Simcoe Phosphorus Reduction Strategy was finalized, which establishes a target of reducing total phosphorus loading from 72 tonnes/year to 44 tonnes/year by 2045 in order to increase oxygen levels to 7 milligrams/litre (for more information on the Lake Simcoe Phosphorus Reduction Strategy see Part 4.3 of the ECO's 2010/2011 Annual Report).

Fish Community Objectives:
The LSPP directed MNR to develop Fish Community Objectives that focus on the warm and coldwater fish communities of Lake Simcoe, but that also address the entire aquatic community in both the Lake and tributaries. The Plan states that the Objectives will be "used by public bodies to inform decisions relating to the management of land, water and natural resources, increase the resilience of Lake Simcoe's aquatic communities to future impacts of invasive species and climate change, and ensure sustainable resource use and social benefit."

MNR states that the Objectives will be used to:

- guide MNR's fisheries management decision making;
- inform other agencies and organizations that play a role in managing fisheries and/or fish habitat in the Lake Simcoe watershed;
- direct fisheries related stewardship activities; and
- inform decisions by all levels of government regarding planning, permitting and implementation of development activities within the Lake Simcoe watershed.

The overarching Fish Community Goal is:

> [a] fish community that is reflective of and contributes to a healthy/restored Lake Simcoe ecosystem where socio-economic and cultural benefits of the fishery are realized now and into the future; where management actions are complimentary and strive for an ecological

> balance of self-sustaining native species; where natural fish habitats and species biodiversity are protected and maintained, and; degraded habitats and lost elements of the fish community are restored.

In addition to providing a comprehensive goal for the fish community as a whole, specific objectives were formulated for: general management; the coldwater, warmwater and tributary communities and fisheries; and science and monitoring.

Highlights of the general management objectives include: management within the context of the lake's watershed ecosystem; the restoration of native extirpated and at-risk fish species; management for native, self-sustaining (i.e., naturally-reproducing) fish populations; the prevention of new non-native species and disease introductions and limitation of existing impacts; and the conservation, protection and restoration of all fish habitat. There are also a number of general objectives that focus on maintaining, improving and promoting fishing opportunities.

The objectives for the coldwater fish community include: achieving a self-sustaining native coldwater fish community and fishery; ensuring that management actions do not disrupt the food web; and managing for sustainable harvests (although this term is not defined by MNR). In addition, the lake herring population will be managed as a forage base, and eventually the recreational fishery will be re-opened, "when sustainable."

Objectives for the warmwater fish community are primarily concerned with ensuring continued recreational opportunities for fishing species such as yellow perch, bass, northern pike and panfish, as well as non-native populations such as black crappie, carp and bluegill. There are also objectives for the maintenance of the native walleye population, and populations of small-bodied, native prey fish.

The objectives for the tributary fish community are largely focused on the protection of tributary habitats (particularly spawning habitats), as well as the removal or modification of barriers to fish migration.

Finally, the objectives for science and monitoring include: the maintenance of long term monitoring programs that track the health of the fish community; continued research on the Lake Simcoe ecosystem; and continued collaboration within a multi-agency approach in collecting physical, chemical and biological information.

Implications of the Decision

Lack of Quantifiable Targets, Timelines and Indicators

The Objectives provide direction to help achieve a number of goals, including: improving water quality; preventing new invasive species; protecting and improving fish habitat; preserving and recovering native fish species; and removing fish barriers in the Lake Simcoe watershed. However, many of the objectives enumerated by MNR are too vague to effectively guide decision making, and thus reduce the potential of fully achieving these goals. There is a striking lack of quantifiable targets, timelines, or indicators; in effect this means that while there are some general management guidelines, there are very few tangible and measurable "objectives."

For example, one of the objectives for the coldwater fish community is to "[e]ncourage and promote the natural reproduction of the native coldwater species of Lake Simcoe to achieve a self-sustaining coldwater fish community and fishery." This objective could be far more effective if it

included a target and timeline, for instance, by aiming to maintain coldwater populations without the use of stocking by 2025.

Taking another example from the tributary fish community objectives that states "[w]here appropriate, look for opportunities to remove or modify barriers to fish migration to improve connectivity, habitat quality and access to additional spawning habitats," this guideline could be transformed into a far more useful objective by including a quantifiable target and timeline (e.g., remove a specific percentage of barriers to fish migration by 2025). The objective could be further improved by defining an indicator, for instance, a comparison of the extent of accessible spawning habitat to 2012 levels.

Failure to Address Climate Change Adaptation

One of the explicit purposes of the Objectives (as stated under the LSPP) is to increase the resilience of Lake Simcoe's aquatic communities to climate change. As outlined above, climate change is expected to have a number of consequences in the Lake Simcoe watershed, including changes in water quantity and water temperatures. However, MNR failed to develop a single objective specifically related to climate change adaptation. This is particularly problematic in light of the fact that MOE has not completed the climate change adaptation strategy directed under the LSPP.

MNR has investigated potential adaptation measures that could have been used as a basis for climate change related objectives. For example, a 2011 MNR report recommended introducing and extending riparian buffers to allow shading that reduces stream temperatures, and, in regulated streams, converting dams and storm water ponds to bottom-draw systems to allow cooler water to drain into downstream areas.

Similarly, the Objectives fail to address the issue of water quantity. As noted above, climate change is expected to alter precipitation patterns in the watershed, ultimately reducing water quantity in the lake and its tributaries; this will result in lower water quality and potentially decrease available habitat. However, objectives in relation to ensuring adequate base flow or sustainable water extraction are absent.

Emphasis on Continued and Expanded Fishing Opportunities

The Objectives seek to improve the health and viability of the lake's fish community, as well as maintain and improve current recreational fishing opportunities. Although there seems to be an emphasis on "sustainable harvest" rates, this concept is not defined by MNR, and there is little direction for decision makers as to how to prioritize competing ecological and recreational goals.

This ambiguity is particularly problematic with respect to MNR's stocking programs. For example, although there is special emphasis placed on achieving a naturally reproducing fish community comprised of native species, the Objectives suggest that stocked fish may be necessary to maintain and restore the biological integrity of the fish community. Similarly, the Objectives contemplate re-opening the lake herring fishery "when sustainable." However, it is not clear whether this determination of "sustainability" will be made on the basis of a stocked or a naturally-reproducing population. This is a significant issue, as stocking fish can reduce the genetic diversity of a fish population and ultimately decrease its ability to adapt to environmental changes.

Public Participation & *EBR* Process

MNR posted the Objectives on the Environmental Registry for a comment period of 47 days. The Objectives reference a background document that was not made available either on the Registry or

the MNR website. However, it appears that MNR used this background document in consultation with individual stakeholder groups. After requesting the background document, the ECO received a copy in December 2012, but as of July 2013 it has not been made publicly available. In addition, MNR failed to post a finalized version of the Objectives with its decision notice on the Environmental Registry.

The ministry received only one comment on the proposal through the Registry. The commenter expressed concern that the Objectives intend to restrict the use and enjoyment of riparian and upland landowners without compensation. This comment was made on the basis that one of the guiding principles relied upon in formulating the Objectives references "the managing of human activities" as part of ecosystem management. The ministry did not make any revisions to the draft Objectives as a result of this comment, citing the fact that "[t]he objectives are intended to be used by all levels of government to make informed decisions about planning, permitting and implementation of development activities within the Lake Simcoe watershed to support a healthy fish community."

In addition to public consultation through the Registry, the Objectives were developed in consultation with the Lake Simcoe Fisheries Stakeholder Committee and Lake Simcoe Fisheries Management Committee. Meetings and informal discussions were held with key stakeholders, including local First Nations as well as conservation authorities.

SEV

MNR provided a detailed description of how each principle of its Statement of Environmental Values (SEV) was considered in developing the Objectives. In particular, MNR emphasized that the Objectives are informed by and encourage continued monitoring and research, that they promote an adaptive management approach, and that they represent "a commitment to wise management of natural resources, recognizing the social, economic and cultural benefits derived from these resources and the ecological services and functions they provide."

Other Information

Fish Die-Offs in Lake Simcoe

In the spring of 2012 mass fish die-offs were reported in Lake Simcoe and its tributaries. This was not the first time Lake Simcoe has seen large-scale fish kills. In 2008, a large die-off of carp occurred in the lake. Generally, the areas that are most susceptible to die-offs are those with little water movement, and that are in close proximity to development and/or agriculture.

In both cases, it seems that a combination of factors contributed to the deaths, including changing water temperatures, poor water quality, and disease. The carp deaths were partially attributed to the Koi Herpesvirus. Samples taken after the 2012 die-off confirmed that a number of species in Lake Simcoe are carrying Viral Hemorrhagic Septicemia (VHS). While it is difficult to draw a direct correlation between the viruses and die-offs, the existence of stressful background conditions increases the likelihood of fish kills occurring.

ECO Comment

There are many serious challenges facing the Lake Simcoe fish community, and the development of the Objectives was an opportunity to create a clear roadmap to addressing them. No other

comprehensive management tools exist for addressing these concerns, which makes MNR's failure to include any sort of performance metrics with the Objectives very troubling. Metrics (including timelines, indicators, and quantifiable targets) are needed to guide the implementation of the Objectives, and to measure their success over time. The ECO encourages MNR to provide stronger guidance by developing such metrics, which will support a practical, defensible, and adaptive approach to managing Lake Simcoe's fish community. Achieving measurable objectives will also require the commitment of adequate resources.

The ECO is also disappointed by the lack of objectives that specifically relate to climate change adaptation, as explicitly directed under the LSPP. Adaptation objectives are necessary to help maintain Lake Simcoe's fish community, particularly its vulnerable coldwater populations, and to support the conservation of the watershed's vast biodiversity. This is particularly problematic in light of the fact that MOE has not completed the climate change adaptation strategy directed under the LSPP, which was required by 2011.

A robust ecological community supports a healthy fishery; however, these two goals can be at odds if recreational activities put undue pressure on the watershed ecosystem. Accordingly, MNR should put the health of the fish community ahead of the recreational fishery. In particular, the Ministry should resolve any ambiguity or potential conflicts inherent in its own activities. For example, continuing to pursue angler-oriented stocking programs may work against MNR's efforts to restore a native, self-sustaining fish community. In this instance, MNR should clarify how it will determine sustainable catch levels for stocked species.

The threats posed to the lake's ecosystem are substantial and complex, and will almost certainly continue to increase. Clear objectives for guiding all fish management and watershed development activities, and metrics for assessing their success, are therefore critical – not only to create a powerful tool for the protection and restoration of Lake Simcoe's fish community, but also to provide a degree of accountability for those responsible for making management decisions. However, without the support of adequate resources, any commitments made by the Objectives will be nothing more than hollow promises.

Review of Posted Decision:

1.14 Snapping Turtle Harvest Monitoring

Decision Information

Registry Number: 011-6043
Proposal Posted: April 10, 2012
Decision Posted: June 6, 2012
Comment Period: 30 days
Number of Comments: 409
Decision Implemented: July 1, 2012

Keywords: hunting; *Endangered Species Act, 2007*; snapping turtles; wildlife monitoring; *Fish and Wildlife Conservation Act, 1997*

Description

Overview

Worldwide, reptile populations are declining at an alarming rate. Turtles are hunted at every life stage for eggs, meat, pets, or decorations. In Ontario, all native turtle species are protected from hunting except Canada's largest freshwater turtle, the common snapping turtle (*Chelydra serpentina*). While it is illegal to take snapping turtles for commercial purposes, the Ministry of Natural Resources (MNR) permits individuals with a fishing licence to kill turtles for recreational purposes, in accordance with seasons and limits.

The snapping turtle is regulated as a species of special concern under the *Endangered Species Act, 2007* (*ESA*) and the federal *Species at Risk Act, 2002* (*SARA*). While the snapping turtle has a large range across southern Ontario, its abundance is unknown but likely in decline. Threats to the species' survival include unsustainable levels of hunting, road mortality, habitat loss (e.g., from urban development and dredging of ponds, lakes, agricultural drains and stormwater management facilities), and pollution-induced reproductive problems. Due to its late maturity and low survival rate of its young, even a small reduction in adult snapping turtles can dramatically reduce a local population. In our 2010/2011 Annual Report, the ECO stated that MNR should impose a moratorium on the hunting of snapping turtles until such time that it is demonstrated that any harvest is biologically sustainable. This conclusion was the result of an application for review under the *Environmental Bill of Rights, 1993* requesting that MNR de-list snapping turtles as a game reptile under the *Fish and Wildlife Conservation Act, 1997* (*FWCA*); MNR denied this request for review.

In June 2012, MNR amended the Hunting Regulation (O. Reg. 665/98) under the *FWCA* to require annual reporting of the recreational hunt of snapping turtles. Previously, MNR did not regularly monitor or collect data on the hunt of snapping turtles.

Background

Snapping Turtles in Ontario:
The snapping turtle's range spans more than 6,000 kms, from Canada to Ecuador. In Ontario, the turtle's core range is south of the French River. MNR stated that it monitors the turtle's distribution through the tracking of sightings inputted into MNR's Natural Heritage Information Centre. However, this information is incidental and estimates of abundance are anecdotal.

Snapping turtles live in aquatic habitats, such as marshes, swamps, lakes, and rivers, and during the winter they hibernate underwater. They also migrate over land, for example, to find mates, to locate suitable nest sites, and to lay eggs. In Ontario, snapping turtles nest in May and June, often in open areas such as beaches, lawns, gravel pits, road sides and even gravel driveways. Eggs incubate for approximately two to three months and in the fall, hatchlings dig themselves out of the nest and search for water.

Snapping turtles, like other freshwater turtles, are very long-lived and reproduce later in life. In Ontario, because of its high latitude and shorter growing season, snapping turtle populations mature at approximately 17-19 years of age. Embryos and juveniles have a high mortality rate. The probability of a snapping turtle embryo surviving to sexual maturity is less than 0.1 per cent. Therefore, the persistence of a snapping turtle population is critically dependent on the survival of adults. Any increase in adult mortality will result in a population decline. One study estimated that a 10 per cent increase in mortality of turtles over 15 years in age would halve the number of adults in less than 20 years.

Species of Special Concern:
Turtles by their very nature are vulnerable to human activities such as mortality on or near roads, reproductive problems from exposure to pollutants, habitat loss, and unsustainable levels of hunting. In fact, seven out of eight native turtle species are at risk in Ontario. The snapping turtle is regulated as a species of special concern under the *ESA*. The *ESA* defines a species as special concern "if it lives in the wild in Ontario, is not endangered or threatened, but may become threatened or endangered because of a combination of biological characteristics and identified threats." The Committee on the Status of Species at Risk in Ontario (COSSARO) classified the snapping turtle as special concern due to declines in its range and abundance from a host of threats, especially those that increase rates of adult mortality.

The *ESA* requires management plans to be prepared for species of special concern five years from the date the species is first regulated under the Act unless a management plan under SARA is required. Since the snapping turtle was listed as a species of special concern under *SARA* in February 2011, a draft federal management plan is required by February 2014 and MNR is not required to prepare a provincial management plan under the *ESA*. MNR is also not required to prepare a response to the management plan that summarizes the government's conservation priorities and actions for the species. In our Special Report, The Last Line of Defence: A Review of Ontario's New Protections for Species at Risk (2009), the ECO cautioned that species of special concern may not receive the necessary management and attention when there is no legal trigger to prepare a provincial management plan or formal government response, recommending that the *ESA* be amended to require government responses for all species of special concern. According to MNR, the ministry will provide input into the development of the federal plan and assess whether the federal plan meets the needs of snapping turtle conservation in Ontario, or if additional management direction is required.

Unlike extirpated, endangered and threatened species, the *ESA* does not protect species of special concern from being killed, harmed or captured, or protect their habitat. While the government may choose to protect species of special concern through other legislation, such as designating them as specially protected under the *FWCA*, the *ESA* does not prohibit hunting of these species. In addition to snapping turtles, MNR also allows the harvest of two other species of special concern: eastern wolves and warmouth sunfish (see our 2010/11 and 2001/2002 Annual Reports).

Turtle Hunt and Harvest Monitoring Requirements:
Prior to 1990, MNR did not regulate hunting of snapping turtles and an estimated 5,000 to 8,333 turtles were taken annually for personal consumption and commercial use. In 1990, MNR banned the commercial hunt of snapping turtles. In that same year, MNR also listed the species as a game reptile under the *FWCA*, allowing the ministry to restrict recreational hunting through limits and seasons. Unfortunately, illegal hunting of turtles is an ongoing issue in Ontario and worldwide.

A recreational fishing licence is required to catch and kill snapping turtles in Ontario for recreational or consumptive purposes. The harvest seasons, areas, and limits are set in the Open Season – Wildlife Regulation (O. Reg. 670/98). The snapping turtle season is open from July 15 to September 15 in central and southern Ontario and is open year-round in northern Ontario. MNR permits a licensed person to kill up to two snapping turtles daily with a total possession limit of five turtles. It is, however, illegal to hunt snapping turtles in provincial parks and Crown game preserves. There is currently no hunting size limit for snapping turtles.

In December 2010, an *EBR* application requested that MNR review the *FWCA* to de-list snapping turtles as a game reptile. The applicants argued that permitting a recreational hunt of snapping turtles threatens the species' survival in Ontario based on their biology and other threats to their longevity. MNR denied the application, stating that it intends to develop a management plan for snapping turtles by September 2014 and that there was low risk of harm to turtles by not conducting a review prior to completing the management plan. The ECO disagreed with MNR's

decision and encouraged MNR to impose a moratorium or ban on the hunting of snapping turtles, at least until after this issue has been properly examined with full public consultation (see our 2010/2011 Annual Report).

In February 2012, a petition with 11,000 signatures was presented to the Legislative Assembly of Ontario asking the provincial government to end the recreational hunt of snapping turtles. Rather than ending the snapping turtle hunt, in June 2012, MNR instead decided to amend the hunting regulation to instill mandatory snapping turtle harvest reporting.

Individuals who kill or capture one or more snapping turtles are now required to submit annual hunting information to MNR by January 14 of each year. MNR has begun to collect information through a mandatory questionnaire, accessible on MNR's website. The questionnaire includes the location, date, and method of the recreational hunt, length of top shell of turtles taken, days spent hunting, and number of turtles seen while hunting. MNR stated that the decision to monitor the recreational hunt of snapping turtles is a preliminary step to collect information and support future management decisions regarding snapping turtles.

Implications of the Decision

Continued Snapping Turtle Hunt

MNR will continue to allow the hunting of snapping turtles for personal use, in accordance with seasons and catch limits outlined in the hunting regulations. The continued hunting of adult snapping turtles in Ontario likely will have long-term negative effects on the population. Some researchers have found that adult snapping turtles cannot be taken sustainably without artificially supplementing hatchling and juveniles turtles, a program that would far exceed any economic returns, and have therefore recommended that northern populations "must be afforded complete protection" from exploitation.

Collection of Harvest Data

MNR will collect information on the recreational hunt of snapping turtles for the first time in recent history. Individuals who take snapping turtles must submit information to MNR through an annual questionnaire to support future management decisions regarding snapping turtles.

While harvest reporting is mandatory, it is unclear how or if MNR will enforce it. In a similar, long standing, mandatory reporting process for black bears, only 63 per cent of resident hunters were in compliance in 2008. Adding a further challenge, a specific permit or tag is not required to hunt snapping turtles, a recreational fishing licence is required, and the ministry does not know how many of the 1.43 million anglers in Ontario that hold a recreational fishing licence target snapping turtles. This means that MNR will not be able to determine compliance rates, and consequently, the accuracy of the reported information. As a result, it is questionable how useful this information will be in terms of managing the species, particularly without population data.

Public Participation & *EBR* Process

On April 10, 2012, MNR posted a proposal to amend O. Reg. 665/98 on the Environmental Registry for a 30-day public comment period. MNR received 409 comments on its proposal to require mandatory reporting for snapping turtle harvesting.

Nearly all of the commenters encouraged MNR to ban or place a moratorium on the harvest of snapping turtles in the province. Many of the commenters stated that a snapping turtle harvest is unsustainable combined with other threats faced by snapping turtles, such as road mortality and habitat loss, and the species' vulnerable life history traits. Some of these commenters requested that MNR remove snapping turtles from the list of game reptiles and add it to the list of specially protected reptiles under the *FWCA*. Other commenters expressed concern that snapping turtles will become threatened if the recreational hunt continues.

While some commenters supported monitoring the harvest of snapping turtles, many commenters expressed concern with MNR's methods and stated that an annual questionnaire will underestimate the actual amount of turtles hunted. Commenters stated that the reporting system is unenforceable by MNR and not all turtle hunters will submit the data to MNR. Ontario Nature asserted that only approximately 50 per cent of hunters currently report their harvest of other wildlife species to MNR.

Other commenters suggested that MNR should determine snapping turtle population estimates and trends in Ontario. Ontario Nature stated that "[u]nderstanding what, if any, level of snapping turtle harvest is sustainable requires both an accurate assessment of the number hunted each year as well as an accurate assessment of population abundance and changes in abundance over time, measured annually."

The Ontario Federation of Anglers and Hunters (OFAH) supported the mandatory reporting of snapping turtle harvests as a component of the monitoring and assessment program, but recommended that MNR investigate mortality due to other threats (e.g., road mortality, egg predation and illegal harvest). OFAH suggested that a monitoring and assessment program for snapping turtles must also include population demographic data (i.e., abundance, geographic distribution, age-class structure and recruitment). OFAH also stated that "snapping turtles are frequently encountered by Ontario anglers and hunters, the vast majority of whom have no interest in harvesting them; however, there are some Ontario citizens that legally harvest for personal consumption."

In response to the public comments, MNR stated that "[a]ll comments received were considered in the decision to implement the requirement for annual mandatory reporting of snapping turtle harvest activities as part of broader conservation actions for the species and to provide information that will help inform future management." However, MNR made no amendments to the proposal.

SEV

In its Statement of Environmental Values (SEV) consideration document, MNR detailed the ways in which ministry staff considered the ministry's SEV principles for this regulation amendment. For example, MNR stated that it considered its principle that "MNR staff should exercise caution and special concern for natural values in the face of such uncertainty," in the context of this proposal, as "implementation of a mandatory reporting requirement will provide increased information on which to base the adaptive management of the species."

ECO Comment

There is overwhelming support for an outright ban on the recreational hunt of snapping turtles. Moreover, available scientific research concludes that snapping turtle populations cannot withstand the removal of even a small amount of breeding adults. Despite both the public support and available science, MNR illogically continues to allow a recreational hunt of this species at risk. The ECO believes that MNR should immediately close the recreational hunting season for snapping

turtles and permanently remove it from the list of game reptiles until the species is no longer at risk.

MNR's management of the snapping turtle hunt and its harvest monitoring program are flawed. In wildlife management, both population and harvest data are required to determine what amount of hunting is "sustainable" – for snapping turtles in Ontario, this vital information is deficient. MNR does not actively monitor the snapping turtle population or collect information on population trends. Based on the track record of similar ministry programs, MNR's snapping turtle harvest monitoring program will likely be plagued by non-compliance and could significantly underestimate the amount of turtles killed each year. Given the status of snapping turtles as a species at risk, the ECO believes that MNR should conduct long-term provincial population monitoring of this species to better inform management decisions.

The designation of a species being of special concern – such as the snapping turtle – is a warning sign and some action, beyond the status quo, should be undertaken to prevent its further imperilment. The ECO believes that MNR's wait-and-see approach until a federal management plan is prepared for snapping turtles by 2014 is simply unacceptable. In cases where MNR is no longer required to prepare a provincial management plan, species of special concern may not receive the crucial management and attention by the Government of Ontario. Therefore, the ECO strongly urges MNR to prepare and publically consult on a government response that clearly articulates its specific conservation priorities and actions for the snapping turtle to address its many threats, such as road mortality, hunting, and habitat loss.

Review of Posted Decision:

1.15 Biodiversity: It's in Our Nature, Ontario Government Plan to Conserve Biodiversity

Decision Information

Registry Number: 011-6450
Proposal Posted: June 22, 2012
Decision Posted: December 3, 2012
Comment Period: 45 days
Number of Comments: 14
Decision Implemented: December 3, 2012

Keywords: biodiversity

Description

Overview

In December 2012, the Ministry of Natural Resources (MNR) finalized Biodiversity: It's in Our Nature, Ontario Government Plan to Conserve Biodiversity (the Government Plan). This document represents the government's second plan for biodiversity, replacing Ontario's Biodiversity Strategy, 2005, which expired in 2010.

Background

Biological diversity, or biodiversity, can be understood as the variety of life on Earth. It is the variability of native species and the wealth of ecological systems that form the layer of life around our planet. Ontario's biodiversity is inextricably linked with the quality of the air we breathe, the water we drink, the soils we depend upon for our food, and the lands and waters upon which we depend for our natural resources and livelihoods. There is scientific consensus that the world's species, and the ecosystems on which they depend, are being threatened on a global scale.

The loss of biodiversity directly affects Ontario. The most significant threats to biodiversity both globally and in our province are habitat loss, climate change, invasive species, overexploitation and pollution. The State of Ontario's Biodiversity 2010 concluded that our provincial government's efforts to conserve biodiversity have increased over the last decade, but they have been insufficient to prevent its continued loss.

In 2010, almost every country on the planet met in Nagoya, Japan to set a path forward as signatories to the Convention on Biological Diversity. As a result, the international community committed to twenty biodiversity conservation targets (the Aichi Biodiversity Targets) that are to be achieved by 2020. Canada's obligations under the Convention fall squarely on the shoulders of the provinces and territories. Efforts to halt the loss of biodiversity must be implemented primarily at the provincial level.

In January 2012, the ECO released a Special Report to the Ontario Legislature, Biodiversity: A Nation's Commitment, An Obligation for Ontario. The ECO called on the Ontario government to develop a strategic plan of action to conserve, protect and recover our province's biodiversity.

Ontario's Biodiversity Strategy 2005 and the Ontario Biodiversity Council:
In June 2005, MNR released Ontario's Biodiversity Strategy, Protecting What Sustains Us (Ontario's Biodiversity Strategy, 2005). Through this plan, MNR formally acknowledged its responsibility for conserving biodiversity for the first time and provided a number of action items the government would undertake over the 2005-2010 period.

One of the action items in Ontario's Biodiversity Strategy, 2005 was to create the Ontario Biodiversity Council (OBC or Biodiversity Council). The intended role of the OBC was to guide implementation of the 2005 Strategy, including building partnerships, undertaking annual reporting on implementation and preparing an updated biodiversity strategy for 2010-2015. The Biodiversity Council is not a government organization and is made up of volunteers from a number of conservation organizations and industry associations. However, the Minister of Natural Resources is a member of the OBC, which has led to confusion over its exact role as an advisory body to government.

Ontario's Biodiversity Strategy, 2005 expired in 2010. As the OBC was tasked with leading the renewal of the strategy, it began consultations for the renewal process in 2010 while MNR provided "secretariat support" for this effort.

The Biodiversity Council finalized its own Ontario's Biodiversity Strategy, 2011 (the OBC Strategy) in June 2011. The OBC Strategy defines three primary goals: to mainstream biodiversity; to protect, restore and recover Ontario's genetic, species, and ecosystem diversity; and to use Ontario's biological assets sustainably. The Biodiversity Council states it will monitor and report on progress every five years, using 15 biodiversity targets set out in the OBC Strategy.

To be clear, unlike the 2005 Strategy, the 2011 OBC Strategy was not developed by the government – but instead, by this third party group of stakeholders. Due to the Minister of Natural Resources' membership on the OBC, the Government of Ontario is committed to elements of the OBC Strategy.

However, the government distanced itself from this OBC Strategy by specifically choosing not to have decision-making authority for its development or contents. MNR indicated it would provide policy direction in a formal government response to the OBC Strategy.

Ontario Government Plan to Conserve Biodiversity:
In December 2012, MNR released the government's plan to conserve biodiversity. The ministry states that it "includes a comprehensive suite of actions to ensure that biodiversity conservation is well integrated into decision making" and that it represents the "implementation plan" for the OBC Strategy.

The Government Plan outlines 24 government actions (see Table 1) and 115 specific supporting activities that will be undertaken or are underway to conserve biodiversity in Ontario, and identifies the ministries that will take the lead and support these activities. Supporting activities include: implementing specific biodiversity-related statutes (e.g., *Endangered Species Act, 2007*; *Far North Act, 2010*); integrating biodiversity consideration into existing policies (e.g., provincial grant programs) or laws (e.g., *Mining Act*); supporting existing programs that currently contribute to biodiversity conservation or monitoring (e.g., Ontario Benthos Biomonitoring Program, Invasive Species Centre); and working with partners in furthering biodiversity research education and outreach. MNR states that "in most cases" the 24 primary actions were adapted from the OBC Strategy to reflect the mandate of the Ontario government.

Table 1. Government Actions Described in Biodiversity: It's In Our Nature, Ontario Government Plan to Conserve Biodiversity (2012)

#	Action Identified in Government Plan
1	Communicate the relevance of biodiversity to society
2	Integrate biodiversity education into the Ontario curriculum, as appropriate
3	Mainstream biodiversity within the Ontario Public Service
4	Develop and provide decision-making tools for biodiversity conservation
5	Continue to integrate biodiversity in Ontario's policy and legislative framework
6	Develop economic tools that encourage biodiversity conservation
7	Support and enhance participation in biodiversity conservation
8	Reduce Ontario's Ecological Footprint
9	Take steps to reduce urban sprawl
10	Reduce greenhouse gas emissions
11	Promote water conservation
12	Reduce the threat posed to biodiversity by invasive species
13	Reduce the threat posed to biodiversity by pollution
14	Expand the system of protected areas and conservation lands
15	Further integrate biodiversity into land use and resource management planning
16	Promote landscape-level conservation planning
17	Promote and support the development of urban biodiversity and green infrastructure strategies
18	Promote consideration of genetic diversity in policy development and decision making
19	Assess species and ecosystem vulnerability to climate change, and integrate vulnerabilities into decision-making
20	Protect species diversity

21	Develop and implement tools to maintain and enhance habitats and ecosystem services
22	Support science, research and information management to inform biodiversity conservation
23	Establish a long-term biodiversity monitoring system
24	Review and refine a suite of biodiversity indicators for measuring and reporting on the state of biodiversity

In the Government Plan, MNR notes "the effective conservation of Ontario's biodiversity goes far beyond the mandate of any one ministry. It requires a province-wide strategy and action plan that applies across government." The Government Plan outlines the mandates and biodiversity conservation roles for 16 ministries. These ministries contributed to the Government Plan through the Ontario Public Service (OPS) Biodiversity Network, "a cross-ministry forum to exchange information, facilitate discussion and plan for biodiversity-related activities, policies, processes and projects across the province." Some ministries such as MNR and the Ministry of the Environment have clear roles in biodiversity conservation; other ministries with less obvious roles have also been included in the Government Plan, such as the Ministry of Finance and the Ministry of Government Services. The Ministry of Health and Long-Term Care joined the OPS Biodiversity Network after the draft Government Plan was made available for comment, prior to the finalization of the plan.

In the Government Plan, MNR states that the government "is committed to supporting the Ontario Biodiversity Council in monitoring and reporting to the public the results of Ontario's collective efforts towards achieving the vision, goals and targets outlined in Ontario's Biodiversity Strategy, 2011."

The term of the Government Plan is 2012 to 2020. No timelines are set for the Plan's renewal after this date.

Implications of the Decision

Government Responsibility for Biodiversity

The Government Plan describes biodiversity conservation roles for 16 government ministries. The ministries with commitments to biodiversity include some that had denied having responsibility for biodiversity as recently as 2008. While some ministries explicitly acknowledge their responsibilities for biodiversity, others ministries are much less clear about their role. For example, the Ministry of Northern Development and Mines (MNDM) states that it "works with partner ministries to support sustainable development and promote environmental leadership," and that it "promotes a balance of environmental, social and economic interests in land use planning decisions," but falls short of making a clear statement of responsibility for biodiversity.

The Government Plan notes that the 2011 OBC Strategy supports and complements international commitments, including helping with Canada's obligations to meet the Aichi Biodiversity Targets. However, the Government Plan does not explicitly take responsibility for meeting the Aichi Biodiversity Targets.

Establishing Specific Actions and Activities for Sixteen Ministries

The Government Plan's identification of lead and supporting ministries for each of its 115 specific Supporting Activities creates some measure of public accountability for completing these activities. However, the vagueness of most promised actions in the Plan seriously diminishes the public's ability to hold the ministries accountable. Moreover, the Plan leaves it to each ministry to establish its own deliverables for individual activities and determine its own timelines for completion, as well

as how and where these timelines will be communicated to the public; therefore, the public will lack any assurance of the timely implementation or completion of the supporting activities.

Furthermore, many of the programs included in the commitments by the ministries are already in place or are underway. As such, it may be difficult to identify the on-the-ground results of specific actions for biodiversity protection. In particular, it will be difficult to identify and evaluate program results where baseline monitoring has not been undertaken prior to the programs being initiated.

Commitment to Long-Term Monitoring of Biodiversity Indicators

The Government Plan commits to "[e]stablish a long-term biodiversity monitoring system." No such comprehensive monitoring system exists now. Specific supporting activities include: "[b]uilding on existing programs, develop an integrated, broad-scale monitoring program for all aspects of Ontario's biodiversity" in addition to supporting existing programs, such as the Ontario Benthos Biomonitoring Network, the Ontario Forest Biomonitoring Network, the Carbon Flux Monitoring Program, the Ontario Geological Survey and the Surface Water Monitoring Centre. The inclusion of a monitoring system as one of the 24 main actions in the Government Plan signals a commitment by government to move forward with a broad-scale biodiversity monitoring program for the province. However, it is unclear whether the monitoring program to be established will be more than a collection of the data already being gathered through current programs, which would be insufficient for the task at hand.

No Assessment of the Plan's Effectiveness

MNR states that the government "is committed to supporting the Ontario Biodiversity Council in monitoring and reporting to the public the results of Ontario's collective efforts towards achieving the vision, goals and targets outlined in Ontario's Biodiversity Strategy, 2011." In other words, MNR will support the OBC in tracking its own targets as set out in the OBC Strategy – but the government doesn't have a way for measuring the effectiveness of its own activities outlined in the Government Plan.

The actions and activities as outlined in the Government Plan do not necessarily align with the targets set by the OBC. For example, a number of actions in the Government Plan are not reflected in the OBC's targets: for example, to "promote water conservation," "promote consideration of genetic diversity in policy development and decision making," "promote and support the development of urban biodiversity and green infrastructure strategies," and to "develop economic tools that encourage biodiversity conservation." Therefore, despite the best efforts of the OBC to monitor progress towards its own targets, its results will not necessarily reflect the progress towards the government's targets.

The Government Plan also commits to "[c]onduct a critical review of existing provincial biodiversity indicators, identify gaps and confirm biodiversity indicators for future reporting." Despite this commitment to review indicators, MNR has not stated that it will in fact implement any actual monitoring, analysis or reporting on biodiversity indicators over the plan period.

Table 2. A comparison of some previous recommendations of the Environmental Commissioner of Ontario (ECO) and integration in the 2012 Government Plan

ECO Suggestions	Government Plan
1. Government taking responsibility for biodiversity	✓
2. Leadership and coordination by the Ministry of Natural Resources	✓
3. Involvement of all relevant ministries	✓
4. Real action promised by government (i.e., not just third parties)	to be determined
5. Targets and timelines for action	X
6. Establishes long-term biodiversity monitoring	to be determined
7. Explicit use of the 2020 Aichi Biodiversity Targets	X

Public Participation & *EBR* Process

MNR solicited feedback in a number of ways prior to the development of the Government Plan. The ministry, acting in its capacity as "secretariat support" for the OBC, undertook extensive consultation during the renewal process for the OBC Strategy. The ECO made an enquiry to the ministry during its apparent consultation process in January 2011, to clarify whether or not the OBC Strategy was a government document, which would require a proposal notice on the Environmental Registry for public comment. The ministry replied to the ECO that the OBC's renewed strategy was independent of government, stating, "MNR does not have any decision-making authority with respect to the Strategy." The OBC Strategy was therefore not posted for public comment on the Environmental Registry; it is unclear how many Ontarians were involved in this process and what their specific comments were.

MNR posted the proposed Government Plan for a 45-day public comment period on the Environmental Registry, from June 22, 2012 to August 6, 2012. Fourteen comments were received on the proposal. Commenters were supportive of the need for a plan to conserve biodiversity, but made suggestions pertaining to specific supporting actions within the Government Plan. The following comments related to the Plan as a whole, as expressed by a wide range of stakeholders:

- conserving biodiversity should become one of the key priorities of the Premier of Ontario and the government as a whole;
- the Ontario government must specifically address the 2020 Aichi Biodiversity Targets in order to be effective;
- mainstreaming biodiversity conservation across government will require a cultural shift;
- the roles of some ministries are weak in relation to the threats posed by their own operations;
- the roles of ministries should speak to what they could accomplish, not just what they currently do;
- there must be concrete deliverables and timelines, rather than vague generalities;
- there is no formal acknowledgement within the Government Plan as to who ensures its effectiveness and whether ministries carry out their commitments;
- the Government Plan should include priority-setting of actions, as not all threats to Ontario's biodiversity are equal; and,
- the lack of secure long-term funding by government to achieve its promised actions could undermine the success of the Plan.

SEV

MNR states that it considered its Statement of Environmental Values (SEV) in making its decision to finalize the Government Plan. The ministry states that the Plan is an "umbrella document" that attempts to address the broad, complex, and far-reaching task of conserving Ontario's biodiversity.

ECO Comment

Conserving biodiversity is one of the most pressing issues of our time. Biodiversity is intertwined with virtually every facet of our society – the health of our forests and waters, the production of our food, climate change mitigation and adaptation, and ultimately, the functioning of our economy. To cast biodiversity as an environmental issue alone is to marginalize its gravity. How we address this global crisis – and tackle its many challenges right here in Ontario – will either be judged with pride or shame by future generations. The Ontario government has a choice: it can either treat its commitments in its plan to conserve biodiversity seriously or they can be quickly forgotten as empty rhetoric. Time will tell, in the next few years, which path the government picks. The role of the Ontario government cannot be overstated as we have tasked it with the responsibility to lead and to ensure that the necessary resources are laid to bear.

The ECO is pleased that the government has finalized a new plan for biodiversity conservation in Ontario. MNR staff should be commended for its efforts to bring together 16 ministries to commit, in writing, to specific actions and activities that commit them, in principle, to conserving Ontario's biodiversity.

The ECO is extremely concerned, however, about the lack of specific targets and timelines for the completion of the actions and supporting activities in the Government Plan. Although it may make practical sense for each of the ministries to determine their own timelines, these should be publicly available, in a single location, for the purposes of transparency and efficacy of the Government Plan as a whole. In the absence of a coordinated approach to monitoring implementation and completion of the actions and activities, the ECO will at regular intervals request that ministries account for their priorities and real achievements under the Government Plan.

The ECO is very troubled that MNR has not included any way to measure the effectiveness of the Government Plan over the long term. The ministry is instead relying on the Biodiversity Council's assessments (of its own targets from its own strategy), in the hopes that it will provide a proxy for the measuring of the effectiveness of the Government Plan. Unfortunately, the Biodiversity Council's own targets do not necessarily align with those in the Government Plan. Further, because this unaccountable third party is not subject to the *Environmental Bill of Rights, 1993,* neither its methodology to determine Plan effectiveness, nor the results of its success or failure in meeting its objectives, are required to be posted on the Environmental Registry for any sort of public review. The ECO believes that the government's downloading of this crucial responsibility to a third party is wholly inappropriate and represents a potentially fatal backward step in meeting the 2020 Aichi Biodiversity Targets. In effect, the government will likely continue to use this collection of stakeholders as a shield to obfuscate and avoid any direct responsibility for biodiversity conservation in Ontario.

Although the ECO is heartened that the Government Plan makes reference to the establishment of a long-term biodiversity monitoring program, the ECO reiterates its recommendation from four years ago to establish a statutory responsibility for monitoring and reporting on the state of the province's biodiversity. There is no law in Ontario that obligates the government to monitor biodiversity. A statutory responsibility for biodiversity monitoring would provide critical information to inform implementation of laws and policies across government. Without such information,

government decisions will be ill-informed at best, subject to much criticism, and undermine public support in actions that are taken.

