DRINKING WATER SOURCE PROTECTION
Our Actions Matter

LAKE ERIE SOURCE PROTECTION REGION

Catfish Creek Source Protection Area

SOURCE PROTECTION PLAN

EXPLANATORY DOCUMENT

Prepared on behalf of:
Lake Erie Region Source Protection Committee

Under the Clean Water Act, 2006
(Ontario Regulation 287/07)

Version 2.1
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This project has received funding support from the Government of Ontario.

Note: Please refer to Volume I of the Catfish Creek Source Protection Plan for a complete list of version numbering and a high-level description of amendments that have been made since original approval.

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1.0 INTRODUCTION

The Explanatory Document provides stakeholders, the general public, other interested parties, as well as the Source Protection Committee, Source Protection Authority and the Ministry of the Environment, Conservation and Parks, with the intent and rationale behind the policy decisions made in the Source Protection Plan Policies (Volume II). Information on the context of the Source Protection Plan and the planning process is presented in Volume I of this Source Protection Plan.

Volume I of the Catfish Creek Source Protection Plan provides the context for the overall Plan, including a brief history of source protection planning and the Clean Water Act, 2006, Source Protection Plan objectives, and a description of the watershed/source protection area. This volume also includes a description of Source Protection Plan components, key steps in the planning process, public consultation, interaction with other Source Protection Regions, source water threats, guidance on how to read the Source Protection Plan, and details on Source Protection Plan implementation and enforcement.

The **Assessment Report** is a key component of the Source Protection Plan. Since 2005, numerous technical studies were completed and are summarized in the Catfish Creek Source Protection Area Assessment Report. The Assessment Report is available on the Lake Erie Source Protection Region website.

Volume II of the Catfish Creek Source Protection Plan contains the Source Protection Plan policies. These policies address both existing (where applicable) and future drinking water threats. Volume II only includes policies for significant drinking water threats, local threats, and optional content. Future updates to the Source Protection Plan may include policies for moderate and low threats. The appendices associated with this volume include information as required by section 34 of O. Reg. 287/07:

The **Explanatory Document**, as stated in section 40 of Ontario Regulation 287/07 of the Clean Water Act, 2006, contains the following information:

- An explanation of the reasons for each policy set out in the Source Protection Plan.
- An explanation of the reasons for designating an activity under paragraph 1 of subsection 22 (3) of the Clean Water Act, 2006, including the reasons relied on by the Committee to form the opinion that the activity must be prohibited in order to ensure that it ceases to be a significant drinking water threat.
- A summary of the comments received under sections 35 to 39 and an explanation of how the comments affected the development of the policies set out in the Source Protection Plan.
- An explanation of how the summary referred to in paragraph 7 of subsection 13 (1) affected the development of the policies set out in the Source Protection Plan.

A summary of how the consideration of the potential financial implications for persons and bodies that would be implementing or affected by the Source Protection Plan influenced the development of the policies set out in the Plan.

- If a policy described in subsection 22 (7) of the Clean Water Act, 2006 or paragraph 1 of section 26 of this Regulation is the only policy set out in a Source Protection Plan to deal with an activity that has been identified as a significant drinking water threat, a statement that the Source Protection Committee is of the opinion that,
    - the policy, if implemented, will promote the achievement of the objectives of the plan in accordance with paragraph 2 of subsection 22 (2) of the Act, and
    - a policy to regulate or prohibit the activity is not necessary to achieve those objectives.

This document was submitted to the Ministry of the Environment, Conservation and Parks with the Source Protection Plan under section 22(16) of the Clean Water Act, 2006 and under section 43(1) of O. Reg. 287/07.

In preparation for submission, this document has been updated to reflect changes made to the draft updated Catfish Creek Source Protection Plan and to include a brief explanation of the effect, if any, of comments received during public consultation under section 41 of O. Reg. 287/07 on the update of the Source Protection Plan.

2.0 OVERVIEW OF POLICY DEVELOPMENT WITHIN THE LAKE ERIE SOURCE PROTECTION REGION

The following sections present an overview of policy development within the Lake Erie Source Protection Region, specifically for the Catfish Creek Source Protection Area, and the necessary information that guided the policy development process. The policies were developed to meet the objectives of the Clean Water Act, 2006*, as* described in the Clean Water Act, 2006*,* and Volume I of this Source Protection Plan. All documents referenced are available on the Lake Erie Source Protection Region website.

2.1 Policy Development within the Lake Erie Source Protection Region

2.1.1 Municipal Process

As outlined in Volume I of the Source Protection Plan, the municipal role as defined by the approved Terms of Reference for the Source Protection Plan development is critical to the success of the program. Municipalities within the Catfish Creek Source Protection Area together with the Grand River, Kettle Creek, Catfish Creek and Long Point Region Conservation Authorities have been actively involved in the development of the Source Protection Plan policies.

In addition, municipal councils have been actively informed about the Source Protection Plan policies throughout the development process. This collaborative process ensured that local conditions and needs were considered and accounted for. Further information on the process completed is presented within Section 5 - County of Oxford Policy Rationale.

2.1.2 Financial Considerations

The Province of Ontario continue to support source protection planning at each conservation authority, completion of technical documents, and the process to update assessment reports and source protection plans. The Grand River Conservation Authority has responsibility for fiscal management with parties undertaking tasks in the Lake Erie Source Protection Region. Where a municipality has taken the lead for specific tasks, a Memorandum of Agreement between the Grand River Conservation Authority and the municipality was required, setting out the legal and financial obligations, technical deliverables and schedules.

Financial assistance has been made available between 2008 and 2013 to those whose activities and properties may be affected by the implementation of the Source Protection Plan through section 97 of the Clean Water Act, 2006 which established the Ontario Drinking Water Stewardship Program. The program also provided for outreach and education programs to raise awareness of the importance and opportunities for individuals to take actions to protect sources of drinking water. O.Reg.287/07 further clarifies the details of the Ontario Drinking Water Stewardship Program.

The Ontario Drinking Water Stewardship Program, funded by the Ministry of the Environment, Conservation and Parks, has directed grants to landowners within close proximity to municipal wells or surface water intakes. Such funding allowed them to undertake projects that reduce existing potential contamination sources, and supported communications and outreach efforts to persons and businesses within these areas. For the first three years (2008-2010), the program's grant funding was concentrated on undertaking early actions close to municipal drinking water systems, in advance of approved Source Protection Plans. In 2010-2013, the program prioritized funding of voluntary projects that address significant threats identified in Assessment Reports prepared under the Clean Water Act, 2006. The Lake Erie Region Source Protection Committee and the Joint Advisory Committee (JAC) have requested that the Province fund the program beyond 2014. JAC continues to encourage the Province to re-establish and rejuvenate the stewardship program to support local source protection plan implementation efforts.

Source water protection is a responsibility that crosses watershed and municipal boundaries; therefore, arriving at a fair and equitable manner to share the financial responsibilities of implementation of the Source Protection Plan is complicated.

Within the Clean Water Act, 2006 some provisions are set out for financing various aspects of source protection implementation, including stewardship programs and the collection of fees for Part IV policies. As stated in the Clean Water Act, 2006 fees can be collected for applications received under section 58, 59 or 60, for agreeing to or establishing a Part IV Risk Management Plan under section 56 or 58, for issuing a notice under section 59, for accepting a risk assessment under section 60, or for entering property or exercising any other powers under section 62.

The Lake Erie Region Source Protection Committee has, from the onset of the planning process, empowered the municipalities to direct the Source Protection Plans to meet their needs. The Lake Erie Region has been unique in this approach allowing municipalities to take the lead on policy development. This has resulted in Source Protection Plans that have been designed with the financial means of the municipality in mind.

The financial implications, and the question about what agency would ultimately be responsible for funding source water protection implementation in the Catfish Creek Source Protection Area was strongly considered in the development of the source protection policies. The goal of the source protection policies was to, whenever possible; protect the municipal drinking water supply with the least possible expense to the implementing body.

The Clean Water Act, 2006 and the source protection planning process were introduced by the Province of Ontario in response to a province-wide concern about the safety of municipal drinking water. The Lake Erie Region Source Protection Committee strongly believes that the Province should continue to fund the implementation of the Catfish Creek Source Protection Plan and is committed to requesting that this be done.

2.1.3 Industry Stakeholder Meetings and Discussion Papers

Industry specific experts were invited to attend a series of workshops between February and April 2011 to aid in the development, of the policy tool analysis presented in the appendices of the Discussion Papers. These workshops provided an opportunity for Source Protection Committee Members, staff, municipalities, and industry experts to discuss each of the drinking water threats and determine policy tool options that would be best suited to meet the objectives of the Clean Water Act, 2006. The Discussion Papers did not make specific recommendations on the tools to be used but identified the most promising policy options to address the specific drinking water threats.

2.1.4 Post Discussion Papers

After publishing the Discussion Papers in 2011, additional information on the drinking water threats was provided by a variety of stakeholders and implementing bodies that allowed for the further refinement of the policy approaches for each of the drinking water threats. This was reflected in the policies presented in Volume II of the first Source Protection Plan. Discussion on the specific details of further refinement of the Source Protection Plan policies is presented, where applicable, for each of the drinking water threats.

2.1.5 Early Engagement Process

An “early engagement” process was initiated prior to this updated source protection plan being released to implementing bodies as part of pre-consultation. This process provided the Ministry of the Environment, Conservation and Parks the opportunity to provide feedback on draft amendments to the assessment report and source protection plan.

2.2 Additional Source Protection Plan Information

The following section provides clarification on issues and concerns raised throughout the source protection planning process by the Lake Erie Region Source Protection Committee, other interested bodies and the general public. The Source Protection Committee felt that it was important to provide clarification as to why certain activities, that the public or other agencies may expect to be included in the Source Protection Plan, were not included.

Climate Change

Predictions on climate change have implications for both water quality and quantity. With respect to water quality, the increase in air temperature and greater occurrence of extreme precipitation events is predicted to degrade water quality, including lower dissolved oxygen rates and higher stream temperatures. In terms of water quantity, climate change is expected to shift the timing of seasonal events, including an earlier and lower spring freshet, and change levels in Lake Erie due to increased lake surface temperatures. Further information on the potential effects of climate change is presented in the Catfish Creek Assessment Report available on the Lake Erie Source Protection Region website.

On January 13, 2011 the Source Protection Committee passed a resolution not to include policies for data collection for climate change in this initial Source Protection Plan.

Revised 2021 Director's Technical Rules, under the Clean Water Act, 2006, include the consideration of climate change in source water quality risk assessments. A climate change vulnerability assessment tool, developed by Conservation Ontario in 2018, is being considered in the Lake Erie Source Protection Region and can provide municipalities, source protection authorities, and the Lake Erie Region Source Protection Committee with a practical and consistent approach to assess drinking water sources/systems for considerations of local climate change impacts.

Lake Erie Region staff have engaged with Oxford County in the Catfish Creek Source Protection Area to assess its interest in completing a climate change vulnerability assessment on the Brownsville drinking water system using the tool developed by Conservation Ontario. At this time, Oxford County will not be completing a climate change vulnerability assessment on the Brownsville drinking water system because it is a deep groundwater system. The County is planning to use the tool on other systems outside of the Catfish Creek Source Protection Area that are more susceptible to the impacts of climate change. The use of the climate change vulnerability tool may be considered in the future.

Emerging Contaminants: Pharmaceuticals in Drinking Water Supplies
Certain pharmaceuticals are potentially a new class of water pollutants. Drugs such as antibiotics, anti-depressants, birth control pills, seizure medication, cancer treatments, pain killers, tranquilizers and cholesterol-lowering compounds have been detected in varied water sources.

Pharmaceutical industries, hospitals, and other medical facilities are obvious sources of these compounds, but households also contribute a significant share. People often dispose of unused medicines by flushing them down toilets, and human excreta can contain varied incompletely metabolized medicines. These drugs can pass intact through conventional sewage treatment facilities, into waterways, lakes and aquifers. Further, discarded pharmaceuticals often end up at dumps and landfills, posing a threat to underlying groundwater.

Farm animals also are a source of pharmaceuticals entering the environment, through their ingestion of hormones, antibiotics and veterinary medicines. Manure containing traces of such pharmaceuticals is spread on land and can then wash off into surface water and percolate into groundwater.

Future source protection planning initiatives should consider the impacts of these sources of contaminants as potential threats to drinking water sources.

Policies for Incentive Programs or Education and Outreach Programs for Drinking Water Systems outside of the Terms of Reference

Policies in the Source Protection Plans can generally only address threats related to drinking water systems included in the Terms of Reference. Although there is a process for municipalities to add drinking water systems to the Terms of Reference if they meet certain criteria, no municipality in the Lake Erie Source Protection Region has chosen to do this to date. The Clean Water Act, 2006 allows for policies for incentive programs or education and outreach programs to be developed for drinking water systems outside the Terms of Reference. There is, however, no data available on the number or location of non-municipal residential systems in the Lake Erie Region.

On January 13, 2011 the Source Protection Committee passed a resolution not to include incentive program or education and outreach program policies for drinking water systems not included in the Terms of Reference in this initial Source Protection Plan

Dead Stock

As of the date of this Source Protection Plan, the disposal of dead stock is not included as a drinking water threat. This activity was included as a drinking water threat in the 2008 version of the Ministry of the Environment and Climate Change Tables of Drinking Water Threats, but has since been removed due to changes in legislation. The Dead Animal Disposal Act (1968) was replaced by the Disposal of Dead Farm Animals regulation under the Nutrient Management Act, 2002 (NMA) and the Disposal of Dead stock regulation under the Food Safety and Quality Act.

This regulation provides more disposal options for livestock producers and meat plant operators, with measures that will protect the environment. To be included as a drinking water threat in a future Source Protection Plan, an application for inclusion as a local threat must be made by the Source Protection Committee to the Director of the Ministry of the Environment, Conservation and Parks. As of the date of this Source Protection Plan, this request has not been made by the Lake Erie Region Source Protection Committee.

3.0 WATERSHED WIDE POLICY DEVELOPMENT CONSIDERATION FOR PRESCRIBED DRINKING WATER THREATS

The following sections describe the decision making process behind the drafting of the first Source Protection Plan policies by the policy developers for the management or prohibition of the prescribed drinking water threats as outlined in the Clean Water Act, 2006. Prescribed Drinking Water Threat categories and sub-categories have been revised since the first Source Protection Plan was approved in 2014. Discussion paper summaries in the sub-sections that follow are based on the 2009 Tables of Drinking Water Threats and Circumstances. Further information on policy development, including the intent and rationale for the selection of specific policy tools is presented in Section 5.

A detailed description of the prescribed and non-prescribed drinking water quality threats can be found in Appendix B of Volume I of this Source Protection Plan. Drinking water threat circumstance details are available on the Lake Erie Source Protection Region website.

As required by the Clean Water Act, 2006, policies must be written to address existing drinking water threats that meet the objectives of the Clean Water Act, 2006. Where the policy developers and Source Protection Committee were confident that no existing drinking water threats were in existence, outreach and education policies and incentive policies were developed. The Clean Water Act, 2006 also requires policies for addressing future drinking water threats that meet the objectives of the Clean Water Act, 2006. Some of the policies presented in Volume II of the Source Protection Plan were included because of this requirement even though, in the opinion of the municipality and the Source Protection Committee, these drinking water threats are very unlikely to occur in the future.

3.1 The Establishment, Operation or Maintenance of a Waste Disposal Site within the Meaning of Part V of the Environmental Protection Act

Discussion Paper Summary

The main consideration for policy development is to reduce or eliminate the risks from existing and future waste sites and, more specifically, to ensure that any discharge from the sites does not result in a significant risk to drinking water through appropriate measures to mitigate the threat. The following is a summary of early discussions that were held regarding the potential policy options for each of the Waste Disposal Site sub-threats for the first Source Protection Plan.

Application of Untreated Septage (Hauled sewage) to Land

The land application of hauled sewage is governed by an Environmental Compliance Approval, a prescribed instrument, which contains terms and conditions designed to protect both the local groundwater and surface water supplies from adverse impacts associated with land application of this material. This may include, for example, stipulated separation distances from wells and surface water bodies, and restrictions on

winter spreading to reduce the risk of run-off. Therefore, the Discussion Papers identified the use of Prescribed Instruments as an option to address this threat.

Policies could be written to require that Environmental Compliance Approvals for activities located within significant drinking water threat areas that receive hauled sewage be reviewed and, if necessary, amended to ensure they contain terms and conditions that adequately protect drinking water and meet the objectives of the Clean Water Act, 2006.

The Discussion Papers also identified education and outreach as possible tools to promote implementation of best management and alternative practices by farmers and operators of sites that receive septage.

Storage, Treatment and Discharge of Tailings from Mines;

Waste Disposal Site- Landfarming (disposal) of Petroleum Refining Waste; and

Waste Disposal Site- Liquid Industrial Waste Injection into a well
As of the date of the completion of the Assessment Report enumeration, there were no known existing activities identified in the Lake Erie Source Protection Region for the prescribed drinking water sub- categories listed above. Therefore, only policies to prevent future significant threats were identified as necessary. With the exception of mine tailing ponds, all of the above sub threats are required to have an Environmental Compliance Approval under Part V of the Environmental Protection Act, therefore, the Prescribed Instrument tool was identified as the most promising.

Mine tailing ponds are required to have an Environmental Compliance Approval under the Ontario Water Resources Act, thus; the Prescribed Instrument was also identified as the most promising policy tool.

Waste Disposal Sites- Landfilling of Hazardous Waste, Municipal Waste, and solid Non-Hazardous Industrial or Commercial Waste
The Prescribed Instrument tool was identified by the Discussion Papers as a policy tool option because it is available for most threats associated with landfilling activities. Policies could be written to require that Environmental Compliance Approvals are reviewed and, if necessary, amended by the Ministry of the Environment and Climate Change to ensure the protection of drinking water in vulnerable areas where these threats are significant. Terms and conditions for the Environmental Compliance Approval could be based on advanced best management practices and could include requirements for training of staff, and ongoing monitoring.

Other approaches for managing landfilling and hazardous waste activities are associated with encouraging and supporting proper waste disposal by business and home owners. For example, the Discussion Papers identified education and outreach programs as a policy option to educate the public about the disposal of household hazardous waste, electronics, compost and recyclables.

Waste Disposal Sites- PCB Waste Storage, Storage of Hazardous Waste at disposal sites

Storage of Wastes as described in clause (p), (q), (r), (s), (t) or (u) of the definition of hazardous waste

Similar policy approaches to Waste Disposal Sites- Landfilling of Hazardous Waste, Municipal Waste, and solid Non-Hazardous Industrial or Commercial Waste have been identified in the Discussion Papers to address regulated waste disposal sites. However, there are a number of activities and types of waste disposal activities that are exempt from the Environmental Compliance Approval process under the Environmental Protection Act. For example, hardware stores that collect and store hazardous waste are not required to have an Environmental Compliance Approval, even if the activity meets the criteria for a significant drinking water threat. Therefore, Risk Management Plans have been identified as an effective way to manage this activity, as Part IV provides policy tools for where no Prescribed Instruments are available.