Review of Posted Decision:

1.16 Modernizing Approvals for Ontario's Natural Resources

Decision Information

Registry Number: 011-6751
Proposal Posted: September 27, 2012
Decision Posted: February 8, 2013
Comment Period: 47 days
Number of Comments: 350
Decision Implemented: January 16, 2013

Keywords: Transformation Plan; modernization of approvals; licence; permit; authorization; approval; registry; regulation

Description

Overview

Ontario's Ministry of Natural Resources (MNR) is responsible for managing the province's forests, lands, waters, fisheries, wildlife (including species at risk), protected areas, and aggregates, as well as its oil, gas and salt resources. One of the ways that natural resources are regulated is through the issuance of over 140 different types of approvals (i.e., licences, permits and authorizations) for natural resource-related activities.

MNR has observed that as the number of approval types has increased and demand for approvals has grown, the ministry's approvals processes have become "increasingly complex, difficult to navigate and onerous to administer." In September 2012, MNR released a discussion paper outlining a proposal to modernize and streamline its approvals processes. The approvals modernization initiative is a key component of the ministry's three year transformation plan. In February 2013, MNR posted a decision notice on the Environmental Registry explaining that it is proceeding with its plan to modernize and streamline approvals issued by the ministry.

Background

MNR's Transformation Plan:
In September 2012, MNR announced that it is moving forward with a transformation plan "to modernize its business and operate on a more cost efficient basis." The three-year plan, first announced in Ontario's 2012 provincial budget, includes four key components:

1. Streamlining MNR's approvals process – modernizing approvals, including changes to legislation and regulations;
2. Operations delivery transformation – re-designing some programs, operating in fewer places with fewer people;
3. Stewardship and partnership funding alignment – taking a more strategic approach to partnerships, with transfer payment funding aligned to core ministry business and priorities; and

4. Science and information rationalization – shifting focus from species to broader ecosystems and re-aligning key science functions.

According to MNR, the transformation plan "will 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."

Since that announcement, MNR has posted several notices on the Environmental Registry to consult the public on various aspects of its transformation plan, including the modernization of the ministry's approvals framework, as discussed below.

For a more detailed review of MNR's transformation plan, please refer to Part 2.1 of the ECO's 2012/2013 Annual Report.

Approach to Modernizing MNR Approvals:
MNR issues over 25,000 approvals each year, not including recreational hunting and fishing licences. Currently, these approvals, issued under several different statutes, involve proponents (i.e., individuals or businesses seeking approval for an activity) submitting paper-based applications, and ministry staff reviewing and considering each application individually – a process that can take anywhere from a few minutes to several weeks to complete, depending on the complexity of the approval and other factors.

MNR believes that the current approvals processes now "take too long and cost too much to administer," and sees the need to fundamentally change how the ministry delivers those services to the public. Accordingly, MNR developed a plan to help businesses and individuals access services faster and more efficiently, while lowering associated costs to the provincial government. MNR's focus is on modernizing paper-based approvals that are reviewed and issued manually by MNR and that require significant time and effort from both the ministry and proponents.

MNR identified three goals to guide the approvals modernization process:

1. Continue to protect and sustainably manage natural resources;
2. Provide high quality customer service; and
3. Review the fees charged for approvals to ensure that services are cost-effective.

MNR reported that it looked at approvals programs in other jurisdictions, as well as other Ontario government ministry programs, to identify different approaches for issuing approvals. Ultimately, the ministry decided to redesign its approvals process by applying one of four approaches to each type of approval, based on the impact of the activity (see Table 1).

Table 1. MNR's Approaches to Modernizing its Approvals Processes Based on Impact Level of an Activity (Source: MNR, Modernization of Approvals – A Proposed Policy Framework for Modernizing Approvals for Ontario's Natural Resources, Fall 2012)

Approach	Application	Description	Benefits
1. Eliminate approval altogether from regulatory control	Activities where there is little or no potential impact to natural resources or to other key social and economic interests	Proponents will no longer be required to obtain approval to carry out the activity MNR will not conduct any compliance monitoring	Reduced administrative costs for businesses and government Government can focus on activities of greater significance

Approach	Application	Description	Benefits
2. Eliminate approval but establish rules in regulations	Activities where there is minimal impact to natural resources, and where a common set of rules can be generally applied	All proponents will be required to operate in compliance with the rules set out in the regulation MNR will ensure compliance through education, outreach and reactive enforcement as needed	Reduced administrative costs for businesses and government Reduced time required to obtain approval
3. Approval through an automated electronic registry system	Activities where there is low to moderate impact to natural resources or public safety	Eligible proponents will be required to register their activity online and attest to meeting specific requirements; registrants must also follow rules in regulations MNR will use registration information to promote compliance, and will continue to conduct compliance enforcement based on an evaluation of risks to determine priorities	Reduced timelines for obtaining approval, and clear online descriptions of the requirements for carrying out the activity
4. Leave approval unchanged, but look for opportunities to use technology to improve delivery	Activities where there is significant risk to natural resources, public safety or the economy	The current approval process of detailed ministry review of applications will be maintained MNR will continue to conduct compliance enforcement based on an evaluation of risks to determine priorities	Improvements in technology, including automated application processes, may still be possible and used to expedite the application and review process in the future

To determine the most appropriate approvals process for any given natural resource-related activity, MNR explained that it will employ a "standard risk evaluation process that first considers the original purpose for having the current approval in place, as well as the best available information to identify any risks associated with the activity." The risk evaluation process will involve an assessment of impacts 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. MNR also states that it will evaluate the degree of change in risks resulting from adopting one of the new (modernized) approaches to approvals.

MNR believes that using a risk evaluation approach will result in "a consistent, efficient and more effective approval process" that will allow the ministry to focus its resources on what it considers high priority areas while continuing to protect and manage natural resources.

In addition to evaluating the risks associated with an activity, MNR will also take into account other considerations associated with each of MNR's modernization goals (see Table 2).

Table 2. Factors that MNR will Consider, in Addition to Risk Evaluation, in Determining which Approvals Process is Most Appropriate for a Natural Resources-Related Activity (Source: MNR, Modernization of Approvals – A Proposed Policy Framework for Modernizing Approvals for Ontario's Natural Resources, Fall 2012)

Modernization Goal	Considerations
Continue to protect and sustainably manage the province's natural resources	• The original intent or purpose of the current approval and whether it can be managed in another way • The continuing responsibility to protect and sustainably manage Ontario's natural resources • The need to balance public and private interests in the use of a public resource • The level of regulatory oversight and compliance effort necessary to mitigate the risk and monitor potential impacts on the sustainability of natural resources • The length of time the approval is valid for (one year, two years, five years) • The amount of information or data required to manage the natural resource • Legal responsibilities and commitments
Provide high quality customer service	• Past client and stakeholder comments on specific authorizations • The time required for the client to obtain approval under the current approach as compared to an alternative approach • Whether ensuring protection and conservation of the resources requires client-specific analysis, assessment, or conditions • The involvement of other agencies in the regulation of the activity
Review the fees charged for approvals to ensure that services are cost effective	• The current fees associated with obtaining the approval • The full costs associated with the delivery of the service by government • The volume of approval activity (number of authorizations issued per year)

Modernization Goal	Considerations
	• The full value of the natural resource to the client, society, and the environment • The ability of the client to pay for the use of the resource and the effect the fee has on encouraging the wise use and management of natural resources

Next Steps:
After developing its approvals modernization framework, MNR's next step would be to identify and consult the public on proposed changes to natural resource-related approvals. MNR indicated in the discussion paper that it anticipated posting regulatory amendments on the Environmental Registry in 2013; however, it actually posted the first three proposals in December 2012 (see below).

Proposed Regulatory Changes in Support of Approvals Modernization:
In early December 2012, notwithstanding that MNR had not yet formally finalized its approvals modernization framework, the ministry posted three regulation proposal notices on the Environmental Registry to modernize approvals issued under the *Public Lands Act* (*PLA*) (#011-7669), the *Fish and Wildlife Conservation Act, 1997* (*FWCA*) (#011-7663) and the *Endangered Species Act, 2007* (*ESA*) (#011-7696).

Under the *PLA*, MNR is proposing to replace the requirement to obtain a work permit for certain low-impact activities on Crown land with rules in a regulation (e.g., permits for maintenance dredging; restoring, repairing or replacing an existing erosion control structure; and relocation of rocks and/or boulders for boating and swimming access). MNR also proposes to move other *PLA* work permits to a registry process (i.e., construction of buildings for mineral exploration and development; and maintenance and replacement of clear span bridges and culverts).

MNR also proposed changes to 21 wildlife-related approvals under the *FWCA*. Consistent with the ministry's approach to approvals modernization, the proposed changes include: eliminating approvals of certain activities (e.g., wildlife export permits; licences to send pelts to a tanner); replacing the need for approval of certain activities with rules in regulations (e.g., authorization to hunt/trap for hire or employ for that purpose; authorization to destroy, take or possess nests or eggs); and moving certain approvals to a registry process (i.e., certificates of reporting; licences to possess a pelt). In June 2013 (after the end of the ECO's reporting year), these regulatory changes were passed.

MNR proposed taking two approaches to streamlining approvals issued under the *ESA*. First, MNR proposed replacing certain approvals with rules in a regulation and possible registration with MNR (i.e., activities that will assist in the protection or recovery of species at risk or address broader conservation initiatives; activities for which standardized overall benefit permit conditions have been well established; and "safe harbour" cases in which a person who has created or improved species at risk habitat on private land may return the land to its previous condition). Second, MNR proposed replacing certain approvals with rules established in a regulation (i.e., incidental trapping of a species at risk; possession of species at risk by accredited organizations; and commercial cultivation of vascular plants).

The *ESA* proposal also provided, among other things, time-limited "transition" exemptions from obtaining permits for activities that are already approved or planned but are not yet completed or operating; it also proposed exemptions for persons undertaking some sector-specific activities (i.e., forest operations; existing waterpower facilities; existing aggregate pits and quarries; existing

drainage infrastructure). Proponents of exempted activities would be required to comply with rules in a regulation, including a requirement to take measures to minimize "adverse effects," and develop and implement a mitigation plan; most would also be required to register with MNR. The proposal has come under fire for lowering the standard of protection for at-risk species by only requiring adverse effects to be minimized instead of requiring proponents to ensure an overall benefit to the species. In June 2013 (after the end of the ECO's reporting year), these regulatory changes were passed.

Some of the proposed changes to regulations under the *PLA* and the *FWCA* would give effect to statutory amendments made by the 2012 provincial budget bill, the *Strong Action for Ontario Act (Budget Measures), 2012* (Bill 55), which contemplated MNR approvals modernization. For more information about Bill 55, please see Part 2.2 of the ECO's 2012/2013 Annual Report.

MNR had not posted decision notices for any of these regulatory proposals at the end of the ECO's reporting year, although it did post decision notices for regulatory amendments to the *FWCA* and the *ESA* on June 14, 2013. The ECO may review some or all of these regulatory changes in a future Annual Report.

Ministry of the Environment Modernization of Approvals

In 2011, in response to an ongoing backlog of approval applications, the Ministry of the Environment (MOE) adopted its own modernization of approvals framework. Previously, MOE's approvals process was similar to MNR's: an application-and-review process that was time and labour-intensive. MOE adopted a new, two-tiered framework for approvals: while most activities will continue to require a traditional approval, select activities considered to be "lower-risk, standard or less-complex in nature" were moved to a registration process that would require proponents to register their activity in an automated online registry called the Environmental Activity and Sector Registry (EASR), and to follow rules for the activity set out in a regulation.

As of the end of the ECO's 2012/2013 reporting year, six sectors/activities had been prescribed for purposes of the EASR. MOE uses a defined process for prescribing new activities for the EASR, including two stages of public consultation using the Environmental Registry. In particular, after undertaking a detailed internal scoping and technical assessment of a proposed activity, the ministry consults the public, first on a technical discussion paper describing the details of the activity and potential registration requirements, and subsequently on the draft regulation itself.

In its approvals modernization discussion paper, MNR indicated that, as part of its jurisdictional review, it looked at MOE's successful development of an online registration process for environmental approvals. In implementing its own online registration process, MNR will use the information technology already developed by MOE in creating the EASR system.

For more information about MOE's modernization of approvals framework and the EASR process, please see Part 5.2 of the ECO's 2010/2011 Annual Report and Part 5.2 of the ECO's 2012/2013 Annual Report.

Implications of the Decision

Reduced Administrative Burden for Government and Businesses

There is little question that MNR's approvals modernization framework will reduce the administrative burden on the government, as well as on the individuals and businesses that

undertake natural resource-related activities. By eliminating the need to obtain approval for certain activities altogether, MNR will eliminate not only the staff time and effort required to review applications, but the resources required for subsequent enforcement activities. Similarly, by replacing other approvals with rules in regulations alone, or with a registry-based system, MNR will reduce the time and effort its staff previously required to review individual applications and issue corresponding approvals.

Proponents will also enjoy a more efficient process as they will not have to wait for ministry approval to undertake activities that previously required MNR authorization. Proponents may also save costs that would have been incurred to prepare and submit previously required applications.

Finally, as MNR staff will likely be occupied with fewer approval applications, MNR should be able to redirect its resources to more efficiently review and make decisions on the remaining applications for more complex, higher-impact approvals.

Cost Recovery Could Assuage Financial Challenges for Government, but Not MNR

While the discussion paper is relatively vague on its proposal to review approval fees to ensure that services are cost-effective, evaluating and adjusting or implementing fees to recover the costs associated with natural resource-related approvals would help the government save money and generate revenue. However, there is no guarantee that these savings or revenue would benefit MNR specifically, because there is no special purpose account (such as the special purpose accounts for parks and for fish and wildlife programs) requiring the Ministry of Finance to direct such funds back into MNR programs.

Less Oversight of Activities Affecting Natural Resources

Unlike MOE's recent approvals modernization initiative, which merely moved some environmental approvals to an online registry process, MNR has gone significantly further by proposing to eliminate some approvals altogether and replace others with rules in regulations only (i.e., no registration with the ministry).

When implemented, MNR's approvals modernization approach will result in the ministry having less oversight of natural resource-related activities in Ontario. Not only will MNR no longer have regulatory oversight of certain activities at all, but the ministry will also have far less contact with proponents of other activities that no longer require an application-and-review type of approval.

The modernization framework will also make it more difficult for MNR to enforce certain natural resource-related requirements. In particular, by replacing some approvals with rules in a regulation only (i.e., without registration), MNR will not have any record of who is undertaking the activities in question, where, or when – likely making enforcement of the regulatory rules for those activities considerably more challenging for MNR than enforcing conditions in a licence or permit, or for a registered activity. Moreover, there is no assurance that the regulatory rules will be at least as stringent as conditions previously found in approvals for the same activities. In fact, MNR's proposal to modernize approvals under the *ESA* suggests that MNR is willing to lower the standard of protection for at-risk species in order to streamline the approvals processes.

On the whole, it is reasonable to expect that MNR will have less control over, and a less comprehensive understanding of, how the province's natural resources are being utilized and/or affected.

Unclear How Framework Will Work in Practice

MNR's description of its process for determining the appropriate approvals process to apply to a particular activity is vague. While the ministry describes the factors that it will consider in evaluating risks associated with an activity, it provides no insight into how these factors, considered together, will ultimately result in the application of one approvals process or another. What factors will the ministry look for to designate an activity as low-risk or high-risk? Will the factors be weighted equally? Without a more detailed and systematic explanation of MNR's evaluation process, it will be difficult for the public to predict with certainty how a particular activity will fall on the risk spectrum and, ultimately, what approvals process MNR will decide to apply to that activity.

This uncertainty carries over to MNR's current regulatory proposals to implement the approvals modernization process; while MNR states in each of the three proposals that the potential environmental risk of changing the approvals process is "likely neutral" or "minimal," it is not clear how MNR has reached this conclusion based on the approach set out in its approvals modernization framework. The proposals themselves are extremely vague, failing in some cases to explain what specific approvals will be affected or what the rules in a corresponding regulation will require. By failing to include draft regulations in the proposals, it is difficult for interested members of the public to appreciate all of the implications of the proposal or to gain an understanding of the actual degree of risk associated with the proposed changes.

Further, while MNR states that it will evaluate the change in risks resulting from adopting a new approvals process, it does not explain how or when it will do so.

No Way to Assess Cumulative Impacts of Certain Activities

Even if an activity presents a low risk on its own, multiple occurrences of a low risk activity could, cumulatively, have a significant negative impact on the environment.

With an application-and-review or registry process, the ministry would continue to maintain a record of all approved natural resource-related activities in the province. This would, technically, enable the ministry to examine the cumulative effects of granting those approvals and registrations, and to subsequently tailor approval conditions and/or regulatory requirements to address negative environmental impacts.

However, for activities that are no longer regulated or will now be controlled by rules in a regulation alone (i.e., no approval or registration), MNR will have no record of the locations at which (or frequency with which) the activity is being carried out, making it very difficult for MNR to assess the potential or actual cumulative impacts of the activity.

Fewer Opportunities for Public Participation under the EBR

Under the *Environmental Bill of Rights, 1993* (*EBR*), certain approvals are prescribed as environmentally significant "instruments" under O. Reg. 681/94; for example, certain aggregate permits under the *Aggregate Resources Act*, certain permits under the *ESA*, and certain aquaculture licenses under the *FWCA* are all prescribed instruments under the *EBR.* Ministries responsible for issuing prescribed instruments are required to follow the public notice and consultation requirements of the *EBR* by posting a notice on the Environmental Registry to inform the public of a proposal to issue a prescribed instrument, and inviting public comment before making a decision whether or not to issue the instrument. The ministry must subsequently post a notice explaining its decision and how the public's comments affected the ministry's decision.

If MNR's approvals modernization process results in the elimination of any approvals that are prescribed as instruments under the *EBR,* the public will lose the right to comment on individual applications for or amendments to those approvals.

For example, MNR is proposing to replace authorizations to release wildlife imported into Ontario, currently required under section 54 of the *FWCA* and prescribed in O. Reg. 681/94, with rules in a regulation. If MNR proceeds to make this change, this prescribed instrument – once considered by the Minister to be of such environmental significance that it was classified under the *EBR* – will no longer exist and the public will no longer be consulted before an individual or business releases potentially invasive and harmful species into the province. MNR could conceivably eliminate any number of other *EBR*-prescribed instruments under eight different statutes, depriving the public of the opportunity to comment on activities, previously governed by prescribed instruments, that affect natural resources.

Public Participation & *EBR* Process

MNR posted this policy paper on the Environmental Registry for a 47-day public consultation period. The ministry reported that it received 350 comments from the public in response to the proposal, but noted that many comments were aimed at various aspects of MNR's Transformation Plan other than, or in addition to, the specific proposal to modernize approvals. In fact, MNR indicated that 254 of the comments received were not applicable to the proposal at all.

Some commenters supported the proposal, calling for "a straightforward, common sense, plain language set of regulations" and speedy delivery of services. Some made specific recommendations for changing certain approvals processes. Most commenters, however, had concerns about the ministry's proposal. In particular, commenters believed that MNR's approvals modernization would come at the expense of adequate natural resources management. One commenter urged MNR to ensure that streamlining approvals comes with an overall net benefit to the environment, by focusing on protecting public safety and the environment, not its bottom line.

Commenters also expressed concern about using a risk-based approach, particularly when enforcement resources are low, since there is a strong need for follow-up auditing and strengthened enforcement activity. Others argued that the modernization framework is not science-based and needs a strategy to address cumulative impacts. Other commenters stated that the proposal notice and discussion paper did not provide enough information about the proposed framework, and requested specific examples of approvals that would be changed. One commenter suggested that registrations, like traditional prescribed approvals, be posted on the Environmental Registry for a 30-day consultation period.

More simply, some commenters were concerned with the prospect of electronic licensing due to privacy issues, difficulty making corrections, and technical glitches. One commenter remarked that automation will not serve all of Ontario, as not all Ontarians are on-line and computer availability at public libraries is decreasing.

Finally, comments were also polarized on the topic of full cost recovery; while some commenters, including environmental non-governmental organizations, fully supported the concept of full cost recovery or user pay, others objected on the basis that the government is not a business.

In its decision notice, MNR noted that it received several comments that encouraged the ministry to consider how the framework would generally be implemented, and others related to specific approvals issued by MNR. MNR summarized and provided brief responses to those comments.

SEV

In documentation provided to the ECO, MNR explained how the ministry applied a number of the principles in its Statement of Environmental Values (SEV) to its decision to proceed with modernization of its approvals process. MNR stated that "the Modernization of Approvals policy framework includes an emphasis on the continued protection and sustainable management of natural resources," and that the modernization process will place the ministry in a better position "to focus ministry resources on priorities for natural resource management and less on those activities that pose little to no effect on natural resources, public safety, or the economy."

MNR also noted that it will be consulting on proposals to modernize specific approvals over the next two to three years, using the Environmental Registry.

ECO Comment

Taking stock of ministry approval programs in order to improve service delivery and make them more efficient is valid, particularly in times when the economy is weak and finances are strained. Many government programs could benefit from such an evaluation process, in particular by searching for efficiencies through modernized technology and through an evaluation of cost recovery options. However, the ECO is very concerned that the driver behind MNR's modernization of approvals framework – to spend less and to provide easier, faster services to users of natural resources – is taking priority over the ministry's core mandate. While the ministry maintains that one of its goals in modernizing approvals is to continue to protect and sustainably manage natural resources, there is little evidence to demonstrate that this is anything more than hollow words.

MNR's policy framework for redesigning its approvals processes lacks the transparency necessary to demonstrate that risks to natural resources will be prioritized over the convenience of resource users or the province's revenue. While a risk-based approach to decision making makes sense, the ECO is concerned that MNR has not explained how it will assess and weigh the various risks associated with an activity. The fact that MNR will assess the risk to government, public and private finances and the economy, as well as public expectations of government, and that it will consider additional factors such as "the need to balance public and private interests in the use of a public resource," reinforce this concern. MNR needs to explain to the public, in deciding to eliminate or migrate approvals to a more efficient process, not only what factors the ministry will consider but how they will be interpreted and weighed, and how, taking into account all of the considerations, the ministry will arrive at a decision. A decision matrix that explains these aspects of MNR's analysis would not only provide some predictability to the framework, but could also provide some comfort that natural resource-related considerations will not be outweighed by MNR's desire for a more "sustainable fiscal path."

Clearly explaining the environmental basis for changing approvals processes is particularly critical in the context of MNR's intention to give up regulatory control over some activities altogether, and to no longer maintain a record of proponents of other activities. Such decisions must be based on the best available information to ensure that these activities – in isolation or cumulatively – will not place the province's natural resources or the environment at greater risk. It would also be helpful for MNR to describe its plan for measuring the effect of changing specific approvals processes on natural resources.

The ECO is troubled that MNR is not taking a more cautious, measured approach to approvals modernization. MNR's framework – shedding its oversight role altogether for some activities, significantly minimizing its role in overseeing others, and reducing the stringency of some requirements to protect natural resources – is considerably more radical than MOE's, yet it seems to

be providing far less technical information or public consultation opportunities to explain the basis for making these shifts in approvals processes. Unlike MOE, MNR appears to plan to consult the public on changes to approvals processes for specific activities in a single step, and without the opportunity to review a draft regulation; this lack of public disclosure unnecessarily undermines their process.

Finally, MNR should have finalized its policy framework and posted a decision notice on the Environmental Registry before it started consulting the public on the first set of proposed regulations to implement the framework. MNR's rush to modernize its approvals processes may have confused some members of the public who – justifiably – believed that a decision had not yet been made to go forward with the framework. It may also lead commenters to wonder if the ministry genuinely considered their comments before it made the decision to proceed.

Review of Posted Decision:

1.17 A Regulation requiring Exploration Plans and Permits for Early Mineral Exploration Activities

Decision Information

Registry Number: 011-5733
Proposal Posted: March 12, 2012
Decision Posted: November 26, 2012
Comment Period: 50 days
Number of Comments: 103
Decision Implemented: November 1, 2012

Keywords: Aboriginal consultation; exploration permits; exploration plans; mineral exploration; mining; *Mining Act*; MNDM; rehabilitation

Description

As part of the Ontario government's initiative to modernize the *Mining Act*, in fall 2012 the Ministry of Northern Development and Mines (MNDM) filed a regulation, O. Reg. 308/12 – Exploration Plans and Exploration Permits, under the Act, requiring proponents of prescribed early stage mineral exploration activities (early exploration proponents or proponents) to: obtain an exploration plan or permit; adhere to new provincial standards for early exploration; and consult potentially affected Aboriginal communities on exploration activities.

Background

Much has changed in Ontario since the *Mining Act* was first enacted in 1869, including provincial land use planning, mining technologies, business practices, stakeholder consultation processes, and environmental principles. After repeated calls for legislative change from stakeholders, the ECO, and the public, the government agreed in 2007 to revise the *Mining Act* to reflect these changed times, ensuring that the Act "promotes fair and balanced development that benefits all Ontarians in a sustainable, socially appropriate way, while supporting a vibrant, safe, environmentally sound mining industry."

After a multi-year process to bring Ontario's *Mining Act* into the 21st century, on October 28, 2009, Bill 173 (the *Mining Amendment Act, 2009*) received Royal Assent. Bill 173 made numerous amendments to Ontario's *Mining Act* related to prospecting, claim staking, claim disputes, early

exploration activities, assessment work, surface rights owners, diamond mine royalties, and requirements for consulting with Aboriginal communities (for a review of the *Mining Amendment Act*, see Part 5.1 of the ECO's 2009/2010 Annual Report). However, a considerable number of the amendments to the *Mining Act* required MNDM to develop regulations to implement them.

Since December 2009, MNDM has been developing and consulting in phases on the necessary regulations to support the new provisions of the modernized *Mining Act*. The first phase of regulatory changes related to claim staking, which was implemented in March 2011, involved introducing a paper-based process for map staking for southern Ontario, and consolidating two claim staking regulations (see Environmental Registry #011-1437).

In March 2012, MNDM posted regulation proposals on the Environmental Registry related to the second phase of regulatory changes under the *Mining Act*. As one component of the ministry's second wave of regulatory changes, MNDM filed O. Reg. 308/12 in November 2012. This regulation made exploration plans and permits a requirement for early exploration activities, and incorporated by reference Provincial Standards for Early Exploration (the Standards), which specify requirements for carrying out early exploration activities and rehabilitation. For information on the other regulations MNDM developed under the modernized *Mining Act*, please see Other Information below.

O. Reg. 308/12 – Exploration Plans and Exploration Permits, made under the Mining Act

The 2009 amendments to the *Mining Act* introduced a new requirement for any person carrying out a prescribed activity on a mining claim, lease or licence of occupation to first submit an "exploration plan" to the Director of Exploration (the Director) at MNDM. The amendments also introduced a requirement for proponents of other prescribed higher impact activities to acquire an "exploration permit." However, when the Act was amended in 2009, the list of activities that require an exploration permit or plan, and the requirements for those activities, were left to be prescribed later in regulations. These details, amongst others, are now prescribed in O. Reg. 308/12.

Exploration Plans:
Under O. Reg. 308/12, proponents must submit (in an MNDM-approved form) an exploration plan to carry out any of the following early exploration activities:

- Geophysical surveys that require a generator
- Mechanized drilling for the purpose of obtaining rock or mineral samples, if the assembled weight of the drill and its associated equipment (excluding drill rods, casings, and bits) is less than 150 kilograms (kg)
- Line cutting where the width of the lines does not exceed 1.5 metres (m)
- Mechanized surface stripping where the total area of a single stripped location (or aggregate area of two or more locations within 200 m of each other) is smaller than 100 square metres (m^2)
- Pitting and trenching where the total volume of a single pit or trench (or aggregate volume of two or more pits or trenches within 200 m of each other) is between 1-3 cubic metres (m^3)

Proponents that propose to carry out any of the above exploration plan activities must inform any surface rights owners of their intent to submit an exploration plan, and confirm with the Director that notice has been provided. Proponents are also encouraged to provide advanced notification to Aboriginal communities of their intent to submit an exploration plan. If the proponent chooses to notify an Aboriginal community in advance, the MNDM Director will identify the Aboriginal communities to be notified, and the proponent must include with the exploration plan a consultation report detailing how comments received from Aboriginal communities were considered. Regardless of whether the proponent provides advanced notification to any Aboriginal

communities, the regulation directs that once the plan is submitted, the Director: must identify any Aboriginal communities that should be notified; must send a copy of the plan to the identified communities; must provide the opportunity to receive comments from those communities regarding any potential adverse effects that proposed activities may have on existing or asserted Aboriginal or treaty rights; and may require the proponent to consult with an Aboriginal community that raises potential adverse effects.

A proponent may withdraw or make adjustments to a submitted exploration plan within 30 days of the Director sending the plan to an Aboriginal community. Otherwise – unless the Director determines that an exploration permit is required (see below) – a proponent may commence the activities included in an exploration plan 30 days after the plan is sent to an Aboriginal community. Exploration plans do not need to be approved by the ministry; however, the MNDM Director will review the submitted plan to ensure it is complete.

The regulation specifies that proponents must: comply with the general requirements for early exploration activities included in a schedule to the regulation (see below); comply with the Provincial Standards for Early Exploration (see below); conduct exploration plan activities in a manner consistent with Aboriginal and treaty rights; and conduct activities in accordance with the plan. Exploration plans are effective for a period of not more than two years.

Exploration Permits:
The regulation stipulates that an exploration permit is required for:

- Mechanized drilling for the purpose of obtaining rock or mineral samples, if the assembled weight of the drill and associated equipment (excluding drill rods, casings and bits) is greater than 150 kg;
- Mechanized surface stripping where the total area of a single location to be stripped exceeds 100 m^2 but is less than the threshold for advanced exploration as set out in O. Reg. 240/00 – Mine Development and Closure under Part VII of the Act;
- Mechanized surface stripping where two or more locations are to be stripped and the edges of a location where stripping is to be carried out are within 200 m of the edges of another location and the aggregate of the total area to be stripped exceeds 100 m^2 but is less than the threshold for advanced exploration as set out in O. Reg. 240/00;
- Line cutting, where the width of the lines cut is 1.5 m or more;
- Pitting and trenching where there is a single pit or trench and the total volume of the pit or trench exceeds 3 m^3 but is below the threshold for advanced exploration as set out in O. Reg. 240/00;
- Pitting and trenching where there are two or more pits or trenches and the edges of a pit or trench are within 200 m of the edges of another pit or trench and the aggregate of the total volume of the pit or trench exceeds 3 m^3 but is below the threshold for advanced exploration in O. Reg. 240/00.

A Director also has discretion to require an exploration permit under additional limited circumstances (e.g., if an exploration permit is necessary to address Aboriginal or treaty rights issues), as well as waive any of the standard terms and conditions that would otherwise apply. Like exploration plans, applications for exploration permits are subject to similar requirements for notifying surface rights owners and notifying/consulting Aboriginal communities. Moreover, as exploration permits are prescribed under the *Environmental Bill of Rights, 1993* (*EBR*) as classified instruments, permit proposals must be posted on the Environmental Registry for public comment.

Unlike exploration plans, exploration permits require a ministry decision whether to issue the permit. If the Director is satisfied that appropriate Aboriginal consultation has been carried out, within 50 days of a permit application being sent to identified Aboriginal communities, the Director

shall: decide whether to issue an exploration permit; determine the terms and conditions that apply; and send a copy of the permit to the proponent, any surface rights owners who commented on the application, and any identified Aboriginal communities. The Director, however, may put a hold on the permitting process for a number of reasons, including to provide additional time to consider concerns raised by an affected Aboriginal community. The regulation outlines parameters for a dispute resolution process to facilitate consultation among early exploration proponents, Aboriginal communities, and the Director.

Exploration permits are effective for a period of not more than three years, although a Director may amend or renew an exploration permit on application by the proponent. As for exploration plan activities, permit holders must comply with general requirements for early exploration (included in a schedule to the regulation), comply with the relevant Provincial Standards for Early Exploration (see below), conduct exploration permit activities in a manner consistent with Aboriginal and treaty rights, and comply with any exploration permit terms and conditions.

General Requirements for Early Exploration Activities:
Ontario Regulation 308/12 specifies that a person who engages in early exploration activities (regardless of whether an exploration plan or permit is required) must:

- Maintain early exploration sites in a clean and safe condition;
- Keep roads and trails unobstructed;
- Remove all refuse, fuel drums, equipment and other material brought onto the lands for early exploration activities; and
- Comply with the Provincial Standards for Early Exploration.

Provincial Standards for Early Exploration

The regulation requires early exploration proponents to comply with the Provincial Standards for Early Exploration, a separate document that specifies the requirements for carrying out early exploration activities. Although the Standards are not contained within O. Reg. 308/12 itself, because they are incorporated by reference into the regulation, the Standards are to be enforced as if set out within it. MNDM reasoned that setting out these requirements in a separate document allows the Standards to be amended easily to reflect changes in technology, best management practices, and feedback on how they are working in practice. According to the decision notice for O. Reg. 308/12, future changes to the provincial standards will be posted on the Environmental Registry.

The Standards are grouped into three sections:

1. requirements for carrying out exploration plan activities;
2. requirements for carrying out exploration permit activities; and
3. requirements for the rehabilitation of exploration plan and exploration permit activities.

Echoing the activities subject to exploration plans and permits, the Standards concern geophysical surveys, line cutting, mechanized drilling, mechanized surface stripping, pitting, and trenching. While several of the Standards (e.g., marking drill holes with durable reflective markers, posting signs to warn of open pits and electrical hazards) are designed to prevent human injury, some (e.g., storing drill core samples farther than 30 m from permanent water bodies and waterways) offer environmental protection.

Implications of the Decision

This regulatory decision has many financial, operational, and social implications for prospectors, mineral explorers, mining companies, Aboriginal communities, and surface rights property owners. The ECO focuses here, however, on the environmental and public consultation implications.

Implementation of Amendments to the Mining Act

Even though the *Mining Act* was amended several years ago, many of the newly added provisions in the Act could not come into effect until enabling regulations were filed. With the filing of O. Reg. 308/12 (and other recent regulations under the *Mining Act*; see Other Information), many provisions are now in effect. However, some of the details for several processes added to the Act (e.g., requirements for consulting Aboriginal communities) are not articulated in the regulations and instead have been described in policies (see Other Information), which have less legal weight than regulations.

Regulatory Requirements for Early Exploration Activities

Previous to the filing of O. Reg. 308/12, proponents were free to undertake early exploration activities (such as drilling, trenching, surface stripping and line cutting) without restrictions, including no requirements to: notify Aboriginal communities or affected property owners; inform MNDM of their exploration activities; or follow any exploration-specific standards or guidelines. This regulation, in implementing amendments to the *Mining Act*, creates a new, earlier stage of screening, notification, consultation, and operational requirements that did not previously exist. The implications of this are discussed below.

Environmental Protection

The regulation and Standards implement provisions in the amended Act that – together with recently increased penalties for offences under the Act – should help mitigate some of the environmental impacts of mineral exploration. For example:

- The general requirements for early exploration activities – as outlined in O. Reg. 308/12 – should ensure that exploration sites are kept clean and left without refuse and other materials (e.g., fuel drums) that could contaminate the environment;
- Requirements in the Provincial Standards for Early Exploration to cap/seal drill holes and store drill core samples away from water bodies should help prevent the contamination of aquifers and surface water;
- The Standards' requirement that stripped overburden (the subsoil layer of earth and rock covering a mineral deposit) be stockpiled should ensure that topsoil and subsoil are not mixed, which can hinder plant establishment when the soil is re-spread during rehabilitation;
- Previously, proponents were free to undertake early exploration activities without informing MNDM or affected stakeholders of their planned activities. The requirement in O. Reg. 308/12 that exploration proponents submit – and consult Aboriginal communities on – exploration plans to MNDM should help identify some issues of environmental concern;
- The requirement that proponents proposing to carry out higher impact activities obtain an exploration permit, subject to Aboriginal consultation and the terms and conditions imposed by the Director of Exploration, creates a new, earlier stage of regulatory oversight that should result in the identification and mitigation of potential environmental impacts.

Exploration Plans vs. Exploration Permits

Activities that require an exploration permit – as opposed to an exploration plan – require ministry approval, and are subject to terms and conditions determined appropriate by the Director of Exploration. Exploration permits are also subject to minimally different requirements in the Provincial Standards for Early Exploration. However, the difference between activities subject to an exploration permit and those subject to a plan is only one of scale (e.g., the weight of drilling equipment, the width of cut lines, the area stripped, the volume of a pit or trench). Geographic location, proximity to residences, environmental sensitivity of the area, potential environmental impacts, and other factors play no role in determining whether a permit is required. As a result, exploration plan activities proposed for ecologically sensitive areas are not subject to the potentially mitigating terms and conditions that exploration permits can provide.

Public Participation in Environmentally Significant Decisions

Exploration permits are prescribed under the *EBR* for the purposes of public participation in government decision-making, applications for review, and applications for investigation. So while Ontario residents previously had no opportunity to formally express concerns about the impacts of early exploration, Ontarians can now: comment on proposed exploration permits via the Environmental Registry; request that MNDM review an approved permit; and request that MNDM investigate alleged contraventions of an approved exploration permit. These opportunities increase transparency and involve the public in potentially environmentally significant decisions, which can result in improved environmental protection.

While MNDM has indicated that exploration plans will be listed on the ministry's website, and that comments received on plans will be forwarded to the Director of Exploration and the proponent, exploration plan proposals are not prescribed under the *EBR*, and are therefore not subject to the same public participation opportunities and ECO oversight as proposals for exploration permits. Moreover, the Director of Exploration's ability to elevate an exploration plan to a permit is primarily confined to addressing Aboriginal concerns; the Director does not have the authority to elevate a plan to a permit to address other issues, including environmental concerns raised by environmental organizations, property owners, other stakeholders, and the public. As a result, even if members of the public have legitimate concerns about the potential environmental impacts of exploration plan activities, they are not subject to the public participation processes and potentially mitigating terms and conditions that exploration permits afford.

Public Participation & *EBR* Process

MNDM first consulted the public on the issues implemented through O. Reg. 308/12 when it posted a consultation workbook on the Environmental Registry in December 2009. In addition to this 130-day comment period, the ministry also held over 70 workshops for Aboriginal representatives, industry stakeholders, and other stakeholder groups. MNDM also engaged the Mining Act Advisory Committee, which includes representatives from the mining industry, the tourism industry, environmental non-government organizations (ENGOs), Aboriginal organizations, cottagers and other stakeholders.

On March 12, 2012, MNDM posted a proposal notice on the Environmental Registry describing the proposed content of O. Reg. 308/12 and the Provincial Standards for Early Exploration. MNDM received 103 comments during the 50-day comment period. Commenters on the proposal included: members of the general public; surface rights property owners; ENGOs; conservation authorities; Aboriginal communities; members of the prospecting, exploration, and mining industries; lawyers' associations, and agriculture associations. Supporters and opponents of the proposed amendments

expressed differing but equally passionate opinions on the proposed regulation and Standards. And while they offered contrasting opinions on several issues (e.g., the duration of process timelines, the longevity of exploration plans and permits, and the breadth and severity of permit activities and standards), several concerns were shared by different stakeholder groups:

- Much of the uncertainty these regulatory changes are trying to address is a result of unresolved Aboriginal claims. Outstanding land claims must be resolved, and territorial lands clearly defined, before consultation and cooperative land use can occur; otherwise the proposed amendments will have little impact on the barriers that prospectors and mining companies have experienced. It is the responsibility of the provincial government – not prospectors and Aboriginal communities – to resolve outstanding Aboriginal treaties and land claims.
- It is the duty of the Crown (i.e., the provincial government) to consult Aboriginal communities on projects that might affect established or credibly asserted Aboriginal rights. Although the Crown can delegate procedural aspects of consultation to third party proponents, MNDM must clearly articulate what "procedural aspects" it is delegating.
- It is unclear what "Aboriginal consultation" requires. MNDM must define the parameters of consultation (including expected outcomes, respective roles and responsibilities, boundaries, guidelines, and timelines).