Post Discussion Paper

Since the finalization of the Waste Disposal Sites Discussion Paper in September 2011, additional guidance was provided by the Ministry of the Environment on the ability of certain activities to be managed through the Environmental Compliance Approval process. This guidance aided policy developers in their specific decision making progress.

In most cases, policies were developed using the Prescribed Instrument tool because it was determined to be the most efficient way to manage this activity. Using existing regulatory requirements, the Ministry of the Environment and Climate Change must review and, if necessary, amend Environmental Compliance Approvals for these activities. Further, policies were drafted to require the Ministry of the Environment and Climate Change to include terms and conditions when issuing new Environmental Compliance Approvals that, when implemented, will ensure these waste sites do not become significant drinking water threats. For those activities not regulated within the Environmental Compliance Approval process, the use of Part IV Risk Management Plans was selected in most cases to manage these activities.

Prohibition of these activities was also selected where, based on current and future land uses, this activity was unlikely to occur and/or where further protection was required based on the vulnerability of the area to contamination from this activity.

3.2 The Establishment, Operation or Maintenance of a System That Collects, Stores, Transmits, Treats or Disposes of Sewage

Discussion Paper Summary

The Prescribed Instrument tool (Environmental Compliance Approval under the Environmental Protection Act or Ontario Water Resources Act) was identified as the most promising policy tool for managing and prohibiting significant drinking water threats related to sewage. A policy could be developed to require review of existing activities or prohibition of future sewage system activities to ensure adequate protection of drinking water sources. Part IV tools are unavailable for use for sewage system activities where there is an existing Prescribed Instrument tool available. Where there is

no Prescribed Instrument, the Part IV tools were identified as an option to manage or prohibit activities.

On January 1, 2011, updates to the Ontario Building Code Act, 1992 came into effect to recognize vulnerable areas identified within the Assessment Report. The updates require mandatory inspection programs for sewage systems regulated under the Ontario Building Code Act, 1992 in areas where they are identified as significant drinking water threats in an approved Assessment Report.

Post Discussion Paper
To address these drinking water threat activities, policy developers typically selected the most promising policy tools as identified in the Discussion Papers. Since the publication of the Discussion Papers, refinements were made to the selected policy tools, based on clarifications of where land use planning can be used to address certain threats. Specific discussion included the ability to require tertiary treatment systems within the limitations of the Ontario Building Code Act, 1992. It was concluded that these systems could be encouraged, but not made mandatory due to the current building approval processes.

In most cases, policies were developed using the Prescribed Instrument tool because it was determined to be the most efficient way to manage this activity. Using existing regulatory requirements, the Ministry of the Environment and Climate Change must review and, if necessary, amend Environmental Compliance Approvals for these activities. Further, policies were drafted to require the Ministry of the Environment and Climate Change to include terms and conditions when issuing new Environmental Compliance Approvals that, when implemented, will ensure these activities do not become significant drinking water threats.

3.3 The Application and Storage of Agricultural Source Material to Land

Discussion Paper Summary
For agricultural properties that are regulated under the Nutrient Management Act, 2002, the Prescribed Instrument tool was identified as a policy option. A policy could be written to ensure that the Nutrient Management Plan and Strategy under the Nutrient Management Act, 2002 effectively protects drinking water sources from the application and storage of agricultural source material. For agricultural properties that are not regulated under the Nutrient Management Act, 2002, Part IV Risk Management Plans for the application and/or storage of agricultural source material were identified as a favourable tool for managing threats related to agricultural source material. The site specific plan could incorporate components of the requirements under the Nutrient Management Act, 2002, as well as additional or enhanced requirements to address the gaps in the existing legislation, such as monitoring or more restrictive nutrient application rates.

Education, outreach and incentive programs were identified as additional policy options to complement the Prescribed Instrument and Part IV Risk Management Plan policies.

Post Discussion Paper
Further guidance was presented to the policy developers and Source Protection Committee by the Ministry of the Environment and the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA), on the applicability of the Nutrient Management Act, 2002 to protect drinking water sources. Policies contained in the Source Protection Plan reflect this guidance and comments received during the pre-consultation processes.

In their technical guidance, RA stated that where the Nutrient Management Act, 2002 can be applied (i.e. farms that are phased in under the Nutrient Management Act, 2002), this Prescribed Instrument should be utilized. However, where the Nutrient Management Act, 2002 does not apply, OMAFRA recommended the use of a Part IV Risk Management Plans.

3.4 The Management of Agricultural Source Material

This Source Protection Plan only addresses significant drinking water threats. Policies addressing the management of agricultural source material (aquaculture) are therefore not included in this Source Protection Plan as this activity cannot be a significant drinking water threat in the Lake Erie Source Protection Region under the current Technical Rules for the prescribed drinking water threat tables.

3.5 The Application, Handling and Storage of Non-Agricultural Source Material (NASM) To Land

Discussion Paper Summary
Both Environmental Compliance Approvals (issued by the Ministry of the Environment and Climate Change under the Environmental Protection Act) and NASM Plans (issued by OMAFRA under the Nutrient Management Act, 2002) are Prescribed Instruments under the Clean Water Act, 2006 and have been identified as policy tool options to address these drinking water threats. Where NASM is currently regulated under the Nutrient Management Act, 2002, a policy was typically written to require OMAFRA to review existing and new NASM plans in significant threat areas to ensure that they protect drinking water sources. Similarly, where NASM is currently regulated under S.39 of the Environmental Protection Act policies were drafted to require the Ministry of the Environment and Climate Change to review and amend, if necessary, existing Environmental Compliance Approvals in the significant threat areas to ensure that they protect drinking water sources.

The prohibition tool is also available for NASM and could be applied to vulnerable areas for future threats. The application of NASM is currently prohibited under the Nutrient Management Act, 2002 within 100 metres of a municipal well.

Post Discussion Paper
The acquisition of new information regarding NASM has been minimal, and few additional discussions have taken place since the finalization of the Discussion Paper.

3.6 The Application, Handling and Storage of Commercial Fertilizer to Land

Discussion Paper Summary
In cases where the application of commercial fertilizer to land is addressed through Nutrient Management Plans developed under the Nutrient Management Act, 2002, the Discussion Paper identified a specify action policy as a potential option. Specify action policies could be written to request that the Ministry of the Environment and Climate Change prioritize inspections for properties where the application of commercial fertilizer is considered a significant threat to ensure that the threat is appropriately managed. Nutrient Management Plans are created by a trained and certified individual - either a farmer or a consultant. Therefore, if a Source Protection Plan policy requires that specific management practices be included in Nutrient Management Plans using the Prescribed Instrument tool, OMAFRA and the affected farmers would need to be informed during consultation periods. This was identified as a significant challenge based on additional correspondence provided by the Ministry of the Environment.

Where commercial fertilizer is not regulated under the Nutrient Management Act, 2002, Part IV tools were identified as a favourable policy option, meaning a policy could be written to require a Part IV Risk Management Plan for activities involving the application, handling and/or storage of commercial fertilizer in significant threat areas.

The Part IV Risk Management Plan could incorporate components of Nutrient Management Plans and other existing standards for commercial fertilizer, as well as requirements for inspection and monitoring. This tool would also effectively manage activities not occurring on a farm such as a retail storage facility.

Education and outreach programs were identified as another policy option to address drinking water threats related to commercial fertilizer. These programs could be targeted towards fertilizer application technicians, or towards homeowners who may not be aware of best management practices for fertilizer and the potential threats to drinking water sources.

Post Discussion Paper
Further discussions were held on the ability to effectively manage this activity using the Nutrient Management Act, 2002 as a Prescribed Instrument tool. It was determined that, due to the limited ability to add additional requirements to the Nutrient Management Plans, it would be difficult to ensure reduced risk to drinking water sources. Thus, in many cases, Part IV Risk Management Plans were selected by policy developers to manage this activity, as this tool will better achieve the objectives of the Clean Water Act, 2006. In specific cases, prohibition of this activity was selected based on a review of current and future land use within the applicable vulnerable areas where this activity is or would be a significant drinking water threat.

3.7 The Application, Handling and Storage of Pesticide to Land

Discussion Paper Summary

Part IV Risk Management Plans were identified as the most promising policy options for activities involving the application, handling and storage of pesticides in significant threat areas. Where further restrictions are required, the Prescribed Instrument tool was identified as an option, as it could require the Ministry of the Environment and Climate Change to revoke, or not issue, pesticide permits where pesticide activities are considered significant threats.

Education and outreach programs were identified as supporting policy options. These programs could be developed to inform the various audiences involved in the application and storage of pesticide about best management practices, Integrated Pest Management, or alternatives to pesticides that are less harmful to the environment, specifically drinking water sources. Focus could be placed on retail storage of pesticide, which is less regulated than pesticide application.

Post Discussion Paper
Further review of the Pesticide Act revealed that there were few situations where a pesticide permit would actually be required on land uses surrounding municipal intakes. Therefore, the use of the Prescribed Instrument tool to address this drinking water threat was determined to be very limited. In many cases, policy developers selected the prohibition and management of future and existing activities using Part IV tools.

3.8 The Application, Handling and Storage of Road Salt

Discussion Paper Summary
Addressing significant drinking water threats from road salt can be achieved by requiring Part IV Risk Management Plans for activities associated with the application and storage of road salt by road authorities. This can also be achieved by requiring Smart about Salt™ accreditation for property owners. However, Part IV Risk Management Plans were not considered feasible for all municipalities based on the resources required to implement them.

For such cases, the Discussion Papers also identified specify action policies that could be written to require municipal road authorities, and encourage the Ministry of Transportation and private contractors, to develop or amend existing salt management plans. These developments and/or amendments would ensure that salt management plans contain policies for vulnerable areas to protect drinking water sources. Such a policy could require that the plan be submitted annually to Environment Canada.

Education and outreach programs were also identified in the Discussion Papers as an option for promoting responsible salt storage and application and the use of alternative de-icers. Such programs could be targeted towards the residential, industrial, commercial and institutional sectors, as well as to the public at large and local decision makers. The goal of this approach would be to improve industry practices and raise awareness about the link between salt application and water quality.

For future threats, Part IV prohibition and land-use planning tools were available, and could be used to prohibit certain activities associated with the storage of road salt.

However, as road salt application is required to prevent winter related accidents, prohibiting this activity was considered an unrealistic option, and if possible, limited to smaller areas.

Post Discussion Paper
After the publication of the Discussion Papers, additional discussion on alternative options to address this drinking water threat was minimal. Further guidance was provided by the Ministry of Transportation on their ability to amend salt management plans. Most policy developers selected land use planning and Part IV tools to manage and prohibit existing and future activities. In most cases these policies were complemented with education and outreach programs.

For the application of road salt to be considered a significant drinking water threat the impervious area must be equal to or greater than 80 percent. This circumstance does not currently exist within the Catfish Creek Source Protection Area and therefore policies were not included in this Source Protection Plan to address this threat.

3.9 The Storage of Snow

Discussion Paper Summary
The Discussion Paper identified Part IV Risk Management Plans to address existing threats from the storage of snow as an effective policy option for snow storage areas located within 100 metres of municipal drinking water sources. Other available policy options would require the development of salt management plans or amend existing plans to include conditions to protect municipal drinking water sources. Establishing an education and stewardship program for private contractors was identified as another option. This program could inform contractors about the responsibilities of storing and transporting snow in vulnerable areas and provide recognition for those who follow best management practices.

For future threats, land-use planning tools were identified as available to prohibit large scale storage areas in the most vulnerable areas. Future storage facilities within vulnerable areas could also be permitted subject to the provisions of a Part IV Risk Management Plan, satisfactory to the municipality.

Post Discussion Paper
Following the publication of the Discussion Papers, further discussion on policy tool options for this drinking water threat was minimal. In most cases, the land use planning tool was selected by policy developers to manage or prohibit these activities from occurring in the future. There were few existing drinking water threats identified in the Assessment Report enumeration for the Catfish Creek Source Protection Area.

3.10 The Handling and Storage of Fuel

Discussion Paper Summary
The Discussion Paper identified Part IV Risk Management Plans as an effective policy option to address significant threat activities involving the handling and storage of liquid fuel. A Part IV Risk Management Plan could incorporate components of O. Reg. 217/01

and its code, as well as other measures to ensure the protection of drinking water sources. Education and outreach and incentive programs were also identified as an available policy option to address drinking water threats from liquid fuels. Various players involved in the handling and storage of liquid fuel could be the target of such education programs. The Discussion Paper suggested that programs targeted at liquid fuel distributors would be especially valuable.

In certain cases, instruments relating to liquid fuel storage are issued under the Aggregate Resources Act and the Safe Drinking Water Act, 2002 for aggregate operations and municipal residential drinking water facilities, respectively. For these circumstances, the Prescribed Instrument policy tool was identified as an effective policy option. A Prescribed Instrument policy could require that these instruments incorporate drinking water protection and contain appropriate spill contingency measures.

Post Discussion Paper
The Ministry of Consumer Services and the Technical Standards and Safety Authority provided guidance to policy developers to aid in their development of the Source Protection Plan policies. This included a description of their abilities to implement certain policies with respect to the codes they promote. This discussion has been reflected in the current Source Protection Plan policies. As a result, the majority of policy developers decided not to direct the policies towards The Ministry of Consumer Services and the Technical Standards and Safety Authority.

3.11 The Handling and Storage of Dense Non-Aqueous Phase Liquid (DNAPLS)

Discussion Paper Summary
Part IV Risk Management Plans were identified in the Discussion Papers as an effective tool to address drinking water threats from dense non-aqueous phase liquids (DNAPLs). These plans could address operating practices, such as containment and management, employee training, spill contingency plans, periodic testing of storage systems, as well as other items. If the requirements of the Part IV Risk Management Plan are not met, then the storage site would be prohibited.

An alternative policy approach identified to address threats from DNAPLs was for municipalities to establish bylaws that prohibit the discharge of DNAPLs into municipal sewer systems, or to prohibit storage within 100 metres of the municipal drinking water source.

By utilizing the specify action tool, a policy could be written to require municipalities to enact sewer use bylaws that address threats from DNAPLs, such as requirements for compliance programs and pollution prevention planning and reporting on DNAPL use.

Softer' tools such as education and outreach and incentive programs were also identified to effectively address threats, especially for where DNAPLs are used in smaller volumes, such as in residential areas. Policies could be written to promote the use of alternative non-toxic products and/or proper waste disposal.

Post Discussion Paper
During the development of Source Protection Plan policies further discussions included determining the scope of work required, as the threat circumstances for DNAPLs do not stipulate a quantity threshold. Therefore, even a very small quantity is regarded as a significant drinking water threat. Policies typically reflect this and tend to be more restrictive closer to the municipal intake. In some cases, separate policies have been written for commercial and industrial versus residential users. As the Ministry of the Environment and Climate Change did not provide any guidance on quantity thresholds in the circumstance tables, the policy developers decided not to assign a quantity threshold.

3.12 The Handling and Storage of an Organic Solvent

Discussion Paper Summary
The Discussion Paper identified Part IV Risk Management Plans as an effective policy tool to manage significant drinking water threats from organic solvents. These plans could address operating practices such as containment and management, employee training, spill contingency plans, periodic testing of storage systems, as well as other items. If the requirements of the Part IV Risk Management Plan are not met, then the storage site would be prohibited.

Another policy approach identified to address significant drinking water threats from organic solvents is for municipalities to establish bylaws that prohibit the discharge of organic solvents into municipal sewer systems, or to prohibit storage within 100 metres of the municipal drinking water source. Through a specify action policy municipalities could be required to enact sewer use bylaws that address threats from organic solvents, such as requirements for compliance programs and pollution prevention planning.

Education and outreach programs were also identified as proactive tools for addressing threats from organic solvents, most likely to be used in support of other policy approaches. Programs could be directed at businesses that store organic solvents and could address pollution prevention approaches, best management practices and safe disposal in industries storing organic solvents, with priority on significant threat areas.

Post Discussion Paper
After the publication of the Discussion Papers there was little further discussion on this drinking water threat. In the majority of cases, policy developers selected the Part IV tools to manage or prohibit these activities. Prohibition (using Part IV or land use planning tools) was often selected when there was future potential for this activity to occur within 100 metres of the municipal drinking water source or where the vulnerability score was high enough to regard this activity as significant.

3.13 The Management of Runoff That Contains Chemicals Used In the De-Icing of Aircraft

Discussion Paper Summary

There are no existing occurrences of this significant drinking water threat identified within the Catfish Creek Source Protection Area. Further, based on land use activities surrounding existing municipal intakes, the potential for an airport to be constructed in the future that is of a size that would rank as a significant drinking water threat is minimal.

It is possible to affect decision-making on airport lands, provided that the functioning of the site is not impeded. Although the Federal Government has immunity from Provincial law, the Federal Government can waive that immunity by contract/agreement or conduct. Where a municipality has the responsibility for establishing Risk Management Plans, a Source Protection Plan policy can direct a municipality to negotiate a Part IV Risk Management Plan under the Clean Water Act, 2006 with the Airport Authority.

Post Discussion Paper

Although it is unlikely for this activity to occur in the Catfish Creek Source Protection Area in the foreseeable future, policies must be included as per the rules under the Clean Water Act, 2006. Therefore, as new airports would require the completion of an Environmental Assessment, the municipalities would in their review of this Environmental Assessment be able to provide comments to the Airport Authority on the effects of this activity on their drinking water supply, specifically for the de-icing of aircrafts. This was most often determined to be the most effective method to manage these future activities. In addition, a non-binding policy was selected in many cases, requesting that the Airport Authority review all applications to ensure that this activity ceases to be a significant drinking water threat on future airport site development

3.14 An Activity that Takes Water from an Aquifer or a Surface Water Body without Returning the Water Taken From the Same Aquifer or Surface Water Body and an Activity that Reduces the Recharge of an Aquifer

There were no Discussion Papers developed for these prescribed drinking water quantity threats. The Catfish Creek Source Protection Plan does not contain policies relating to water quantity (#19 and #20). As the potential for water quantity stress is low in the Catfish Creek watershed, and is not expected to increase significantly in the future, these policies were not required.

3.15 The Use of Land as Livestock Grazing or Pasturing Land, an Outdoor Confinement Area or a Farm Animal Yard.

Discussion Paper Summary

Outdoor Confinement Areas and/or Farm Animal Yards

The Nutrient Management Act, 2002 is a Prescribed Instrument under the Clean Water Act 2006, meaning Nutrient Management Strategies can be used to implement policies. These tools and the legislative framework are already in place, making them an effective approach for addressing existing and future drinking water threats from farm animal yards and outdoor confinement areas. The Prescribed Instrument tool was identified in the Discussion Paper stating that a policy could require OMAFRA to ensure existing and proposed Nutrient Management Strategies in significant threat areas

effectively protect municipal drinking water supplies. The policy could require that such strategies contain contingencies in case municipal groundwater monitoring shows concerns relating to nitrogen and pathogens.

Nutrient Management Strategies only apply to outdoor confinement areas and farm animal yards on properties regulated under the Nutrient Management Act, 2002. Therefore, for properties with outdoor confinement areas or farm animal yards that pose a significant threat to drinking water that are not regulated under the Nutrient Management Act, 2002, policies were drafted to require a Part IV Risk Management Plan, which could be applied to both existing and future threats. A Part IV Risk Management Plan could effectively deal with the diversity of farm animal yards and outdoor confinement areas types by applying best management practices. These include components of the Environmental Farm Plan on a site by site basis and requirements for ongoing monitoring and reporting to the Risk Management Official.