Comments raised by ENGOs, conservation authorities and property owners included the following:

- Exploration activities have the potential for significant impacts if undertaken across an extended area or in a sensitive one. As part of the permitting process, an Environmental Impact Statement should be prepared by a qualified individual and submitted with the exploration permit application.
- The Minister of Northern Development and Mines should have the discretion to elevate an exploration plan to an exploration permit when the public raises significant and legitimate issues.
- Several types of exploration activities (e.g., exploratory drilling, stripping, trenching, and the use of explosives) should require an exploration permit rather than a plan.
- Because some exploration activities may be subject to regulations administered by conservation authorities, proponents should consult conservation authorities regarding a list of potential permit requirements.
- It is distressing that Ontario's forestry industry is required to meet and comply with a myriad of planning processes, while the equally destructive mining industry has not had to meet the same level of responsibility and environmental awareness. MNDM should apply a planning tool, modeled after forest management's "Areas of Concern," that protects non-mineral values via operating restrictions (e.g., on the location and timing of operations) in the Provincial Standards for Early Exploration or in the terms and conditions applied to exploration permits.
- The regulations must address: the environmental impacts of motorized access (e.g., roads, trails, and landings) and exploration infrastructure (e.g., camps, fuel caches, and tree cleaning); consideration of caribou, migratory birds and endangered species; the need to identify and list natural, social, cultural, and other values; and the depletion and pollution of water sources from exploration activities.

Aboriginal communities expressed concerns about a lack of details in the proposals regarding Aboriginal consultation requirements, and the need for financial support to constructively engage in consultations. One community also expressed that, because the use of pesticides during site remediation would diminish the cultural and medicinal value of plants, Aboriginal communities should have the authority to decide what activities take place in the area.

Prospectors saw little need to tinker with Ontario's regulatory framework for mineral exploration, arguing that many of the proposed changes would create red tape, imposing huge consultation

costs, long delays and uncertainty that would strangle exploration, stifle investment, and devastate prospectors' livelihoods. Amongst their long list of concerns, they asserted that: exploration plans and permits would impose onerous requirements for engaging in benign activities; expanded consultation requirements wrongly put the onus on prospectors to resolve land claim disputes; Aboriginal communities will be overwhelmed with requests to review exploration plans, causing delays in exploration; funding is needed for both Aboriginal communities and prospectors to engage in consultations; and requirements to disclose exploration sites and methods in exploration plans and permits are incongruent with the competitive and confidential nature of mineral exploration.

Commenters from the mining industry seemed more in favour of the proposed changes than prospectors. However, they requested clarity on several subjects, including: the process for drafting and amending exploration plans; the process and requirements for Aboriginal consultation; the government's involvement in dispute resolution; and how amendments to the Provincial Standards for Early Exploration would be communicated to industry. Many commenters from the prospecting, exploration, and mining industries offered specific criticisms of the draft Provincial Standards for Early Exploration, the proposed Aboriginal consultation timelines and requirements, and the criteria used to classify early exploration activities.

Ministry Consideration of Public Comments

According to MNDM, in addition to consultation via the Environmental Registry, the ministry undertook focused consultations on the regulation proposals with industry representatives, Aboriginal groups and other stakeholders from the winter of 2011 to the spring of 2012.

MNDM stated that all of the comments provided through the Environmental Registry were carefully considered, and that many had already been raised through the "extensive consultation process launched in December 2009 and incorporated into the regulatory proposal." In response to the comments received, MNDM made some minor changes to the regulatory amendments. For example, in the final version of O. Reg. 308/12, MNDM clarified that the dispute resolution process would occur prior to the ministry making a decision on a permit application.

Many of the commenters expressed concern about the lack of clarity in the proposal notices around Aboriginal consultation requirements and the dispute resolution process. To address these concerns, MNDM indicated in the decision notice that it had developed an operational policy detailing respective roles and responsibilities of the ministry, the proponent and Aboriginal communities around consultation on exploration plans and permits (see Other Information).

SEV

MNDM provided the ECO with an Statement of Environmental Values consideration note for this regulation decision. Although the document summarizes the changes resulting from the regulation, describes the opportunities MNDM provided for public and stakeholder consultation, and indicates which SEV principles are relevant to the decision, they do not describe how the ministry applied and considered these principles during the decision-making process.

Other Information

To implement recent amendments to the *Mining Act*, MNDM not only filed O. Reg. 308/12, but in November 2012 also amended three regulations under the Act: O. Reg. 45/11 – General; O. Reg. 6/96 – Assessment Work; and O. Reg. 240/00 – Mine Development and Closure under Part VII of the Act.

MNDM consulted the public on these three regulatory amendments via three separate proposal notices on the Environmental Registry (#011-5785, #011-5786 and #011-5787 respectively).

Amendments to O. Reg. 45/11 – General, made under the Mining Act

Under the amended *Mining Act*, the Minister of Northern Development and Mines may withdraw from prospecting, staking, sale and lease any lands, mining rights or surface rights that are of "Aboriginal cultural significance," and may impose restrictions on the surface rights of a claim if portions of the land are of "Aboriginal cultural significance." In November 2012, O. Reg. 45/11 was amended to define sites of Aboriginal cultural significance as land with a surface area less than 25 hectares that is:

- strongly associated with an Aboriginal community for social, cultural, sacred or ceremonial reasons, including its traditional use;
- a fixed location with a clear geographic description or delineation on a map; and
- identified by an Aboriginal community as having culturally significance, as evidenced by appropriate documentation.

Amongst other things, the amended regulation also prescribes the Mining Act Awareness Program as the program that prospectors must successfully complete before obtaining or renewing a prospector's licence. This online, 45-60 minute tutorial should help make licensed prospectors aware of Aboriginal and treaty rights, the rights of private land owners, requirements for carrying out early exploration activities, and the basic regulatory framework for prospecting, staking, and exploring for minerals in Ontario. As the program states,

> Mineral exploration has the potential to diminish or even cause the loss of important environmental and natural values, such as rare or sensitive plant communities or important wildlife or fish habitat, including nesting or breeding grounds. Some of these values are protected by other laws or regulations which the explorationist must be aware of and abide by …. By being aware of the values that are present and taking measures to avoid or protect them, a mineral exploration project can reduce its environmental impact.

However, the program makes no mention of which other laws (e.g., the *Endangered Species Act, 2007*; the *Ontario Water Resources Act*; the *Environmental Protection Act*) or regulations might apply, or how mineral explorers can identify and protect important environmental and natural values present on staked claims.

Amendments to O. Reg. 6/96 – Assessment Work, made under the Mining Act

The holder of a mining claim is required to conduct a certain amount of annual "assessment work" to keep a claim in good standing. Ontario Regulation 6/96 specifies the types of actions and costs that count as credits to demonstrate that assessment work requirements have been met. Recent amendments to O. Reg. 6/96 expand the items eligible for assessment work credits to include: the costs of consulting Aboriginal communities on exploration activities proposed for the claim; expenses incurred providing GPS (Global Positioning System) data on the boundaries of existing mining claims in unsurveyed territory; and payments in lieu of actual assessment work. Previously, the regulation required a progressively greater value of assessment work on a claim unit each year after the first anniversary date of the claim. However, the amended regulation simply requires that the claim holder perform (and report on) assessment work in the amount of $400 per claim unit before the second anniversary date of the mining claim, and in each subsequent assessment year until the claim holder has met all the requirements in the *Mining Act* and its regulations to apply for a lease.

Amendments to O. Reg. 240/00 – Mine Development and Closure under Part VII of the Act:

In Ontario, a mining company cannot commence or re-commence advanced exploration or mine production unless a closure plan (a plan with financial assurance to rehabilitate a site or mine hazard) is in place. Amendments to the *Mining Act*, implemented through amendments to O. Reg. 240/00, now require proponents to consult with potentially affected Aboriginal communities prior to submitting a certified closure plan (or closure plan amendment) pursuant to direction from the Director of Mine Rehabilitation. When submitting a certified closure plan or closure plan amendment to the Director, the proponent must also submit a consultation report detailing any arrangement reached with an Aboriginal community or the efforts made to reach such an arrangement. These consultation requirements should help address Aboriginal concerns, and therefore, some potential environmental impacts.

Under the amended *Mining Act*, the Minister may designate individuals or a body to hear, consider and make recommendations regarding disputes arising under the Act related to Aboriginal consultation and existing or asserted Aboriginal or treaty rights. Amendments to O. Reg. 240/00 specify some of the details of the dispute resolution process.

Finally, the *Mining Act* allows any person to apply to the Director to voluntarily rehabilitate an existing mine hazard that they did not create on Crown-held land (or any other prescribed land), without becoming liable for pre-existing environmental issues on the site. Amendments to O. Reg. 240/00 specify that the following lands are prescribed for voluntary rehabilitation:

- Land for which the surface and/or mining rights are under licence of occupation from the Crown;
- Land occupied or in use by the Crown or a ministry of the provincial government;
- Land that has been withdrawn, set apart, or appropriated for a public purpose; and
- Land held by a ministry of the Government of Ontario.

The amended regulation also specifies that a person applying to voluntarily rehabilitate a mine hazard must: submit an application to the Director in the approved form; notify any surface rights owners and/or claim holders; and ensure that rehabilitation is undertaken in accordance with the standards and requirements in the Mine Rehabilitation Code (found in O. Reg. 240/00) specified by the Director.

Operational Guidelines and Policies

Some of the details regarding the implementation of amendments to the *Mining Act* are not found within the recent regulations, but instead are found in operational guidelines and policies. In December 2012, MNDM posted on the Environmental Registry four policy proposals soliciting public input on policies to provide guidance and direction on the implementation of O. Reg. 308/12, O. Reg. 6/96, O. Reg. 240/00, and O. Reg. 45/11. Follow-up decision notices on the Registry indicate that these four policies were finalized in February 2013:

- Consultation and Arrangements with Aboriginal Communities at Early Exploration (Registry #011-7764).
- Assessment Work Credits – Eligible Expenses Related to Consultation with Aboriginal Communities (Registry #011-7736);
- Dispute Resolution at Early Exploration (Registry #011-7758); and
- Sites of Aboriginal Cultural Significance – Withdrawals and Surface Rights Restrictions (Registry #011-7761).

In January 2013, MNDM posted another proposal on the Registry (#011-7831) soliciting public input on a policy, Voluntary Rehabilitation of Mine Hazards, to provide guidance and direction on the implementation of the voluntary rehabilitation provisions of the *Mining Act* and O. Reg. 240/00. A follow-up decision notice was posted in April 2013.

ECO Comment

When the ECO reviewed the *Mining Amendment Act* in our 2009/2010 Annual Report, we noted that it was difficult to know what effect the amendments to the *Mining Act* would have in improving environmental protection, since many of the details were yet to be articulated in regulations. Now that O. Reg. 308/12 and other implementing regulations have been developed and filed, many of these details are clear, although some specifics (e.g., the processes for consulting Aboriginal communities) are relegated to guidelines and policies. By far, the most environmentally significant of these regulations is O. Reg. 308/12. While the ECO applauds MNDM for creating a new stage of screening, notification, consultation and regulatory oversight for early exploration activities, the ECO is disappointed that this regulation and its graduated regulatory scheme will not provide as robust environmental protections as hoped.

To ensure environmental protection, the ECO believes that the criteria for requiring an exploration permit (with its increased consultation requirements and Director's terms and conditions) should not be limited only to the scale of the activity but should also involve other considerations, particularly the ecological significance and sensitivity of the area. In the absence of such environmentally related criteria, the ECO finds it extremely disappointing that the regulation fails to give the Director (or even the Minister) the authority to elevate an exploration plan to a permit on the basis of environmentally significant or publicly raised concerns. While the *Mining Amendment Act* expanded the list of land types withdrawn from staking, some potentially ecologically important areas (including conservation areas, significant wetlands and woodlands) were not included and so are still vulnerable to the impacts of early exploration. The provincial government – the steward of Ontario's shared resources – should have the discretion to require an exploration permit and impose necessary terms and conditions to minimize environmental impacts.

Many commenters from the mining industry denounced the rules in the new regulations as financially and logistically arduous. However, the intent of these rules is to create a formal, transparent framework, and reduce uncertainties that can cause expensive and prolonged delays in mineral exploration. While some prospectors and mineral explorers believe that Ontario's Crown land should be completely open to staking and exploration with little or no limitations, Ontario's natural resources belong to all of us – not just a select few – and so must be sustainably managed by the province for the public good. Just as MNDM has a mandate to encourage a thriving mining industry, the government has an equally important role safeguarding the health of our natural resources. Ultimately, this requires the province having the ability to identify areas of ecological significance and vulnerability, and the power to impose restrictions on industry to protect them.

Review of Posted Decision:

1.18 Environmental Guide for Assessing and Mitigating the Air Quality Impacts and Greenhouse Gas Emissions of Provincial Transportation Projects

Decision Information

Registry Number: 011-5078
Proposal Posted: February 3, 2012
Decision Posted: July 26, 2012
Comment Period: 45 days
Number of Comments: 2
Decision Implemented: July 26, 2012

Keywords: Class Environmental Assessment for Provincial Transportation Facilities; air quality; greenhouse gas emissions

Description

Overview

In July 2012, the Ministry of Transportation (MTO) finalized a standardized approach for assessing and mitigating the air quality impacts and greenhouse gas (GHG) emissions of provincial transportation projects. The Environmental Guide for Assessing and Mitigating the Air Quality Impacts and Greenhouse Gas Emissions of Provincial Transportation Projects (the Guide) allows MTO staff and consultants to follow a defined analysis and mitigation methodology, and provide information to the public as to the scope and process for air quality and GHG assessments.

Background

Fuelled primarily by hydrocarbons, Ontario's transportation sector contributes significantly to both local and regional air pollution. Through the combustion of fossil fuels, primary pollutants such as carbon monoxide (CO), nitrogen oxides (NO_x), volatile organic compounds (VOCs), and particular matter (PM) are directly emitted into the atmosphere. Other transportation-related sources of PM include road dust, along with worn tire and brake materials. In the presence of sunlight and heat, NO_x and VOC react to form ground-level ozone that, when combined with PM, gives rise to smog – a key public health concern. Not only can smog cause respiratory difficulties and cardiac illness, the Ontario Medical Association stated in 2008 that smog plays a contributing role in 9,500 premature deaths per year. Along with serious health impacts, smog has been found to damage vegetation, reduce the productivity of some crops, and contribute to forest decline.

Ontario's transportation sector is also a key, and growing, source of GHG emissions; in 2010, it was responsible for nearly 35 per cent of all provincial emissions. Ninety-six per cent of Ontario's transportation-related GHGs are carbon dioxide (CO_2), however small amounts of methane and nitrous oxide are also released through combustion processes. Unlike other air pollutants that have a more local impact, GHG emissions contribute primarily to global climate change.

Given the health, environmental, and economic effects associated with transportation, projects in Ontario are subject to the *Environmental Assessment Act* (*EAA*) and MTO is required to assess the environmental consequences of a project, including its effect on air quality. Under the *EAA*, major new undertakings such as provincial freeways, are required to undergo a full individual Environmental Assessment (EA). Other projects that "are relatively small in scale, routinely performed, or have predictable and mitigable environmental effects" are subject to the Class EA

process outlined within the Class Environmental Assessment for Provincial Transportation Facilities (Class EA) document.

Four categories exist within this Class EA: Group A projects include new highways and transitways; Group B projects include major improvements to facilities that provide a significant increase in traffic capacity or will have a significant physical impact; Class C projects entail minor improvements to existing facilities; and Class D projects include facility operation and maintenance.

To provide guidance to transportation planners in assessing the impacts of projects that are subject to either an individual EA or a Class A or a Class B assessment, in July 2012 MTO released the Environmental Guide for Assessing and Mitigating the Air Quality Impacts and Greenhouse Gas Emissions of Provincial Transportation Projects.

The Environmental Guide for Assessing and Mitigating the Air Quality Impacts and Greenhouse Gas Emissions of Provincial Transportation Projects

The Guide provides a recommended approach and methodologies to calculate transportation-related emissions and to assess the local and regional air quality and GHG impacts of large provincial transportation projects. While the document provides a methodology that can be applied to all transportation systems (i.e., road, rail, marine, transit), the focus is primarily on highways and the manner by which the impacts of highway-related emissions can be quantified and mitigated. These impacts were previously assessed on a project-by-project basis; however, according to MTO the former methodology was not well established and was "subject to inefficiencies."

The Guide outlines six broad tasks that are to be followed by transportation planners in completing a comprehensive air quality and GHG assessment (see Figures 1 and 2). All six tasks apply to individual EA and Class A projects. For Group B projects, only the last four tasks apply. Five appendices outline the specific scientific methodologies that are to be followed.

Task One – Assess Transportation Planning Alternatives:
In planning for future needs, planners must first determine the volume of people and goods that a transportation system must accommodate, and then assess the various alternatives that will meet that need. As the Guide points out, several alternatives such as rail, marine, transit and road, or a combination thereof could theoretically provide the level of service required. Planners must therefore determine which alternatives are credible and then systematically assess them based on a set of evaluation criteria, including the impact each will have on annual air quality and GHG emission levels in future years. If any of the options represents a "significant emission burden," a burden analysis must be conducted. This threshold is reached when the alternative "increases the total provincial emissions of a critical air pollutant [nitrogen oxides or $PM_{2.5}$] or those of greenhouse gases … by more than 0.1% (one-thousandth) of their respective values" over a selected appropriate reference year. According to MTO, in most instances the most recent, official emissions data would represent an appropriate reference year.

Appendix 2 contains the recommended methodology for conducting the requisite burden analysis. In brief, what is required is that a bottom-up estimate be made regarding both the annual vehicle kilometres that will be traveled by each main vehicle type (e.g., cars, trucks, buses, trains, etc.), as well as the amount of primary air pollutants and GHGs (in grams) that will be emitted per vehicle kilometre traveled (VKT). The primary air pollutants of concern are CO, NO_x, PM and five VOCs that are classified as air toxics: formaldehyde, acetaldehyde, benzene, acrolein and 1, 3-butadiene. Once complete, an overall forecast is then to be made regarding the total pollutant and GHG emissions for each credible alternative, and these are to be compared within the context of provincial emissions inventories.

Task Two – Assess Route Alternatives:
Once a preferred transportation alternative has been determined, the next task involves assessing all possible route alternatives. From the perspective of regional air quality and GHG emission levels, the Guide indicates that only a large difference in the length of the various route alternatives will result in a significant difference in the expected emissions from each. Therefore, a second burden analysis (as described above) is only required where the difference in length between the shortest and longest route alternative is greater than 10 per cent, or where the route length difference is greater than one kilometre.

While alternative routes may present negligible emissions differences from a regional perspective, the Guide acknowledges that local air quality may be differentially, and significantly, affected depending on the route selected. Accordingly, Task Two requires an assessment of the local air quality impact of each route alternative for all critical receptors (e.g., hospitals, retirement homes, childcare centres, etc.) and sensitive receptors, such as residences.
Task Three – Conduct a Detailed Assessment of the Preferred Alternative:
At this stage, a preferred transportation project has likely been selected and the probability that it will be implemented is quite high. Accordingly, the Guide calls for a more detailed assessment of both the local and regional air quality impacts of the selected project.

Local Assessment:
To assess local air quality impacts, planners must conduct a worst-case air quality impact assessment for each community. As MTO explains, such an assessment is "based on the concept that a project is acceptable under all conditions if it is acceptable under a credible worst-case condition." The Guide subsequently outlines the steps and assumptions to be followed in conducting this type of analysis. As part of this process, emissions and dispersion modelling must be conducted. In short, dispersion modelling attempts to explain how pollutants mix, dissipate in, and are removed from the atmosphere depending on meteorological conditions, the particular characteristics of the emission source, and the local topography.

The results of the credible worst-case analysis are then to be used to determine the acceptability of the preferred option. In particular, if it is shown that a critical receptor (e.g., hospital) or a significant number of residences may be subject to air quality that does not meet the provincial ambient air quality criteria (AAQC) or the Canada-Wide Standards (CWS) for particulate matter, then a subsequent comprehensive analysis will be required.

Under both of these approaches, air quality impacts are to be assessed over three timeframes: the year the facility is complete, and then both ten and twenty years hence. A key difference, however, between a worst-case analysis and a comprehensive analysis is the timeframe that is studied. Under the former, the worst-case condition is deemed to last for one hour for all gas phase pollutants, and 24 hours for PM. Under the latter, predictions of ambient pollutant concentration levels (for all pollutants under study), are to be made on an hour-by-hour basis for a full year. While this approach is more time consuming, MTO indicates that it provides a more realistic assessment and that the results generated provide a "superior means to assess the acceptability of the 'preferred option'."

Regional Assessment:
While individual, large transportation projects may significantly affect the local area, challenges exist when attempting to assess their impact at a regional level. As MTO points out, this is in part because current transportation models do not have sufficient resolution "to accurately predict changes in regional pollutant concentrations due to individual projects." Nevertheless, each project forms part of a broader transportation network that will, ultimately, have an effect on overall emissions over long time periods. MTO recognizes that proper transportation planning must, therefore take this into consideration and efforts must be taken to assess the overall regional impact of a project's network effects over a 20-year timeframe. While a detailed methodology is

beyond the scope of the Guide, it nevertheless outlines the key steps that are involved in conducting such an assessment.

Task Four – Assess the Need for Mitigation:
The need to undertake mitigation efforts is to be decided on a project-by-project basis. Where a local air quality impact assessment predicts that the provincial AAQC or the national CWS for ozone and particulate matter are likely to be exceeded over a significant period of time each year at a significant number of receptors, measures to lessen these impacts are to be explored. A determination of "significant" would depend upon both the nature and level of the exceedences, as well as the characteristics of the receptors. According to MTO, in most instances background pollution would be the primary cause of any exceedences and, therefore, few practical or effective mitigation options would likely be available.

From a regional perspective, a significant net increase to regional air pollution and GHG emissions may lead to the conclusion that mitigation efforts are required. At this level, broader considerations must be taken into account, such as the relative cost and macro-economic implications of reducing emissions from the transportation sector versus other key pollutant sources.

Task Five – Evaluate Mitigation Options:
The fifth task involves an evaluation of the mitigation options that exist at the local, provincial, and federal levels to reduce both local and regional impacts. At a local level, the toolkit for mitigating air quality impacts includes measures to improve traffic flow, better landscaping, and dust control. From a regional perspective, the Guide discusses several project-specific mitigation options, including geometric highway design, the provision of high-occupancy vehicle lanes, and giving preference to transportation options that have low emission rates where such alternatives "can adequately serve transportation needs and are economically viable." As well, the Guide includes road pricing measures "through electronic tolling or other means" as a potential mitigation option, but qualifies these as "only applicable to new highways."

The Guide also discusses the role that non-project specific, broad measures can play in mitigating air quality and GHG emissions impacts. These include: transportation demand management efforts; financial measures to reduce the use of single occupancy vehicles; encouraging the use of cleaner vehicles and fuels; and setting more stringent vehicle and fuel standards. As the Guide acknowledges, many of these measures are already in place and are helping to reduce vehicle pollutants. While it is recognized that many of these fall outside of MTO's jurisdiction, the Guide suggests that their utility nevertheless should be assessed and reported on.

Task Six – Report:
The final required task is to prepare a stand-alone report that documents the assessment and mitigation work that has been conducted, along with the modelling results achieved. The report is not required to explain the methodologies that were followed, but rather can refer to the Guide to indicate that their selection was appropriate.

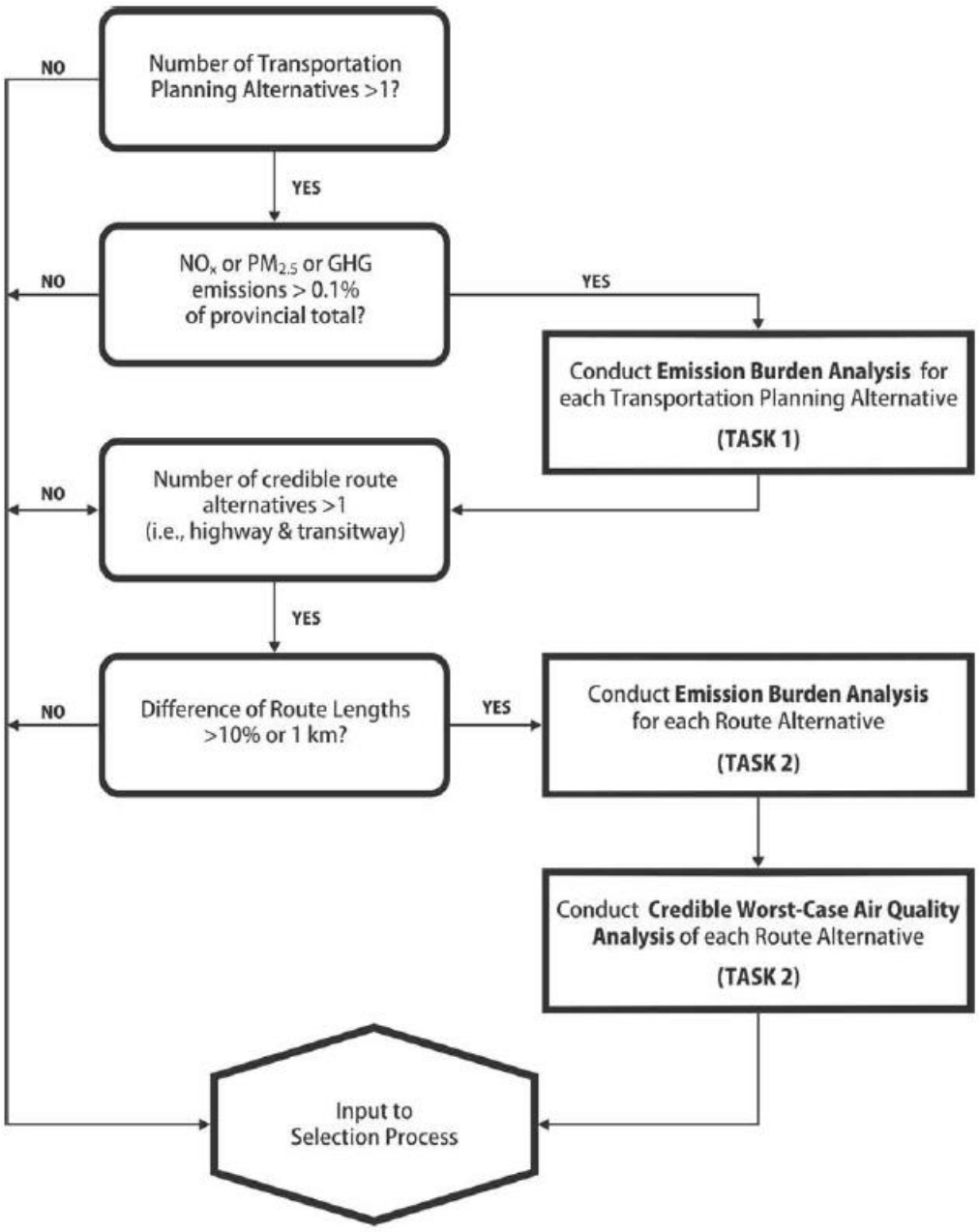


Figure 1: Methodology Flowchart: Selection of Preferred Alternative (Source: Environmental Guide for Assessing and Mitigating the Air Quality Impacts and Greenhouse Gas Emissions of Provincial Transportation Projects, MTO 2012)

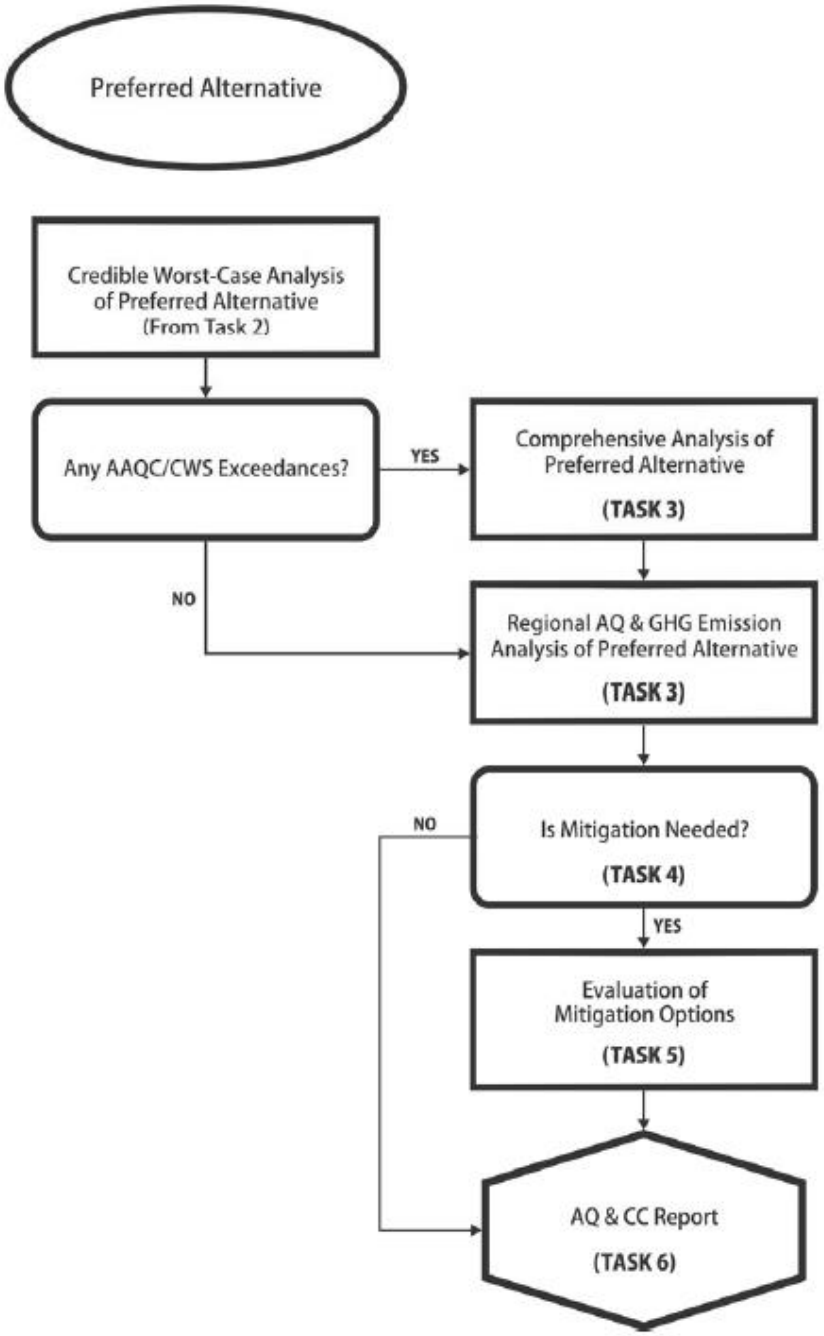


Figure 2: Methodology Flowchart: Assessment of Preferred Alternative (Source: Environmental Guide for Assessing and Mitigating the Air Quality Impacts and Greenhouse Gas Emissions of Provincial Transportation Projects, MTO 2012)

Implications of the Decision

The Guide does not establish any new policy direction, nor impose any new legal requirements, and clearly states that "there is no legal obligation for MTO to meet any specific air quality standard or GHG emission target." Nevertheless, issuance of the document serves an important role as it provides guidance to ministry staff and consultants when planning transportation projects, and clarifies the methodology that MTO, and its consultants, are expected to follow when assessing air emission considerations within the environmental assessment process. Accordingly, the Guide should help provide a more consistent and streamlined process for evaluating air emissions from transportation projects that could, in turn, help promote better transportation planning and development.

While the Guide provides clarity with regard to the process to be followed, in some respects the guidance remains somewhat vague and open-ended. In particular, while the term "significant" is used frequently throughout the document, little guidance is provided as to how a determination of significance is to be made by the project planners. In the absence of further guidance, it is ultimately the regulatory agencies who will decide what "significant" means when reviewing particular projects.

Public Participation & *EBR* Process

In February 2012, MTO posted a draft Guide on the Environmental Registry for a 45-day comment period. In the proposal notice, MTO indicated that the draft had been developed in consultation with an intergovernmental working group consisting of representatives from both the provincial and federal governments. MTO received two comments in response to the Registry posting.

The Ontario Society of Professional Engineers expressed support for MTO's efforts in developing a standardized approach to assess emissions and stressed that for large, complex transportation projects that require engineering, EAs should be conducted by professional engineers.

The Medical Officer of Health for a regional municipality questioned whether the air quality criteria and standards provided were stringent enough to protect public health and suggested that MTO look to other jurisdictions for guidance on health-based standards. The commenter also questioned the assertion in the draft document that because "most Ontarians live far enough from major transportation facilities" they only are exposed to regional, rather than local, air quality impacts. The medical officer pointed out that this was not accurate within urban areas where a significant number of people live close to heavily travelled transportation corridors and are, therefore, directly affected by the local, and not just the regional, impacts of transportation projects. Finally, while the draft document stated that mitigation efforts should be undertaken where "significant" emissions exceedances occur locally, no guidance is provided as to what the trigger threshold might be. The commenter, therefore, requested that a quantitative definition be provided.

In response to the comments received, MTO noted that professional engineers and physical scientists with the proper qualifications are sufficiently competent to conduct the work outlined, but did not revise the Guide to make this a requirement. With regard to the health concerns, MTO pointed out that the Guide is not intended to be used for health impact studies, but merely to assess alternatives and determine where mitigation efforts are needed. MTO did indicate, however, that it is considering the development of a companion guide to assist with determining the health impacts of future highway projects. MTO did not address the remaining issues nor change the document to provide the information requested.

SEV

In its Statement of Environmental Values (SEV) consideration document, MTO explained how four principles within its SEV (i.e., protecting the natural environment, taking environmental concerns into consideration in decision making, integrating transportation and environmental planning, and consultation) are reflected within the Guide. For example, the ministry stated that the establishment of a clear process to mitigate harmful transportation-related emissions is consistent with the value of protecting the natural environment.

Other Information

In 2009, MTO began a review of its Class Environmental Assessment for Provincial Transportation Facilities and, in April 2010 posted an information notice on the Environmental Registry to advise the public of the consultation opportunity available through MTO. One of the stated key objectives of the review was to improve provisions for sustainable transportation considerations. In November 2011, MTO submitted an amended Class EA to the Minister of the Environment for review and approval. As of March 2013, however, the amended Class EA had not yet been approved.

MTO has also been drafting an "Air Quality Guide," which at the time of writing, was still subject to final internal approvals; once endorsed by the Ministry of the Environment, it is to be posted on the Environmental Registry for comment. While the ECO has not reviewed the specific contents of this draft Air Quality Guide, it will likely serve as a companion document for the Guide.

In October 2012, all Canadian jurisdictions (except Quebec) agreed to begin implementing a new Air Quality Management System. As part of this approach, new Canadian Ambient Air Quality Standards for fine particulate matter ($PM_{2.5}$) and ozone were established for the years 2015 and 2020. These standards are to replace the CWS for these two substances that are referenced in the Guide.

ECO Comment

The ECO commends MTO for developing a technical guide that outlines a systematic approach for assessing the air emissions of transportation projects. In 2007, MTO released several documents as part of its Environmental Standards Project, an attempt by MTO to consolidate in one place all environmental standards used by MTO and its contractors. The Guide represents a further addition to this project. While the 2007 documents addressed other important issues for transportation planning (e.g., fish and fish habitat, contaminated property, and erosion and sediment control), guidance on air emissions was notably absent. Given that air emissions are a key environmental consideration for transportation, MTO has bridged an important gap by articulating a consistent, recommended approach to both measure and mitigate such emissions as part of the EA process.

It is noteworthy that the Guide has included road pricing as a potential mitigation option, but the ECO is dismayed by the caveat that it is "only applicable to new highways." The ECO has previously discussed the potential benefits that may be achieved by putting a price on road use – reduced congestion, commute times, air pollution and GHG emissions – and believes that it represents a significant tool that should be explored, particularly within stressed areas such as the Greater Toronto and Hamilton Area. As a document that guides the EA process for new transportation projects, this qualifier is perhaps understandable. The ECO hopes, however, that it does not reflect a position by MTO that road pricing mechanisms are never to be considered for existing highways. With the urgent need to reduce both congestion and air emissions from the transportation sector,

road pricing should be given serious consideration for existing highways that are already stretched beyond their capacity, particularly during peak hours.

The ECO is also encouraged to see the Guide suggest that preference can be given, at the early stages of the planning process, to low emission transportation alternatives (such as commuter and freight rail) where they can "adequately serve transportation needs and are economically viable." As the ECO has previously pointed out, MTO's current Class EA document is biased toward the construction of roads and highways rather than transit and rail. Accordingly, while pleased to see the explicit recognition in the Guide that such preference *can* be given to such alternatives, the ECO believes that such preference *should* be given and reflected as a core principle within the Class EA itself.

Finally, while the document was just released in July 2012, it already appears somewhat outdated as it contains GHG data from the 2007 National Inventory Report, rather the most recent 2012 version. As well, it mentions that a high-speed rail study is "currently under study," despite the fact that a study regarding the feasibility of such a system was released several months before the Guide was issued. The Guide should, therefore, be amended to ensure it contains up-to-date data and information, including the new Canadian Ambient Air Quality Standards for $PM_{2.5}$ and ozone.

SECTION 2

ECO REVIEWS OF APPLICATIONS FOR REVIEW

SECTION 2: ECO REVIEWS OF APPLICATIONS FOR REVIEW

2.1 Ministry of Energy

Review of Application R2012002:

2.1.1 Shifting Ontario's Electricity Generation from Fossil Fuels to Renewables (Review Denied by MOE and ENG)

This application was reviewed in conjunction with R2012001 (MOE). Please see Section 2.2.8 of this Supplement for the full review.

2.2 Ministry of the Environment

Review of Application R0334:

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

Background

Overview

In November 1995 — almost 18 years ago – two individuals from the tanning industry submitted an application under the *Environmental Bill of Rights, 1993* (*EBR*) 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, a waste is considered "hazardous" under Regulation 347 if the total chromium level in a leachate test exceeds five milligrams per litre, regardless of whether the waste contains the toxic or

non-toxic forms of chromium. The applicants noted that leather tanning uses only the trivalent form of chromium and less than 5 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. MOE's objective of co-ordinating and harmonizing its review with the federal government's review was understandable in 1996; however, given that the federal government completed its review eight years ago, MOE's failure to take action can no longer be justified. 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 R2007018:

2.2.2 Fluorides in Drinking Water (Review Undertaken by MOE)

Keywords: drinking water; fluoride; Health Canada; human health; MOE; *Safe Drinking Water Act, 2002* (*SDWA*)

In November 2007, two applicants requested that the Ministry of the Environment (MOE) review existing policies, regulations and standards made under the *Safe Drinking Water Act*, *2002* (*SDWA*) as they relate to the addition of inorganic fluorides (ionic compounds containing the element fluorine) and any other accompanying contaminants to drinking water. They also requested that the ministry develop new regulations and policies to prohibit the addition of inorganic fluorides and accompanying contaminants to drinking water.

Background

Fluoride occurs naturally in low levels in most sources of drinking water in Canada. It can occur naturally in groundwater from leaching rock formations, and in surface water from the deposition of particulates from the atmosphere and the weathering of fluoride-containing rocks and soils. Fluoride can also be introduced into the environment by human activities, including chemical and textile manufacturing, fertilizer production, and metal casting and welding. However, people are predominantly exposed to fluoride through the use of dental products (e.g., toothpaste), and the consumption of food, beverages, and fluoridated drinking water.

Water fluoridation was introduced to North America in the 1950s to promote public health through protection against dental cavities. At the time, there was impassioned debate over whether fluorides should be added to municipal water systems. On one side was a coalition of government and industry scientists who argued that adding fluoride to drinking water would prevent tooth decay. On the other were activists who asserted that the risks of fluoridation were inadequately studied and that the practice amounted to mandatory mass-medication and therefore a violation of civil liberties.

In the end, fluoride advocates won out, and many cities and towns across North America began fluoridating their drinking water. According to most recent estimates, approximately 45 per cent of Canada's population is provided community fluoridated drinking water. However, the rates of fluoridation vary greatly by province; while some provinces, like Quebec, British Columbia, and Newfoundland and Labrador, have low fluoridation rates (6.4, 3.7 and 1.5 per cent of their respective populations receive municipally fluoridated water), 76 per cent of Ontario's population receive fluoridated drinking water, followed by Alberta and Manitoba with 75 and 70 per cent.

Over the years, new concerns about the health and environmental impacts of fluoride have emerged, reviving the debate about adding the compound to a public's source of drinking water. Exposure to elevated levels of fluoride has been associated with dental fluorosis (the discoloration and disfiguration of teeth), increased risk of bone fracture, and moderate skeletal fluorosis (a painful stiffening of the joints). Moreover, some scientific studies have raised concerns that fluoride may trigger more serious health problems, including bone cancer and damage to the brain and thyroid gland. Concerns have also been raised that fluoridating agents are contaminated with other pollutants (e.g., arsenic), and that fluoridating chemicals can increase the leaching of lead from brass fittings into drinking water.