The Part IV Risk Management Plan could also include aspects of a Nutrient Management Strategy, as it relates to outdoor confinement areas, to maintain consistency with current regulations.

Livestock Grazing and Pasturing Land
Livestock grazing and pasturing lands are not defined under the Nutrient Management Act, 2002, and therefore, these threats cannot be managed through the use of the prescribed instruments tool. Instead, a policy could be written to require Part IV Risk Management Plans for properties with grazing and pasturing lands that pose significant drinking water threats.

In both cases, ‘softer’ tools such as education and outreach and incentive programs can be used to address livestock threats. These tools will support implementation of regulations, but they can also be used on their own. Incentive programs could also be developed to support the implementation of education programs or other policy options, such as voluntary Nutrient Management Strategies, to increase the likelihood of adopting best management practices.

Post Discussion Paper
Within 100 metres of a municipal well, or within an Intake Protection Zone-1, it was determined that these areas should be considered “no go” zones for livestock grazing and/or pasturing. This is due to the close proximity to the municipal well or intake and the need to protect this area from any possible activities that may impact or damage the source. Therefore, in a majority of cases, most policies require prohibition of this activity within these areas. This position of prohibition within 100 metres of the well and/or within IPZ-1 was not supported by OMAFRA, based on their technical guidance received during the consultation period.

3.14 The Establishment and Operation of a Liquid Hydrocarbon Pipeline

At the time water quality discussion papers were developed, the establishment and operation of a liquid hydrocarbon pipeline was not a Prescribed Drinking Water Threat

activity; however, the conveyance of oil by way of underground pipelines was included as an approved local threat activity in the Lake Erie Region. In July 2018, O. Reg. 287/07 under the Clean Water Act, 2006 was amended to include the establishment and operation of a liquid hydrocarbon pipeline in the list of Prescribed Drinking Water Threats.

4.0 WATERSHED WIDE POLICY DEVELOPMENT, INTENT AND RATIONALE FOR NON-PRESCRIBED DRINKING WATER THREATS

The following section describes the decision making process for the selection of policy tools made by the policy development teams for non-prescribed drinking water threats. A brief summary has been provided where the outcomes published within the Discussion Paper were available. The Discussion Paper accompanied the development of the first Catfish Creek Source Protection Plan. Further information on policy development including the intent and rationale for the selection of specific policy tools is presented in Section 5 – County of Oxford Policy Rationale.

4.1 Optional Content

Discussion Paper Summary
On January 13, 2011 the Lake Erie Region Source Protection Committee passed a resolution (Res. No. 05-11) which determined that policies for the following optional content shall be included within the Source Protection Plans as outlined in O. Reg. 287/07:

1. Policies on conditions that have been identified as significant drinking water threats in the Assessment Reports;

2. Policies to update spill prevention, spill contingency or emergency response plans along highways, railways or shipping lanes in Intake Protection Zones (IPZ) or Wellhead Protection Areas (WHPA);

3. Policies that govern transport pathways;

4. Policies for the monitoring of moderate and low drinking water threats in specific situations;

5. Anything that will assist in understanding the plan; and

6. Dates for when the policies take effect.

Conditions
Conditions are contaminated sites for which there is evidence of contaminants migrating towards a well from a past activity that may have an immediate impact on drinking water quality, as outlined Part XI.5 of the Technical Rules. There were no condition sites identified in the Catfish Creek Source Protection Area.

Spill Prevention, Spill Contingency or Emergency Response Plans
Spill prevention plans outline the appropriate handling and storage (action plan) of potentially harmful substances, and may include preventative maintenance standards and reporting. Spill prevention and contingency plans are outlined in the Environmental

Protection Act, 1990, O. Reg. 224/07 and are developed by industries as described in O. Reg. 222/07, Environmental Penalties. This includes, but is not limited to, industrial facilities and facilities that discharge sewage other than storm water to a watercourse.

Policies for spill prevention, spill contingency or emergency response plans can only be included in the Source Protection Plan if they relate to a highway (as defined by the Highway Traffic Act, 1990), railway line or a shipping lane (i.e., along a transportation corridor). This does not include properties that are along highways and also within the vulnerable area (O. Reg. 287/07 section 26(6)).

Every municipality is responsible for creating an emergency response plan governing the provision of necessary services during an emergency, and the procedures under and the manner in which employees of the municipality and other persons will respond to the emergency. Outdated plans may be a threat to drinking water sources, as they may not contain the most recent data and most appropriate response (i.e. personnel) to an emergency or spill.

Municipal emergency services are often the first responders to events that may adversely impact a source of municipal drinking water. Quick and effective response to spills could prevent an emergency from affecting a municipal drinking water source. Therefore, policies were written in all cases to encourage the appropriate party(ies) to update their response/prevention/ contingency plans to include the vulnerability mapping, allowing the appropriate party to have immediate access to this information when needed. This may also modify the development of these plans to ensure that if a spill occurred, a heighted response to the activities would occur because of the threat to the municipal drinking water supply.

Additionally, updates to the current spill prevention and contingency / response plans could act as a communication tool for the municipalities and the public, as well as ensure that people are aware of the location of wellhead protection areas and knowledgeable regarding the appropriate response in the event of a spill in these areas.

Transport Pathways

Transport pathways are defined in the Clean Water Act, 2006 O. Reg. 287/07. Transport pathways are a land condition, resulting from human activity, which increases the vulnerability of a municipal drinking water system’s raw water supply. Transport pathways, such as an abandoned well, may facilitate the movement of contaminants vertically or laterally below grade, and can result in greater impact from activities identified as a drinking water threat.

Policies for a specific transport pathway could support ongoing stewardship programs to provide funding to decommission abandoned wells, thereby reducing the ability of contaminates to enter the groundwater within the vulnerable areas. This may further reduce the vulnerability of an area and the amount of enumerated threats. For transport pathways not related to drinking water wells, a policy to support best management practices and the approval of installation of new municipal infrastructure by a qualified professional would aid in the protection of municipal drinking water sources.

A broad transport pathway policy could include requesting municipalities to determine which transport pathways exist within the identified vulnerable areas and develop policies once completed to protect municipal drinking water sources.

Abandoned wells were the only transport pathways identified as a concern for the Catfish Creek Source Protection Area surrounding the Brownsville wellhead protection area. As such, this is the only transport pathway addressed in this Source Protection Plan.

To ensure that groundwater vulnerability is not increased due to an abandoned well, the policies typically support the provincial efforts to encourage the decommissioning of abandoned wells as per O. Reg. 903. Often these wells are located on private property and the cost to properly decommission or upgrade the structure may be prohibitive. A specific transport pathway policy to support ongoing stewardship programs to decommission abandoned wells could reduce the ability of contaminates to enter the groundwater within the vulnerable areas. This may further reduce the vulnerability of an area and the amount of enumerated threats.

Monitoring of Moderate and Low Drinking Water Threats

The monitoring of moderate and low drinking water threats must be included in the Source Protection Plans where the Source Protection Committee determines that this is advisable to ensure they do not become significant drinking water threats. The Source Protection Committee determined it was not advisable to monitor moderate and low threats for the development and approval of the first Source Protection Plan. Since that time, “the establishment and operation of a liquid hydrocarbon pipeline” has been added a Prescribed Drinking Water Threat. Significant, moderate and low liquid hydrocarbon pipeline policies have been developed and incorporated into the Kettle Creek Source Protection Plan. There are no locations within the Lake Erie Source Protection Region where the Source Protection Committee has determined it is advisable to monitor moderate and low threats for other Prescribed Drinking Water Threat activities.

No further discussion occurred within the Catfish Creek Source Protection Area with respect to the development of policies for monitoring of moderate and low drinking water threats.

4.2 Transitional Policies

Unlike most land use related legislation (e.g. Planning Act, Ontario Building Code Act, 1992), which tends to focus primarily on regulating future development/activities, the Clean Water Act, 2006 requires the development of policies to address existing and future occurrences of a significant threat. Therefore, the policy approach for addressing existing threats may vary markedly from the policy approach used to address potential future threats, particularly given that the Clean Water Act, 2006 puts a much greater onus on the Source Protection Committee to justify the use of certain policy tools, such as Part IV prohibition, for addressing existing threats.

The current guidance provided as to how the Source Protection Plan can differentiate between existing and future instances of a threat seems to be simply that, a significant threat activity existing at the date the Source Protection Plan takes effect (or at some point prior to that date) is considered to be existing, with any other circumstance considered to be future. Unfortunately, from a policy and practical implementation perspective, such a distinction may not necessarily be reasonable or appropriate in all situations. Therefore, some form of transitional regulation and/or policy and associated guidance will likely be required to deal with circumstances that do not fit cleanly within such a definition. These circumstances included:

- Potential uses/activities that would constitute a significant threat being proposed through applications for Building Permit or development approval under the Planning Act initiated before the Source Protection Plan is enacted, or certain policies within the Source Protection Plan are enacted;

- Expansions to and replacement of existing threats, uses permitted under existing zoning without any further approvals, but not necessarily established as of the date of Source Protection Plan approval etc.; and

- Threat policies in the Source Protection Plan that establish a policy implementation date that is later than the date of approval of the Source Protection Plan.

4.3 Part IV, Section 59: Restricted Land Use

The intent of these polices is to designate all land uses where activities have been designated for the purposes of Section 57 and/or 58 of the Clean Water Act, 2006 as Restricted Land uses under Section 59 of the Clean Water Act, 2006.

These policies were developed to require all applications made under the Planning Act, Condominium Act, 1998 and Building Code Act, 1992, for areas where activities could be significant drinking water threats, to be reviewed by the Risk Management Official. The Risk Management Official would then advise the applicant if section 57 (prohibition) or section 58 (Risk Management Plans) of the Clean Water Act, 2006 apply.

The policies enable the Risk Management Official to pre-screen applications for land uses and activities identified as a significant drinking water threat within vulnerable areas.

In some cases, residential uses have been excluded from this policy to limit the number of applications the Risk Management Official may be required to review. As most of the drinking water threats would not apply on a residential property, based on the circumstances required, it was determined this was a way to reduce the burden of implementation.

4.4 Implementation and Timing

The timing policies were grouped according to Section 40, 43, 57, 58, 59; under the Clean Water Act, 2006, and education and outreach. Each policy grouping was assigned an implementation deadline.

All policies in the first Source Protection Plan came into effect on January 1, 2015. The effective date for amended policies, only including but not limited to the addition of new drinking water threats and regulated areas and activities, is the date of posting of the Notice of Approval of the amended provisions on the Environmental Bill of Rights Registry. Many of the policies will be implemented immediately. However, some of the policies will take additional time to fully implement, due to: other legislative requirements and timelines that must be met; timeframes to develop and implement new programs; and budgetary constraints. As such, this policy specifies the time in which the policies will take effect so that they are not required to be implemented immediately.

The provincial ministries' request for a three (3) year implementation timeline was included in the policies. However, the Ministry of the Environment and Climate Change provided further comment regarding their desired timeframe for implementation of the Prescribed Instrument tool and Director discretion to determine the timeline for implementation. The request for allowing the Director to determine the timeline for implementation was not included in the Source Protection Plan policies. The policy development team felt that it was not reasonable to allow this flexibility for the Ministry of the Environment and Climate Change and not have this discretion available to other implementing bodies.

4.5 Annual Reporting and Monitoring

Monitoring and Annual Reporting policies have been included for each policy which addresses significant drinking water threats. In some instances one monitoring policy may apply to a number of different policies as the same information is required from the monitoring body. The intent of these policies is to provide the Source Protection Authority with the appropriate information to complete the required Annual Report.

To gauge the effectiveness of the policies within the Source Protection Plan it is imperative that the Source Protection Authority track the Plan's policy implementation. In most instances, this is accomplished by requiring the implementing body to report details of their accomplishments to the Source Protection Authority. In general, this information is to be provided to the Source Protection Authority before February 1 of each year so that an annual report can be provided to the Ministry of the Environment, Conservation and Parks as required by the Clean Water Act, 2006.

These policies also require the municipalities to amend their Official Plans and Zoning By-laws to ensure conformity with the Source Protection Plan. The purpose of the monitoring policy is to provide notice as to what was amended/included in the Official Plan and Zoning Bylaw to implement the Source Protection Plan.

4.6 Incentive Programs

The intent of including policies for incentive programs is to encourage the development and implementation of incentive programs to aid in the implementation of Source Water Protection initiatives. During the development of the first Source Protection Plan, policy developers and the Source Protection Committee felt strongly that the Ministry of the Environment and Climate Change should be requested to continue to fund the Ontario Drinking Water Stewardship Program to assist landowners to manage or cease activities that are identified as significant drinking water threats on their properties. Provincial funding of the program has since ceased. An updated incentive policy requests that the Ministry of the Environment, Conservation and Parks re-instate funding of the program as it is one of the most effective tools available to eliminate existing significant drinking water threats.

4.7 Interpretation of the Source Protection Plan

The Lake Erie Region Project Team discussed the need for an Interpretation section to assist the reader in understanding what was to be considered the legal part of each Source Protection Plan policy. This included adding additional text to Volume I and II to aid the reader in how to read the policies using the policy applicability mapping and sidebar information. It was important to note in the Source Protection Plan policy section (Volume II), that the Source Protection Plan consists of both the written policy text and the Schedules.

The interpretation policy is intended to ensure the Schedules become a legal component of the Source Protection Plan. This policy was adapted from similar policies which appear in current Official Planning documents and was included in the Source Protection Plan under Section 29 of O. Reg. 287/07.

The intent of the Schedules in the Source Protection Plan is to identify the areas where the policies of the Source Protection Plan apply. The boundaries for circumstances shown on the Plan Schedules are general and more detailed interpretation of the boundaries rely on the mapping in the approved Assessment Report and the Specific Circumstances found in the Technical Rules under the Clean Water Act, 2006.

The second part of this policy addresses updates to Acts and regulations that may occur at any time. This part allows for these updates to occur without triggering a need for an update to the Source Protection Plan policies.

5.0 COUNTY OF OXFORD POLICY RATIONALE

5.1 Municipal Support

To date, the municipalities within the Catfish Creek Source Protection Area have been given the opportunity to participate in the development and update of the Source Protection Plan policies.

Specifically, the County of Oxford has been present at various meetings hosted by the Lake Erie Source Protection Region over the years in order to develop locally implementable policies. These policies have been reviewed by municipal staff and council. Pre-consultation on the latest update of the Source Protection Plan began in the fall of 2022 with the County of Oxford and impacted lower-tier municipality.

Reports detailing the updates to the Source Protection Plan were presented to Oxford County and Township of Southwest Oxford on and January 11 and 10, 2023, respectively. Both councils passed resolutions endorsing the proposed updates.

5.2 Financial Considerations

The County's involvement in the development of Source Protection Plan policies has had financial implications for the County in terms of the considerable commitment of policy, technical and support staff to the projects. In the development of the Source Protection Plan policies and, in particular, the selection of the most appropriate policy tools, the potential financial impacts on the County and other implementing bodies and businesses and landowners were key considerations. Although the policy approaches proposed were selected, first and foremost, for being the most effective and appropriate for addressing the various significant drinking water threats, every attempt was also made to minimize the potential financial impacts of implementation on the various stakeholders.

There are direct financial costs to the County and/or local municipalities to fund, train and administer a Risk Management Official and Inspector(s). This position will require on-going administrative and support staff resources to ensure the on-going negotiation, enforcement and monitoring of Risk Management Plans.

The Clean Water Act, 2006 does make provision for imposing fees associated with the Risk Management Officer/Inspector in order to assist in recovering costs. However, the imposition of such fees will need to be carefully considered, as they may have a financial impact on landowners and business operators.

The County of Oxford also incurs additional labour and administrative costs to implement the Ontario Building Code requirements for the mandatory onsite sewage inspections. Inspections within the most vulnerable wellhead areas will likely be given priority.

Municipal staff resources (primarily County, with some potential local) are required to implement education and outreach programs associated with the handling and storage of DNAPLs in household quantities and application of commercial fertilizer in association with residential uses.

There is also a cost to the County and local municipalities to amend Official Plans and Zoning By-laws to implement the Source Protection Plan policies, in terms of staff resources and Planning Act process requirements e.g., public notice requirements. In addition, annual reporting requirements to the Source Protection Authority will require staff resources and may have cost implications to the County and/or local municipalities to prepare and administer.

5.3 The County of Oxford Policy Rationale

With a few exceptions, the general policy approach for the County of Oxford was to manage existing significant threats and prohibit the establishment of new significant threats, where possible and reasonable. Where prohibition was not possible or reasonable, the focus was to adequately manage the threat. Prescribed Instruments were generally used where they were determined to be effective for managing or prohibiting the threat. Part IV tools were used where Prescribed Instruments were not adequate or applicable. Where Section 57 (prohibition) and Section 58 (regulated activities) were used, Section 59 (restricted land use) was used to better integrate these new policy tools and related processes with existing development approval processes. Education and outreach, Incentives and Land Use Planning policy approaches were generally limited to complementary tools for addressing significant threats, as opposed to being the primary policy approach.

5.3.1 Implementation Timing

Intent:

These policies are intended to provide implementing bodies with timing requirements for enactment of policies.

Rationale:
Except where otherwise stated in the implementation timing policies or specifically set out in the Clean Water Act, 2006 all policies in the Source Protection Plan take effect at such time as the Ministry of the Environment, Conservation and Parks approves the Source Protection Plan and posts the notice of approval on the Environmental Registry. The policies pertaining to new/future threats will be implemented immediately. However, the majority of the existing threat policies and some of the new/future threat policies will take additional time to fully implement due to other legislative requirements and timelines that must be met, the time required to develop and implement new programs, and budgetary constraints. As such, this policy specifies implementation timing for these various policies, so that they are not required to be implemented immediately upon approval of the Source Protection Plan.

The timing policies were grouped according to Section 57(1), 58(1), 59(1), 40(2), 43(2) of the Clean Water Act, 2006 as well as Education and outreach. Each policy grouping was assigned an implementation deadline. It was determined that the implementation timelines for Part IV (Section 57, 58 and 59) and Prescribed Instrument policies should generally be as short as possible, while still being achievable for the implementing bodies, as these are the primary policy approaches being used to ensure that the vast majority of prescribed activities in the Clean Water Act, 2006 cease to be, or do not become significant drinking water threats. One noted exception is Section 58, Risk Management Plan (RMP) policies for existing threats, where no timeframe has been specified, in order to allow the Risk Management Official the flexibility to establish local priorities for the implementation of RMPs for existing uses, while ensuring that RMPs required for new/future uses are implemented in a reasonable timeframe.

In the case of Education and outreach policies and Section 40 and 43 policies, longer timeframes have been permitted for implementation, as these policies will likely require the development of new programs.

Notwithstanding the permitted implementation timing, the County of Oxford amended their Official Plan and Zoning By-Laws to address and/or communicate the applicable Source Protection Plan policies. These are the primary documents typically consulted by those making land use decisions and are; therefore, a key tool for communicating which land uses/activities may be prohibited, regulated or restricted by the policies of the Source Protection Plan using other tools, such as Part IV prohibition.