On the other hand, many medical and dental organizations (including the World Health Organization, the U.S. Centers for Disease Control and Prevention, Health Canada, the Canadian Dental Association, the Canadian Association of Public Health Dentistry, the Canadian Dental Hygienists Association, the Canadian Pediatric Society, the Canadian Medical Association, the Ontario Dental Association, the Ontario Association of Public Health Dentistry, the Royal College of Dental Surgeons of Ontario, and Toronto Public Health) argue that fluoridated drinking water is a proven, safe and effective means of reducing a population's incidence of cavities. For example, Ontario's Chief Medical Officer of Health recently asserted that, since 1997, 18 major fluoridation reviews have "consistently found that fluoridation is effective in reducing the risk of tooth decay, and is the most cost-effective way of providing the benefits of fluoride to all residents in a community regardless of age, socioeconomic status, education, employment or dental insurance status. It promotes equality among all segments of the population, particularly the underprivileged and the hardest to reach, where other preventive measures may be inaccessible or not affordable."

Moreover, these organizations point to numerous studies and reviews as evidence that water fluoridated at recommended levels is not linked to adverse health effects. As Health Canada has argued, "currently available peer-reviewed scientific studies continue to indicate that there are no

adverse health effects from exposure to fluoride in drinking water at or below the maximum acceptable concentration," and that "the safety and efficacy of water fluoridation has been frequently studied and continues to be supported by current science, and the beneficial effects of fluoride in the prevention of dental cavities have been well documented in scientific literature."

Nevertheless, in response to health concerns, many countries, including Japan, China, and 98 per cent of Europe have discontinued or resisted fluoridating public drinking water. Likewise, in recent years, several Ontario municipalities (e.g., Orillia, Waterloo, Cambridge, Welland, Thorold and Dryden) have rejected or stopped adding fluoride to their drinking water.

The Government of Ontario does not require that municipalities fluoridate their drinking water. Rather, the *Fluoridation Act* gives municipalities the authority by by-law to establish or discontinue fluoridation systems. In making this decision, a municipality may hold a binding vote, asking its electorate whether it favours the fluoridation of the municipality's public water supply. The public may also petition a municipality to hold such a referendum.

While the *SDWA* does not require municipalities to fluoridate drinking water, the Act does require that drinking water meet the Ontario Drinking Water Quality Standards. The Drinking Water Quality Standard for fluoride is a maximum of 1.5 mg/L. MOE also has technical guidelines that state that drinking water systems that fluoridate should maintain overall fluoride levels of between 0.5 and 0.8 mg/L at the end of the fluoridation process.

Summary of Issues

The applicants assert that "the additions of toxic inorganic [vs. organic] fluorides such as hydrofluorosilicic acid with its accompanying contaminants such as inorganic arsenic and lead into our drinking water have":

- resulted in increased contamination of groundwater, surface water and sewage effluent to water bodies and natural environments;
- caused significant harm to water bodies, groundwater sources and the life therein; and
- caused harm to the health of certain subsets of the population, including babies, pregnant women, and the elderly.

The applicants therefore requested that MOE review existing policies, regulations and standards under the *SDWA* as they relate to the addition of any "toxic substances" such as inorganic fluorides and any other contaminants accompanying these compounds into Ontario's drinking water, and by extension source water since municipal wastewater can sometimes be discharged back to its source. In addition, they requested new regulations and policies under the *SDWA* prohibiting the addition of such substances to drinking water, and by extension source water.

The applicants asserted that MOE should undertake a review to protect the environment because they believe that:

1) MOE's Statement of Environmental Values – and its commitment to the ecosystem approach, the precautionary principle and other principles – represents a provincial promise to safeguard the environment, public health and safety;
2) Aggrieved residents should be appropriately compensated until fluoridation is discontinued;
3) MOE needs a comprehensive plan to better educate Ontarians about the risks and appropriate application of fluoride;
4) The material facts regarding the chemical additives used in drinking water fluoridation are often misrepresented or shielded from public knowledge;

5) The Ontario government's commitment to implementing the recommendations arising from the Walkerton Inquiry and ensuring drinking water (and source protection) safety should include an investigation of the policies and standards related to the fluoride chemicals used in drinking water;
6) The addition of inorganic fluorides and associated contaminants to drinking water is inconsistent with the anti-pollution regulatory and policy framework provided by the *SDWA*, the *Ontario Water Resources Act* and the Provincial Water Quality Objectives;
7) New evidence demonstrates that "the existing policies and standards clearly create ongoing risks to the environment and public health and safety;"
8) Ingesting fluoride provides no significant protection against cavities and, furthermore, dental health care is not a municipal responsibility;
9) Ontario's drinking water standards are applied inconsistently, and they erroneously encourage the "topping up" of contaminants to maximum allowable concentrations;
10) There is a need for scientific safety standards for drinking water contaminants that consider lifetime ingestion, age, and ethnicity;
11) Fluoride ions increase the body's demand for magnesium and calcium, and fluorosilicates may synergize and amplify the biological effects of lead, aluminum and arsenic already existing in the environment, both creating environmental concerns for humans and animals;
12) Evidence suggests that some U.S. suppliers and distributors of fluorosilicates are in violation of U.S. standards, leading the applicants to believe that Ontario municipalities that purchase and add these products to their drinking water may also be in violation of Certificates of Approval (Cs of A) and the *SDWA*;

The applicants pointed out that unlike immunization programs, which can control the dose of a drug therapy provided to individuals, municipalities are unable to control the quantity of drinking water – and therefore fluoride – citizens consume. Moreover, they asserted that the addition of toxic substances into drinking water and the environment can occur via several means, including: surface run-off; the leaching of fluoridated water from septic systems; effluent and discharge from sewage treatment plants; sewage sludge/biosolids spread on fields; and the use of fluoridated water by the industrial and agricultural sectors.

As supporting evidence, the applicants referred the ministry to several documents, including journal articles, textbooks, government websites, legislation, and the U.S. National Research Council's (NRC's) 2006 Scientific Review of the Environmental Protection Agency's standards for fluoride in drinking water.

Ministry Response

MOE agreed to undertake this review in February 2008. The ministry informed the applicants that Health Canada, as secretariat to the Federal-Provincial-Territorial Committee on Drinking Water, was revising the technical support document for the Canadian Drinking Water Quality Guideline for fluoride and was expected to conduct a national consultation within two years (see Other Information below). MOE stated that the Government of Ontario participates on the Committee on Drinking Water and would consider the applicants' comments before undertaking a provincial consultation via the Environmental Registry. MOE noted that this provincial consultation would be carried out at the same time as Health Canada's national consultation. The ministry stated that comments received through the provincial public consultation, as well as materials provided in the application, would be considered by the province in setting new policies regarding fluoride in drinking water.

In January 2010, MOE sent a letter to the applicants to update them on the status of their application. MOE explained that Health Canada was in the process of compiling and reviewing the

many comments it had received during consultation on its technical support document, Fluoride in Drinking Water. Moreover, the ministry noted that Health Canada was responding to a federal petition regarding fluoride, which could delay the review and finalization of Health Canada's rationale document for at least a year. The ministry noted that this delay would in turn delay MOE's review of fluoride. MOE assured the applicants that it was still committed to reviewing any new information cited in the final version of Health Canada's rationale document that may have an impact on provincial policies regarding the fluoridation of Ontario's drinking water. Moreover, the ministry stated that, if this review resulted in any changes to policies related to inorganic fluorides in drinking water, it would conduct stakeholder consultation on the Environmental Registry.

In January 2011, the ECO contacted MOE for an update on the status of MOE's fluoride review. MOE responded that Health Canada's revised Canadian Drinking Water Quality Guideline for fluoride had undergone a number of delays. Although Health Canada expected to post the final guideline rationale document in the first quarter of 2011, the calling of a federal election in March 2011 delayed document postings by the federal government. In May 2011, MOE informed the applicants that the ministry would provide a final response on the application for review once the Health Canada document was posted on its website. Health Canada posted the finalized document on its website in June 2011 (see Other Information).

In July 2012, the ECO received a letter from MOE indicating that the ministry had concluded its review. The ministry concluded that there is no need to create new – or revise existing – policies and regulations made under the *SDWA* as they relate to the addition of inorganic fluorides to drinking water.

MOE noted that the *SDWA* neither requires nor prohibits the fluoridation of municipal water supplies, and it is therefore "up to individual municipalities, with advice from the local health unit, to decide whether or not to fluoridate their drinking water." The ministry noted that MOE's role with respect to fluoridation is to regulate drinking water systems so that fluoridation and tests for fluoride are performed in accordance with the *SDWA*, its regulations, and any requirements in an instrument issued under the Act.

As part of its review, the ministry reviewed Health Canada's revised Canadian Drinking Water Quality Guideline for fluoride, which MOE pointed out consisted of a scientific literature review, an international peer-review, national public consultation, and a review by the Ontario Drinking Water Advisory Council (ODWAC), which was created under the *SDWA* to advise MOE on drinking water standards, legislation, regulations, and issues, to protect Ontario drinking water. The ODWAC concluded that the Ontario Drinking Water Quality Standard for fluoride should remain unchanged from the current 1.5 mg/L, reflecting Health Canada's maximum acceptable concentration for fluoride in drinking water (see Other Information). In conducting its review, MOE "found no evidence that fluoridation chemicals used at drinking water systems contain any chemicals at levels above standards that could cause adverse effects on human health or the environment."

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

Other Information

In September 2009, MOE posted an information notice on the Environmental Registry (#010-7777) informing the public and stakeholders that Health Canada was consulting the public on its technical support document for fluoride. Health Canada's national consultation period was held for 71 days, ending November 27, 2009. In the information notice, MOE indicated that it would carry out its own consultation under an Environmental Registry policy proposal notice once the Health Canada document had been finalized. The ministry stated that it would use information provided by Health

Canada's consultation to review and amend, if necessary, its position on fluoridation as outlined in the ministry's Technical Support Document for Ontario Drinking Water Standards, Objectives and Guidelines.

In June 2011, Health Canada published the update to its technical support document for fluoride. The final document reaffirms the maximum acceptable concentration for fluoride in drinking water as 1.5 milligrams/litre (mg/L). The technical document also recommends an updated, slightly lowered optimal fluoride concentration for communities choosing to fluoridate their drinking water supply. Health Canada noted that it "continues to strongly support water fluoridation as a safe, effective and cost effective public health measure to help prevent dental cavities."

In April 2012, Ontario's Chief Medical Officer of Health released a report recommending "a review of current policies and mechanisms to ensure that all Ontarians have access to optimally fluoridated drinking water." The report stated that fluoridation of Ontario's drinking water supplies is a safe, cost-effective and efficient population health intervention, and improvements to oral health in Ontario "would be undermined by the removal of fluoridation from the water supply."

Despite MOE's assertion that it would undertake provincial consultation once the Health Canada document was finalized, as of August 2013, the ministry has not yet followed through on this commitment.

ECO Comment

To the extent that MOE was considering the human health risks of fluoridation, MOE's decision to rely on Health Canada's review was reasonable; it minimized duplication of Health Canada's extensive efforts and avoided the wasteful and redundant spending of provincial resources.

However, Health Canada's review focused exclusively on human health risks, with no consideration of the potential for ecological impacts. With no explanation or counterevidence in MOE's decision response to suggest otherwise (see below), it seems that the ministry's review of this application ignored broader ecological concerns, focusing only on the health risks covered by Health Canada's review. While such a human health-specific perspective might be expected from Health Canada or Ontario's Ministry of Health and Long-Term Care, the ECO believes that a review conducted by MOE, a ministry with a mandate for protecting Ontario's environment at large, should have focused on the environmental issues.

The ECO is disappointed that the ministry offered no explanation, counterevidence, or critique of the applicants' references or arguments to explain the basis of MOE's succinct conclusion that it "found no evidence that … drinking water systems contain [fluoridation chemicals] at levels above standards that could cause adverse effects." The applicants raised several concerns related to adding fluoride and accompanying contaminants to drinking water, including: the potential impacts on human health, groundwater sources, water bodies, and plant and animal life; the possibility that fluorosilicates from U.S. suppliers may be in violation of Cs of A and the *SDWA*; and the incompatibility of fluoridation with Ontario's regulatory and policy framework. To support their concerns, the applicants referred MOE to several pieces of evidence, most notably scientific journal articles and the NRC's 2006 review. Yet, MOE's brief response provided no refutation of the applicants' arguments or evidence, or any explanation how the ministry had come to an opposing conclusion. The insufficiency of MOE's brief response is particularly obvious when compared to the comprehensive and multi-department response provided by federal departments – including Environment Canada and the Department of Fisheries and Oceans – to the federal fluoride petition.

The ECO would like to clarify that, even though "it is up to individual municipalities, with advice from the local health unit, to decide whether or not to fluoridate their drinking water," it is up to MOE to consider all the potential broad-scale, long-term, and cumulative impacts of this choice, and it is MOE's responsibility to ensure that fluoridating municipal drinking water at approved levels does not harm Ontario's environment.

Finally, in its 2008 response to the applicants, MOE indicated that the ministry would undertake a provincial consultation on fluoride through the Environmental Registry, and that this consultation, which would help inform provincial policies on fluoride in drinking water, would be carried out at the same time as Health Canada's national consultation. Despite this assurance, MOE did not undertake any concurrent consultation before Health Canada's consultation ended in November 2009. Moreover, despite a September 2009 information notice indicating that MOE would initiate consultation via the Registry once the Health Canada document was finalized, the document was finalized in June 2011 and MOE still has not undertaken provincial consultation on this issue over two years later. The ECO urges MOE to finally initiate the promised review and consult the public via the Registry on the government's policy and regulatory framework for protecting human and environmental health from the potential impacts of fluoridated drinking water.

Review of Application R2008014:

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

Keywords: air pollution; air quality management; cumulative effects; pollution hot spots

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 community of Aamjiwnaang First Nation near 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 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 Certificate of 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 has been working on its SEV Guiding Principles Review, which is considering "how to best operationalize the SEV principles, including consideration of cumulative effects." MOE stated that as part of the SEV project, the ministry is 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 continues 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 is still in progress.

Other Information

In October 2010, the CCME announced that federal, provincial and territorial Ministers of the Environment are "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.

ECO Comment

While the ECO is pleased that MOE agreed to undertake this review, more than four years have passed since the application was submitted. The ECO encourages MOE to ensure that the review is completed in a timely manner, and that the applicants are kept well-informed of the status of MOE's 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 R2009015:

2.2.4 Regulation of Airborne Fine Particulates (Review Undertaken by MOE)

Keywords: fine particulate matter; $PM_{2.5;}$ air quality; Oakville

In December 2009, the Town of Oakville submitted an application requesting a review of the need for a new act or regulation to protect public health from airborne fine particulate matter (PM), specifically PM with a diameter less than 2.5 micrometres ($PM_{2.5}$).

Background

Fine Particulate Matter

Airborne particulate matter is a blanket term used to describe solid and liquid microscopic particles with a variety of chemical compositions. Particles less than 10 micrometers (µm) in diameter (a

fraction of the width of a human hair) can be inhaled, and those smaller than 2.5 µm are able to penetrate deep into the lungs, where there is a diminished capacity to remove contaminants.

Primary emissions of $PM_{2.5}$ are produced by fuel combustion (e.g., motor vehicles, power plants, wood burning), industrial activities (e.g., smelting, cement production), and open sources (e.g., dust from roads). Secondary $PM_{2.5}$ is produced through reactions between gaseous precursor substances, including sulphur dioxide, nitrogen oxides, volatile organic compounds and ammonia. In Ontario, residential sources account for 39 per cent of emissions, while transportation and industrial sources contribute 24 per cent and 29 per cent respectively. Transboundary emissions from the United States are also a significant source of $PM_{2.5}$ in Ontario.

There is strong evidence that exposure to particulate matter is a cause of a number of serious and fatal health effects, including the development of chronic bronchitis and asthma, reduced lung function, and increases in hospitalization and mortality due to cardiorespiratory diseases. Health risk increases with exposure, and there is no known threshold below which adverse health effects are not anticipated.

The absence of a safe threshold has made it challenging to establish a standard that would be fully protective against the health effects associated with $PM_{2.5}$. In 2005, the World Health Organization (WHO) established guidelines for $PM_{2.5}$ using a quantitative risk assessment approach. These guidelines recommended an annual average concentration of 10 micrograms per cubic metre (µg/m^3), a standard based on the lower end of the range at which significant effects on survival have been observed. The WHO also recommended a 24-hour average standard of 25 µg/m^3, and suggested that meeting this guideline would "protect against peaks of pollution that would otherwise lead to substantial excess morbidity or mortality."

Regulation and Management of Particulate Matter

Under the *Environmental Protection Act* (*EPA*), a facility is generally required to obtain an Environmental Compliance Approval (ECA) if it will release pollutants into the air. In addition, O. Reg. 419/05 (Air Pollution – Local Air Quality) under the *EPA* regulates industrial air emissions by setting out standards for a number of pollutants based on environmental and health effects. "Suspended particulate matter" is regulated under O. Reg. 419/05; however, the standard applies to particulate matter more generally (i.e., particulates less than 44 µm) and serves to address visibility, rather than health issues.

Although $PM_{2.5}$ is not specifically regulated under O. Reg. 419/05, Ontario has adopted non-binding measures to address $PM_{2.5}$ emissions. In June 2000, the province became a signatory to the Canada-wide Standards for Particulate Matter (PM) and Ozone (the CWS), which established a target concentration for $PM_{2.5}$ of 30 µg/m^3 for a 24-hour averaging time. This standard was selected as a balance between the protection of health and the environment, and the costs of pollution reduction; it was noted in the CWS that the standard "may not be fully protective."

Ontario's 2004 Clean Air Action Plan serves as the province's CWS implementation plan. It envisions a 10 per cent reduction in $PM_{2.5}$ emissions by 2015 (from a 1990 base line). The CWS threshold is now reflected in Ontario's Ambient Air Quality Criteria (AAQC), which describes the desirable concentration of contaminants in the air, based on protection against adverse effects on health or the environment. However, the guideline notes that the $PM_{2.5}$ standard is not an AAQC "per se," but is included (along with a short guide) for decision-making purposes. The AAQC is only used as a guideline, and is not a legal requirement. In 2010, the Action Plan for the Oakville-Clarkson Airshed noted that "the lack of regulatory control for direct emissions [of $PM_{2.5}$] is troubling for persons who live in airsheds such as Oakville and Clarkson."

In October 2012, jurisdictions across Canada (with the exception of Quebec) agreed to begin implementation of a new Air Quality Management System (AQMS). A key element of the AQMS is the development of Canadian Ambient Air Quality Standards (CAAQS) for outdoor air concentrations of pollutants, which will replace the existing Canada-wide Standards. The CAAQS, which were published in the Canada Gazette on May 25, 2013, introduces revised 24-hour standards for $PM_{2.5}$ of 28 µg/m^3 by 2015, and 27 µg/m^3 by 2020. There are also new annual average targets of 10 µg/m^3 by 2014 and 8.8 µg/m^3 by 2020.

Summary of Issues

In December 2009, two applicants representing the Town of Oakville submitted an application under the *Environmental Bill of Rights, 1993* (*EBR*) requesting a review of the need for a new act or regulation to protect public health from airborne fine particulate matter.

The applicants argued that a review is necessary as ambient air concentrations of $PM_{2.5}$ have resulted in a public health crisis, and that this crisis will continue to grow because Ontario's existing regulatory regime inadequately protects against the health impacts of $PM_{2.5}$. They asserted that O. Reg. 419/05 does not address $PM_{2.5}$ emissions, and the province has no legally binding standards that specifically set limits on emissions of $PM_{2.5}$, a fact the applicants stated has been confirmed by the Ministry of the Environment (MOE) and Ontario courts. They noted "[t]here is no consequence for an emitter if the levels set out in either form of current guidance are exceeded," and cited previous comments from the ECO that were critical of the government for relying on voluntary measures in improving air quality.

Moreover, the applicants argued that regardless of the nature of the guidelines, the target set under the CWS is insufficient to protect public health. They discussed several $PM_{2.5}$ standards based on health risk, suggested by various researchers and organizations, ranging between 10 and 25 µg/m^3, all of which are more stringent than Ontario's voluntary standard. The applicants also cited the reference level of 15 µg/m^3 (i.e., the level at which a statistically significant dose-response relationship is observed) identified by the Canadian Federal/Provincial Working Group on Air Quality. In addition, the applicants provided a comparison of regulatory approaches to $PM_{2.5}$, noting that several other jurisdictions (e.g., Newfoundland, the United States, and the European Union) have developed enforceable standards.

A number of studies were cited by the applicants as evidence of a public health crisis. These studies establish that $PM_{2.5}$ is the cause of significant adverse health effects, and that there is no safe level of exposure. According to the applicants, this research also suggests that $PM_{2.5}$ is killing thousands of Ontarians each year and adversely affecting the health of thousands more, and that children, the elderly, and people with cardio-respiratory disease are particularly susceptible. The applicants also estimated that the economic costs of the health crisis are over $20 billion a year.

The applicants requested an act or regulation with eight components:

1. a focus on $PM_{2.5}$;
2. the regulation of direct and precursor emissions;
3. an initial application to proposed major emitters, but with an approach that could eventually be applied to other existing and proposed significant sources;
4. requirements for emitters to provide three-dimensional mapping to illustrate the extent of an affected airshed and the concentration of fine PM within it;
5. requirements for emitters to evaluate the air concentrations across an affected airshed from existing and future levels of $PM_{2.5}$;

6. requirements to assess the public health risks associated with predicted cumulative concentrations of $PM_{2.5}$;
7. the establishment of a health risk-based limit on ambient air concentrations of $PM_{2.5}$ within an affected airshed – future sources of emissions would be prohibited where they present an unacceptable degree of risk;
8. a requirement to publicly communicate assessments to affected communities, an opportunity to comment prior to regulatory decision making, and an opportunity to use *EBR* rights to appeal decisions.

The ECO forwarded the application to MOE on January 4, 2010. The applicants subsequently provided supplementary submissions that were received by the ministry on April 16, 2010.

Ministry Response

After receiving the applicants' supplementary submissions on April 16, 2010, the ministry advised that it would be restarting the clock for its decision timeline, and that a decision would be available within 60 days of that date. However, MOE extended this deadline three additional times, and a decision was not sent to the applicants until November 15, 2010. MOE decided that a review was warranted, noting that "there may be a policy gap with respect to domestic sources of primary $PM_{2.5}$." However, MOE stated that other aspects of the applicants' request, including cumulative effects, were already being considered as part of a review of the ministry's Statement of Environmental Values (see Section 2.2.3 of this Supplement). MOE advised that it would therefore undertake a scoped review that would examine the effectiveness of Ontario's policy framework and determine whether there was a need to change the approach to regulating direct emissions of $PM_{2.5}$.

In May 2012, the ministry sent the applicants its completed review of Ontario's management framework for $PM_{2.5}$. MOE's review looked at a number of areas, including: the nature of fine particulates, the management of $PM_{2.5}$ by other jurisdictions, current trends in $PM_{2.5}$ emissions and concentrations in Ontario, and the province's management of $PM_{2.5}$.

MOE noted that $PM_{2.5}$ presents a unique management challenge because of the variety of sources, and the existence of both primary and secondary emissions. The ministry also stated that managing the health impacts of $PM_{2.5}$ is particularly challenging because there is no safe threshold.

The ministry examined how other jurisdictions regulate $PM_{2.5}$. It noted that in the United States, British Columbia and Alberta, primary $PM_{2.5}$ is regulated for local air quality improvement and secondary $PM_{2.5}$ for regional air quality improvement. These jurisdictions employ an airshed approach, with tailored actions for area-specific concerns. MOE also acknowledged that many sources are managed through municipal actions. However, the ministry's review did not comment on all examples raised by the applicants of jurisdictions that have legal limits on $PM_{2.5}$ emissions, including Newfoundland, which has a standard of 25 $\mu g/m^3$.

In assessing trends in Ontario's $PM_{2.5}$ emissions, the ministry noted that residential emissions are now the largest contributor, which marks a shift away from industrial sources. MOE also stated that there have been significant reductions in both primary $PM_{2.5}$ and precursor emissions, and that annual outdoor levels of $PM_{2.5}$ decreased by 30 per cent between 2003 and 2010.

With regard to Ontario's current management of $PM_{2.5}$, MOE cited the adoption of the CWS, the government's commitment to phasing out coal-fired generation by the end of 2014, the Drive Clean program (Ontario's mandatory vehicle emissions inspection and maintenance program), emissions

trading for the electricity and industrial sectors, stronger regulations on industrial emissions, the environmental assessment process, and environmental approvals for industrial facilities. The ministry also stated that current and upcoming programs will further address $PM_{2.5}$, including updated standards under O. Reg. 419/05, the implementation of the Toxics Reduction Strategy, and the AQMS.

MOE concluded that there is no need for further action to revise Ontario's approach to managing $PM_{2.5}$. The ministry stated that:

> Ontario has a comprehensive framework of regulations and programs to address $PM_{2.5}$, which has resulted in measurable reductions in emissions of $PM_{2.5}$ and its precursors, leading to improvements to air quality. In addition, ongoing implementation of Ontario's Toxics Reduction Strategy and updated standards under O. Reg. 419/05, as well as upcoming initiatives such as the proposed national Air Quality Management System, will provide additional tools to address $PM_{2.5}$.

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

Other Information

In 2009, a proposal to locate a 900-megawatt natural gas-fired power plant in Oakville put a spotlight on the problem of air pollution and the dangers of fine PM. Although natural gas is a cleaner power source than coal, gas-fired plants still produce relatively significant emissions of many pollutants, including particulate matter, nitrogen oxides, carbon monoxide, ammonia, and sulphur dioxide. After much public and media outcry, the proposed plant was relocated to the Greater Napanee area.

In 2010, the Town of Oakville passed an air quality by-law to assess and control the health effects of major emissions of fine PM. The by-law created reporting obligations for all facilities that may emit $PM_{2.5}$ or one of its precursors. In addition, if a facility expects to emit more than 300 kg of $PM_{2.5}$ per year (or other specified quantities of precursor substances), a facility-specific approval must be obtained.

ECO Comment

The ECO is pleased that MOE decided to proceed with the review and agrees with the ministry's scoped approach since the issue of cumulative effects of air pollutants is being considered as part of another MOE review. However, this highlights the importance of moving ahead with that review, and determining how the ministry will apply principles such as cumulative effects and the ecosystem approach in its decision making; it has been over four years with no sign of progress on these issues.

Nevertheless, the ECO shares the applicants' concern that Ontario's $PM_{2.5}$ standards may not be sufficiently protective of human health. Even if Ontario is able to meet its non-binding targets, the current thresholds are less protective than the standards that have been identified to protect human health – for example, the 25 $\mu g/m^3$ 24-hour average recommended by the WHO.

Although the nature of $PM_{2.5}$ emissions presents a unique regulatory challenge, the government should take a firmer approach to both emissions and ambient concentrations. At a minimum, Ontario should adopt a $PM_{2.5}$ objective that reflects a health based-threshold, as it does for many other regulated pollutants. Ontario's commitment to implement the new CAAQS for $PM_{2.5}$ – which includes a target annual mean of 10 $\mu g/m^3$ by 2015 – may be a positive step in this direction.

To make the objectives meaningful, MOE policy should include an explicit requirement that new ECAs include the consideration of $PM_{2.5}$ targets. If appropriate, MOE should also ensure the application of conditions to ECAs to prevent ambient levels of $PM_{2.5}$ from exceeding the provincial guidelines.

The ministry has admitted that there is a problem – it has acknowledged that $PM_{2.5}$ presents a human health burden in Ontario and that there are regulatory gaps. Although there are supposedly long-term tools being developed to address this problem, MOE's claim that there is "no need to take further action" undermines the urgency of addressing this important issue. There is a clear need for action, particularly in applying the principles of cumulative effects and the ecosystem approach to the regulation of $PM_{2.5}$ and other air pollutants.

MOE's failure to comply with statutory timelines in deciding whether to proceed with this review is disappointing. Although the *EBR* specifies that a ministry must respond to a request for review within 60 days, in this case, MOE did not inform the applicants of its decision for seven months after receiving the updated submissions.

Review of Application R2009016:

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

Keywords: leave to appeal; appeal; stay; procedure; Environmental Review Tribunal; *Environmental Bill of Rights, 1993*

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 (ERT). Although the ERT 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 ERT 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 ERT.

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 ERT, 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 2.2.6 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.

However, despite MOE's estimate, the ministry did not complete the review within 12 – 16 months. In fact, 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."

ECO Comment

The ECO is disappointed that MOE was only determining the scope and approach of its review of the *EBR* 19 months after it agreed to undertake this review in conjunction with that application. 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:

2.2.6 Review of the *Environmental Bill of Rights, 1993* (Review Undertaken by MOE)

Keywords: *EBR*; legislation; review; reform

Background

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; and
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 2.2.5 of this Supplement to the Annual Report.

Despite MOE's estimate, the ministry did not complete the review within 12 – 16 months. In fact, 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."

ECO Comment

The ECO is disappointed that MOE was only determining the scope and approach of its review two years after MOE agreed to undertake 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 R2011012:

2.2.7 Review of Regulatory Framework for Water Bottling Industry (Review Denied by MOE)

Keywords: MOE; permit to take water; water conservation

Background

Overview

In March 2012, two non-government organizations filed an application requesting that the Ministry of the Environment (MOE) review O. Reg. 387/04 (Water Taking Regulation) under the *Ontario Water Resources Act* (*OWRA*), as well as review the need for a new regulation pertaining to water bottling operations. The applicants argued that the current Permit to Take Water (PTTW) regime is inadequate in its application to the bottled water industry.

Permit to Take Water Process

In Ontario, water takings are governed by section 34 of the *OWRA* and O. Reg. 387/04, as well as guided by the 2005 Permit to Take Water (PTTW) Manual. Generally, subject to a few listed exceptions, anyone in Ontario intending to take more than 50,000 litres of water per day from a lake, river, stream or groundwater source must apply to MOE for a water-taking permit.

Applicants must categorize their applications for PTTWs into Category 1, 2 or 3 based on the anticipated risk of the proposed water taking to the environment and other users. Category 1

represents a water taking that is unlikely to pose adverse impacts on the environment; Categories 2 and 3 are deemed to have a greater risk for adverse impacts on the environment. Upon reviewing an application for a new or renewed PTTW, the MOE Director must consider a list of factors outlined in O. Reg. 387/04, including: the potential impact on the natural functions of the ecosystem; water availability; the applicant's use of water and any conservation measures; and the interests of other water users. MOE states that it will deny the application if it "determines that the proposed water taking will adversely impact existing users or the environment."

In addition, O. Reg. 387/04 restricts MOE from issuing new water-taking permits for certain industrial uses that would permanently remove water from designated "high use" watersheds, specifically: beverage manufacturing (which includes water bottling); fruit and vegetable canning; ready-mix concrete manufacturing; aggregate processing that incorporates water; and other manufacturing or production that incorporates more than 50,000 litres of the water taken per day. In the watersheds identified as annual high-use, the regulation requires MOE to deny applications for new PTTWs for these consumptive uses; in the high-use watersheds identified as having summer low flows, MOE must deny new applications for these uses unless MOE includes a condition in the PTTW that prohibits the water taking during the summer low-flow period. However, MOE may issue *renewals* of PTTWs that existed prior to the regulation being filed in 2004, provided that the volume of the water-taking remains the same or less.

Once a PTTW is granted, the permit holder is required to record the daily amount of water taken and report this information to MOE annually. The MOE Director may impose additional conditions within the PTTW, as well as subsequently alter conditions as the Director considers proper. For more on the PTTW program, see page 96 of the Supplement to the 2004/2005 Annual Report, as well as Chapter 4.2 of Part 2 of the ECO's 2011/2012 Annual Report.

Bottled Water Bans in Ontario

In recent years, bottled water has come under greater public scrutiny for its environmental impacts, specifically: the removal of large quantities of freshwater out of the source watershed; the use of natural resources (i.e., water and petroleum) to manufacture and transport the plastic bottles; and the generation of waste from single-use plastic bottles. In response to these concerns, several municipalities in Ontario, and across Canada, have established internal policies to reduce the use of bottled water. In 2008, for example, the City of Toronto approved a bottled water ban (effective January 2012) that prohibits the sale and distribution of bottled water in all civic centers, city facilities and parks to support the city's waste diversion goals.

Summary of Issues

The applicants argued that the PTTW regime as it applies to the bottled water industry is too narrow in scope, and fails to consider the overall environmental impacts of the water-bottling operations. The applicants pointed to the issue of dwindling water resources, referencing a 2010 Statistics Canada study that indicates that freshwater in southern Canada has declined 8.5 per cent from 1971-2004, and further pointed to the issue of climate change, which is likely to exacerbate water losses. They asserted, however, that the water bottling industry has a number of environmental impacts beyond these direct impacts of water withdrawals. They argued that water bottling operations generate large volumes of waste from the plastic water bottles they produce, as well as contribute to air and noise pollution from trucks transporting water bottles to different markets. The applicants further asserted that these additional impacts from the water bottling operations are totally avoidable, given the alternative of high quality tap water available in Ontario.

The applicants argued that PTTWs issued to water bottling companies are not consistent with MOE's Statement of Environmental Values (SEV) and, therefore, should be reviewed to conform to the ministry's SEV. For example, the applicants argued that PTTWs for water bottling do not conform to the following principles set out in MOE's SEV:

- **Ecosystem approach** – MOE is failing to incorporate "an ecosystem approach to environmental protection and resource management." Permitting the permanent removal of large quantities of water from the ecosystem of origin, particularly without monitoring the long-term impacts of such wholesale removal of water, is inconsistent with an ecosystem approach.
- **Cumulative impacts** – MOE is failing to consider the "cumulative effects on the environment; the interdependence of air, land, water and living organisms; and the relationships among the environment, the economy and society." Pursuant to its SEV, MOE should be obliged to consider and weigh all of the negative environmental, human health, and economic impacts of issuing a PTTW for water bottling purposes (i.e., the unnecessary generation of waste from single-use plastic water bottles, as well as air and noise pollution from trucks) as part of the PTTW process.
- **Effects on current and future generations** – MOE is failing to consider "the effects of its decisions on current and future generations, consistent with sustainable development principles."
- **Pollution prevention** – MOE is failing to "place priority on preventing pollution and minimizing the creation of pollutants that can adversely affect the environment" by permitting water bottling operations that generate waste and pollution that is totally avoidable.

The applicants also expressed concerns that MOE is failing to adequately consider public input in its PTTW decision making. They argued that, by discounting valid public input, MOE is compromising the credibility and legitimacy of the *Environmental Bill of Rights, 1993* (*EBR*) and the ministry's SEV. As such, the applicants stated that MOE should also review how it considers and weighs meaningful public input in the PTTW process.

To highlight their concerns, the applicants cited the PTTW issued to Nestlé Canada Inc. in 2007 (Environmental Registry #010-0317) and renewed in 2012 (#011-6182). This permit allows Nestlé to withdraw 1.1 million litres of water per day from Hillsburgh for its water bottling plant in Aberfoyle. The applicants stated that MOE classified the renewal application for this PTTW as "Category 1" despite strong evidence of environmental harm. They also alleged that over 8,000 people commented on the 2007 Nestlé application expressing deep concerns, yet MOE generally dismissed these comments, treating the majority of responses as a single comment because they were similar in nature (thus stating that the ministry only received a total of 97 comments) on the proposal.

Ministry Response

In May 2012, MOE denied the application for review. MOE considered the factors outlined in subsections 67(2) and (3) of the *EBR* and determined that the public interest does not warrant the requested review.

The ministry stated that the concerns raised by the applicants that relate to the sustainability of water takings are already adequately considered by the current regime. MOE noted that it considers "potential impacts to the environment" when reviewing PTTW applications, and that the Water Taking Regulation specifies relevant factors that the Director must consider when making decisions

on issuing PTTWs (i.e., protecting the natural functions of the ecosystem; water availability; the use of water; and interests of other persons). The ministry further explained that it "employs a risk-based, scientific approach to classifying and evaluating water-taking proposals and considers evidence presented as part of the permit application and, for proposals subject to posting on the Environmental Registry, comments received in response to posting of the proposal notice, before a decision is made."

MOE also pointed to other provisions in the Water Taking Regulation that protect water supplies and the ecosystem, including:

- PTTWs (and their conditions) are subject to review when a holder applies for a renewal;
- The Director may revise the conditions in a PTTW at any time if environmental conditions change, problems arise or new information is received;
- The Director is obliged to deny new or increased water takings for specified purposes, such as water bottling, that remove water from high-use watersheds;
- MOE must notify municipalities and conservation authorities of PTTW applications that are posted on the Environmental Registry;
- All permit holders are required to record the daily amount of water they take and report this information to MOE annually.

The ministry stated that not only are individual PTTWs subject to regular review, but the PTTW process itself is subject to review, including public consultation, when relevant polices, acts and regulations are updated.

The ministry concluded that several of the matters raised by the applicants – including waste generation, air pollution and climate change – "are subject to other polices, Acts and regulations of the ministry and are not within the scope of the water taking regulation." The ministry did not discuss these concerns any further.

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

Other Information

In 2007, the ECO received an application for review of the Nestlé PTTW, which was denied by MOE. For the ECO's review of that application, see page 220 of the Supplement to the 2007/2008 of the Annual Report. The same applicants also submitted a second application for review in 2007 of MOE's policy on issuing PTTWs to water bottling facilities. MOE denied that application as well on the basis that the ministry had reviewed and consulted extensively on its PTTW program within the preceding five years, which is a permitted ground for denying an application for review under the *EBR*. For the ECO's review of that application, see page 224 of the Supplement to the 2007/2008 of the Annual Report.

The Grand River watershed, in which the Nestlé PTTW is located, was subject to low water conditions for much of the summer and fall of 2012. The PTTW renewal issued to Nestlé in September 2012 (after this application was submitted) included new conditions that would subject Nestlé to mandatory water-taking reductions during low water conditions. In October 2012, Nestlé commenced an appeal of those conditions. At the time of writing, this appeal was still underway.

ECO Comment

The ECO is disappointed with MOE's response to the applicants' concerns. The applicants' request for a review was prompted by their concerns about the broader impacts of the bottled water industry. Unfortunately, the ministry only addressed those issues that relate directly to water withdrawals. In dismissing the applicants' other concerns, such as the air pollution and waste generated from the water bottling industry, MOE simply concluded that these matters "are subject to other polices, Acts and regulations of the ministry and are not within the scope of the water taking regulation." Yet, that was precisely the applicants' very point: that the ministry does not comprehensively consider all of the environmental impacts of an operation when it issues a PTTW authorizing such operations. While the ECO acknowledges that such a comprehensive, lifecycle approach to permitting would represent a departure from the ministry's normal permitting process, the ECO is troubled that MOE did not so much as acknowledge this issue, let alone provide an explanation for how it considered it.

The ECO has been following MOE's PTTW program for many years. Most recently, in our 2011/2012 Annual Report (Part 2, Chapter 4.2), the ECO observed that the ministry has made notable strides in advancing the PTTW program over the past decade, yet several core issues remain. Specifically, the ECO concluded that, despite being directed by the PTTW Manual to consider the ecosystem functions and cumulative impacts of water takings, in practice, the ministry still lacks the necessary information and methodologies to adequately assess the cumulative impacts of water takings and ensure that the PTTW process protects the natural functions of the ecosystem.

The ECO also commented in our 2011/2012 Annual Report on the need for stronger mechanisms, including principles to prioritize water uses through the PTTW program, to both better prevent and respond to low water conditions (see Part 2, Chapter 4.1).

This application for review underscores several of those concerns. Water takings for consumptive, non-essential uses, such as water bottling, often elicit controversy, particularly when the water taking occurs within a watershed that is prone to low water conditions. Stronger mechanisms to assess cumulative effects and ensure the protection of ecosystem functions, along with clearer principles regarding the prioritization of different water uses, would go a long way to address these concerns.

Review of Application R2012001:

2.2.8 Shifting Ontario's Electricity Generation from Fossil Fuels to Renewables (Review Denied by MOE and ENG)

Keywords: conservation; electricity; energy; Long-Term Energy Plan; power plants; renewable energy; supply mix

In May 2012, two applicants requested that the Ministry of Energy (ENG) and the Ministry of the Environment (MOE): halt the development of power plants or cogeneration facilities that use fossil fuels; close all gas and cogeneration plants in Ontario; and "remove the 10,700 megawatt [MW] cap on non-hydro renewables and the 9,000 MW cap on hydro."