5.3.2 Transition Policies and Related Definitions

Definitions for ‘existing’ and ‘future/new’ have been included in the County of Oxford policies to ensure the policies for existing and future significant threat activities are applied as intended. The definitions of existing and future/new were determined to be critical to understanding the specific circumstances under which an existing or future policy would apply to a threat activity, which is particularly important in instances where the policy approaches for ‘existing’ and ’future’ activities differ. For example, in most cases, future occurrences of a particular significant threat activity are prohibited, while existing occurrences are managed. Generally, if a significant threat activity existed on the date the Source Protection Plan was approved, or existed at some point prior to Plan approval and intended to continue (e.g. an intermittent activity, such as the seasonal storage of commercial fertilizer for retail purposes), it would be considered existing. The intent is that the onus be on the proponent to demonstrate to the satisfaction of the implementing body that a particular significant threat activity was existing.

In addition to providing definitions of ‘existing’ and ‘new/future’, transitional policies have been included to identify a number of additional circumstances (e.g. stage in the development approval process) under which an activity or threat may be evaluated in accordance with the policies in the Source Protection Plan pertaining to existing threats. This distinction becomes important for significant threat activities for which ‘existing’ and ‘new/future’ occurrences are addressed differently by the Source Protection Plan

policies. It is particularly important in instances where a ‘new/future’ significant threat activity would be prohibited, while an existing occurrence of that activity would be allowed to continue with appropriate risk management. Transitional provisions do not exempt a significant threat activity from complying with the policies of the Source Protection Plan, but rather clarify whether ‘existing’ or ‘new/future’ policies will apply. Either way, the threat activity will be addressed by Source Protection Plan policies and will need to satisfy the Clean Water Act, 2006 test of ‘ceasing to be or never becoming’ a significant drinking water threat. In the limited circumstances where the transitional provision would apply, this would generally mean that this Clean Water Act, 2006 test will simply need to be satisfied through management of the activity, rather than its prohibition,

There are two main transition policies included in the County of Oxford Source Protection Plan policies. The first pertains to significant threat activities associated with a development that is being proposed as part of one or more development applications (e.g. zoning, site plan and/or building permit) as of the date the Source Protection Plan takes effect. For example, an applicant has obtained all required local development approvals for a particular use and associated significant threat activity and commenced construction of the related buildings and facilities, but has not yet engaged in the activity when the Source Protection Plan comes into effect. If the significant threat activity associated with the proposed development (e.g. fuel storage as part of a gas station) was prohibited by the Source Protection Plan, that activity would not be able to be engaged in at that location notwithstanding that the proponent may have invested considerable time, money and effort in preparing the material to support the applications and possibly even preparing the site and constructing a building. Therefore, it was determined that it would be fair and reasonable to establish transitional policies to allow a significant threat activity that was clearly intended to be established as part of a formal development proposal prior to the effective date of the Source Protection Plan, to be evaluated as existing for the purposes of applying the Source Protection Plan policies. It was determined that if one or more of these applications had been submitted and deemed to be complete as of the date of Source Protection Plan approval, and the applicant has formally declared that one or more significant threat activities are being proposed as part of the development, that would constitute a sufficient commitment to the establishment of the threat activity to give it transitional consideration. For similar reasons, transitional provisions for significant threat activities proposed through a complete application for a prescribed instrument submitted prior to the effective date of the Source Protection Plan were also included.

The second transitional policy pertains to uses and associated activities that could be established on a property in accordance with existing zoning, with no further local development approvals (e.g. the Planning Act, 1990 or building permit). A number of prescribed significant threat activities (e.g. storage and handling of commercial fertilizer, pesticides, organic solvents, DNPALs etc.) would not likely require a building permit, or any other form of local approval, to be established on a property, even after the Source Protection Plan comes into effect. This is most likely in cases where there are existing buildings and structures on a property that are suitable for the proposed use (e.g. storage of DNAPLs in an existing industrial building). For example, a proponent may

have purchased or leased a property zoned for industrial purposes and containing existing industrial buildings, with the specific intent of operating a new industry that requires the handling and storage of DNAPLs as an essential part of their process.

Given that there would not likely be any local planning or building permit approvals required, it is quite likely that the proponent would not be aware that their operation involves a significant threat activity regulated by the Source Protection Plan policies. This situation is even more likely if local planning documents (Official Plan and Zoning) have not yet been updated to identify the areas and activities that are subject to the Source Protection Plan policies. In such circumstances, it may also be very difficult for the implementing body for a particular policy to confirm whether such activity was established after the date the Source Protection Plan was approved. For these reasons, it was determined that it would be fair and reasonable to give transitional consideration to significant threat activities in such circumstances. However, it was also felt to be important to include the provision that, at such time as a Risk Management Official (RMO) /Inspector (RMI) has visited the site and documented the threat activities existing at that time, any threat activities not documented as existing will thereafter be considered future. The intent is that once such inspection has occurred, the owner/operator could no longer claim to be unaware of the Source Protection Plan restrictions on significant threat activities and the RMO would have conclusive documentation of the threats that were existing at that point in time. The intent is that the RMO/ RMI on-site inspections and existing threat documentation will be conducted as soon as possible after the Source Protection Plans are approved.

Finally, unless otherwise noted in the threat specific policies, it is intended that replacements, modifications and expansions to existing significant threat activities be considered as part of the existing significant threat activity and, therefore, evaluated in accordance with the policies pertaining to existing threats. A specific policy dealing with replacements, modifications and expansions was included in previous versions of the County of Oxford's policies, however, it was removed based on discussions with Ministry of the Environment staff. These discussions concluded that specific policies were not required to allow for replacements, modifications and expansions to existing significant threats, particularly in cases where Part IV or Prescribed Instrument policies were used. For policies where it was determined that specific provisions for replacements, modification and expansions were necessary (such as where land use planning tools were used), wording was added to those policies.

5.3.3 Part IV Policies

Section 57 Prohibition

Intent:
These policies are intended to prohibit activities under Section 57 of the Clean Water Act, 2006 in vulnerable areas where the activities are or would be a significant drinking water threat.

Rationale:

Based on a review of current and projected land uses in the areas where the following activities could be significant drinking water threats, it is believed that prohibition is both reasonable and most effective for addressing a number of the significant drinking water threats in the County of Oxford. Prohibited activities within WHPAs include:

- Establishment, operation, or maintenance of a waste disposal site, within the meaning of Part V of the Environmental Protection Act: waste disposal sites that do not require an Environmental Compliance Approval (ECA);
- New or existing application of agricultural source material (WHPA-A);
- New storage of agricultural source material;
- New handling and storage of commercial fertilizer;
- New handling and storage of pesticides;
- New and existing handling and storage of road salt on all property uses with the exception of residential use – exposed to precipitation or runoff;
- New handling and storage of fuel;
- New handling and storage of DNAPLs (WHPA-A); and
- New handling and storage of an organic solvent.

Waste disposal sites that do not require an Environmental Compliance Approval (ECA)

Waste disposal sites are generally regulated under the Environmental Protection Act and require an Environmental Compliance Approval (ECA); however, not all aspects of such threats (such as PCB storage) are necessarily regulated under Part V of the Environmental Protection Act. Therefore, Section 57 was used as a way to address any potential “gaps” in the Prescribed Instrument in a manner that would be consistent with prohibition through the Prescribed Instrument. It was determined unnecessary to prohibit existing occurrences of this activity where it would be a significant drinking water threat.

However, given the limited area and number of properties in the County of Oxford where such activities could be a significant drinking water threat, it was determined that future waste disposal sites could, and therefore should, be located in areas where they are not a significant threat to drinking water sources. No concerns were raised during pre-consultation during the development of the first source protection plan, with respect to prohibiting future occurrences of this activity in areas where it would be a significant threat to drinking water sources.

The application and storage of agricultural source material (ASM)

The Nutrient Management Act, 2002 prohibits the application and storage of ASM within 100 m of a well (WHPA-A) for farms regulated under the Nutrient Management Act, 2002. As such, it was determined that the most effective and consistent policy approach would be to prohibit the existing and future application of ASM and the future storage of ASM within the WHPA-A. This approach is keeping with the County of Oxford's overall policy approach, which is generally to prevent new/future significant threats from becoming established where achievable and reasonable.

As the Nutrient Management Act, 2002 does not apply to all agricultural operations, Part IV prohibition was determined to be the most appropriate tool to prohibit this activity, as it would ensure that all agricultural operations undertaking this activity within WHPA-A are subject to the same restrictions, regardless of whether or not they are subject to the NMA. Prohibition was deemed to be a reasonable approach for the future storage of ASM, given the location of existing livestock barns and other farm buildings/structures, the limited area affected and the ample opportunities to locate new facilities outside of significant threat areas in Oxford County. Furthermore, the establishment of ASM storage facilities in the WHPA-A and B is currently prohibited by the water quality policies in the County Official Plan; therefore, the Source Protection Plan policies will reduce the area where such significant threat activities are currently prohibited.

The County of Oxford included prohibition policies for the storage of ASM to apply within a WHPA-B with a vulnerability score of 10 in the Long Point Region and Grand River Source Protection Plans. However, only the WHPA-A for the Brownsville water supply system has a vulnerability score of 10; therefore, this activity is not a significant drinking water threat in the WHPA-B.

Handling and storage of commercial fertilizer
Section 57 was determined to be the most appropriate and effective approach for addressing this threat, as it provides the greatest certainty for the protection of municipal drinking water sources, by ensuring no additional significant drinking water threats related to this activity can be established. It was also determined to be a reasonable approach, given that the land area affected is relatively small and alternate locations could be found for any new facilities.