Background

The long-term development of the province's electricity system is outlined in Ontario's Long-Term Energy Plan (LTEP). This document, which sets out the investment plans for Ontario's power system for the period 2010-2030, was issued by ENG in November 2010 after stakeholder consultation and public consultation through the ministry's website. The ministry, however, never posted the LTEP on the Environmental Registry for public consultation under the *Environmental Bill of Rights, 1993* (*EBR*).

The Ontario Power Authority (OPA), which is responsible for ensuring an adequate, long-term supply of electricity in Ontario, must follow any directives issued by the Minister of Energy that provide policy guidance (known as Supply Mix Directives). On the day that ENG released the LTEP, ENG also posted a draft Supply Mix Directive on the Environmental Registry for public comment (#011-1701).

Although the ministry has not yet posted a decision notice on the Environmental Registry, in February 2011, ENG issued the finalized Supply Mix Directive to the OPA. The finalized Directive closely reflects the terms and targets of the LTEP (see Table 1). Notably, the LTEP and Supply Mix Directive include targets to: eliminate the electricity provided through coal-fired power plants by 2014; increase the amount of electricity generated through non-hydro renewable sources to 10,700 megawatts (MW) by 2018; increase the province's hydroelectric capacity to 9,000 MW by 2018; and achieve 7,100 MW of peak demand reduction and save 28 terawatt-hours (TWh) of electricity via conservation by 2030.

Table 1. Approximate Historic, Current, and Projected Installed Electricity Capacity in Ontario (Sources: Ontario's Long-Term Energy Plan: Building Our Clean Energy Future, 2010, Government of Ontario; 18-Month Outlook Update: An Assessment of the Reliability and Operability of the Ontario Electricity System from June 2012 to November 2013, Independent Electricity System Operator, June 2012; A Progress Report on Contracted Electricity Supply, 2012 First Quarter, Ontario Power Authority, September 2012)

Installed Capacity	2003	2012	2030 (Projected)
Nuclear	10,061 MW	11,446 MW	12,000 MW
Renewables – Hydroelectric	7,880 MW	7,947 MW	9,000 MW
Renewables – Wind, Solar, Bioenergy	155 MW	2,580 MW	10,700 MW
Gas/Oil	4,364 MW	9,987 MW	9,200 MW
Coal	7,546 MW	3,504 MW	0 MW
Total	**30,006 MW**	**35,464 MW**	**40,900 MW**

Summary of Issues

In May 2012, two applicants requested that ENG and MOE introduce new legislation (or amend existing legislation) to:

- enact a moratorium on the development of any power plants or cogeneration facilities that use fossil fuels, including natural gas, as their energy source;
- remove the "10,700 MW cap" on non-hydro renewables and the "9,000 MW cap" on hydro; and
- close all gas and cogeneration plants in Ontario.

The applicants argued that it is in the public interest to mitigate climate change, and to do this, Ontario must cease emitting greenhouse gases (GHGs) by shutting down existing plants that operate on fossil fuels and by refraining from building new ones. The applicants asserted that Ontario's stationary (i.e., residential, industrial and commercial) energy requirements can be adequately met through wind, water and solar power, as well as increased energy efficiency.

To support their case, the applicants referred the ministries to several journal articles and reports that discuss the feasibility of meeting energy needs by exploiting the potential of renewable energy.

Ministry Response

In July 2012, ENG and MOE both denied the application, stating that the public interest does not warrant a review of the matters raised at this time.

Ministry of Energy

In its response to the applicants, ENG explained that its decision to deny the request for review was "based on section 68 of the [*EBR*], which states that the Minister shall not determine that the public interest warrants a review of a decision made during the five years preceding the date of the application if the decision was made in a manner consistent with the intent and purpose of Part II of the *EBR*." ENG denied the request for review on the basis that the LTEP and Supply Mix Directive (which together set out a plan and provide direction to the OPA to achieve a balanced low-carbon supply mix to meet Ontario's energy needs) were decided within the last five years and involved public and stakeholder consultations in their development. The ministry also noted that, while the information in the application was well-considered, the application did not contain sufficient new evidence to warrant a review at present.

Regarding the applicants' request that the government remove the "10,700 MW cap" on non-hydro renewables and the "9,000 MW cap" on hydro, ENG responded that these numbers are not caps but targets, and the LTEP provides room for Ontario to go beyond them. The ministry informed the applicants that Ontario is on track to meet its 10,700 MW target for non-hydro renewable energy generation by 2015, and "at the end of 2013, the government will review Ontario's electricity supply and demand forecast to explore whether a higher renewable energy target is warranted."

Ministry of the Environment

MOE explained that Ontario has an ambitious plan to reduce GHG emissions from the electricity sector, and this plan is set out in and supported by a number of policies (e.g., the Climate Change Action Plan and the LTEP), acts (e.g., the *Green Energy and Green Economy Act, 2009*) and regulations (e.g., O. Reg. 496/07 – the Cessation of Coal Regulation – made under the *Environmental Protection Act* (*EPA*)). MOE noted that of particular significance, the government is on track to fulfil its commitment to phase out coal use at electricity generating stations by the end of 2014; to date, Ontario has shut down 10 of the province's 19 coal units, and since 2007 reduced GHG emissions from all sources of electricity production by 40 per cent.

MOE stated that throughout the coal phase-out, the Ontario government is encouraging movement to cleaner sources of energy and implementing electricity conservation demand management strategies. Moreover, the ministry pointed out that all existing and new electricity projects must meet strict environmental requirements, which can include an assessment of potential environmental impacts under the *Environmental Assessment Act* (*EAA*) and an approval under the *EPA*.

For the full text of the ministries' decisions, please see our website at www.eco.on.ca.

Other Information

In April 2012, the government introduced Bill 75, *Ontario Electricity System Operator Act, 2012*. If passed, Bill 75 would merge the OPA with the Independent Electricity System Operator – the Crown corporation responsible for operating the electricity market and directing the operation of the bulk electrical system in the province – and change the policy framework for energy planning; all mandatory power system planning requirements would be removed and the primary responsibility for any energy planning would fall to the Minister of Energy. In October 2012, the Premier prorogued the provincial legislature and Bill 75 died on the order paper.

In April 2013, the Minister of Energy announced that ENG was undertaking a formal review of the LTEP. In addition to holding information sessions across the province, and conducting consultation activities with the public and First Nation and Métis communities and organizations, in July 2013, ENG posted a proposal notice on the Environmental Registry (#011-9490), soliciting public comment on its review of the LTEP.

ECO Comment

While the ECO believes that MOE's decision to deny the request for review was reasonable, the ECO finds ENG's rationale for denying the review flawed and unacceptable.

In ENG's response to the applicants, the ministry explained that its decision to deny the review was based on section 68 of the *EBR*, which gives the minister the discretion to deny a request to review a decision if that decision was made in the preceding five years in a manner consistent with the intent and purpose of Part II of the *EBR*. However, neither the LTEP nor the 2011 Supply Mix Directive were decided in a manner consistent with the intent and purpose of Part II of the *EBR*, since the LTEP – an environmentally significant proposal – was never posted on the Environmental Registry for public comment, and – as of January 2013 – a decision notice has not been posted for the Supply Mix Directive despite requirements in section 36 of the *EBR* that the ministry promptly post decision notices on the Registry that briefly explain the effect of public participation on finalized proposals.

Without ENG explaining to the public how it considered public comments when making these two decisions, the consultation process was incomplete and the minimum levels of public participation intended by Part II of the *EBR* unfulfilled. If ENG had met its consultation obligations and explained to the public the effect public participation had had on these decisions, perhaps the applicants' concerns would have been appeased and they would not have felt compelled to engage the ministries and the ECO in the application for review process. As it stands, however, the ECO believes it was perfectly reasonable for the applicants to ask ENG to consider and respond to their unaddressed argument that Ontario's electricity requirements can be adequately met through wind, water and solar generation without the need for fossil fuel generation. Moreover, the ECO is disappointed that ENG's response did not at least refer the applicants to the Independent Electricity System Operator's stakeholder engagement on the integration of renewable generation into

Ontario's power system. The ECO is pleased that ENG posted the LTEP review on the Registry for public comment, and encourages the ministry to consider the applicants' concerns when conducting this review.

As the ECO has discussed before, the LTEP is not without flaws. In the ECO's Annual Energy Conservation Progress Report – 2010 (Volume One), we noted that the LTEP is sadly an energy plan in name only; it only discusses electricity and how primary energy sources (such as natural gas, uranium, biomass and renewables) can be used in electrical generation, and fails to consider how renewables, including solar thermal and geothermal energy, have non-electrical uses that can reduce GHG emissions. (More recently, in the ECO's Annual Energy Conservation Progress Report – 2011 (Volume Two), the ECO pointed out that Ontario's failure to plan for its energy needs in an integrated manner is demonstrated by the amount of energy lost as waste heat). This observation led the ECO to recommend that ENG build upon the work of the LTEP and produce a comprehensive multi-fuel energy plan. Moreover, the ECO has recently questioned the value of the LTEP, since many of its key assumptions now appear inaccurate (see page 47 of the ECO's Annual Energy Conservation Progress Report – 2011 (Volume One)).

In its response to the applicants, MOE noted that all electricity projects, including gas-fired power plants, must meet strict environmental requirements, and new projects are reviewed under the *EAA*, including an assessment of potential environmental impacts from contaminants emitted into air (e.g., GHG and smog causing pollutants). However, as the ECO has argued before, large natural gas facilities may be misclassified in O. Reg. 116/01 – Electricity Projects – made under the *EAA*, such that their potential environmental effects may be insufficiently scrutinized and addressed (see Section 5.2.12 of the Supplement to the ECO's 2009/2010 Annual Report).

The ECO believes that Ontario must continue working towards decarbonizing the electricity sector. Laudably, with the passage of the *Green Energy and Green Economy Act, 2009*, the introduction of Ontario's Feed-in-Tariff (FIT) program, and a steadfast commitment to phase-out coal plants, the government has signaled its strong intention to shift away from fossil fuels for electricity generation. This shift should be commended, assuming that the government will continue to seek opportunities to reduce GHG emissions by expanding Ontario's use of renewable energy and energy conservation. Moreover, the ECO notes that Ontario's nuclear capacity will be reduced during the refurbishment of the Darlington nuclear generating station starting in 2016, likely requiring a heavier reliance on natural gas to meet Ontario's electricity needs (depending on demand), and further delaying the decarbonizing of the provincial electricity grid.

Review of Application R2012003:

2.2.9 Prescribed Ministries to Post Final Copies of SEVs (Review Undertaken by MOE)

Keywords: SEV; *EBR*; Environmental Registry

Summary of Issues

In June 2012, two residents requested a review of the *Environmental Bill of Rights, 1993* (*EBR*) to require that prescribed ministries post Statement of Environmental Values (SEV) consideration documents on the Environmental Registry for policies, acts, regulations and instruments. The applicants stated that by posting SEV consideration documents on the Environmental Registry, it

will increase accessibility, transparency and accountability in environmentally significant decisions made by prescribed ministries. The ECO forwarded the application for review to the Ministry of the Environment (MOE) for consideration.

Under the *EBR*, each prescribed ministry is required to take every reasonable step to ensure that their SEV is considered whenever decisions that might significantly affect the environment are made. An SEV describes how ministries will apply the purposes of the *EBR* as well as integrate other considerations, including social, economic and scientific considerations, when they make environmentally significant decisions. In 2008, the Ontario Divisional Court affirmed (in the Lafarge decision) that prescribed ministries must consider their SEVs when making decisions not only on environmentally significant policies, acts and regulations, but also on instruments prescribed under the *EBR* (see pages 143-145 of the ECO's 2008/2009 Annual Report).

A prescribed ministry does not have to always conform to its stated values, but must take every reasonable step to consider its SEV when making decisions that might significantly affect the environment. Ministries usually document their fulfillment of this requirement through the preparation of an SEV consideration document. The ECO believes that SEV consideration should include, at a minimum: reflection on how a ministry's SEV principles apply to a proposal; and documentation of this analysis in a transparent and accountable manner. The ECO obtains copies of SEV consideration documents from ministries for our reviews of environmentally significant decisions and general compliance with the *EBR*; however, ministries do not make their SEV consideration documents available to the public, such as posting them on the Environmental Registry.

The applicants stated that in order to obtain SEV consideration documents for instruments, they had to file requests under the *Freedom of Information and Protection of Privacy Act* and pay the associated fees, a process that they considered to be a significant barrier to accessing these records. The applicants allege that without easy access to SEV consideration documents, Ontario residents will not be able to hold prescribed ministries accountable for considering their SEVs, and this could result in significant harm to the environment.

The applicants requested that prescribed ministries be required to post both proposed and final SEV consideration documents on the Environmental Registry for policies, acts, regulations and instruments. Under the *EBR*, ministries are only required to consider their SEV at the decision making stage.

In our 2011/2012 reporting year, the ECO found that some ministries were not documenting their SEV considerations for all prescribed instruments. To improve transparency and accountability, the ECO recommended that ministries provide links to their SEV consideration documents in decision notices for instruments posted on the Environmental Registry. The ECO stated that this would provide clarity about the ministry's rationale for the decision, and would improve assurance that SEV principles were taken into account even if the decision does not fully conform to them (see Chapter 5.0 of Part 1 of the ECO's 2011/2012 Annual Report).

The applicants also requested two additional amendments to the *EBR* but these amendments did not meet the application for review requirements in section 61 of the *EBR*. This section states that two Ontario residents who believe that an existing policy, act, regulation or instrument should be amended, repealed or revoked in order to protect the environment may apply to the ECO for a review by the appropriate minister. As the amendments requested by the applicants were not related to protecting the environment as defined in the *EBR*, the *EBR* review process was therefore not the venue for making these types of changes. The ECO provided MOE with the additional amendments, but the ministry was under no obligation to respond to them.

Ongoing EBR *Review:*
In December 2010, two staff members of the Canadian Environmental Law Association requested a review of the *EBR* and its regulations because the legislation has not undergone a formal review since it came into force in 1994. The applicants identified 10 key issues that should be reviewed, such as updating the purposes of the *EBR* and use of the Environmental Registry. In March 2011, MOE advised the applicants that it would conduct a review of certain components of the *EBR* but did not provide an estimated time for completion of its review. However, in August 2011, MOE advised another set of applicants who requested a review of *EBR* leave to appeal rights that it would incorporate their issues into its broader review of the *EBR*. MOE estimated that it would complete the review in 12 – 16 months from August 2011. For more information on the related reviews, see R2010009 in Section 2.2.6 and R2009016 in Section 2.2.5 of this Supplement to the Annual Report.

Ministry Response

In August 2012, MOE advised the applicants that it will incorporate the issues outlined in this application for review into the ministry's ongoing broader review of the *EBR*. MOE also advised the applicants that it will forward the "results of the review and what actions have been or are proposed to be taken within 30 days of the review's completion."

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

ECO Comment

The ECO is pleased with MOE's decision to undertake this review. It is logical to incorporate the applicants' request to amend the *EBR* to require prescribed ministries to post SEV consideration documents for decisions on the Environmental Registry into an ongoing review of the legislation. The ECO will provide a more detailed assessment of the handling of this application in a future Annual Report, once the ministry has completed its review.

Review of Application R2012004:

2.2.10 Regional Strategic Environmental Assessment for the Ring of Fire (Review Denied by MOE)

Keywords: Ring of Fire, First Nations, mining, Environmental Assessment

Background/Summary of Issues

Overview

On October 10, 2012, two individuals submitted an application requesting that the Ministry of the Environment (MOE) undertake a review of the need for a policy or new regulation under the *Environmental Assessment Act* (*EAA*). The applicants requested that the policy or regulation establish a cumulative assessment framework for mineral development projects and associated infrastructure in Ontario's Far North, with a focus on the area known as the Ring of Fire.

The applicants expressed concern that approvals for individual projects and supporting infrastructure are moving forward in advance of any regional strategic environmental assessment (R-SEA), and in advance of the establishment of community based land use plans under the *Far North Act, 2010*. As such, the applicants argued, projects are being considered in a "haphazard" way, through different assessment mechanisms, and without any apparent co-ordination or cumulative effects consideration.

The ECO forwarded this application to MOE, which denied it on December 21, 2012.

Development in Ontario's Far North and the Ring of Fire

Ontario's Far North region is one of the world's largest intact ecosystems and makes up 42 per cent of the province's area. The Far North is an area of international ecological significance and a stronghold for biodiversity, including at-risk mammals like woodland caribou, wolverine and polar bear, that have declined in other areas of their distributions. Its peatlands are important carbon stores and its forests comprise part of the largest block of boreal forest still free from large-scale human disturbance anywhere in the world. The Far North holds the traditional territories of 38 First Nations communities.

In the heart of the Far North is an area referred to as the "Ring of Fire": a remote, crescent-shaped region under intense mining exploration interest (Figure 1). Significant discoveries of chromite and nickel, as well as copper, zinc, gold and other minerals, have been made in the Ring of Fire over the past decade. As of April 2013, 21 companies currently have mining claims in the region, covering an area of 2,250 square kilometres, and there is little doubt that the significant discoveries in the area will be developed into working mines in the coming years. The magnitude of development potential and economic opportunity in the Ring of Fire – which has led some to dub the area "Ontario's oil sands" – make it a pressing planning issue in the Far North.

Figure 1: Location of the Ring of Fire in Ontario's Far North. (Source: Ministry of Northern Development & Mines)

New development in the Ring of Fire has the potential to cause a variety of environmental impacts for northern ecosystems, for example, loss and fragmentation of terrestrial and aquatic habitat; contamination of soil, sediment, water and air; and ongoing disturbance to wildlife due to noise, traffic and dust (for further information refer to Part 3.1 of the ECO's 2012/2013 Annual Report).

In addition to the potential impacts from the construction and operation of the mines, the development of associated infrastructure – mainly transportation corridors and transmission lines – may also impose environmental impacts on the Far North. The transportation corridor to the Ring of Fire (irrespective of its eventual placement) will need to be approximately 300 km long through relatively undeveloped land in the boreal shield and Hudson Bay lowlands. One mining company suggests its proposed north-south road would have to cross approximately 50 continuously flowing watercourses, including three major rivers (Ogoki, Albany and Attawapiskat) and could potentially intersect 50 wetland areas. The proposed north-south corridor would also traverse three protected areas: Otoskwin/Attawapiskat River Provincial Park, Albany River Provincial Park and Ogoki River Provincial Park.

The cumulative environmental effects from mine development across the Ring of Fire are also a significant concern, given the region's ecological significance. The development of infrastructure in the region, especially roads and transmission lines, will create development opportunities that would not otherwise be possible – creating the potential for new and unexpected impacts that could combine with existing ones in cumulative and synergistic ways.

Projects Preceding Far North Land Use Planning

The applicants noted that proposals for major regional infrastructure and mining projects are being considered in the Ring of Fire prior to the completion of the land use planning process under the *Far North Act, 2010.*

The *Far North Act, 2010* was designed as a land use planning system across Ontario's Far North and sets out a joint planning process between First Nations and the Ontario government (for more on the *Far North Act, 2010*, see Part 2.2 of the ECO's 2010/2011 Annual Report). Part of the purpose of community land use plans is to direct where development is and is not appropriate; this zoning is based on considerations such as the ecological and cultural significance of lands and waters.

The Ministry of Natural Resources (MNR), which administers the Act, is in the preliminary stages of developing a Far North Land Use Strategy, and is in the process of developing community based land use plans with First Nations across the Far North. The Act requires that, prior to the opening of a mine in an area in the Far North, a community based land use plan must be jointly developed and approved by a First Nation and the Ontario government for the area, unless the Lieutenant Governor in Council issues an exempting order. As of July 2013, the Terms of Reference for community based land use plans in the Ring of Fire area had not been completed, let alone the plans themselves.

The Act also allows for the establishment of a Joint Body – made up of equal numbers of First Nation members and Ontario officials – to advise the Minister of Natural Resources on matters related to the development, implementation and co-ordination of land use planning in the Far North.

In 2010, the Far North Science Advisory Panel, an independent group of scientists appointed by the Ontario government, completed a report that provided advice on how to proceed with land use planning in the Far North, including the Ring of Fire. The panel specifically recommended that the government immediately designate the Ring of Fire as a priority management area with an interim regional planning process. The government has not publicly responded to, or acted upon, this recommendation.

Need for Regional Strategic Environmental Assessment

The applicants argued that there is a need for an R-SEA because there are multiple projects being proposed in the Ring of Fire region without any co-ordination, and without the benefit of the land use planning process established under the *Far North Act, 2010*.

The applicants asserted that, without an R-SEA, a number of proposals for major regional infrastructure in the Ring of Fire, such as the placement of transportation corridors and energy transmission to the region, are being treated individually through different assessment mechanisms. Some of the projects of concern listed by the applicants include: Cliffs Chromite Project; Noront Eagle's Nest Project; DeBeers Victor Diamond Mine; Marten Falls Logistics airstrip on the Muketei River; Metalex activities between Victor Diamond Mine and the Ring of Fire; and the transmission corridors being proposed to power the region.

The applicants cited the fact that the Canadian Council of Ministers of the Environment (CCME; the 14 ministers of the environment from the federal, provincial, and territorial governments) has raised issues with the current environmental assessment (EA) approach in Canada, which only addresses mitigation of the impacts of individual projects, rather than dealing with issues of broad, regional environmental change and cumulative effects on ecosystems. In 2009, the CCME identified R-SEAs as a key area of interest.

The CCME defines R-SEA as "a process designed to systematically assess the potential environmental effects, including cumulative effects, of alternative strategic initiatives, policies, plans, or programs for a particular region." An R-SEA would evaluate the cumulative effects of land and resource use under different future scenarios and examine alternative development options. The CCME suggests criteria for triggering an R-SEA, including:

- when a strategic decision is to be made that will establish a framework for future development, land and resource use in a region;
- for an application for development in a previously undeveloped region for which no current regional plan or strategy exists;
- when there is a need to co-ordinate disparate regional resources, programs, data; or
- when the public demands that an R-SEA be carried out.

Despite publishing a discussion paper in 2009, CCME did not reach any agreement on how to proceed with an R-SEA.

Under the federal *Canadian Environmental Assessment Act, 2012* (*CEAA*), the Government of Canada may establish a committee to conduct a regional environmental assessment for areas within federal lands, or establish a joint committee with another jurisdiction to conduct a regional study for regions outside of federal lands.

The applicants were also particularly concerned about the lack of a cumulative assessment framework for the Far North, and questioned whether baseline information was being effectively collected or shared between projects. The applicants concluded that "this is clearly not a reasonable way to undertake to access, and exploit such a significant region of this province."

New Regulation under the EAA *could establish an R-SEA*

The applicants argued that a new regulation under the *EAA* is needed to establish an R-SEA and cumulative assessment framework for mineral exploitation projects and associated infrastructure in the Far North. The applicants suggested that a regulation under the *EAA* could serve as a Terms of Reference for an R-SEA in the Ring of Fire.

The purpose of Ontario's *EAA* is to protect, conserve and wisely manage the environment across the province. The Act sets out a planning and decision-making framework to evaluate the environmental effects of a proposed project, and provide for public consultation, prior to a decision being made on whether to proceed with development. Although most public sector projects fall under the Act's requirements, private undertakings are not subject to the *EAA* unless designated by regulation, or if a company voluntarily agrees to have the *EAA* apply to its project. As of July 2013, proponents for two projects in the Ring of Fire have voluntarily initiated individual environmental assessments under the *EAA* (see box below, "Proponents and Projects in the Ring of Fire").

Projects may also be subject to an EA process under the federal *CEAA*. However, as a result of changes to the *CEAA* made in 2012, fewer projects will now require federal EAs.

The applicants suggested that a regulation under the *EAA* could ideally include a number of key attributes:

- Identify priority ecosystem values to be considered;
- Identify a priority list of potential sensitive receivers to be considered;
- Identify a priority list of environmental effects, including specific potential pollutants of concern in this ecosystem;
- Identify the minimum primary ecosystem dynamics to be considered;

- Provide a model for evaluating cumulative effects;
- Include consideration and specific direction for accommodating uncertainty, and for employing the precautionary principle; and
- Provide a transparent and public accounting of the trade-offs between various infrastructure options tabled.

The applicants asserted that swift introduction of a regulation under the *EAA* could be "a positive step towards resolving the significant confusion and loss of goodwill that has occurred as a result of the current trajectory of haphazard default development" in the Ring of Fire region.

Proponents and Projects in the Ring of Fire

As of July 2013, proponents for two mining projects in the Ring of Fire have entered into voluntary agreements to conduct individual assessments under the *EAA*. Both projects are concurrently undergoing environmental assessments (EAs) at the federal level. Since both assessments were started prior to the new *CEAA* changes, they are being carried out under the rules of the previous version of the Act. Each company will produce only one body of documentation for both the federal and provincial EA processes.

Cliffs Natural Resources Inc., through its subsidiaries and affiliates (Cliffs), has proposed an open-pit chromite mine at its Black Thor deposit, with an expected mine life of approximately 30 years. Some components proposed for construction include: the mine site, an ore processing facility, an "integrated transportation system" (including an all-weather road corridor, with a north-south orientation from Nakina to the Ring of Fire), and a ferrochrome production facility near Sudbury. The Cliffs Chromite Project is in early stages of an EA at both the provincial and federal levels. The provincial government indicated in August 2012 that it is in discussions with Cliffs to assist in financing and developing the proposed north-south all-season road to connect the Ring of Fire with existing roads (see Figure 2). In June 2013, Cliffs announced that it was temporarily suspending its environmental assessment activities.

Figure 2: Proposed transportation route to the Ring of Fire. (Source: Cliffs Natural Resources, Terms of Reference – Cliffs Chromite Project)

Noront Resources Ltd. (Noront) has proposed an underground copper-nickel-platinum group element mine, with a mine life of 11 years, slated to begin production in 2016/2017. According to the Ministry of Northern Development and Mines (MNDM), this proposed mine would be only about 7 to 8 kilometres (km) from Cliffs' proposed mine. The proposal includes: an underground mine, mill and processing plant; a trans-load facility; an all-season road (with an east-west orientation, from the Pickle Lake area to the project area); and, a diesel-fuelled power generation station. Noront has proposed to construct as much of its mining operations underground as possible. Noront is also in early stages of EA processes at both the provincial and federal levels.

Inadequacy and Misuse of Class EAs

The applicants argued that MNR's Class EA for Resource Stewardship and Facility Development is being misused as a tool for considering mineral exploitation and related projects in the Far North. Under this Class EA, MNR can issue approvals for a range of mining-related projects, such as access roads and the disposition of rights to Crown resources. The applicants argued that the Class EA is "ill-prepared for meeting the needs of the public interest, and was clearly originally designed for a far different purpose."

In addition, the applicants were critical of the Class EA for Activities of the Ministry of Northern Development and Mines under the *Mining Act*, which was approved in December 2012. The applicants noted that this Class EA does not address the issue of cumulative effects and argued that it would leave significant gaps in assessing threats.

The applicants included a number of documents with their application, including: a letter previously sent from the applicants to the Minister of the Environment requesting that the Minister refer mining projects (Noront and Cliffs) to the Environmental Review Tribunal for consideration and assessment; comments on the Cliffs Chromite Project Terms of Reference under its provincial EA process; a letter from Environment Canada to the Canadian Environmental Assessment Agency regarding the potential adverse effects of the Cliffs Chromite Project; a response from MOE to enquiries from Neskantaga First Nation about development in their traditional territories; and other correspondence regarding concerns about the Marten Falls Logistics airstrip.

The ECO forwarded this application for review to MOE. For information purposes, the ECO also sent the application to MNR, MNDM, and the Ministry of Energy.

Ministry Response

MOE denied this application on December 21, 2012, concluding that the public interest did not warrant the requested review. The ministry stated that it considered three factors set out in the *Environmental Bill of Rights, 1993* (*EBR*) in its decision to deny the application:

> (1) the potential for harm to the environment if the review applied for is not undertaken;
> (2) social, economic, scientific or other evidence that the minister considers relevant; and,
> (3) the resources required to conduct the review.

Potential for Harm to the Environment

MOE asserted that the *EAA* "already requires a transparent and public assessment of the potential environmental impacts from projects to which the act applies." The ministry also noted that other *EA* processes (such as those under MNR's Class Environmental Assessment for Resource Stewardship and Facility Development projects, Hydro One's Class Environmental Assessment for Minor Transmission Facilities, and O. Reg. 116/01, the Electricity Projects Regulation made under the *EAA*) already "provide guidance for identifying mitigation measures." MOE concluded that "the local environment is well protected at the project level under the existing regulatory framework […]."

MOE also stated that the federal *CEAA* "requires assessment of the cumulative effects of a project in combination with other physical activities that have or will be carried out." The ministry noted that the *CEAA* has provided guidance on cumulative effects since 1994 and also references the precautionary principle. The ministry's decision, however, did not mention how recent changes to the *CEAA* will exclude some projects from the federal process, or discuss how MOE itself currently considers cumulative effects across multiple projects.

The ministry claims that the province is in the process of developing a long-term monitoring program for the Ring of Fire. MOE noted that a "dialogue" between MNDM, the federal government and First Nations was initiated in May 2012. The ministry stated that the development of a long-term environmental monitoring framework "is a step towards setting the foundation for potential regional and cumulative effects evaluation, in partnership with First Nations and federal partners, and will enable decisions on future proposals to be better informed." MOE did not provide any details about the environmental monitoring program (e.g., when the program would begin, who would do it, what would be monitored or how the information would be used in decision making).

Other Evidence the Minister Considers Relevant

The ministry noted that "there is already a legislative and policy framework to inform land use planning and development in the Far North." MOE stated that the *Far North Act, 2010* enables community based land use plans, jointly developed and approved by First Nations and the Ontario government. The ministry also stated that five communities have approved land use plans in the Far North and many others are presently engaged in land use planning processes.

The ministry described the role of the Joint Body under the *Far North Act, 2010* and pointed out that the Joint Body may recommend policy statements on matters to include in the Far North Land Use Strategy, such as: ecological systems, processes and functions, including considerations for cumulative effects and for climate change adaptation and mitigation; the interconnectedness of protected areas; biological diversity; areas of natural resource value for potential economic development; and electricity transmission, roads and other infrastructure.

MOE did not provide timelines as to when the Joint Body would be established, or when the Far North Land Use Strategy would be completed. Therefore, it is unclear whether the Far North land use planning processes would be complete prior to the approvals for mining in the Ring of Fire.

Resources Required to Conduct the Review

As one of its grounds for denying the application, the ministry stated that "[u]ndertaking this request would duplicate or potentially delay current government efforts being [led] by MNDM's Ring of Fire Secretariat to address many of the same issues identified by the applicants." The ministry did not provide any information about what type of efforts the Ring of Fire Secretariat is undertaking, nor did it provide any information on opportunities for participating in the efforts being led by the Secretariat.

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

ECO Comment

The ECO shares the applicants' concerns about both the timing of and process by which planning decisions are being made by the Ontario government in the Ring of Fire. The planning decisions that the Ontario government makes right now will not only significantly affect how the region economically functions, but will also shape the future state of this globally significant ecosystem.

The ECO believes that MOE's response inadequately addressed the applicants' concerns, and did not constitute a valid rationale for denying the application. The ministry essentially argued that the current regulatory system is sufficient, concluding that "the local environment is well protected *at the project level* under the existing regulatory framework" (emphasis added). However, this response only reinforces the applicants' argument that MOE is currently taking a project-centric view of development in the Ring of Fire.

MOE's response does not address how it, or other governments, are assessing the cumulative effects of development, or how it co-ordinates decisions under all government approval mechanisms (e.g., tracking approvals under separate Class EA processes, the electricity projects regulation, and the multiple ongoing individual EAs). There is nothing in MOE's response that serves to reassure the applicants, or Ontarians, that the government is currently assessing the cumulative effects of development in the Ring of Fire. The ministry's assertion that environmental assessment processes "provide guidance for identifying mitigation measures" does not address the applicants' underlying

concern: that regional, cumulative effects are not being examined and taken into account in government decision making in the Ring of Fire.

Further, MOE's argument that the applicant's request would duplicate efforts being led by the Ring of Fire Secretariat is unreasonable. The Ring of Fire Secretariat is a small organization that would be ill-equipped to take on a project of this magnitude – the responsibility for assessing the cumulative environmental impact of development in the Ring of Fire should rest squarely on MOE.

Undertakings in the Ring of Fire will change the Far North forever. Environmental approvals granted at a project-by-project level – as is done in other parts of the province – are not enough in this sensitive, undeveloped and globally significant region. In addition, given that all projects in the region will inevitably face the same major environmental issues, a strictly project-by-project approach is inefficient, and will force proponents to expend greater time and financial resources that would otherwise be necessary. The ECO believes that MOE should have taken this opportunity to explore the methods available to examine cumulative effects across the region. Further, since recent changes to the federal *CEAA* will mean that fewer projects will undergo federal EAs, MOE can no longer rely on that process to consider cumulative effects. MOE must develop its own framework to assess cumulative impacts in EA processes.

As the ministry pointed out, the *Far North Act, 2010* established a system of planning for the Far North. Unfortunately, it is still too early for the Act to have its intended effect on land use planning decisions that are being made now; major components of the planning process (such as the establishment of the Joint Body, the Far North Land Use Strategy, or community based land use plans for the Ring of Fire region) are years away from completion. In all likelihood, exempting orders will be made for the projects already in the approval process, therefore MOE's reliance on the planning process under the *Far North Act, 2010* as a basis for denying the application is nonsensical. Further, potentially using an order to open the first mine in the Ring of Fire will make a mockery of the legislation the government heralded as being the cornerstone of economic development and environmental protection in the Far North.

Development in the Ring of Fire represents the opening of a new frontier, which will constitute a fundamental redefinition of the entire socio-economic and environmental functioning of the region. This region will see many projects in the coming years, all of which will be operating on Crown land. The ECO believes that allowing this massive disposition of Crown resources to proceed without a comprehensive evaluation of the environmental consequences is a piecemeal approach which is contrary to the purpose, spirit, and intent of the *EAA*. The ECO believes that the applicants' request to establish a regulation under the *EAA* to act as the terms of reference for an R-SEA is an appropriate solution to this problem, and urges the government to take immediate action on this critical issue.

Review of Application R2012005:

2.2.11 Regulations Related to Hydraulic Fracturing (Review Undertaken by MOE and MNR)

This application was reviewed in conjunction with R2012006 (MNR). Please see Section 2.4.1 of this Supplement for the full review.

Review of Application R2012007:

2.2.12 Need for New Provincial Legislation or Policy on Littering (Review Denied by MOE)

Keywords: *Highway Traffic Act*; *Envirinomental Protection Act* (*EPA*); litter

Background

In November 2012, two applicants submitted an application under the *Environmental Bill of Rights, 1993* (*EBR*) requesting that the Ministry of the Environment (MOE) conduct a review of the need for a new policy or act to augment existing provincial legislation relating to litter and litter prevention. The applicants alleged that littering results in environmental impacts including soil contamination and damage to wildlife, beaches, naturalized areas and waterways.

Summary of Issues

The applicants contend that the current regulatory framework provided by the *Environmental Protection Act* (*EPA*) and the *Highway Traffic Act* is insufficient to address the issue of litter. While both laws prohibit littering and set out fines for violations, the applicants allege that provincial enforcement is neither routine nor rigorous. The applicants noted that, in 2010, a private member's bill proposed increasing *EPA* fines for littering and expanding the list of materials defined as litter in the *Highway Traffic Act*, but this bill no longer has active status.

Furthermore, the applicants asserted that Stewardship Ontario, the industry-funded organization partly responsible for funding Ontario's Blue Box program (which collects and recycles newspapers, plastic water bottles, and other commonly littered items), does not consider litter to be part of its mandate. The applicants argued it is inappropriate for municipalities to be solely responsible for enforcement and litter collection.

The applicants further argued that population growth and increasing consumerism will lead to higher rates of littering, and that, to break the cycle, the discussion must extend beyond clean-up efforts to the root causes of littering, such as a lack of public education.

The applicants noted that some Canadian provinces include litter control in provincial mandates and legislation. They stated that MOE should take responsibility for managing littering in Ontario and should act as the co-ordinating ministry on this issue because it is already responsible for waste management. The applicants requested that MOE develop a co-ordinated program that will set targets for reducing the rate of littering and will create provincial reporting systems.

The applicants cited numerous domestic and international news reports related to litter as evidence of the need for a new policy or legislation. The applicants also cited legislation from other jurisdictions and a report that investigated the issue of tobacco litter as evidence to support their arguments.

Ministry Response

In January 2013, the ministry notified the applicants that a review was not warranted. MOE's decision was based on the information provided by the applicants; information from MOE's own files; consultation with the Ministry of Transportation (MTO); and undertaking a jurisdictional scan. The ministry also cited comments made by the ECO in November 2012, which indicated that compliance and enforcement of litter should not be a provincial responsibility. In deciding whether a review is warranted, MOE considered the factors set out in section 67(2) of the *EBR.*

The ministry stated that no new policies or laws are required because the environment is well protected from littering under the existing regulatory framework. According to MOE, regulations under the *EPA* cover "a wide range of activities and environmental violations, including littering." The ministry noted, however, that because its compliance program "targets priority areas and activities that pose the highest environmental risk," most waste-related investigations under the *EPA* deal with the "depositing of waste," which typically involves industrial waste or large quantities of domestic waste that could affect environmental or human health. Convictions of charges for the depositing of waste can involve fines of up to $100,000 for individuals and $500,000 for corporations, and/or jail terms of up to one year. MOE further noted that the *Highway Traffic Act* considers depositing litter or illegally dumping material on or along provincial highways to be an offence enforceable by the Ontario Provincial Police.

MOE asserted that there is little potential for harm to the environment if the review is not undertaken, as Ontarians have many options to help keep our streets, parks and waterways free of litter, including the municipal Blue Box program and the Ontario Deposit Return Program. Moreover, MOE explained that the *Municipal Act* provides municipalities with the authority to enact by-laws to address littering, thus most littering complaints are referred to the appropriate municipality. In addition, MTO operates an Adopt-A-Highway program to encourage volunteers to clean up areas of highways.

In reaching its decision to deny the review, MOE also considered the resources that would be required. The ministry stated that its limited resources are better allocated to higher priority waste management issues, such as those resulting from large scale industrial activities.

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

ECO Comment

The ministry's reasons for denying this application appear to be valid. The potential harm to the environment caused by MOE's refusal to undertake this review will likely be minimal, given the adequacy of Ontario's current regulatory framework for littering. The ECO agrees that the government's finite resources are better focused on addressing higher priority waste management issues, and that, from a compliance perspective, the management of litter is largely a local issue.

However, agreeing that the regulatory and compliance framework regarding litter is adequate does not mean the ECO believes that nothing more can be done. The ECO is on record as supporting extended producer responsibility, in which producers (manufacturers, brand owners, and importers of products) would be made fully responsible for the costs of managing their products and packaging at end-of-life, including products and packaging that are thrown in the garbage or discarded as litter.

Currently, producers of Blue Box materials (e.g., newspapers, water bottles, etc.) pay a per-unit fee to cover half the costs municipalities incur through collecting and recycling materials that residents

put in the Blue Box. However, producers pay nothing to cover the costs of managing their used products and packaging that consumers discard as garbage. Making producers more fully responsible for the burden associated with managing their products at end-of-life would make more money available for waste diversion education and infrastructure (such as recycling bins in public spaces) and, together with other policy tools, could encourage producers to design their products and packaging to be more environmentally friendly. The ECO believes that this constitutes the ministry's real opportunity to play an effective role in litter reduction.

Review of Application R2012009:

2.2.13 Low Frequency Noise and Infrasound from Wind Turbines (Review Denied by MOE)

Keywords: *Environmental Protection Act* (*EPA*); infrasound; low frequency noise; O. Reg. 359/09; sound; wind turbines

In December 2012, two applicants requested that the Ministry of the Environment (MOE) review the need for new regulations to govern the levels of low frequency noise and infrasound emitted by industrial wind turbines. The applicants asserted that low frequency noise and infrasound from wind turbines have caused health problems in residents living nearby, and that O. Reg. 359/09 under the *Environmental Protection Act* (*EPA*), which regulates the placement of turbines, is inadequate at addressing these issues as it is based only on audible noise.

Background

Wind power is an important component of the Ontario government's plan to increase provincial sources of clean, renewable energy. Despite wind power's benefits, however, some people have voiced concerns that wind turbines can cause adverse environmental and human health impacts. In particular, concerns have been raised about the impacts of noise emissions from wind turbines on human health. Wind turbines generate a broad frequency band of noise that includes audible sound, low frequency sound (which may or may not be audible), and infrasound (which is generally inaudible). Low frequency sound commonly refers to sound with a frequency between 20 and 200 Hertz (Hz), and infrasound refers to sound below 20 Hz. Low frequency sound and infrasound can also be generated by other industrial and transportation sources, as well as by natural sources (e.g., wind, thunder).

MOE states that its top priority with respect to controlling the impact of wind turbine noise is "making sure these projects are quiet where people live and sleep." In Ontario, setback distances between wind turbines and receptors (e.g., dwellings, schools, churches) are regulated by O. Reg. 359/09. Depending on the number and sound power level of turbines in a wind facility, the minimum required setback distances range from 550 metres (m) to 1,500 m. MOE explains how these setbacks were determined in its 2009 report, Development of Noise Setbacks for Wind Farms – Requirements for Compliance with MOE Noise Limits. According to MOE, Ontario's setback requirements are intended to limit audible noise at the nearest receptor to 40 decibels (dB), which the World Health Organization (WHO) recommends as the maximum yearly average nighttime sound level outside of bedrooms to prevent adverse health effects from night noise. According to the WHO, "there is no sufficient evidence that the biological effects observed at the level below [40 dB] are harmful to health."

This noise limit, however, is A-weighted (i.e., weighted to account for the relative loudness of frequencies perceived by the human ear) and as such, reduces the decibel values of sounds at low frequencies and excludes infrasound. A 2010 MOE-commissioned expert consultant's report, Low Frequency Noise and Infrasound Associated with Wind Turbine Generator Systems: A Literature Review, observed that "low frequency noise, and infrasound at amplitudes sufficient to allow perception by humans, can cause annoyance. Relatively modest levels of low frequency noise can cause annoyance in some individuals. Noise annoyance is a potential stressor, and in some individuals may contribute to stress-related health effects."

Ongoing debate about the potential impacts of wind turbines has made their siting extremely controversial. While some argue that wind turbine noise (including low frequency sound and infrasound) is responsible for the adverse symptoms experienced by nearby residents, some studies suggest that residents' complaints can be explained by other factors, including: the visibility of turbines from residences; residents' attitude toward the visual impact of turbines; residents' attitude toward turbines in general; their expectations about appropriate landscape and background sound levels for rural areas; and the power of suggestion.

Summary of Issues

Failure to Consider Low Frequency Noise and Infrasound

The applicants asserted that, while O. Reg. 359/09 imposes turbine setbacks based on models that consider audible noise, these standards fail to consider low frequency noise and infrasound, which can also allegedly affect the health of nearby residents (see below). According to the applicants:

> The noise testing protocols set out by the MOE are specifically designed to ignore low frequency noise/infrasound. Testers are instructed to make "A-weighting" adjustments to the test results so that only sounds detected by the human ear are reported. Other types of sound waves are specifically excluded by this process. While the presence of the audible noise being measured by the MOE can be a rough surrogate for low frequency noise/infrasound, audible noise and low frequency noise/infrasound behave differently when passing through walls and other items that can mask sound. … When lower-frequency air pressure pulses (which have high energy) impact a wall, only a small fraction of their energy is absorbed by the wall, the indoor surface of the wall vibrates much more, i.e., the energy level of the noise is very little attenuated. The resulting indoor air pressure pulses cause the other walls to vibrate/resonate as well, setting up standing waves of air pressure that create "noise spots" in the room; people often report their feeling of discomfort as being worse indoors than outdoors.

The applicants pointed out that, in addition to ignoring infrasound and intentionally biasing against low frequency noise, MOE's testing protocols only test audible noise *outside* of homes, when the testing for low frequency noise and infrasound needs to be conducted *inside* because of the building's effect on noise.

Impacts of Low Frequency Noise and Infrasound from Wind Turbines on Human Health

To support their argument for the need for new regulations, the applicants described the self-reported health impacts allegedly experienced by 20 unidentified households living near two wind turbine projects operated by Enbridge Inc. north of Kincardine. The applicants explained that residents' real names were withheld to protect their privacy. The applicants asserted that, even though MOE maintains that the Kincardine turbines meet the standards established in O. Reg.

359/09, residents living among the projects continue to report health-related symptoms that are more related to low frequency noise or infrasound than to the audible noise covered by the regulation.

According to the applicants, the pressure wave emitted during the downswing motion of each turbine blade creates a continuous low-frequency pulsating or "pounding" sound that forms the basis for the most common complaint from affected residents. The applicants asserted, based on these anonymous reports and reports by people living close to turbine projects around the world, that proximity to turbines results in a variety of symptoms, including:

- high pitched ringing in the ears (i.e., tinnitus);
- uncomfortable to painful pressure building up in the ears;
- headaches, dizziness, light-headedness, and vertigo;
- heart palpitations and chest tension;
- elevated blood pressure;
- inability to sleep, loss of concentration, cognitive impairment; and
- mood disorders.

Other symptoms described by the applicants include: loss of libido; fatigue; blood congelation; nausea and vomiting; blurred vision; and stroke-like symptoms (e.g., sagging of one eye). Many of these 20 households reported that these symptoms alleviated or disappeared when away from their home (e.g., at work or on vacation) or when the turbines were not operating. In addition to health issues, several of these residents reported disturbance from the turbines' flickering lights, and electrical problems in their homes, including abnormal static electricity and bolts of electricity when turning on light switches. Moreover, some of these individuals complained of decreased milk production from cattle, and the absence of natural cues that previously helped inform when crops should be planted. In general, the applicants assert that these experiences have resulted in residents' overall loss of enjoyment of their properties. The applicants insist that the health effects are not psychosomatic and that they greatly disrupt residents' lives, forcing them to spend inordinate amounts of time away from their homes. Furthermore, several residents complained that the devaluation of property values caused by the presence of the nearby wind turbines prevents residents suffering from adverse health effects from relocating. Although some of these residents have complained to MOE and/or Enbridge, several have refrained for fear that nothing would be done.

The applicants argued that, while not everyone is affected by wind projects in the same way (and some people who live near turbines experience few or no effects), "significant numbers of people living a range of distances from turbines in the Enbridge projects are very disturbed by them." Moreover, while the applicants acknowledged that the information included in the application is "qualitative and anecdotal in nature," they argued that the need for a scientific study does not negate the validity of residents' health experiences and the need for immediate remedial action. Furthermore, while the applicants welcome studies conducted by Health Canada and at the University of Waterloo on the potential human impacts of wind turbines (see below), they are concerned that neither will produce concrete results until 2015, leaving residents currently dealing with adverse health effects to continue to suffer.

The application also included information on the Enbridge Kincardine wind turbine project and the company's response to complaints; a summary of activities undertaken by local MOE staff; notes from meetings held between the applicants, Enbridge and MOE; a map indicating the locations of Enbridge's Kincardine turbines; and brief summaries of recent studies on low frequency noise and infrasound. The applicants also provided the ECO with a report that had been submitted to the New South Wales Department of Planning regarding a proposed wind farm in southeast Australia.

Ministry Response

In March 2013, MOE informed the applicants that it was denying the request for review, concluding that a review at this time would be premature and unwarranted. MOE's preliminary assessment of the application was based on evidence provided in the application, information acquired through the ministry's ongoing active review of scientific literature and jurisdictional scans, and consultations with the local MOE district office and staff at Public Health Ontario.

MOE stated that, in determining whether the public interest warrants a review of the applicants' concerns, the ministry considered the following factors set out in subsection 67(2) of the *Environmental Bill of Rights, 1993*: the potential for harm to the environment if the review is not undertaken; MOE's Statement of Environmental Values (SEV); and information gleaned from its ongoing scientific literature review and jurisdictional scans.

Potential Harm to the Environment if Review Not Undertaken

MOE explained that it took a cautious approach, based on the best available science, when setting standards for wind turbine setbacks and noise limits. In particular, the ministry stated that Ontario's setbacks are based on MOE's noise guidelines, which were peer reviewed and developed in consultation with external experts. The ministry also consulted the public on minimum setback requirements for wind turbine facilities via an Environmental Registry regulation proposal notice (#010-6516) in June 2009. MOE stated that its setbacks and noise limits are consistent with the sound level criteria set by the World Health Organization, and that Ontario's Chief Medical Officer of Health concluded in a 2010 report that there is no direct causal link between wind turbine noise and adverse health effects.

While MOE acknowledged that its A-weighted audible noise limit (40 dB) is for the outdoors and excludes infrasound, the ministry asserted that this limit includes low frequency noise. Indeed, MOE's guidance documents for setting wind farm noise guidelines and setbacks consider sound as low as 63 Hz. The ministry also noted that the 2010 consultant's literature review on the subject of low frequency noise and infrasound associated with wind turbines "concluded that there is no direct health risk from wind turbine sound – including low frequency sound and infrasound – at Ontario's regulated setback distance."

The 2010 consultant's report, which reviewed journal articles, conference papers, technical reports and guidelines, and regulations from other jurisdictions recommended that MOE: continue its current approach for assessing potential sound impacts, evaluating compliance from wind turbines, and adjusting limits; continue monitoring the emerging science and any changes to regulatory policies in other jurisdictions; consider implementing a new protocol to provide guidance to address complaints about indoor noise; and consider implementing a proven way to measure infrasonic noise.

In its notice of decision to the applicants, MOE stated that in response to the report's recommendations, the ministry will: continue with its current approach to wind turbines approval and compliance evaluation as outlined in O. Reg. 359/09; continue to actively follow science and government regulations as they evolve around the world; fund the ongoing study of renewable energy technologies and health (see University of Waterloo research below); continue actively monitoring emerging scientific studies and jurisdictional developments to inform the ministry's response to complaints related to indoor low frequency sound; and continue to actively monitor scientific developments related to infrasound from wind turbines.

The ministry stated that as new information comes to light, MOE will review and amend provincial requirements as appropriate. In particular, the ministry indicated that new knowledge that emerges

from several specific ongoing studies will help inform MOE with regards to low frequency noise and infrasound:

- Studies conducted by the Ontario Research Chair in Renewable Energy Technologies and Health (University of Waterloo) on the potential health risks of wind turbines;
- A four-year study, conducted by the Japanese Ministry of the Environment, on the possible health hazards of wind turbines; and
- A Health Canada epidemiological study (in collaboration with Statistics Canada) evaluating the measurable and reported health impacts of people living at distances of up to 10 kilometres from turbine installations. This study plans to objectively measure residents' blood pressure, heart rate, hair cortisol concentrations and sleep (as well as question residents on their noise annoyance, health effects, quality of life, sleep quality, perceived stress, lifestyle behaviours, prevalent chronic disease and property value impacts), and analyze these data in relation to wind turbine sound, including low frequency noise. Health Canada intends to accompany this study with an extensive review of studies reporting symptoms resulting from wind turbines, including nausea, vertigo, tinnitus, heart palpitations, sleep disturbance and annoyance.

MOE's Statement of Environmental Values (SEV)

MOE explained that, while undertaking the requested review would not be inconsistent with its SEV commitment to develop policies, legislation, regulation and standards to protect the environment and human health, it is premature at this time while the ministry continues to gather and assess science and research on the subject matter.

Literature Review and Jurisdictional Scans

Based on MOE's ongoing scientific literature review and jurisdictional scans, the ministry stated that no jurisdiction has yet developed a protocol for measuring infrasound from wind turbines or enacted a regulation to limit infrasound emissions from wind turbines. MOE stated that it will, however, learn from the Danish implementation of a globally unique 2012 regulation that, among other things, requires wind turbines to comply with new sound limits for low frequency indoor noise (calculated based on outdoor noise measurements and a sound attenuation factor for outdoor-to-indoor sound transmission).

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 decision to deny the applicants' request, since conducting a review would duplicate previous and ongoing studies on this topic.

MOE is responsible for protecting Ontario's air, land and water, with the goal of ensuring healthy communities, ecological protection and sustainable development. This mandate includes ensuring that the health and well-being of Ontarians is not seriously negatively affected by industrial projects, including those that help generate renewable energy and reduce Ontario's reliance on polluting fossil fuels.

The Ontario government has already conducted and commissioned reports on the human health impacts of wind turbine noise (including low frequency sound and infrasound), and these reports have concluded that there is no direct link. For example, the Chief Medical Officer of Health's report concluded that "low frequency sound and infrasound from current generation upwind model

turbines are well below the pressure sound levels at which known health effects occur. Further, there is no scientific evidence to date that vibration from low frequency wind turbine noise causes adverse health effects." Likewise, the 2010 consultant's literature review concluded that "publications by medical professionals indicate that, at the typical setback distances in Ontario, the overall magnitude of the sound pressure levels produced by wind turbine generators does not represent a direct health risk. This includes noise at low and infrasound frequencies."

These conclusions do not bar the possibility that low frequency noise and infrasound might annoy and cause stress-related symptoms in some people living near wind turbines. However, Health Canada's study already intends to evaluate these potential impacts. By relying on the forthcoming results of Health Canada's study, MOE is refraining from conducting a redundant and costly review of its own. Likewise, because there is currently no protocol for measuring indoor infrasound and low frequency sounds, MOE's intention to observe and learn from the implementation of the Danish regulation is a reasonable approach. Conducting an independent review into the potential impacts of infrasound and low frequency sound from turbines, and researching how to measure sound levels and establish limits for low frequency indoor noise, would duplicate current efforts and inappropriately divert valuable ministry resources.

Review of Application R2012013:

2.2.14 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 Ontario Regulation 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.

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 R2012014:

2.2.15 Need for Environmental Penalties for Spills to Air (Review Denied by MOE)

Keywords: *Environmental Protection Act* (*EPA*); *Ontario Water Resources Act* (*OWRA*); air pollution; air quality

Background/Summary of Issues

Under the *Environmental Protection Act* (*EPA*) or the *Ontario Water Resources Act* (*OWRA*), the Ministry of the Environment (MOE) can issue an environmental penalty order as an abatement tool to require certain violators to pay a penalty when a spill or unlawful discharge to water or land occurs. Currently, MOE cannot issue environmental penalty orders for air violations. In December 2012, the ECO received an application requesting a review of the legislation, regulations and mechanisms that enable the environmental penalties program, in order to consider expanding the scope of the program to include discharges and emissions of pollutants to air, including a review of section 182 of the *EPA* and O. Reg. 222/07 – Environmental Penalties made under the *EPA.*

The application was sent to MOE for consideration.

Environmental Penalties

MOE uses a number of compliance and enforcement tools to address violations of the ministry's laws; the tool used should be proportionate to the risk presented by the incident, the compliance history, and the response of the violator. The variety of tools available to MOE includes education and outreach, warnings, orders and prosecutions.

An environmental penalty order is a mandatory abatement tool that is used by MOE to encourage companies to comply with environmental laws and to allow for swift remedial action in the event of a spill, discharge, or other environmental violation. An order can only be issued to the approximately 140 facilities that belong to one of nine industrial sectors prescribed in the Municipal-Industrial Strategy for Abatement regulations. The issuance of an order is not a form of prosecution; in fact, a person can be given an order and prosecuted for the same violation. MOE's Compliance Policy (2007) recommends the use of environmental penalty orders as an option for responding to violations that fall into compliance categories II and III, which are generally more severe. In Part 3.4 of our 2007/2008 Annual Report, the ECO observed that environmental penalties should provide MOE staff with "a faster, less resource intensive, and less costly means of bringing contraveners into compliance with provincial environmental laws" than prosecutions alone.

Expanding the Framework to Air Pollution

The applicants alleged that under the current regulatory framework, it is challenging for MOE to swiftly and successfully prosecute air violations. According to the applicants, the absence of court

charges and fines for air violators over the past several years demonstrates the need for more tools to penalize air polluters. The applicants stated that, while charges and fines for air violations are rare, this is not an indication of compliance, as Hamilton industrial operators regularly violate Ontario's opacity rules, but are rarely, if ever, charged and fined.

The applicants stated that the significant health and economic costs associated with poor air quality justify the need to ensure MOE has effective tools for abatement.

The applicants requested that MOE undertake a review to consider broadening the framework to include spills to air, since the environmental penalties framework has proven to be beneficial for spills to land and water. They suggested that expanding the program could provide a viable and efficient abatement approach to ensuring that Ontario's air rules are upheld, and assist in reducing air emissions.

The Ontario Community Environment Fund

The funds collected through environmental penalty orders are directed to the Ontario Community Environment Fund (OCEF), a dedicated fund that is used to support local projects focused on environmental remediation, research and education relating to spills and restoration of the environment, and projects related to spill preparedness, in the areas where the violations occurred. The applicants proposed that, should MOE expand the environmental penalty program to include spills to air, funds collected from penalties could be used for projects and initiatives focused on research and education related to spills to air, similar to the OCEF. This would assist in making necessary improvements to air quality and public health in Ontario communities.

Five-Year Review

Under the *EPA*, at least every five years, the Minister of the Environment is required to review the operation of the environmental penalty program, including its effects on prosecutions, and provide any recommendations on the contraventions to which, and circumstances in which, orders should be issued. The applicants requested that the five-year review consider the expansion of the scope of environmental penalties to include air emissions.

MOE completed its first five-year review of the program in December 2012, and found that between August 2007 and December 2011, the ministry issued 62 environmental penalty orders for 132 violations, resulting in a total contribution of $779,482.45 to the OCEF. MOE found that environmental penalties "fill a niche in the compliance toolkit that provides a sufficient deterrent to unlawful discharges and allows the ministry to address non-compliance faster and more effective than other compliance and enforcement tools." The review did not consider or recommend expanding the program.

Ministry Response

In February 2013, MOE informed the applicants that it had completed its preliminary assessment of the application and denied the review. The ministry stated that its assessment was based on the evidence provided by the applicants, information in MOE's files, and the Environmental Penalty Program Five Year Review (December 2012).

MOE stated that Ontario already has a strong framework of policies, acts and regulations for managing emissions to air and protecting air quality. The ministry advised the applicants that it is implementing a number of measures that will further address air emissions, improve air quality, and work to reduce both local and regional air pollution impacts in communities. This includes the

national Air Quality Management System and actions addressing: industrial emissions (e.g., sector-based technical standards under O. Reg. 419/05, Air Pollution – Local Air Quality, made under the *EPA*); mobile source emissions (e.g., Drive Clean program); and local community concerns (e.g., working with the Clarkson and Oakville communities).

The ministry advised the applicants that its existing compliance and enforcement toolkit includes a range of tools for air violations such as education, voluntary abatement plans, orders, the issuance, suspension or revocation of environmental compliance approvals, and prosecution. For example, the ministry's compliance program targets priority areas and focuses on activities that pose the highest environmental risk. MOE further stated that "each situation is evaluated on a case-by-case basis to determine which abatement or enforcement tool is most appropriate for obtaining quick action to mitigate the effects of the violation, achieving compliance with environmental laws, and improve environmental performance in the immediate and long term."

MOE stated that Ontario's air quality continues to improve. For example, both emissions and outdoor levels of air pollution have decreased significantly over the past decade. MOE also indicated that the matters sought to be reviewed are otherwise subject to periodic review and that it completed and published its first environmental penalty program review report in December 2012.

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

Other Information

In 2011, MOE conducted an investigation under the *Environmental Bill of Rights, 1993* over concerns of dust emissions from the Essroc Canada Inc. (Essroc) cement manufacturing facility, north of the Town of Picton. In reviewing MOE's handling of that application, the ECO was disturbed that MOE's response was exceedingly slow and weak despite the ministry's knowledge that Essroc's fugitive emissions were causing adverse effects for the applicants and area residents for almost a decade. The ECO further found it problematic that the ministry was unable to complete the necessary background work before the limitation period to lay charges expired, and suggested that the ministry assess its investigative capacity and the sufficiency of the limitation period in the *EPA*. For more information, see Chapter 5.3 of Part 2 of the ECO's 2011/2012 Annual Report.

ECO Comment

The applicants raised valid points on the need for more compliance and enforcement tools to address air violations, and the ECO believes that MOE should have at least conducted a review to consider an expansion of the environmental penalties program.

MOE's five-year review of the environmental penalties program found that it fills "a niche in the compliance toolkit" because it deters unlawful discharges to land and water and allows the ministry to address non-compliance faster and more effectively than other compliance and enforcement tools for land and water violations. Like land and water pollution, air pollution can have adverse effects on environmental and human health. Yet, MOE cannot issue an environmental penalty order when a spill or unlawful discharge occurs to air. The ECO previously suggested in our 2007/2008 Annual Report that MOE consider, during its five-year review, extending the environmental penalties program to include air.

The ECO believes that there may be a gap in MOE's compliance and enforcement toolkit to address air violations, as the applicants highlighted through the absence of court charges and fines for air

violators in recent years. As reported in our 2011/12 Annual Report, MOE's slow and feeble response in the Essroc case illustrates the need for better compliance and enforcement options for air. Expanding the environmental penalties program to include air violations could fill this gap by discouraging illegal discharges and enabling the ministry to address non-compliance quicker and more effective than other compliance and enforcement tools.

The applicants also raised a convincing suggestion that, if the environmental penalties program were extended to include air spills, MOE could also expand the OCEF to allow the funds to be used for projects and initiatives focused on research and education related to spills to air. The ECO is disappointed that MOE did not even comment on this suggestion.

Review of Application R2012016:

2.2.16 Need for Blue Bin Recycled Content Policy (Review Denied by MOE)

Keywords: recycle; recyclable; recycled content; post-consumer; plastics; blue bin; stewardship; policy

Background

On February 14, 2013, an Ontario corporation that manufactures recycling bins, together with one of its principals, submitted an application requesting a review of the need for a new policy requiring that recycling bins (i.e., blue bins) bought and distributed by Ontario municipalities be manufactured from plastic resin (polypropylene or polyethylene) that includes a minimum of 60 per cent post-consumer resin, originating from Ontario's curbside Blue Box Recycling Program.

Summary of Issues

The applicants argued that the Ontario government should review the need for a recycled-content policy for recycling-bin procurement because two important environmental benefits would accrue from an increase in the use of post-consumer plastic materials in the bins. First, replacing the use of virgin plastic – derived from oil or natural gas – with recycled plastics in the blue bins conserves natural resources. Second, requiring municipalities to use bins made with post-consumer plastics that originate from Ontario's municipal recycling programs would create a market for the recycled plastic resins, which would help divert these materials from landfill. Diverting wastes from disposal saves landfill space.

The applicants pointed out that these benefits are compatible with the Ministry of the Environment's (MOE's) Statement of Environmental Values, which indicates that the ministry's mandate includes the protection of the environment, the promotion of sustainability, and the wise management and conservation of natural resources.

The applicants stated that, until recently, it was not technologically feasible to produce recycling bins using recycled plastics. However, the corporate applicant has been manufacturing bins with at least 60 per cent levels of recycled post-consumer plastics since 2010. In Ontario, municipalities source their own recycling bins and are not required to specify mandatory levels of recycled content. The applicants argued that the government should review these facts and consider a policy

that would instruct municipalities to procure recycling bins that contain a specified content – as high as possible – of post-consumer resin, originating from Ontario's Blue Box Recycling Program.

To underline the need for such a policy, the applicants included examples of recent requests for tender from seven different Ontario municipalities. Of these tenders, one made no mention at all of recycled content; two had no requirement for a specific recycled content level; and the remaining four included recycled content requirements in the range of 20 to 35 per cent, which the applicants considered too low. The applicants also noted that none of the tenders specified a preferred origin for the recycled material.

The applicant also pointed out that some European countries have used a similar policy for the production of polyethylene terephthalate bottles and that the policy has resulted in the creation of new technologies and markets for this recycled material.

The ECO forwarded the application to MOE and the Ministry of Municipal Affairs and Housing (MMAH). For information purposes only, the ECO also forwarded a copy of the application to the Ministry of Economic Development, Trade and Employment.

Ministry Responses

In April 2013, both MOE and MMAH denied the application for review.

Ministry of the Environment

MOE agreed that it is important to utilize post-consumer waste as manufacturing input whenever possible, and emphasized Ontario's commitment to increasing diversion and promoting recycling. However, the ministry nevertheless concluded that the requested review was not warranted.

MOE concluded that the environment would not be harmed if the review were not conducted as plastics collected from blue bins already have sufficient markets; additionally, the increases in demand for recycled materials that would be generated by the proposed policy would be too small to have a significant impact on those markets. The ministry also concluded that the requested policy might have negative cost implications for municipalities, it could unfairly favour one manufacturer over others, and it could be considered a trade restriction under international trade agreements. MOE noted that section 270 of the *Municipal Act, 2001* requires municipalities to adopt their own policies with respect to procurement.

Finally, with regard to the resources required to conduct a review, MOE argued that the effort required to properly conduct a review of this type would be significant and would apply to several ministries, and that the scope would extend beyond Ontario. Given these factors, the ministry stated that the resources required to conduct a review would be better used to address priority waste initiatives.

Ministry of Municipal Affairs and Housing

MMAH noted that the *Municipal Act, 2001* requires municipalities to adopt and maintain procurement policies. Furthermore, MMAH stated that each municipality adopts policies that reflect its specific administrative and community needs. The ministry stated that it would therefore not pursue new policies to require post-consumer recycled-content in municipalities' blue bins.

Nevertheless, stating that municipalities have an inherent interest in increasing environmental sustainability, MMAH encouraged the applicant to approach individual municipalities and relevant municipal associations to promote the recycled content concept.

For the full text of the ministries' decisions, please see our website at www.eco.on.ca.

ECO Comment

The ECO is disappointed with both ministries' decisions denying the review. Recycling is an important environmental priority, and markets for recycled materials are essential for the sustainability of recycling programs. The issue identified by the applicants – i.e., that municipalities appear to be choosing to purchase blue bins made of virgin materials rather than bins made largely of recycled resins from Ontario's own Blue Box Recycling Program – is disturbing.

MOE's arguments – that mandating municipalities to procure blue bins with high levels of Ontario-sourced recycled content could have negative cost and trade implications, and is not the most effective approach to achieve the province's waste management objectives – may very well be valid. Similarly, MMAH's position that it is the role of municipalities to develop their own individual procurement policies may also be be valid. However, this then begs the question of what is required to support markets for recycled materials such as these.

A ministry review of the issue could have identified provincial policy approaches needed to help drive the use of post-consumer plastics in the manufacturing of Ontario's blue bins (as well as in other products), and the procurement of such products. For instance, a review might have identified a need for MMAH to develop better guidance for municipal procurement policies. Or, a review might have provided further support for the implementation of true extended producer responsibility (EPR) in the province. EPR – a policy approach the ECO has long supported – ensures that producers (i.e., manufacturers and importers) are fully responsible for managing their products and packaging at the end-of-life stage. As the ECO has stressed numerous times, if producers are made *fully* responsible for all end-of-life costs (including 100 per cent of the recycling and landfill costs), they should be more highly motivated to both design their products and packaging to be more easily and economically recycled (thus bringing down the cost of recycled materials), and to cultivate markets for their recycled materials. In this way, manufacturers would have a greater incentive to use post-consumer plastics as part of their normal manufacturing practices, and municipalities would be driven to procure blue bins with higher recycled content.

The ministries' decision not to conduct this review appears to be an important opportunity wasted.

Review of Application R2012018:

2.2.17 Unimin Mine ECA and O. Reg. 419/05 (Review Pending by MOE)

Background/Summary of Issues

On March 17, 2013, an application was submitted requesting a review of the various Environmental Compliance Approvals (ECAs) authorizing the operations of Unimin Canada Ltd. (Unimin) in Nephton, Ontario, northeast of Peterborough. Unimin mines nepheline syenite, a non-metallic mineral used in glass and ceramics production, at this site and also operates an onsite landfill for its

mine tailings. The applicants also requested a more general review of sections 19 and 20 of O. Reg. 419/05 made under the *Environmental Protection Act*, with a view to updating the standards for airborne particles. The ECO forwarded this application to the Ministry of the Environment (MOE).

The applicants argued that noise and dust emissions from Unimin's facilities are causing environmental and human 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. They further argued that the current ministry approvals for air emissions from the operation, as well as the standards for air emissions set out in O. Reg. 419/05, are insufficient to protect the environment and human health. They argued that the emissions from the facility could be considered adverse effects and, thus, in contravention of the *EPA*. The applicants concluded that the ministry should conduct a review based on the content of its Statement of Environmental Values (SEV), which promotes a precautionary approach that takes into account both social considerations and health impacts.

Ministry Response

As of April 1, 2013, the ministry had not responded with a decision as to whether or not a review would be conducted.

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.

2.3 Ministry of Municipal Affairs and Housing

Review of Application R2012017:

2.3.1 Need for Blue Bin Recycled Content Policy (Review Denied by MMAH)

This application was reviewed in conjunction with R2012016 (MOE). Please see Section 2.2.16 of this Supplement for the full review.

2.4 Ministry of Natural Resources

Review of Application R2012006:

2.4.1 Regulations Related to Hydraulic Fracturing (Review Undertaken by MNR and MOE)

Keywords: fracking; waste management; hazardous waste

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 their environment from the adverse effects of hydraulic fracturing (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).

As a first step, the applicants 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* (*OGSRA*).

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

They 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 reformulations that could be made to the regulations in order to eliminate these exemptions.

Ministry Response

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

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."

ECO Comment

As this review is ongoing, the ECO will report on the handling of this application once the ministries have completed their reviews.

Review of Application R2012008:

2.4.2 Amendments to the *Provincial Parks and Conservation Reserves Act, 2006* made by Bill 55
(Review Denied by MNR)

Keywords: *Provincial Parks and Conservation Reserves Act, 2006* (*PPCRA*); *Environmental Bill of Rights, 1993* (*EBR*); Ministry of Natural Resources (MNR)

Overview

In December 2012, two individuals submitted an application under the *Environmental Bill of Rights, 1993* (*EBR*) requesting a review of sections of the *Provincial Parks and Conservation Reserves Act, 2006 (PPCRA*). The applicants alleged that, collectively, recent changes to the *PPCRA* introduced through the government's 2012 omnibus budget bill pose a threat to the maintenance of the ecological integrity of protected areas. They also asserted that the amendments were made without use of the mandatory public participation provisions of the *EBR*, and without consideration of the ministry's Statement of Environmental Values. The ECO forwarded this application to the Ministry of Natural Resources (MNR).

Background

Covering approximately 9 per cent of the province, Ontario's system of protected areas is composed of 334 provincial parks and 295 conservation reserves. The *PPCRA* governs these protected areas. The Act directs MNR to make the maintenance of ecological integrity the first priority in all aspects of protected area planning and management. According to MNR, "ecosystems have integrity when their lands, waters, native species and natural processes are intact."

The *PPCRA* also states that protected areas should be managed to permanently protect biodiversity, to provide opportunities for ecologically sustainable outdoor recreation and for appreciation of Ontario's natural and cultural heritage. The ministry is required to prepare management direction for each provincial park and conservation reserve, which should assess and mitigate threats to ecological integrity.

Management direction provides protected areas with a site-specific policy and resource management framework. Non-complex issues are addressed through brief management statements, while more substantial and complex issues are covered in management plans. Management direction sets out policies for permitted activities within protected areas, including policies for recreation, development, resource management, operations, and monitoring. It also provides assurance that permitted activities are compatible with environmental protection and are responsive to the public interest. Thus, management plans and statements also provide a record of public consultation and input into the planning process.

Summary of Issues

The Ontario government's 2012 omnibus budget bill – *Bill 55, Strong Action for Ontario Act (Budget Measures), 2012* – included amendments to numerous environmental statutes, including the *PPCRA*. The changes to the *PPCRA* are part of the government's strategy to manage natural resources over broader landscapes, with an overall objective of reducing MNR's budget (for more information on MNR's Transformation, see Part 2.1 of this year's Annual Report). Section 33 of the *EBR* exempts budget bills from public participation requirements. Thus, no public participation was required for the *PPCRA* amendments because they were included in a budget bill.

The 2012 amendments to section 10 of the *PPCRA* extended time limits for the preparation, duration, and periodic review of management direction for provincial parks and conservation reserves. Formerly, MNR was required to prepare management direction for new parks and conservation reserves within five years of their creation, with a deadline to prepare management direction for all existing protected areas by September 2012. However, with the passing of Bill 55, these deadlines no longer exist, which, according to the applicants, could mean that some protected areas will not have any management direction at all.

Prior to the budget bill changes, the *PPCRA* specified that management direction for a protected area was to provide guidance for a 20-year period. Bill 55 removed the requirement for management plans to cover any specific time period.

The Act previously specified that MNR would examine all management direction that is over 10 years old to determine if a review or amendment was necessary. Now, the ministry must only examine management direction that has been in place for 20 years or more. The applicants stated that the regular review of management directions is crucial in meeting the purpose of the Act because it ensures "that evolving knowledge regarding ecological integrity is incorporated into protected areas planning." The applicants argued that, as capacity within MNR continues to decline, this change could mean that fewer and fewer resources will be devoted to ensuring that management directions are regularly updated. Therefore, the applicants requested that the amendments to section 10 of the *PPCRA* be reversed.

Previously, only pre-existing leases or land use permits that had been issued before the *PPCRA* had come into force were allowed to continue. The amended *PPCRA* now allows MNR to issue new land use permits for private, non-commercial purposes within protected areas. New permits, however, must be consistent with the Act and may only be issued in accordance with circumstances and terms prescribed by regulations (which are yet to be developed). The applicants contend that this amendment undermines the intent of the legislation because certain land uses in protected areas are not compatible with ecological integrity. The applicants requested that this amendment be removed or be given more detail to clarify the intent.

The *PPCRA* amendments also now allow MNR to enter into agreements with a municipality or road commission to build roads in protected areas without the previously required approval from Cabinet. The applicants acknowledge that removal of this requirement will likely result in reduced administrative costs. However, in order for this amendment to minimize the risk to ecological integrity, the applicants asserted that the Act must maintain the assurance that the Minister will not be able to delegate authority to approve new access roads.

Finally, the amendments lengthened the cycle for the Minister to prepare the State of Ontario's Protected Areas reports from once every five years to once every ten years. These reports provide a broad assessment of whether MNR is meeting objectives for protected areas planning, including the extent to which the protected area system meets ministry targets for ecological representation. These reports also identify threats to ecological integrity. The ministry released the first and only

report in 2011. Because of the Bill 55 amendments to the *PPCRA,* the next report is now not required until 2021. The applicants concluded that this amendment maintains the legislative requirement for regular reporting and is not likely to put protected areas at risk of compromising ecological integrity.

The applicants argued that MNR should have consulted the public before amending this legislation because the changes are environmentally significant and may undermine the purpose of the *PPCRA* itself. Furthermore, the applicants noted that because the amendments were included in a budget bill, the ministry had not demonstrated how it considered its Statement of Environmental Values in the decision-making process.

Ministry Response

In February 2013, MNR denied the applicants' request to review the *PPCRA*. The ministry noted that section 68(1) of the *EBR* permits a minister to determine that a review is not in the public interest if: the decision in question was made within five years of the date of the application; and, if the decision was made in a manner consistent with the intent and purpose of the public participation provisions of the *EBR*. In this case, MNR notified the applicants that a review was not in the public interest because its decision met both of these criteria.

MNR also asserted that this decision was not subject to the minimum level of public participation because it was part of a budget bill – an exemption that is provided by section 33 of the *EBR*. The ministry stated that these amendments will help to address financial challenges and will be implemented "within the overall context of the purpose, objectives, management principles and prohibitions of the *PPCRA*." According to MNR, the amended *PPCRA* will make transformation of the ministry "easier, faster and more efficient" for protected area managers. The ministry stated that it will now be able to direct available resources to priority planning projects, and that the new reporting cycle will better reflect "the rate of change of indicators and time required to assess observed changes." MNR also said that it remains committed to environmental protection during this period of transformation.

The ministry noted that even if section 68(1) of the *EBR* did not apply in this case, the ministry would still have denied the application based on the ministry's consideration of the factors set out in section 67 of the *EBR* to determine whether the public interest warrants a requested review. MNR stated that the applicants did not provide any evidence to demonstrate that a failure to review this decision would result in significant harm to the environment. The ministry also asserted that its decision is consistent with its Statement of Environmental Values; that the amendments to the *PPCRA* are consistent with the overall intent of MNR's transformation; and, that two discussion papers related to the ministry's transformation were posted on the Environmental Registry for public comment (#011-6751 and #011-7540).

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

Other Information

The applicants submitted three other applications requesting a review of amendments made by Bill 55 to each of the *Public Lands Act* (R2012010), the *Fish and Wildlife Conservation Act, 1997* (R2012011) and the *Lakes and Rivers Improvement Act* (R2012012). For more information about those applications, please refer to Sections 2.4.3, 2.4.4 and 2.4.5 of this Supplement, respectively).

ECO Comment

The ECO is disappointed that MNR denied the applicants' request to review the 2012 omnibus budget bill amendments to the *PPCRA*. While the ministry's reasons for denying the application under section 68(1) of the *EBR* may be technically valid, the ECO does not agree with the Minister's conclusion that the amendments to the *PPCRA* were made in a manner consistent with the purpose and intent of the public participation provisions of the *EBR*. The section 33 exemption from *EBR* public notice and consultation requirements for budget matters is intended to protect the parliamentary convention of budget secrecy; in the ECO's view, it is surely not intended to allow the government to shield substantial, primarily non-fiscal changes to environmental legislation from public participation.

One of the core purposes of the *EBR* is to ensure the public has a right to participate in the making of government decisions that significantly affect the environment. The ECO has long taken the position that using budget bills (and other omnibus legislation) to make significant amendments to environmental laws complicates the *EBR* process and obstructs the public's participation rights (for more information, see Chapter 2.4 of Part 1 of the ECO's 2011/2012 Annual Report and Part 8.2.1 of the ECO's 2010/2011 Annual Report). The ECO believes that prescribed ministries should be extremely judicious in their use of budget bills to make significant changes to environmental legislation.

The ministry should have consulted the public before amending the *PPCRA*. While the amendments may have been broadly motivated by MNR's limited resources, these environmentally significant changes are not fiscal in nature and should have been open to public participation.

The ministry's other reasons for denying this *EBR* application are similarly unpersuasive. The ECO agrees with the applicants that planning deadlines for protected areas are crucial in maintaining and restoring ecological integrity (for more information, see Part 4.6 of this Annual Report). In particular, the ECO believes that the applicants clearly explained that the amendments to the *PPCRA* could result in environmental harm. Moreover, the reasons are self-evident: all protected areas must have up-to-date plans. Plans for protected areas must reflect the best available scientific information, planning practices, public input, and current government policies in order to be able to undertake an adaptive ecosystem management approach that is both defensible and of practical value.

Protected areas may now have outdated plans, while others may go without direction whatsoever. Turning a blind eye to protected areas will not ensure the conservation of values they are meant to protect. The ECO believes that the amendments to the *PPCRA* undermine and degrade MNR's responsibility to serve as the custodian of Ontario's protected areas system.

Review of Application R2012010:

2.4.3 Amendments to the *Public Lands Act* made by Bill 55 (Review Denied by MNR)

Keywords: *Public Lands Act*; budget bill; Bill 55; omnibus; public participation; *Environmental Bill of Rights, 1993*

Background

In December 2012, two individuals submitted an application under the *Environmental Bill of Rights, 1993* (*EBR*) requesting a review of amendments to the *Public Lands Act* (*PLA*). The subsections and clauses in question were added or amended in June 2012 by an omnibus budget bill, Bill 55, the *Strong Action for Ontario Act (Budget Measures), 2012*. The applicants assert that a review is necessary because the changes to the *PLA*, which were made without consulting the public, will have significant negative impacts on the environment.

The ECO forwarded the application to the Ministry of Natural Resources (MNR).

Summary of Issues

Changes to the Public Lands Act

Crown land – land that is owned and managed by the provincial government – makes up about 87 per cent of Ontario's land base. MNR is responsible for the management of Ontario's Crown lands; the ministry's stated goal for Crown land management is "to contribute to the environmental, social and economic well being of the province by providing for orderly use and sustainable development of Ontario's Crown land."

The *PLA* governs the administration of Crown land in Ontario. Section 2 of the *PLA* gives the Minister of Natural Resources extremely broad powers: control over the management, sale and disposition of Ontario's public lands and forests. The changes to the *PLA* made by Bill 55 primarily relate to the Minister's powers set out in section 2 of the Act, and to the regulation making powers in section 14 related to the issuance of work permits, as described below.

Delegation of Minister's Powers:
The Bill 55 amendments to the *PLA* grant, under new subsection 2(3), new discretion for the Minister to delegate any of his or her broad powers under the Act that are prescribed by regulation to any person or body that is prescribed by regulation. The regulation may establish limitations on any such delegation.

New subsection 2(5) of the *PLA* requires the Minister and any delegate to enter into a performance agreement that sets out measurable goals and objectives for the delegate. New subsection 2(6) requires any delegate to prepare an annual performance assessment demonstrating that the goals and objectives set out in the performance agreement are being met. Under new subsection 2(7), if the Minister believes that a delegate has failed to meet the goals and objectives, the Minister must inform the delegate of this belief and require the delegate to fulfil the requirements of the agreement within a specified time period. A failure to comply would allow the Minister, under new subsection 2(8), to terminate the agreement and revoke the delegation.

At the time of this application, no regulations have yet been proposed to give effect to these amendments. It is therefore not clear which of the Minister's powers, or which persons or bodies or types of persons or bodies, might be prescribed to allow for delegation of the Minister's powers.

The applicants argued that the new provision allowing for delegation is overly broad and should include limitations. For example, the applicants suggested that if MNR has in mind the delegation of the Minister's authority to municipalities or conservation authorities, this should have been made explicit in the *PLA*. They argued that by leaving the particulars of delegation to a regulation, those particulars are much more susceptible to potential change, as a regulation is more easily amended than a statute.

No Crown Liability for Delegate's Actions:
New subsection 2(4) of the *PLA* states that the Crown is not liable for the acts or omissions of a delegate – i.e., a person or body to whom the Minister delegates his or her authority under subsection 2(3) of the Act.

The applicants argued that the removal of Crown liability for all actions of a delegate "is of great concern," and suggested that additional details about delegation akin to the provisions of the *Delegated Administrative Authorities Act, 2012* should be included.

Exemption from Requirement to Obtain a Work Permit on Public Lands:
Previously, clause 14(1)(a) of the *PLA* allowed Cabinet to make regulations prohibiting any specified activity on public lands unless the activity was carried out in accordance with a work permit. Bill 55 amended this section to allow Cabinet to also make regulations governing activities that may be carried out on public lands without a work permit, but in accordance with regulations. Further, a new clause 14(1)(e) was added that allows Cabinet to make regulations that exempt "any person or class of person" from the requirement to obtain a work permit to carry out an activity on public lands.

In their application for review, the applicants argued that until regulations prescribing persons or classes of persons to whom exemptions may be extended are enacted, "there is uncertainty about the future use of public lands."

In early December 2012, MNR posted a regulation proposal notice on the Environmental Registry (#011-7669) for proposed regulatory amendments to work permits issued under the *PLA.* MNR proposed to:

1. Eliminate work permit requirements for activities with minimal impacts that can be managed through rules in regulation. Proposed affected work permits include: maintenance dredging; restoring, repairing or replacing an existing erosion control structure; relocation of rocks and/or boulders for boating and swimming access; minor maintenance to trails, water crossings or roads; mechanical removal of native aquatic vegetation for swimming or boating access; and mechanically removing invasive aquatic vegetation.

2. Eliminate work permit requirements for certain activities that can be registered with the ministry to facilitate compliance responses. Proposed affected work permits include: construction of buildings for mineral exploration and development; and maintenance and replacement of clear span bridges and culverts.

MNR did not exercise the option to propose any regulations under section 14(1)(e) exempting a person or class of person from the requirement to obtain a work permit.

The applicants did not refer to MNR's regulatory proposal in their application. The ECO may review this proposal in a future annual report, after MNR has made a decision.

The EBR *Exception for Budget Proposals*

Section 33 of the *EBR* provides an exemption from the usual *EBR* public notice and consultation requirements for "a proposal that would, if implemented, form part of or give effect to a budget or economic statement presented to the Assembly."

As a result, the changes to the *PLA* – as well as proposed changes to eight other environmentally significant statutes – that were made by Bill 55 were not subject to the usual public notice and

consultation requirements of the *EBR.* As the applicants point out, "in fact, there was no public participation before the decision to introduce the omnibus budget bill was made."

The applicants noted that in the case of omnibus bills such as Bill 55, "it is even more crucial to ensure adequate time for the public to assess and comment on the potential impact of the changes." Furthermore, the applicants stated they "are very concerned that the changes to the *Public Lands Act* have the potential to cause environmentally significant impacts and were not given the degree of public participation guaranteed by the EBR."

The applicants also allege that MNR did not consider its Statement of Environmental Values (SEV) in making the amendments. The ECO notes that the *EBR* section 33 exemption from public consultation does not excuse the Minister from the requirement under *EBR* section 11 to ensure that the ministry's SEV is considered when a decision that might significantly affect the environment is made. However, because decisions made under budget bills are not posted on the Environmental Registry, the ECO is not formally alerted to those decisions or prompted to request proof that a minister has, in fact, discharged his or her obligation to ensure the SEV was considered.

Ministry Response

In February 2013, MNR notified the applicants that it was denying their application. MNR based its decision on *EBR* section 68(1), which states:

> A minister shall not determine that the public interest warrants a review of a decision made during the five years preceding the date of the application for review if the decision was made in a manner that the minister considers consistent with the intent and purpose of Part II.

MNR explained that the decision was made during the last five years, and was made in a manner that MNR considers was consistent with the intent and purpose of Part II of the *EBR* (Public Participation in Government Decision-Making) because it fell under the section 33 exception for budgetary proposals included in Part II.

MNR also noted that the exception to section 68(1) – i.e., the existence of social, economic or other evidence, not taken into account when the decision was made, that failure to review the decision could result in significant harm to the environment – does not apply because the applicants did not provide any such evidence that was not already considered by MNR in making the decision.

The ministry stated that even if the section 68(1) exception did not apply, MNR would still determine that the public interest does not warrant a review of the matters raised in the application. In particular, MNR stated that it considered its SEV in reviewing the application, and noted that the amendments "do not change MNR's commitment to sustainable development, ensuring that environmental protection is integral to the development process and natural resource management." MNR did not respond to the applicants' assertion that the ministry did not consider its SEV in deciding to amend the *PLA.* However, in response a request by the ECO for proof of MNR's SEV consideration for these amendments, MNR stated that "MNR's SEV consideration was not formally documented as these amendments were not determined to be environmentally significant" – a statement that contradicts MNR's reliance on *EBR* section 33 to justify its failure to consult the public, since section 33 would only apply in the case of an environmentally significant proposal.

MNR also asserted that the Bill 55 amendments to the *PLA* were "simply enabling" and therefore the changes "do not have a direct effect on the environment." MNR stated that the regulations

that are needed to give effect to the changes enabled by the legislation will undergo full public consultation, including the posting of environmentally significant proposals on the Environmental Registry. In particular, MNR referred the applicants to its regulation proposal notice on the Environmental Registry for proposed changes to work permit requirements under the *PLA* (referred to above).

Finally, MNR described its three-year transformation plan under which it asserts the amendments to the *PLA* were recommended. The ministry noted that aspects of the plan that could have a significant effect on the environment are posted on the Environmental Registry.

MNR concluded that, given the reasons above, the public interest does not warrant the requested review.

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

Other Information

The applicants submitted three other applications to the ECO requesting reviews of amendments made by Bill 55 to each of the *Provincial Parks and Conservation Reserves Act, 2006* (R2012008), the *Fish and Wildlife Conservation Act, 1997* (R2012011) and the *Lakes and Rivers Improvement Act* (R2012012). For more information about those applications for review, please refer to Sections 2.4.2, 2.4.4 and 2.4.5 of this Supplement, repsectively.

ECO Comment

The ECO is disappointed that MNR denied the applicants' request to review the 2012 omnibus budget bill amendments to the *PLA*. While the ministry's reasons for denying the application under section 68(1) of the *EBR* may be technically valid (if you believe, as the ECO wholeheartedly does, that the amendments are environmentally significant), the ECO does not agree with the Minister's conclusion that the amendments to the *PLA* were made in a manner consistent with the purpose and intent of the public participation provisions of the *EBR*. The section 33 exemption from *EBR* public notice and consultation requirements for budget matters is intended to protect the parliamentary convention of budget secrecy; in the ECO's view, it is surely not intended to allow the government to shield substantial, primarily non-fiscal changes to environmental legislation from public participation.

One of the core purposes of the *EBR* is to ensure the public has a right to participate in the making of government decisions that significantly affect the environment. The ECO has long taken the position that using budget bills (and other omnibus legislation) to make significant amendments to environmental laws complicates the *EBR* process and obstructs the public's participation rights (for more information, see Chapter 2.4 of Part 1 of the ECO's 2011/2012 Annual Report, and Part 8.2.1 of the ECO's 2010/2011 Annual Report). The ECO believes that prescribed ministries should be extremely judicious in their use of budget bills to make significant changes to environmental legislation.

The ministry should have consulted the public before amending the *PLA*. While the amendments may have been broadly motivated by MNR's limited resources, these environmentally significant changes – including the potential for the Minister to delegate *any* of his or her sweeping powers over Crown lands to *anyone*, without liability for their actions – are not fiscal in nature and should have been open to public participation.

MNR's alternative reasons for denying the application are also not persuasive. In particular, MNR's justification for refusing the application on the basis that the amendments to the *PLA* are "simply enabling" is weak. If these amendments had not been included in a budget bill, they would certainly have been considered environmentally significant and would have been posted on the Environmental Registry for public consultation. These amendments enable potentially broad changes to the future management of public lands in Ontario, and are even more troubling because all of the details are left to be prescribed by regulation. While the public will purportedly have an opportunity to comment on proposed regulations to give effect to the statutory changes, the public should also have had an opportunity to participate in the decision to open that door in the first place.

Finally, MNR should have responded to the applicants' specific concerns about the amendments to the *PLA*. It could have explained why the ministry believes these changes will not negatively affect the environment, and provided some examples of the types of delegates, activities and persons or classes of persons that MNR envisions being prescribed to give effect to the Bill 55 amendments. Providing this information could have allayed at least some of the applicants' uncertainty – if not concern – about the likely impact of these amendments.

Review of Application R2012011:

2.4.4 Amendments to the *Fish and Wildlife Conservation Act, 1997* made by Bill 55 (Review Denied by MNR)

Background

In December 2012, two individuals submitted an application requesting a review of amendments made to the *Fish and Wildlife Conservation Act, 1997* (*FWCA*) through the province's 2012 omnibus budget bill, the *Strong Action for Ontario Act (Budget Measures), 2012* (Bill 55). The applicants allege that, because these environmentally significant amendments were included in a budget bill, they were made without use of the public participation provisions under the *Environmental Bill of Rights, 1993* (*EBR*). The applicants also allege that the Ministry of Natural Resources (MNR) did not consider its Statement of Environmental Values (SEV) in making the decision. The ECO forwarded the application to MNR.

The applicants also filed separate applications requesting the review of amendments made by Bill 55 to the *Public Lands Act* (R2012010), *Provincial Parks and Conservation Reserves Act, 2006* (R2012008), and the *Lakes and Rivers Improvement Act* (R2012012) *(*for more information, refer to Sections 2.4.3, 2.4.2 and 2.4.5 of this Supplement, respectively.

Bill 55

In June 2012, the Provincial Government passed Bill 55 to implement measures contained in the 2012 Ontario Budget. It amended 58 acts, including seven that are environmentally significant and prescribed under the *EBR*. Amendments to environmental legislation included within a budget bill, such as Bill 55, are exempt from Environmental Registry posting and public consultation requirements under the *EBR*. As a result, MNR did not post the amendments made by Bill 55 on the Environmental Registry for public consultation.

In our 2011/2012 Annual Report, Part 1, the ECO stated that this exemption was surely not intended to allow the provincial government to make significant, primarily non-fiscal changes to

environmental legislation without proper public participation. The ECO concluded that Bill 55 undermined public confidence in government decision making relating to the environment.

Fish and Wildlife Conservation Act, 1997

The *FWCA* is the main law for managing fishing, hunting and trapping in Ontario. Under the Act, MNR regulates activities and has the authority to issue licences or authorizations related to fish and wildlife management, such as recreational and commercial fishing licences, bait fishing licences, cage aquaculture licences, fish stocking licences, and hunting licences.

Summary of Issues

The applicants requested a review of multiple sections and subsections of the *FWCA*. They argued that the changes to the *FWCA*, as outlined below, will have environmentally significant impacts and were not given the degree of public participation provided by the *EBR*. The applicants stated that they could not assess whether the large number of amendments – which create new authority to delegate powers to third-parties to issue licences, as well as created new exemptions for various licences and authorizations in circumstances to be prescribed through regulations – will actually achieve any financial savings. Moreover, the applicants stated that they could not assess whether or not these changes will be at the expense of the protection of fish and wildlife. However, they stated that increased regulatory discretion will mean less transparency, certainty, and predictability; the overall impacts of all the changes will potentially risk achieving conservation goals.

Delegation of Powers

Bill 55 added a new section to the Act, section 60.1, that allows the Minister to delegate his or her powers to a third-party to issue licences or authorizations for prohibited activities. Prior to the amendment, MNR was the sole body responsible for issuing authorizations under the Act. The Minister can only delegate powers if a regulation is passed prescribing the circumstances and limitations on the delegation. The delegate can charge and collect fees established by the Minister under the Act on behalf of the Crown. The Act specifies that no action or other proceeding may be brought against the Crown for a delegate's actions. In addition, the Minister and the delegate are required to enter into a performance agreement, the delegate shall prepare annual performance assessments, and the Minister may terminate the agreement and revoke the delegation if the delegate fails to comply with the agreement.

Exceptions Prescribed by Regulation

Bill 55 introduced a number of amendments to the Act that allow new exemptions from various existing provisions under the Act in circumstances prescribed by regulation, as summarized below.

Hunting or Trapping Licences:
Section 6 of the *FWCA* requires a person to obtain a licence to hunt or trap: big game, a game mammal, a game bird, a furbearing mammal, a game reptile, a game amphibian, some birds, and wildlife. The section also includes special provisions or exemptions for trappers and farmers. Bill 55 amended this section of the Act to allow a person to hunt or trap wildlife without a licence in circumstances prescribed by the regulations.

Possession or Destruction of Nests or Eggs of a Wild Bird:
Section 7 prohibits a person from destroying, taking or possessing the nest or eggs of a wild bird. The section includes an exemption for the nests or eggs of an American crow, brown-headed cowbird, common grackle, house sparrow, red-winged blackbird or starling, and for a person who

has the Minister's authorization. Bill 55 amended the Act to extend the exemption to circumstances prescribed by regulation.

Loaded Firearms in Hunting Areas:
Section 17 prohibits a person from having a loaded firearm in a vehicle, boat or aircraft when in or traveling between areas usually inhabited by wildlife. The Act includes an exception for a person whose mobility is impaired in the manner prescribed by the regulations, provided they have the Minister's authorization. Bill 55 extended this exception to also apply in circumstances prescribed by the regulations.

Hunting with Dogs:
Section 25 prohibits hunting big game with dogs, except when permitted by a licence for that dog. Bill 55 amended this section to allow big game hunting with licenced dogs and in accordance with the regulations or hunting with dogs without a licence in circumstances prescribed by the regulation.

Wildlife in Captivity:
Section 40 prohibits a person from keeping live game wildlife or live specially protected wildlife in captivity except with a licence and in accordance with the regulations. Previously, the Act included exceptions for this prohibition, including:

- for game amphibians or game reptiles in captivity for the purpose of personal consumption;
- for a single game reptile, game amphibian, specially protected mammal, specially protected reptile, specially protected amphibian or specially protected invertebrate, unless it is a regulated species at risk, held in captivity for the purpose of personal education;
- for game wildlife or specially protected wildlife held in captivity for educational, scientific, or for any other purpose if authorized by the Minister; or
- in circumstances prescribed by the regulations.

Bill 55 removed the exception for educational, scientific or other purposes. It added an exception for a "wildlife custodian" to keep injured, sick or immature game wildlife or specially protected wildlife in captibity for the purpose of rehabilitating or caring for them (see below for more information about wildlife custodians). In addition, the Act now includes a general exemption for a person to keep live game wildlife or live specially protected wildlife in captivity without a licence if authorized by the Minister.

The Act previously prohibited a person from hunting or trapping game wildlife or specially protected wildlife for the purpose of keeping it in captivity unless the person had the authorization of the Minister. The Bill also amended the exception for hunting wildlife to keep in captivity to extend to circumstances prescribed by the regulations.

Wildlife Custodians:
Previously, section 44 defined a wildlife custodian as a person authorized by the Minister to keep injured, sick or immature game wildlife or specially protected wildlife in captivity for the purposes of rehabilitating or caring for them. It also enabled the Minister to authorize a wildlife custodian to kill injured, sick or immature wildlife or specially protected wildlife that will not be capable of being released into the wild after appropriate care.

Bill 55 amended the definition of wildlife custodian to include a person that may keep injured, sick or immature game wildlife or specially protected wildlife in captivity for the purpose of rehabilitating or caring for them only if the person does so in accordance with the authorization of the Minister or in the circumstances prescribed by the regulations. For wildlife not capable of release, the provision was amended to allow a custodian to kill specific injured, sick or immature

wildlife either in accordance with the authorization of the Minister or in the circumstances prescribed by the regulations.

Propagation of Wildlife:
Section 45 prohibits the propagation or possession for the purposes of propagation of game wildlife or specially protected wildlife except under the authority of a licence and in accordance with the regulations, or without a licence but with the authorization of the Minister. Bill 55 extended this exception to include circumstances prescribed by the regulations.

Release of Wildlife:
Previously, section 46 prohibited the release of farmed animals, game wildlife or specially protected wildlife that are kept in captivity unless authorized by the Minister. Bill 55 extended this exception to include circumstances prescribed by the regulation.

Previously, if the animal escaped or was released without authorization, the person who kept it in captivity was required to notify the Minister and, unless otherwise directed by the Minister, return it to captivity or kill it as soon as possible. Bill 55 amended to Act so that these obligations also apply in circumstances prescribed by the regulations.

Serving Wildlife or Fish:
Section 52 prohibits a person from listing game wildlife, specially protected wildlife or fish on a menu or charging for serving it unless the person has the authorization of the Minister, with some exceptions. Bill 55 amended the Act to extend the exceptions to this prohibition to include any circumstances prescribed by the regulations.

Release and Escape of Imports:
Section 54 prohibits a person from releasing wildlife or an invertebrate that has been transported into Ontario or has been propagated from stock that was transported into Ontario, unless authorized by the Minister. Bill 55 amended the exception to this prohibition to include any circumstances prescribed by the regulations.

Transport out of Ontario:
Section 55 of the Act prohibits a person from transporting game wildlife or specially protected wildlife outside of Ontario for the purposes of sale or propagation unless the person has a licence or permit. Bill 55 amended the Act to include an exception for circumstances prescribed by the regulations.

Ministry Response

In February 2013, MNR determined that pursuant to subsection 68(1) of the *EBR*, a review is not warranted because: the decision to amend the *FWCA* was made during the five years preceding the date of the application for review, as Bill 55 received Royal Assent in June 2012; and the decision was made in a manner consistent with the intent and purpose of Part II of the *EBR*, as the section 33 budget proposal exception for providing notice on the Environmental Registry applied. The ministry also stated that the applicants did not provide any evidence that had not already been considered by MNR in making the decision that failure to review the decision could result in significant harm to the environment.

Further, MNR stated that even if subsection 68(1) did not apply, it would still have determined that a review was not warranted, having considered the matters in subsection 67(2) and (3) of the *EBR* because: the ministry considered its SEV when reviewing the application; and the amendments made to the *FWCA* under Bill 55 were administrative changes and have no direct effect on the

environment. The ministry stated that any changes in licensing requirements would require regulatory changes and associated public consultation. It mentioned that some regulatory proposals to alter wildlife-related activities were posted on the Environmental Registry on December 5, 2012; if finalized, the proposed changes would alter how some wildlife-related activities are authorized.

MNR advised the applicants that aspects of its transformation plan that could have a significant effect on the environment were posted on the Environmental Registry: Modernization of Approvals – A proposed policy framework for modernizing approvals for Ontario's natural resources (#011-6751, posted on September 27, 2012); and Taking a Broader Landscape Approach – A Policy framework for modernizing Ontario's approach to Natural Resource Management (#011-7540, posted on November 14, 2012).

The ministry did not respond to the applicants' concern that it did not consider its SEV when amending the *FWCA*. However, in response a request by the ECO for proof of MNR's SEV consideration for these amendments, MNR stated that "MNR's SEV consideration was not formally documented as these amendments were not determined to be environmentally significant" – a statement that contradicts MNR's reliance on *EBR* section 33 to justify its failure to consult the public, since section 33 would only apply in the case of an environmentally significant proposal.

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

Other Information

As part of MNR's three-year transformation plan, the ministry is undergoing an initiative to modernize its approvals process to address resource management approvals that are "increasingly complex, difficult to navigate and onerous to administer." As part of this initiative, the ministry plans to eliminate the need for certain approvals from MNR altogether, replace some approvals with a requirement to simply follow rules in a regulation, and move some approvals to an automated electronic registry, requiring proponents to register their activities and follow rules in a regulation. For more information about MNR's transformation plan, including its modernization of approvals program, see Part 2.1 of the ECO's 2012/2013 Annual Report.

In December 2012, MNR posted proposed regulation changes under the *FWCA* to modernize 21 wildlife-related licences, permits or authorizations on the Environmental Registry (#011-7663). Some of these regulatory changes will implement the legislative amendments made by Bill 55 by specifying the circumstances under which a person can be exempt from obtaining various *FWCA* licences and authorizations for prohibited activities.

The ministry proposes to eliminate the following approvals: resident and wildlife export permits; licences to send pelts to a tanner; game-hide and cast antlers dealers export permits; and various transition/ temporary approvals for keeping wildlife in captivity.

It proposes to remove the requirement for approval, but set rules within a regulation, for the following:

- Resident licences to hunt raccoon at night;
- Licences to chase raccoon at night or fox, coyote, and wolf during the day;
- Protection of property agent authorizations;
- Authorization to hunt/trap for hire or employ for that purpose;
- Authorization to destroy, take or possess nests or eggs;
- Authorization to hold a fish and game dinner;
- Authorization to buy/sell live furbearing animals;

- Game hide and cast antler dealer's licenses;
- Authorization to release wildlife imported into Ontario or propagated from stock imported into Ontario; and
- Licences to keep and propagate specially protected and game reptiles and amphibians.

In addition, MNR proposes to replace certificates of reporting and licences to possess a pelt with a new automated registry-based approval process.

The ECO may review and report on these regulation amendments in a subsequent Annual Report, after MNR has made a decision.

ECO Comment

The ECO is disappointed that MNR denied the applicants' request to review the 2012 omnibus budget bill amendments to the *FWCA*. While the ministry's reasons for denying the application under section 68(1) of the *EBR* may be technically valid (if you believe, as the ECO wholeheartedly does, that the amendments are environmentally significant), the ECO does not agree with the Minister's conclusion that the amendments to the Act were made in a manner consistent with the purpose and intent of the public participation provisions of the *EBR*. The section 33 exemption from *EBR* public notice and consultation requirements for budget matters is intended to protect the parliamentary convention of budget secrecy; in the ECO's view, it is surely not intended to allow the government to shield substantial, primarily non-fiscal changes to environmental legislation from public participation.

One of the core purposes of the *EBR* is to ensure the public has a right to participate in the making of government decisions that significantly affect the environment. The ECO has long taken the position that using budget bills (and other omnibus legislation) to make significant amendments to environmental laws complicates the *EBR* process and obstructs the public's participation rights (for more information, see Chapter 2.4 of Part 1 of the ECO's 2011/2012 Annual Report and Part 8.2.1 of the ECO's 2010/2011 Annual Report). The ECO believes that prescribed ministries should be extremely judicious in their use of budget bills to make significant changes to environmental legislation.

The ministry should have consulted the public before amending the *FWCA*. While the amendments may have been broadly motivated by MNR's limited resources, these environmentally significant changes are not fiscal in nature and should have been open to public participation. In addition, the ECO strongly disagrees with MNR's characterization of the *FWCA* amendments as "administrative." The ECO is particularly concerned with the amendments that now allow MNR to delegate its powers to issue licences or authorizations for prohibited activities under the Act to a third party. This offloading of MNR's provincial duty to manage fish and wildlife in an effort to reduce administrative costs presents an unacceptable risk as it could come at the expense of many fish and wildlife populations.

It is too soon to assess the outcome of the numerous exemptions made by Bill 55, as the details and circumstances for these exemptions will be set at a later date in regulation. However, creating a broad regulatory power to make exemptions from obtaining various *FWCA* licences and authorizations, which are important in managing wildlife resources, could generate uncertainty. The ECO will monitor and report on MNR's initiative to modernize approvals under the *FWCA*, including any regulatory amendments that specify exemption criteria.

Review of Application R2012012:

2.4.5 Amendments to the *Lakes and Rivers Improvement Act* made by Bill 55 (Review Denied by MNR)

Background

In December 2012, two individuals submitted an application requesting a review of amendments made to the *Lakes and Rivers Improvement Act* (*LRIA*) through the *Strong Action for Ontario Act (Budget Measures), 2012* (Bill 55). The applicants allege that, because these environmentally significant amendments were included in a budget bill, they were made without use of the public participation provisions under the *Environmental Bill of Rights, 1993* (*EBR*). The applicants also allege that the Ministry of Natural Resources (MNR) did not consider its Statement of Environmental Values (SEV) in making the decision. The ECO forwarded the application to MNR.

The applicants also filed separate applications requesting the review of amendments made by Bill 55 to the *Public Lands Act* (R2012010), *Provincial Parks and Conservation Reserves Act, 2006* (R2012008), and the *Fish and Wildlife Conservation Act, 1997* (R2012011) *(*for more information, refer to Sections 2.4.3, 2.4.2 and 2.4.4 of this Supplement, respectively).

Bill 55

In June 2012, the Provincial Government passed Bill 55 to implement measures contained in the 2012 Ontario Budget. It amended 58 acts, including seven that are environmentally significant and prescribed under the *EBR*. Amendments to environmental legislation included within a budget bill, such as Bill 55, are exempt from Environmental Registry posting and public consultation requirements under the *EBR*. As a result, MNR did not post the amendments made by Bill 55 on the Environmental Registry for public consultation.

In Part 1 of our 2011/2012 Annual Report, the ECO expressed disappointment with the use of Bill 55 to make these changes, noting that the *EBR* budget exemption was surely not intended to allow the provincial government to make significant, primarily non-fiscal changes to environmental legislation without proper public participation. The ECO concluded that Bill 55 specifically undermined public confidence in government decision making relating to the environment.

Lakes and Rivers Improvement Act

The *LRIA* gives MNR the authority to govern the design, construction, operation, maintenance and safety of dams and other water control structures. The legislation's stated purposes are to provide for:

a) the management, protection, preservation and use of the waters of the lakes and rivers of Ontario and the land under them;
b) the protection and equitable exercise of public rights in or over the waters of the lakes and rivers of Ontario;
c) the protection of the interests of riparian owners;
d) the management, perpetuation and use of the fish, wildlife, and other natural resources dependent on the lakes and rivers;
e) the protection of the natural amenities of the lakes and rivers and their shores and banks; and
f) the protection of persons and of property by ensuring that dams are suitably located, constructed, operated and maintained and are of an appropriate nature with regard to the purposes of clauses (a) to (e).

Under the Act, approval is required from MNR to construct a new dam in any lake or river. Dams are defined in the *LRIA* as "a structure or work forwarding, holding back or diverting water and includes a dam, tailing dam, dike, diversion, channel alteration, artificial channel, culvert or causeway." Approval is also required from MNR to decommission, alter, improve or repair any part of a dam. However, in 2007, to eliminate duplication and overlap between approvals required under the *LRIA* and the *Conservation Authorities Act*, MNR amended O. Reg. 454/96 under the *LRIA* to remove the requirement for approval for certain activities, such as water crossings, channelizations, and enclosures, in areas regulated by a conservation authority.

Historically, many rivers were dedicated primarily to energy production and the operation of waterpower facilities did not fully consider ecological or social considerations. Occasionally, MNR directed waterpower facilities to regulate water flows to address specific needs, such as providing adequate water levels and flows for spawning fish or recreational boating, but this was done on an ad hoc basis.

In 2000, the government amended the *LRIA* to adopt water management planning as a way to integrate environmental, social, and economic considerations into the operation of existing waterpower dams. Under the authority of the *LRIA*, MNR ordered all owners of existing waterpower facilities and any other dam owners on rivers with waterpower facilities to develop a water management plan. A plan was prepared for each river system with a waterpower facility. The plans include an operation plan for each individual waterpower facility that addresses water levels and flows. Once a water management plan has been approved by MNR, any owner of a dam within the river system is required to operate and maintain their facility in accordance with the applicable plan. In our 2002/2003 Annual Report, the ECO concluded that water management planning for Ontario's waterpower industry represented a positive step forward in water management and should prevent extreme drawdown situations that could threaten the survival of fish.

Water management plans are not prescribed instruments under the *EBR* and, therefore, are not subject to the public consultation requirements of the *EBR*. However, MNR voluntarily posts information notices on the Environmental Registry to notify the public during the various stages of the water management planning process. While this voluntary use of the environmental registry is commendable, significant differences exist between instrument proposal notices and information notices. Unlike information notices, for instrument proposals ministries must invite and consider public comments and post a subsequent decision notice explaining the effect of any public comments on the ministry's decision. In our 2002/2003 Annual Report, the ECO urged MNR to classify water management plans as instruments under the *EBR*.

Summary of Issues

The applicants requested a review of multiple sections and subsections of the *LRIA*. They argued that the changes to the *LRIA*, as outlined below, will have environmentally significant impacts and were not given the degree of public participation provided by the *EBR*.

Ministerial Delegation:
The *LRIA* provides the Minister with the authority to issue a number of enforcement orders, such as to remove or alter a dam. Bill 55 expanded the delegation powers of the Minister in section 15 of the *LRIA* to include delegating the Minister's powers to issue orders; it previously only included approvals. Order and approval powers may be delegated to any person or body outside the ministry. The act was also amended to include requirements for a performance agreement between the Minister and a delegate, and for the delegate to prepare annual performance assessments. If the Minister believes that a delegate has failed to meet the performance goals and objectives

within the performance agreement, the Minister has the power to give the delegate written notice and require the delegate to fulfil the requirements of the performance agreement within a time period specified in the notice. If a delegate fails to comply with a notice, the Minister now has the powers to terminate the performance agreement and revoke the delegation.

Water Management Plans:
Previously, section 23.1 of the Act enabled the Minister to order owners of existing dams, other structures or works constructed on a lake or river to prepare or amend a management plan for the operation and maintenance of the facility in accordance with regulations and with guidelines approved by the minister. Bill 55 amended the *LRIA* by changing all references to "management plans" to "plan for operation and maintenance" or "plan." MNR stated that this amendment broadens the scope of what may be required to be included in a plan, for example to include operation and maintenance. However, this amendment could also narrow the scope to only include plans for operation and maintenance, signifying a move away from more holistic water management plans. The ECO notes that MNR's *LRIA* Administrative Guide (2011) does not include a single reference to water management planning or how it fits within the current *LRIA* approval process.

An amendment was made to allow the Minister to make an order against a person who applies for approval under section 14 or 16 of the *LRIA* (i.e., to construct, alter, improve or repair dams or other structures on a lake or river) to prepare or amend, or participate in the preparation or amendment of a plan. This amendment expands the timeframe within which a Minister can order the preparation, amendment or participation in a plan. Before the amendments, the Minister's powers only applied once a dam was built. Now the Minister can also make an order during the *LRIA* approval process, for example during the approval of a new hydropower facility before it is built.

The budget bill also amended section 23.1 of the *LRIA* by enabling the ministry to compel persons other than owners to prepare or amend, or participate in the preparation or amendment of plans. In the past, section 23.1 only applied to the owner of a dam or structure.

The applicants expressed concern with the removal of the requirement that a management plan be prepared in accordance with the regulations and Ministerial approved guidelines, which would broaden the discretion of the Minister in terms of what may be required in a management plan. The ECO notes, however, that the applicants' description of this amendment to the *LRIA* is based on the original version of Bill 55, not on the final version that received Royal Assent. In the amended *LRIA*, plans must still be prepared or amended in accordance with the regulations and with guidelines approved by the Minister.

Ministry Response

In February 2013, MNR determined that pursuant to subsection 68(1) of the *EBR*, a review is not warranted: the decision to amend the *LRIA* was made during the five years preceding the date of the application for review; and the decision was made in a manner consistent with the intent and purpose of Part II of the *EBR*, as the section 33 budget proposal exception for providing notice on the Environmental Registry applied. The ministry also stated that the applicants did not provide any evidence that failure to review the decision could result in significant harm to the environment that had not already been considered by MNR in making the decision.

Further, MNR stated that even if subsection 68(1) did not apply, it would still have determined that a review was not warranted because: the ministry considered its SEV when reviewing the application; and the amendments made to the *LRIA* under Bill 55 were enabling changes and have no direct effect on the environment. The ministry stated that the amendments made to section 15:

extend the list of powers or duties respecting approvals that the Minister can delegate to third parties; establish performance goals and objectives for any delegate to meet; and establish mechanisms for evaluating the delegate's performance. MNR also stated that the amendment made to section 23.1 allows it to issue an order to prepare a plan for the operation and maintenance of a dam prior to the dam's construction and does not change the scope of considerations taken into account by the ministry when reviewing and approving these plans. Further, MNR indicated that any changes to the conditions under which these orders will be issued or the scope of the considerations to be taken into account when issuing an approval decision will be outlined within separate policy proposals.

MNR advised the applicants that aspects of its transformation plan that could have a significant effect on the environment were posted on the Environmental Registry: Modernization of Approvals – A proposed policy framework for modernizing approvals for Ontario's natural resources (#011-6751, posted on September 27, 2012); and Taking a Broader Landscape Approach – A Policy framework for modernizing Ontario's approach to Natural Resource Management (#011-7540, posted on November 14, 2012).

The ministry did not respond to the applicants' concern that it did not consider its SEV when amending the *LRIA*. However, in response a request by the ECO for proof of MNR's SEV consideration for these amendments, MNR stated that "MNR's SEV consideration was not formally documented as these amendments were not determined to be environmentally significant" – a statement that contradicts MNR's reliance on *EBR* section 33 to justify its failure to consult the public, since section 33 would only apply in the case of an environmentally significant proposal.

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

ECO Comment

The ECO is disappointed that MNR denied the applicants' request to review the 2012 omnibus budget bill amendments to the *LRIA*. While the ministry's reasons for denying the application under section 68(1) of the *EBR* may be technically valid (if you believe, as the ECO wholeheartedly does, that the amendments are environmentally significant), the ECO does not agree with the Minister's conclusion that the amendments to the Act were made in a manner consistent with the purpose and intent of the public participation provisions of the *EBR*. The section 33 exemption from *EBR* public notice and consultation requirements for budget matters is intended to protect the parliamentary convention of budget secrecy; in the ECO's view, it is surely not intended to allow the government to shield substantial, primarily non-fiscal changes to environmental legislation from public participation.

One of the core purposes of the *EBR* is to ensure the public has a right to participate in the making of government decisions that significantly affect the environment. The ECO has long taken the position that using budget bills (and other omnibus legislation) to make significant amendments to environmental laws complicates the *EBR* process and obstructs the public's participation rights (for more information, see Chapter 2.4 of Part 1 of the ECO's 2011/2012 Annual Report and Part 8.2.1 of the ECO's 2010/2011 Annual Report). The ECO believes that prescribed ministries should be extremely judicious in their use of budget bills to make significant changes to environmental legislation.

The ministry should have consulted the public before amending the *LRIA*. While the amendments may have been broadly motivated by MNR's limited resources, these environmentally significant changes are not primarily fiscal in nature and should have been open to public participation. This could have increased transparency in MNR's water management planning process, which already

lacks transparency because water management plans themselves are not prescribed as instruments under the *EBR* and MNR is not required to post them on the Environmental Registry for public review.

It is difficult to ascertain the future of water management planning for waterpower dams in Ontario, as details will be set at a later date in policy. Changing all references to "management plan" with "plan for operation and maintenance" could broaden the scope of what MNR can request. This amendment could also signify the end of water management planning by shifting the focus strictly to operation and maintenance. Water management plans are important because they ensure that ecological and social needs of a river system are considered during the operation of waterpower facilities, for example by requiring an operator to maintain adequate river levels and flows during fish spawning. In fact, recently produce *LRIA* guidance on the does not reference water management planning or mention how it fits within the approval process. Going forward, MNR should ensure that water management plans are clearly integrated into the *LRIA* approval process for all new waterpower facilities, either through the amendment to an existing plan or creation of a new plan.

Review of Application R2012015:

2.4.6 Dufferin Aggregates Class 'A' Pit Licence in Brant County (Review Denied by MNR)

Keywords: aggregates; groundwater; source protection areas; County of Brant

Background

On December 21, 2012 the ECO received an application from two individuals requesting that the Ministry of Natural Resources (MNR) review a Class 'A' licence (the licence) issued to Dufferin Aggregates, a Division of Holcim (Canada) Inc. (Dufferin) to operate a gravel pit in the County of Brant. The applicants expressed concern about the potential adverse effects of the pit operation on surface and groundwater, and requested that MNR either amend or revoke the licence because it is outdated and inadequate to protect the environment.

History of the Licence

Dufferin initially obtained the licence in 1974 following a hearing before the Ontario Municipal Board (OMB). The licence was issued with ten conditions, largely based on the recommendations of the OMB. The licence allows for an excavation rate of 997,700 tonnes per year, and permits extraction below the water table in three separate areas – two where extraction will occur, and one where a source water pond will be established for washing operations.

Although the licence was initially issued under the *Pits and Quarries Control Act, 1971* (*PQCA*), it was re-issued in 1990 to reflect a change in the governing legislation to the *Aggregate Resources Act* (*ARA*). MNR states that new site plans were prepared and submitted in 1991 following the re-issuance of the licence under the new legislation. Several minor administrative amendments were also made to the licence in 2006 and 2009; however, the licence conditions have remained unchanged since its original issuance.

Despite obtaining the licence in 1974, Dufferin has not established gravel pit operations at the site to date. In 2011, Dufferin announced by letter to Paris area residents that it intended to commence aggregate extraction activities at the site in spring 2012, noting that their business plan "now requires utilization of these reserves"; however, recent statements from Dufferin indicate that the pit will likely open by the end of 2013.

The Licensed Area

The licensed area is approximately 248 hectares at the northern edge of the former Town of Paris. The site is located between two sets of municipal wells (the Gilbert and Telfer wellfields) that constitute the primary water supply for Paris, and is within the wellhead protection area (WHPA; the area around a wellhead, where land use has the potential to affect water quality). According to the applicants, local farms, businesses and residents are dependent on groundwater.

Several natural heritage and hydrologic features are located near the pit, including: a pond/wetland at the south end of the site (which is excluded from the extraction limit); the Grand River (approximately 250 metres from the site); the Gilbert Creek (approximately 300 metres from the site); and the provincially significant Gilbert Creek Wetland (approximately 200 metres from the site).

Municipal and Public Concerns

Brant County and members of the public have expressed concerns about the possible impact of operations at the pit. For example, the Mayor of Brant County wrote to the Premier of Ontario and the Minister of Natural Resources expressing concern about the effects of the pit and requested that the provincial government take action, including: requiring further studies, re-opening and reviewing the licence, and revoking the licence and requiring Dufferin to file a new application. The Concerned Citizens of Brant (CCOB) also gathered a substantial number of signatures on a petition to the Legislative Assembly of Ontario which sought to have the licence reopened.

Concerns include: the fact that current regulations and policies for the protection of drinking water and the natural environment are more stringent than when the licence was first issued; that the site conditions under which the licence was granted have changed; and the potential for the introduction of pesticides into the groundwater system from the washing of extracted aggregates.

Summary of Issues

Non-Compliance with ARA and Regulations

The applicants argued that the licence does not comply with the *ARA* and its regulations, and that therefore it is open to the Minister of Natural Resources to revoke or amend the licence. The applicants argued that Dufferin is not currently operating under the 1974 licence as they are only seeking to start operations for the first time in 2012 or 2013. They also asserted that it is unlikely that all of the applicable requirements in The Aggregate Resources of Ontario: Provincial Standards Version 1.0 (Provincial Standards) existed at the time the licence was granted, and that therefore the conditions on the licence do not comply with the *ARA* or its regulations.

For example, the applicants noted that:

- section 8 of the *ARA* requires every application to include a site plan in accordance with the regulations;

- section 9 of the *ARA* requires that every application for a licence include a report in accordance with the regulations;
- section 7 of O. Reg. 244/97 under the *ARA* states that applications for a licence shall be in accordance with the Provincial Standards; and
- requirements for 'Category 1' licences (i.e., a Class 'A' Pit to extract below the established water table) in the Provincial Standards apply to the licence, which include site plan and report requirements for applications.

As such, the applicants concluded that there are sufficient grounds under the *ARA* to revoke the licence or amend its conditions.

Surface and Groundwater Environment

The applicants asserted that several of the principles enumerated in a 2010 Grand River Conservation Authority best practices paper – Cumulative Effects Assessment (Water Quality and Quantity) Best Practices Paper for Below-Water Sand and Gravel Extraction Operations in Priority Subwatersheds in the Grand River Watershed – should be considered with respect to the licence. These principles include:

i. determining the impacts of aggregate extraction below the water table on water quality and quantity and ecosystem health in order to identify and implement avoidance/mitigation measures
ii. demonstrating that water resources will be protected and that potential impacts will be avoided or mitigated; and
iii. reviewing of potential impacts based on sound scientific principles and research.

In addition to these general principles, the applicants highlighted several concerns raised by a groundwater expert who was retained by the applicants to comment on the pit. The issues raised by the groundwater expert included:

- a general lack of detail in the site plans respecting protection of water resources;
- questions about the groundwater monitoring conducted by Dufferin;
- potential effects of the pit on Gilbert Creek or the south wetland area (near the wash/settling ponds);
- potential effects of wash/settling ponds on the groundwater flow system; and
- potential for wash/settling ponds to have a thermal effect on Gilbert Creek or the south pond/wetland.

The applicants asserted that the site plan is not adequate and, as a result, the licence is not adequate either. In addition, the applicants noted that correspondence from MNR indicates that no hydrogeological studies have been conducted by Dufferin since 1974. They concluded that "there is a risk to Gilbert Creek, the groundwater flow system, and the south pond/wetland that warrants more detailed, scientific evaluation than has been produced by Dufferin to date."

The Clean Water Act, 2006

The applicants also expressed concerns related to the *Clean Water Act, 2006*, the purpose of which is "to protect existing and future sources of drinking water." The Act authorizes the establishment of source protection areas and source protection committees to develop watershed-based source protection plans for drinking water supplies.

Although aggregate extraction itself generally does not necessarily pose a direct threat of contamination to drinking water (nor is it prescribed as a drinking water threat under the *Clean*

Water Act, 2006), it may make drinking water sources more vulnerable to contamination. Therefore, the applicants argued that "it would be inappropriate to burden, or further burden, local source protection planners by failing to undertake the [r]eview and either amend or revoke the [l]icence given the already significant existing drinking water threats to the WHPAs in conjunction with the close proximity, if not overlap, or the licensed-area to the Gilbert and Telfer WHPAs."

Other Considerations

In addition to the factors outlined above, the applicants argued that:

- undertaking the requested review would be consistent with, if not expressly mandated by, the Ministry's SEV;
- there is no other formal, open, or consultative process in place that can periodically review the licence;
- apart from the minor amendments, the conditions on the licence have remained unchanged since 1974, and as such, would not be barred as a review of a recent decision; and
- the review could be carried out by current MNR staff without the allocation of any new resources or staff requirements.

Ministry Response

Under the *Environmental Bill of Rights, 1993* (*EBR*), the ministry was required to notify the applicants of its decision on whether to conduct the review by March 4, 2013. However, it was not until March 12, 2013 that the ministry informed the applicants that it had determined that the public interest did not warrant a review of the licence. MNR stated that in making this determination, it considered the potential for harm to the environment if the review is not undertaken, the ministry's Statement of Environmental Values (SEV) and other relevant evidence.

Potential for Harm to the Environment

MNR stated that it was "satisfied that the existing licence conditions are appropriate and that there are sufficient measures in place to regulate the operation and to protect the environment, including drinking water sources."

The ministry noted that the licence conditions require Dufferin to establish a groundwater monitoring program prior to conducting operations. In addition, the site plans require a review of hydrogeological monitoring data prior to any below water table extraction in the last phase of operation (Phase 8). MNR stated that the proponent is prepared to "enhance" both of these requirements (but did not provide any further detail), which will require approval by MOE. The ministry indicated that it will work with MOE to ensure that the conditions of the site plan are strictly enforced and that any amendments are reviewed and approved before commencing operations.

MNR noted that the licence conditions also require Dufferin to submit to MOE proposed techniques for controlling contaminants, prior to commencing operations. The ministry also stated that the operation of the pit would not involve the use of substances identified as a prescribed threat under the *Clean Water Act, 2006*, other than fuel, which will be managed in accordance with the *Technical Standards and Safety Act, 2000* (*TSSA*) and the Liquid Fuels Handling Code. Fuel will be stored in above ground tanks in an impervious structure located outside of the WHPA. The ministry also noted that there will be no storage of salt or sand/salt mixing on the property, and that there will be no storage of chemicals, or storage or application of nutrients.

The ministry stated that the site is required to comply with other applicable statutes, regulations and standards. For example, Dufferin will require a Permit to Take Water (PTTW) from MOE for its washing operations (see Environmental Registry #011-8609), and will have to meet all current requirements under the *Ontario Water Resources Act*. MNR stated that this will help to ensure protection of the environment by "further clarifying and establishing the water resources monitoring program for the site and how water is to be managed on site more generally."

MNR stated that the majority of extraction on the site will be above the water table and will avoid natural heritage features. Water consumption will be limited, and further, the ministry stated that the site and surrounding area are within a low stress area for water quantity. The ministry also asserted that adequate setbacks exist between the site and natural heritage and hydrological features, and that the water monitoring program will allow for the detection of any irregular changes.

Finally, MNR noted that Dufferin will be required to co-operate with the municipality and facilitate investigations regarding any proposed expansion of the municipal water supply in the immediate vicinity of the property.

The Ministry Statement of Environmental Values

The ministry also stated that it gave consideration to its SEV and had determined that the licence is consistent with the principles of the SEV.

In particular, MNR noted that:

- The environmental context of the site and surrounding area was adequately identified and considered in the development of the licence. Extraction is not proposed within any natural features and appropriate measures are in place to protect adjacent natural features.
- The site is part of a mineral aggregate deposit of primary significance and was identified under the Brant County Official Plan as a resource extraction area. The licence provides for making these resources available in a sustainable manner, which will support local and regional markets and economies, in accordance with MNR's mandate.
- The licence was issued after a public hearing at the OMB, at which the County of Brant, the (former) Town of Paris, and numerous members of the public participated. Further, Dufferin has made efforts to engage with the County and the public, and a proposal to relocate the site entrance/exit road was posted on the Environmental Registry for public consultation (#011-6541).
- A balanced consideration of environmental and socio-economic matters is relevant to the administration of the *ARA*. The ministry is satisfied that the existing licence conditions are appropriate, and will be adequately protective of the environment, while allowing resource extraction to proceed.

Other Matters the Minister Considers Relevant

MNR also stated that it considered the draft Grand River Source Protection Plan policies, and noted that the draft polices, if approved without revisions, would not require any changes to the operation of the pit, or amendments to the licence or site plans. However, the ministry also noted that when the source protection plan is approved, MNR will be required to review the licence to ensure that it is in conformity with the plan's policies. The ministry's response did not directly address the applicants' concern that aggregate extraction below the water table may contribute to a greater vulnerability to groundwater contamination.

Finally, the ministry stated that based on a review of the licence file and site plans, and a site visit, Dufferin appears to be in compliance with the licence and site plan conditions, as well as with the *ARA* and associated regulations.

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

ECO Comment

The regulatory standards governing aggregate operations in Ontario have advanced considerably over the past forty years, most significantly in the transition from the *PQCA* to the *ARA* in 1990. Even so, the ECO has repeatedly raised concerns about whether the Ontario government's regulation of aggregate activities is adequately protective of the environment. In addition, concern around drinking water has grown since the Walkerton tragedy occurred in 2000, and Ontario has enacted new legislation and regulations to protect drinking water. As a result, the ECO believes that the applicants expressed well-founded concerns about whether a licence granted in 1974 would be adequately protective of the Paris water supply, and the environment more generally. The protection of drinking water is critical, and the ECO agrees that MNR should ensure that aggregate extraction activities do not create any serious risks in this respect.

Although the concerns of the applicants are legitimate, the ECO believes that the decision to deny the review was reasonable. Dufferin prepared and submitted site plans in 1991 after the licence was re-issued under the *ARA*, which supports the ministry's conclusion that the licence complies with the applicable requirements under the *ARA* and its regulations. In addition, the ministry's preliminary consideration of the application included a thorough examination of the licence conditions and site plan requirements. Despite the fact that the licence is in essence almost 40 years old, MNR reasonably concluded that the existing conditions of the licence and site plan are sufficient to regulate the operation and to protect the environment, including drinking water sources.

Regardless, it is somewhat concerning that MNR has attempted to counter the applicants' substantive concerns by citing what appear to be voluntary measures (i.e., Dufferin's commitments to enhancing the requirements for groundwater monitoring and reviewing hydrogeological monitoring data prior to Phase 8). Without any legal requirement to undertake these actions or any detail about what these "enhancements" will consist of, there is little certainty for the applicants, and other concerned citizens, that these measures will actually be taken or will be sufficient. MNR should ensure that it has the most current and accurate hydrogeological information possible before it allows any below water table extraction to occur.

The ECO is disappointed that MNR did not comply with the legislated timelines for notifying the applicants of its decision on whether to undertake the review. The ministry had no discretion under the *EBR* to extend the deadline to provide notice of its decision.

SECTION 3

ECO REVIEWS OF APPLICATIONS FOR INVESTIGATION

SECTION 3: ECO REVIEWS OF APPLICATIONS FOR INVESTIGATION

3.1 Ministry of the Environment

Review of Application I2011004:

3.1.1 Investigation of an Auto Body Shop (Investigation Undertaken by MOE)

Keywords: Contaminants; automotive repair; discharge of toxic materials; iron metabolizing bacteria (*Gallionella*); waste disposal; damaged vehicles; water quality

Geographic Location: St. Catherines

Background

On February 27, 2012, two Ontario residents submitted an application for investigation to the Ministry of the Environment (MOE) regarding their concern that a St. Catherines, Ontario, automotive repair and refinishing company might be illegally discharging toxic materials into a drainage ditch behind the facility, in contravention of subsection 14(1) of the *Environmental Protection Act* (*EPA*) and subsection 30(1) of the *Ontario Water Resources Act* (*OWRA*).

The applicants had submitted two previous applications for investigation related to this company, in 2009 and 2010 respectively. In the 2009 application, the applicants alleged that the owner had illegally dumped fill material, including asphalt and concrete, into an open ravine behind the company's property, causing an adverse environmental effect. MOE conducted an investigation in response to this application. Although, at that time, the ministry did find some buried materials (e.g., tires, asphalt and concrete with rebar) that are defined as "wastes" under Regulation 347, it concluded that there were no adverse effects. The company was advised by MOE to remove this material, which it subsequently did.

In the 2010 application, the applicants alleged that the owner had parked damaged vehicles close to the property line and that fluids from these vehicles were potentially causing an adverse environmental effect; additionally, they alleged that the owner was illegally disposing of concrete and asphalt wastes on his property. This application was denied by MOE. In its decision letter to the applicants, the ministry stated that it had visited the site and seen no evidence of fluids leaking from the damaged vehicles, but had advised the owner to move the vehicles away from the property line as a precaution.

Summary of Issues

Issues Raised in the Application

In this latest application, the applicants asserted that they had noticed an orange-coloured substance that appeared to be contaminating the water in a drainage ditch behind the company's facility. The applicants noted that the drainage ditch is on the edge of the company's property, separating the site from a park and a residential area. They stated that the discolouring was only

noticeable in the part of the ditch that drains away from the facility and not on the upstream segment, suggesting that its origin was the facility itself. The applicants pointed out that the company's paint refinishing shop is located adjacent to the area where the colour is most visible. Moreover, the applicants reported that in 2010 there had been an up-swelling of orange water from a private drain in a townhouse complex a few hundred metres from the company's location. The applicants reported that MOE had sent someone to investigate at that time, but that this person had only taken pictures and not samples. The applicants insisted that the proximity of the past event and the current observations of water colouration in the ditch must be more than a coincidence. They expressed their concern that the company was illegally disposing of chemicals from its paint shop, resulting in potential harm to the environment and to local residents.

The applicants also expressed their concern that the company had not moved a group of damaged vehicles away from the property line, where they might leak fluids into the drainage ditch. As reported above, MOE had indicated to the applicants in its report on the 2010 investigation that it had asked the company to do so, as a precaution. The company had not complied with this request, the applicants stated. The applicants also noted that the water in the ditch had a blue and sometimes multi-coloured sheen, suggesting that it was contaminated by petroleum-based substances.

In support of the above allegations, the applicants submitted a series of photographs. These photographs showed: the orange-coloured water; the sheen on the surface of the water; and the cars parked at the edge of the property line that abuts the drainage ditch.

In terms of potential adverse effects, the applicants asserted that dumping the presumably toxic substances responsible for the orange coloured water and the multi-coloured sheen into storm water run-off ditches ensures that these contaminants will reach Lake Ontario and ultimately the water supply. The applicants expressed further concern that the orange colouring could be due to the presence of mercury, a toxic substance. They provided copies of newspaper articles from two U.S. jurisdictions in which orange-coloured discharges had eventually been determined to have been the result of mercury contamination.

Other Issues Raised by the Applicants

Just prior to and following the submission of the application, the applicants sent several letters to MOE and the ECO raising additional concerns.

First, the applicants expressed frustration that the company had ignored – and was continuing to ignore – an order from the Minister to move the damaged vehicles away from the property line. The applicants were apparently under the mistaken assumption that MOE had ordered – rather than simply advised – the company to move the damaged vehicles. They expressed bewilderment that a company was able to disregard what they believed to be a ministry Order. The applicants asserted that one of two things must have occurred: either they had been lied to by MOE and that no such Order had been issued; or that MOE was deliberately ignoring the lack of compliance by the company.

In June and July 2012 (prior to issuing the formal ministry response to the application for investigation), MOE responded to the applicants in an attempt to address this particular issue. On June 13, the Director of MOE's Investigations and Enforcement Branch wrote to the applicants stating that a ministry staff person had visited the site and that there was "…no evidence of an offence in regards to this matter, and as a result no action will be taken by the ministry…" A month later, on July 16, a staff member from MOE's Operation Division sent an e-mail to the applicants explaining that ministry staff had spoken to the owner of the company in January 2011, and had at that time requested that "damaged vehicles be parked away from the fence line as a preventative measure." Moreover, the e-mail stated that this request had been outlined in MOE's decision

summary for the 2010 application for investigation. Regrettably, however, MOE did not clearly state in either message that, in fact, no Order had been issued.

The second concern raised by the applicants in their subsequent letters to MOE and the ECO related to information provided by MOE to the Medical Officer of Health for Niagara Region. The applicants alleged that MOE had provided false and misleading information and sampling data to the Medical Officer, which had led the latter to wrongly conclude that the orange-coloured water was not a cause for concern. In particular, MOE had provided the Medical Officer with water samples that were allegedly taken from the drainage ditch in August 2009. However, the applicants asserted that the ditch had not yet been dug in August 2009 (they stated that the ditch was in fact dug in 2010). In addition, a separate MOE report had stated that the samples were taken in September 2009. The applicants asserted that these inconsistencies cast doubt on the veracity of the information provided to the Medical Officer by the ministry.

On June 21, 2012, the Director for MOE's West Central Region wrote to the applicants in response to this issue, stating that the samples taken at the site for the first investigation had in fact been taken in August 2009, and that the September date in the subsequent report had been an unfortunate error, resulting from the fact that the results from the testing had been received by MOE in September. Therefore, the Director stated, the information provided to the Medical Officer had been accurate. Unfortunately, the letter did not address the applicants' allegation that the drainage ditch had not existed in 2009.

Ministry Response

On May 9, 2012, the ministry informed the applicants that an investigation would be conducted, with the results to be provided to them by August 3, 2012. On July 9, 2012, the ministry wrote the applicants to say that more time was required to complete the investigation and that they would receive a report with the results by August 14, 2012. The final report was sent to the applicants on that date.

Outcome of the Investigation

The ministry reported on its activities in conducting the investigation. First, MOE carried out a file review of the site. This was followed by a preliminary site assessment on April 4, 2012, which included the adjacent park and the unused rail line that separates the site from the park. During the preliminary site assessment, MOE staff confirmed the existence of standing water with a surface sheen containing orange-coloured material in the following locations: a ditch on the railway property; drainage pathways adjacent to the property; and drainage pathways in the park. MOE noted that the sheen did not rejoin when broken apart, suggesting that it was of plant or animal origin. MOE then conducted a full site assessment, including collection of soil samples, on April 16, 2012. Soil and precipitate samples were taken from the ditch, storm catch basin, storm grate and the other nearby areas where the orange colour and surface sheen had been observed.

MOE also carried out a review of the municipality's local drainage maps and building designs, in order to determine the drainage flow from the catch basin to the storm sewer system. Subsequent analysis of the samples collected indicated that the company was not a source of contaminants to the local drainage and that the orange precipitate was iron oxide – produced by naturally occurring bacteria – and of no harm to humans.

The investigation also included: a meeting with the owner of the rail line, who indicated that it had observed the orange staining in the ditch, but was unaware of any discharges by the company; an on-site inspection and assessment of the company's paint facility on August 2, 2012, which found it

to be clean and well run, with all waste management being handled by a ministry-approved waste disposal company and in accordance with all ministry approvals and regulations; and lastly, contact with the company's waste disposal contractor and a review of the ministry's waste-management records (also on August 2), both of which confirmed the company's full compliance in waste-disposal matters.

The ministry concluded that the orange-coloured material was iron oxide produced by non-pathogenic iron-metabolizing bacteria (*Gallionella*), and the surface sheen was caused by naturally occurring fats and oils of plant and/or animal origin. MOE also stated that there was no evidence that the company was discharging materials into the natural environment in contravention of either the *EPA* or the *OWRA*.

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

ECO Comment

The conclusions of the ministry's investigation were reasonable. The ECO is pleased that MOE agreed to do the investigation and that it appears to have been completed in a fair, timely, and thorough manner. The applicants raised genuine concerns and the ministry's handling of this investigation is to be commended.

However, with regard to the applicants' other concerns (those outside of but related to the current application), the ECO feels that the ministry could have done a better job with its responses. The applicants apparently misunderstood the nature of the ministry's earlier request to the company to move the damaged vehicles away from the property line, believing it to be a ministry order and, therefore, subject to penalties for non-compliance. A very simple communication back to the applicants after the first correspondence, explaining that the ministry had only *requested* such an action, would have addressed this issue quickly and effectively. Similarly, a more complete and consistent set of answers to the applicants' questions regarding inaccuracies in the communication from the Niagara Region's Medical Officer of Health would have gone a long way to allaying their misgivings about the integrity of the process. The ECO suggests that such matters be dealt with more expeditiously and with a greater degree of transparency in the future.

Review of Application I2011005:

3.1.2 Investigation of an Abandoned Metals Refinery (Investigation Denied by MOE)

Keywords: cobalt; metals refinery; improper chemical storage; septic sludge; contaminants

Geographic Location: Coleman Township, District of Temiskaming

Background

On March 21, 2012, two Ontario residents submitted an application for investigation to the Ministry of the Environment (MOE) regarding an abandoned metals refinery located in Coleman Township, District of Temiskaming. The applicants alleged that various hazardous materials stored on the site create risks to the community and are in contravention of: sections 12 and 41 of the *Environmental*

Protection Act (*EPA*), O. Reg. 224/07 – Spill Prevention and Contingency Plans, made under the *EPA*; section 30(1) of the *Ontario Water Resources Act* (*OWRA*); and O. Reg. 455/09, made under the *Toxics Reduction Act, 2009*.

Summary of Issues

History of the Site

The facility was built in 1949 to refine cobalt and silver. Over the next five decades it was sold several times. With each new ownership the basic operation changed, from refining, to recovering various metals, and most recently to producing ferric chloride for waste water treatment and recovering elemental copper. The current owner (the Company) purchased the site in 2001. By 2002, all operations had ceased, with only caretaker staff remaining on site.

The president of the Company is also the president of three other companies, each of which holds one or more Environmental Compliance Approvals for the site with respect to air or waste management. One of these three companies was the previous owner of the site, and the other two were tenants operating on the site at the time the facility was purchased by the Company.

In addition, a tailings impoundment area is located within the facility's boundaries. The impoundment area predates the establishment of the ministry but has been inspected by staff from the Ministry of Northern Development and Mines and found to be "fully rehabilitated."

The site has a significant history of compliance issues with respect to waste storage. In 1999 and 2000, the company that owned the site at the time and the two tenant companies were all charged and found guilty of waste-related offences. In 2005, four years after the purchase of the site by the Company, the ministry inspected the site, and although some of the wastes related to the previous charges had been removed, MOE again found waste-storage concerns, and requested an action plan from the Company. A subsequent 2006 inspection determined that the concerns had not been addressed; accordingly, the ministry gave the Company a deadline – September 2007 – to either process the material or remove it from the site. A follow-up visit in June 2007 revealed that little progress had been made, and furthermore, that the Company was planning to eliminate its on-site security services at the end of that month. This resulted in MOE issuing a Provincial Officer's Order to the Company and its president requiring that all liquid and waste materials stored on the site be removed and disposed of in a legal manner. This Order was ignored and the matter was referred to MOE's Investigations and Enforcement Branch (IEB) in October 2007. Following an investigation by the IEB, the president of the Company and the Company itself were charged with five offences under the *EPA*. At the time of this application, the ministry stated that this matter was still before the courts.

The Applicants' Concerns

The applicants alleged that major environmental problems still exist at the site. The first problem is the improper storage of various toxic chemicals, including: powdered metals, such as arsenic, lead, and nickel; caustic soda; and liquid hazardous wastes, such as ferrous chloride and hydrochloric acid. They claimed that approximately 250,000 litres of ferrous chloride and 2,700 litres of hydrochloric acid are stored on the site without adequate containment. The applicants provided photos of loose asbestos on the site and of some of what they estimate to be approximately 600 drums of chemicals stored on the property. They also provided professional chemical analyses of the content of some of the drums stored on site. The applicants pointed out that the possible risks associated with these abandoned wastes include: a fire, which might force the evacuation of the area and the closure of nearby transportation corridors; and a spill, which could result in leakage into the adjacent

Montreal River and damage the environment and risk the health of local residents. The applicants also asserted that their concerns about improper storage are exacerbated by the fact that the site is not secured, and access is open to anyone.

The applicants stated that the second significant environmental problem is potential contamination of local surface and groundwater by the site's septic system. The applicants alleged that the company had used the septic system to dispose of toxic wastes, leading to on-going uncontrolled discharges into the environment from the contaminated residual sludge. As evidence, the applicants provided professional chemical analyses of the sludges in the septic system. In addition, they claimed that the soils on the site are contaminated with metals like arsenic and lead, adding to the threat of environmental damage through toxic run-off.

The applicants alleged that the Company is in contravention of several legislative and regulatory requirements: first, they stated that the site's improper storage of toxic chemicals and hazardous wastes contravenes section 41 of the *EPA*, which prohibits the storage and disposal of waste without MOE approval; second, they pointed out that O. Reg. 224/07 requires companies engaged in prescribed activities, which includes those that process or recover metals, to have spill prevention and contingency plans in place; third, they cited section 30(1) of the *OWRA*, which prohibits any discharges that would impair water quality; and fourth, they referred to O. Reg. 455/09, which requires prescribed companies to prepare toxic substance reduction plans.

The applicants also pointed out that section 12 of the *EPA* gives MOE the ability to issue a stop or control order to protect the environment or prevent danger to human life, health or property.

Ministry Response

On June 26, 2012, 21 days after the 60-day limit prescribed by the *EBR*, the ministry informed the applicants that the request for an investigation had been denied. This decision was based on section 77 of the *Environmental Bill of Rights, 1993* (*EBR*), which excuses a ministry from conducting an investigation if it duplicates an on-going or previous investigation, or if the alleged contravention is not likely to cause environmental harm. MOE stated that it has been aware of compliance issues at this site since 1999, when the company that owned the site at that time, as well as the tenant companies, were charged and found guilty of waste-related offences. Specifically, the ministry addressed each of the potential legislative and regulatory contraventions identified by the applicants, and stated in each case that the allegation: duplicated a previous investigation; was not likely to cause environmental harm; or did not constitute a potential contravention.

With respect to the alleged contravention of section 41 of the *EPA*, the ministry pointed out that the Company has already been investigated on these matters and that orders had been issued. The Company has not to date complied with these orders and MOE stated that the matter is still before the courts. MOE asserted that any further investigation of the waste management concerns, therefore, would be a duplication of work already completed by the ministry.

With respect to O. Reg. 224/07, which deals with spill prevention and contingency plans, MOE explained that because the Company does not meet the definition of a "Regulated Person" as described in O. Reg. 222/07 – Environmental Penalties, made under the *EPA*, the Company is not subject to these requirements. Accordingly, no contravention of O. Reg. 224/07 could have occurred and an investigation is therefore not applicable.

With respect to the alleged contravention of section 30(1) of the *OWRA*, the ministry stated that the levels of contamination in both the septic sludge and the soil on the site were comparable with other local mines, mills, and refinery sites and that there is no evidence that local water quality has

been affected by the site in any way. According to MOE, the quality of the septic sludge is consistent with the quality of sludges from other refinery sites, which suggests that the elevated levels of contaminants were probably due to the fact that the workers showered at the site at the end of their work day. According to the ministry, there is no evidence that the septic system was used for illegal disposal of chemicals. In addition, analytical testing of fish collected by the Ministry of Natural Resources (MNR) from local waters in the compilation of the ministry's Guide to Eating Ontario Sport Fish revealed no need to restrict consumption levels due to arsenic or lead. MOE reasoned that since the evidence does not suggest that there has been or will be a water-quality impact, under clause 77(2)(c) of the *EBR,* no investigation is required because no harm to the environment is likely to occur.

With respect to the alleged contravention of O. Reg. 455/09, the ministry pointed out that the requirement to produce a toxic substance reduction plan is contingent upon a company's use or production of toxic substances as reported in the previous year's National Pollution Release Inventory (NPRI). (The NPRI is Environment Canada's legislated, publicly accessible inventory of pollutant releases, disposals and transfers for recycling.) Since the facility has not operated since 2002, this requirement does not apply, thus no contravention could have occurred, and no investigation is required.

Finally, with respect to the alleged contravention of section 12 of the *EPA*, the ministry pointed out that because this section simply authorizes an MOE Director to issue orders under certain circumstances, it cannot be contravened and therefore cannot be the basis of an investigation.

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

ECO Comment

The ministry's reasons for denying this application for investigation were reasonable. MOE has already investigated, issued a Provincial Officer's Order, and laid several charges under the *EPA* for non-compliance. The matter is currently before the courts.

The ECO sympathizes with the applicants' frustration, however. They have legitimate concerns and they have waited for the site to be remediated for a decade or more, with no effective recourse available. It has been almost six years since the ministry laid charges for failure to comply with an Order. Even within the framework of the slow-moving provincial court system, six years is a long time for this case – a seemingly straight-forward and easily provable prosecution of failure to comply with an Order – to drag on. Unfortunately, the ministry failed to include an explanation for this protracted delay in resolving the court proceedings in its decision summary.

The ECO believes that in cases such as this where an ongoing environmental risk remains unaddressed – whether it is because a court case is dragging on, or because a polluter has become insolvent or otherwise abandoned its facility – the ministry has an onus to ensure that local communities and the environment are not at risk from unsecured hazards. MOE has the clear legislative authority under the *EPA* and the *OWRA* to "cause to be done anything required by it" where a person required by an Order to do something is not complying with that Order. The ECO urges the ministry to proceed to either clean up or to secure the site, and to seek reimbursement from the polluter later.

Review of Applications I2012001:

3.1.3 Investigation into Air Emissions from an Asphalt Blending Facility (Investigation Undertaken by MOE)

Background

In August 2012, two individuals submitted an application under the *Environmental Bill of Rights, 1993* (*EBR*) to investigate an alleged violation of section 9(1) of the *Environmental Protection Act* (*EPA*) by McAsphalt Industries (company) for operating its newly constructed asphalt blending and storage facility in Hamilton, Ontario without the required Environmental Compliance Approval (ECA) for air emissions. The ECO forwarded the application to the Ministry of the Environment (MOE).

Section 9(1) of the *EPA* prohibits anyone from using, operating, constructing, altering, extending or replacing any plant, structure, equipment, apparatus, mechanism or thing that may discharge a contaminant into the natural environment except under, and in accordance, with an ECA. The ECAs, which are issued by MOE, include legally enforceable rules of operation that aim to protect the natural environment from a facility's emissions.

In May 2011, the company applied to MOE for an ECA for all emissions from the Hamilton facility resulting from asphalt blending, storage and shipping. Emission sources at the facility include nine storage tanks, one natural gas-fired steam boiler, combustion equipment for comfort heating and one natural gas-fired hot oil heater. Emissions to the atmosphere include carbon monoxide and nitrogen oxides. A proposal notice for the ECA (#011-3662) was posted on the Environmental Registry on May 25, 2011.

In May 2012, the applicants observed that the company had begun operating, despite the fact that MOE had not yet issued the ECA. In July 2012, the applicants contacted MOE to express concerns about the company's operations and to enquire about the status of its ECA application. The ministry told the applicants that it was still awaiting additional information from the company in order to complete the review of the ECA application. The applicants stated that MOE expressed surprise that the company had not followed up on the delay in processing its application, but acknowledged that the company was indeed carrying out 'partial operations' including the bulking and transport of materials. However, according to the applicants, the ministry assured them that because the facility was a 'state of the art' operation, it was not generating any environmental impacts. In August 2012, the applicants contacted the facility and were informed that five blends of liquid asphalt were available for purchase from the Hamilton site.

Summary of Issues

In August 2012, the applicants submitted the application for investigation. The applicants included photographic evidence with their application showing that the company had been operating as early as May 2012. The applicants also noted foul odours emanating from the site on the days when trucks were photographed at the facility.

The applicants were concerned that, because the facility began operating without the required ECA, its environmental controls may not have been adequate and its air emissions could have caused negative environmental impacts. The applicants expressed concern about unacceptable emission levels of benzene in an airshed that already has multiple industrial sources of this carcinogen. The applicants further alleged that the facility is already causing adverse environmental

impacts as evidenced by the foul odours detected on the adjacent Windermere Basin property. Windermere Basin is a restored estuarine ecosystem that acts as a passive recreation area and a wildlife sanctuary.

The applicants alleged that the company's decision to initiate operations prior to securing an approval sets a bad example for the compliance approvals process. The applicants stated that a delay by MOE to review and issue approvals is not an acceptable reason for a facility to move ahead with operations that require approval under the *EPA*.

Finally, the applicants alleged that this situation represents a circumvention of public rights, as the *EBR* process was not completed before the company became operational. According to the *EBR*, the public should be given the opportunity to review and appeal MOE's final decision on the ECA once it is posted on the Environmental Registry. The applicants argued that by moving forward without ministry approval, the company effectively prevented the public from exercising their *EBR* rights to participate in this decision.

Ministry Response

In November 2012, MOE notified the applicants that it had decided to conduct the investigation. On January 25, 2013, the ministry provided the applicants with a decision summary that outlined the results of the investigation.

MOE stated that staff reviewed relevant ministry files as well as the supporting information provided by the applicants, and staff also attended the site. MOE noted that it had conducted an air inspection at the plant prior to the application in June 2012, as well as odour monitoring between September and November 2012. While the ministry was unable to verify any odours originating from the site, it noted that the plant was under construction and was partially operating.

MOE's investigation concluded that construction and operation of the McAsphalt Industries facility without a valid ECA was in contravention of section 9(1) of the *EPA*. On November 30, 2012, the ministry issued a Provincial Officer's Order requiring the company to cease operations by December 15, 2012 until a valid approval was issued.

On December 14, 2012, MOE issued the company's ECA and, accordingly, the site was brought into compliance with the *EPA*. The ministry posted its decision on the Environmental Registry on January 11, 2013. The ministry added terms and conditions to the ECA that addressed concerns raised during the public comment period, including the installation of equipment to control emissions of asphalt fumes. MOE stated it will monitor and inspect the facility in 2013/2014.

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

ECO Comment

The ECO is pleased that MOE decided to undertake this investigation, and that the ministry ultimately brought McAsphalt Industries into compliance using a Provincial Officer's Order. However, the ECO is disturbed by the ministry's delay in taking action. MOE clearly knew as early as June 2012, if not earlier, that the company had begun constructing the facility and was partially operating without an ECA – clear violations of the *EPA*. Yet, the ministry waited a full five months to bring the company into compliance, and only after an application for investigation was initiated.

The ECO acknowledges that there is a spectrum of compliance tools that can, and should, be used in different circumstances; however, the ECO believes there are no circumstances under which it is ever acceptable for the ministry to take no action at all in the case of a clear contravention.

MOE's 2007 Compliance Policy: Applying Abatement and Enforcement Tools outlines the appropriate abatement and enforcement tool(s) that should be used to address violations of environmental laws, based on factors such as compliance history and the environmental and health consequences of the violation. Given MOE's assessment that there was a very low risk of harm to the environment and health in this case, a soft compliance approach seems appropriate and consistent with the policy. However, MOE should have initiated its compliance efforts as soon as it became aware of the violation.

While the contravention in this case might be considered minor, the ECO cautions the ministry that it risks undermining its approval program by willingly turning a blind-eye to facilities that begin operating before receiving the required ECA. Furthermore, this approach could erode public confidence in MOE's approvals process and the rights established by the *EBR*. By essentially allowing the company to operate before the ECA was issued, and further delaying by a month to post the decision notice on the Environmental Registry once decided, MOE seriously undermined the value of the public's important right to seek leave to appeal this decision. The ECO is disappointed that MOE was party to this circumvention of *EBR* rights.

Nevertheless, this case illustrates the effectiveness of the *EBR*'s application for investigation process. When MOE failed to address a violation of one of its laws, concerned citizens took action to protect human and environmental health using the tools provided by the *EBR.*

Review of Application I2012002:

3.1.4 Investigation into Residential Basketball Noise (Investigation Denied by MOE)

Keywords: basketball; adverse effect; noise; blockage of light

Geographic Location: Peterborough, Ontario

Background

On October 24, 2012, two Ontario residents submitted an application to the ECO, requesting an investigation of the alleged negative environmental impacts of a child playing basketball in a Peterborough driveway. The driveway is directly adjacent to a rental unit occupied by one of the applicants (the affected applicant). The applicants stated that a neighbour's activities were causing the loss of enjoyment of the normal use of the property, constituting a contravention of subsection 14(1) of the *Environmental Protection Act* (*EPA*), which prohibits the discharge of a contaminant into the environment if it causes an adverse effect. The ECO forwarded this application to the Ministry of the Environment (MOE).

Summary of Issues

The applicants took issue with two activities: first, frequent basketball practice in the driveway, which the applicants stated generated excessive noise; and second, the use of a movable wooden barrier, intended to protect the affected applicant's window, but which also blocked the entry of daylight into the rental unit.

The applicants argued that both the noise and the blockage of light were contraventions of subsection 14(1) of the *EPA.* They stated that the neighbours' activities constituted discharges causing the following adverse effects, as defined under the *EPA*: "impairment of the quality of the natural environment for any use that can be made of it," "harm or material discomfort to any person," "impairment of the safety of any person," and "loss of enjoyment of normal use of property." One of the applicants had previously contacted the City of Peterborough regarding the noise and the wooden screen and had been advised that the noise did not constitute a violation of its noise by-law, and that no by-law or fire regulation exists that applies to the blockage of light. The affected applicant claims that she has suffered psychological harm as a result of the noise and light blockage.

Ministry Response

On November 21, 2012, MOE notified the applicants that it had denied the application, as "the alleged contraventions are not serious enough to warrant an investigation."

With respect to the alleged noise contravention, the ministry stated that the *EPA* and its definitions must always be considered in a situational context, taking into account factors such as the nature of the activity, the character of the neighbourhood, the nature and amount of the contaminant discharged, and the magnitude and extent of the potential impacts. The ministry stated that it is important to strike a balance between conflicting property uses; legal intervention should only be considered when a property is used in such an excessive manner that it is unreasonable to expect others in the neighbourhood to be able to bear the impacts. In this case, the ministry observed that there is no evidence that others in the neighbourhood are being inconvenienced, that the affected applicant is vulnerable only because she works at home during the day, and that playing basketball would be considered a normal use of a property during the daytime hours in a residential neighbourhood.

On the issue of the blockage of light, the ministry stated it did not constitute the discharge of a contaminant and, therefore, section 14 of the *EPA* is not applicable.

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 denial of this application and that the rationale is valid. The definitions in the province's environmental legislation must be broad enough to cover a wide range of possibilities, both expected and unexpected. As a consequence of this latitude, applications such as this one, which in essence constitutes a disagreement between neighbours, may occasionally arise. The ministry's brief, but fair, denial of this application, based on the sound logic that it is not serious enough to warrant ministry resources, was appropriate.

Review of Application I2012003:

3.1.5 Investigation of Soil and Groundwater Contaminantion (Investigation Pending by MOE)

Background

Overview

In March 2013, two individuals submitted an application under the *Environmental Bill of Rights, 1993* (*EBR*) requesting that the Ministry of the Environment (MOE) investigate possible contraventions of the *Environmental Protection Act* and the *Ontario Water Resources Act* (*OWRA*) by Chromeshield. The applicants alleged that the company's operations have resulted in soil and groundwater contamination, which was never reported to MOE. In addition, they stated that the company inappropriately abandoned deep aquifer wells.

History of Facility

The site in Windsor, Ontario, was initially run by Rustshield, who began operations in 1971 as an electroplating facility, which applied nickel plates to automotive parts. In 1998, the operations were purchased by Flex-N-Gate which renamed the business as Chromeshield; however, the land remained under the ownership of Rustshield until 2002 when it was purchased by Strathan Corp. In July 2008, Chromeshield renewed the property lease for an additional ten years. However, operations were idled in October 2008, and the property was abandoned in November 2010.

Summary of Issues

The applicants cited four reports as evidence of the need for an investigation: two of the reports were prepared by Agra Earth and Environmental in 1998 and the other two reports were prepared by Golder Associates in 2002 and 2011. According to the applicants, these reports provide proof of heavy metal contamination in the soils and groundwater at this site. Furthermore, the reports raised concerns regarding the potential for contaminated groundwater to flow off-site to other locations.

In addition, the applicants included an MOE Occurrence Report, dated November 2000, which alleged that nickel sludge was entering catch basins and storm sewers. 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.

The applicants requested that MOE conduct an inspection to determine the extent of contamination at the site and to assess the potential for off-site migration of contaminants through groundwater flows. They urged MOE to "take any necessary steps to protect the health of the public and the environment." In addition, the applicants requested that MOE inspect the wells on the site to ensure that they were properly abandoned, as required by Regulation 903 of the *OWRA*.

Ministry Response

In May 2013, the ministry agreed to conduct an investigation and stated that it would notify the applicants of the outcome of the investigation by August 10, 2013.

ECO Comment

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

Review of Application I2012004:

3.1.6 Unimin Mine Investigation (Investigation Pending by MOE)

Background/Summary of Issues

On March 19, 2013, an application was submitted requesting an investigation of Unimin Canada Ltd's operations near Nephton, northeast of Peterborough. Unimin mines nepheline syenite, a non-metallic mineral used in glass and ceramics production.

The applicants alleged that Unimin is responsible for the discharge of several contaminants to the air in the area of Lake Kasshabog, including: particulate matter that is less than 10 or 2.5 microns in size (known as PM_{10} and $PM_{2.5}$); nepheline syenite; and noise. The primary concern, the applicants stated, is the PM_{10} and $PM_{2.5}$, both of which have been identified by Environment Canada, Health Canada, and the Ministry of the Environment (MOE) as being serious threats to human health and welfare. The applicants alleged that the level of these contaminants is such that they result in adverse effects and, therefore, the company is in contravention of section 14 of the *Environmental Protection Act* (*EPA*), as well as O. Reg. 419/05, made under the Act.

The ECO forwarded this application to MOE.

Ministry Response

As of April 1, 2013, the ministry had not responded with a decision as to whether or not an investigation would be conducted.

ECO Comment

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

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