Handling and storage of pesticides
While it was deemed to be unreasonable to prohibit existing storage facilities, it was also determined that new activities should be directed to areas where the risks are not significant. It was determined that Section 57 was the most appropriate and effective approach, as it provides the greatest certainty for protection of municipal drinking water sources by ensuring no additional significant drinking water threats related to this activity can be established.

It was also determined to be reasonable, as the areas where this activity could be a significant threat are relatively small and there are opportunities to locate new facilities in alternative locations.

Handling and storage of road salt – exposed to precipitation or run-off
Prohibition of both future and existing road salt handling and storage exposed to precipitation and runoff through Section 57, was determined to be the most appropriate approach for all property uses, with the exception of residential use, because of the high risk of runoff from precipitation from these generally larger properties. Prohibition provides the greatest certainty for protection of municipal drinking water sources, by ensuring no additional significant drinking water threats related to this activity are established. Furthermore, it was deemed to be reasonable, given that the areas where this activity would be a significant threat to drinking water are relatively small and there are many other locations where this activity could be undertaken without becoming a significant threat to drinking water.

Handling and storage of fuel
The circumstances for this activity in the 2021 Technical Rules indicate that for fuel storage less than 250 Litres (L) is not a significant threat. Fuel storage larger than 250 L would be prohibited in significant threat areas. Given the number of potential existing significant threats associated with this activity, it was not deemed appropriate to prohibit existing storage of fuel. However, Section 57 was determined to be the most appropriate approach for addressing future threats, as it provides the greatest certainty for protection of municipal drinking water sources, by ensuring no additional significant drinking water threats related to this activity are established. Furthermore, it was deemed to be reasonable, given that the areas where this activity would be a significant threat to drinking water are relatively small and there are many other locations where this activity could be undertaken without becoming a significant threat to drinking water.

Handling and storage of dense non-aqueous phase liquids (DNAPLs)
Dense non-aqueous phase liquids (DNAPLs) are particularly persistent and toxic chemicals. The Clean Water Act, 2006 establishes that any quantity of the specified chemicals that are considered DNAPLs is a significant threat in WHPA-A, B and C regardless of vulnerability score. Section 57 was used to prohibit new/future occurrences of this activity in the most vulnerable areas (WHPA-A and B with a vulnerability score of 10), with the exception of DNAPLs in quantities typical of household use in association with residential uses.

The approach was deemed to be more reasonable than prohibition over the entire significant threat area (WHPA-A, B and C), as such a broad prohibition could potentially have resulted in substantial impacts on economic development opportunities in some areas, given the large number of industrial and commercial properties affected. This prohibition was only applied to future activities, as it was felt that prohibition of existing activities could result in undue hardship for existing operations. In recognition of these potential impacts, Section 58 (Risk Management Plans) was applied within the remainder of the WHPA areas where this activity is a significant threat. While prohibition of existing activities was not relied upon to eliminate the threat, this does not limit the Risk Management Official/Inspector from discussing opportunities for using alternatives to the prescribed DNAPL, or relocating to an alternative location as part of the Risk Management Plan negotiation process.

Handling and storage of organic solvents

The 2021 Technical Rules identify the quantities (e.g. 25 L) above which the handling and storage of prescribed organic solvents are a significant threat to drinking water sources. Additionally, only the organic solvents specifically identified in the tables are significant drinking water threats. As with many of the other activities that the County of Oxford chose to prohibit, it was determined that prohibition of existing handling and storage was not necessary or appropriate. However, Section 57 was determined to be the most appropriate approach for addressing future threats, as it provides the greatest certainty for protection of municipal drinking water sources, by ensuring no additional significant drinking water threats related to this activity are established. Furthermore, it was deemed to be reasonable, given that the areas where this activity would be a significant threat to drinking water are relatively small and there are ample other locations where this activity could be undertaken without becoming a significant threat to drinking water. As well, there may be alternative chemicals or processes available that would not be a significant drinking water threat if located in a significant threat area.

Section 58 Risk Management Plans

Intent:

The development of Risk Management Plans under Section 58 of the Clean Water Act, 2006 was used to allow for the management of activities that cannot be managed effectively through land use planning or existing Prescribed Instruments.

Rationale:

Risk Management Plans (RMP), in accordance with Section 58 of the Clean Water Act, 2006, are used as a tool to manage existing and future drinking water threats. This tool is used to “fill the gap” where a land use planning policy or other existing legislation cannot adequately regulate a significant drinking water threat. This tool is particularly effective in dealing with existing significant drinking water threat activities, where prohibition would likely impose undue hardship on property owners, businesses, etc. RMPs also provide an opportunity to work with property owners/proponents to manage a threat.

The RMP process also serves as a site specific education and outreach opportunity by allowing the Risk Management Official (RMO) to comprehensively review and discuss potential alternatives (e.g. processes, substances or locations) that might eliminate the significant threat, as well as best management practices and any available local incentives with the person undertaking the activity.

The threats that require a RMP within the WHPA-A include:

- Establishment, operation or maintenance of a waste disposal site within the meaning of Part V of the Environmental Protection Act: existing waste disposal site that is not subject to an Environmental Compliance Approval;
- Existing storage of agricultural source material;
- New or existing application of commercial fertilizer;

- Existing handling and storage of commercial fertilizer (except for residential use);
- New or existing application of pesticides;
- New (less than or equal to 2,500 kg) or existing (any quantity) handling and storage of pesticides;
- New or existing handling and storage of road salt on all property uses, with the exception of residential use – potentially exposed to precipitation or runoff
- New or existing storage of snow;
- Existing handling and storage of fuel and new handling and storage of fuel required for back-up generators at municipal supply wells;
- New or existing handling and storage of DNAPLs (except for quantities typical of household use in association with residential uses);
- Existing handling and storage of organic solvents;
- New management of runoff that contains chemicals used in the de-icing of aircraft; and
- New and existing use of land as livestock grazing or pasturing, outdoor confinement area or farm animal yard.

Waste activities that do not require an Environmental Compliance Approval
This policy ensures that existing activities that are part of the waste disposal site circumstances which do not require an Environmental Compliance Approval are adequately managed to ensure they cease to be a significant drinking water threat. Examples include auto-salvaging facilities and hardware stores that collect hazardous waste for disposal. Although there may be financial and staffing implications for the implementing body related to the development and implementation of Risk Management Plans to manage existing storage of waste, it was also determined to be the best option for managing these existing threats, particularly since these activities are not subject to an Environmental Compliance Approval and there are likely few, if any, instances in the County of Oxford where this policy would apply.

The storage of agricultural source material (ASM)
Risk Management Plans (RMP) were determined to be the most consistent, appropriate and effective means of regulating existing storage of ASM in all significant threat areas, even in instances where such activities would be subject to a Prescribed Instrument issued under the Nutrient Management Act, 2002. Using Section 58 policies ensures that all properties and operations associated with such activities in significant threat areas are subject to the same review process, monitoring and management requirements. As well, properties containing such significant threat activities are also likely to contain other significant threats that would require a RMP. Therefore, the use of

RMPs and other Part IV tools to manage the various threats on a property allows for those threat activities to be dealt with consistently by the Risk Management Official (i.e., review processes, monitoring and management requirements). Use of these tools also ensures the Risk Management Official (RMO) is aware of all threats on a property and how they are being managed and provides an opportunity to discuss alternative locations that might eliminate the significant threat, best management practices and any local education and outreach or incentive programs that might be available to assist in managing those threats.

It is intended that the principles of the Nutrient Management Act, 2002, and any prescribed instruments issued under that Act, would serve as the general basis for the development of an RMP for such significant drinking water threats and it is anticipated that the RMO will work closely with OMAFRA staff to determine how such principles should be applied.

Oxford County has retained a professional agronomist firm to assist with developing reasonable content and risk management measures to manage agricultural-related significant drinking water threats. Funding through the County's Source Protection incentive fund will be available to impacted property owners to meet the requirements of the RMP. If properties have existing regulatory approvals for significant threat activities, such as a Nutrient Management Plan or Strategy, they may be required to review and update those instruments to account for the risk to source water rather than implementing an RMP.

The application, handling and storage of pesticide

Section 58 was determined to be the most appropriate approach for the application of pesticides and storage of smaller quantities of pesticides, as there are risk management measures which can adequately manage the risks such that the activity ceases to be a significant threat. As well, properties containing such significant threat activities are also likely to contain other significant threats that would require a Risk Management Plan (RMP). Therefore, the RMP process would allow for all threats on a property to be dealt with consistently by the Risk Management Official.

Section 58 was used for existing handling and storage of pesticides at a facility where they are manufactured, distributed or processed to allow activities to only be undertaken when the risk is managed through a RMP. While prohibition of future activities where the volume handled or stored would make it a significant threat was determined to be necessary to manage the risks associated with such pesticide threats, prohibition of existing activities was not deemed to be appropriate and, therefore, management through Section 58 was selected.

Risk management measures have not been specified in these policies to provide flexibility for the Risk Management Official to determine how best to protect municipal drinking water sources. It is intended that potential opportunities to switch to alternative pesticides or to relocate storage outside of significant threat areas would also be discussed as part of the RMP process.

The application, handling, and storage of commercial fertilizer
Risk Management Plans (RMP) were determined to be the most effective and appropriate means of regulating the application of commercial fertilizer and the handling and existing storage of commercial fertilizers in significant threat areas, even in instances where such activities may be subject to a Prescribed Instrument issued under the Nutrient Management Act, 2002. Using Section 58 policies would ensure that all properties and operations associated with such activities in significant threat areas are subject to the same review process and monitoring and management requirements.

As well, properties containing such significant threat activities are also likely to contain other significant threats that would require a RMP. The use of RMPs and other Part IV tools to address the various threats on a property allows them to be dealt with consistently by the Risk Management Official. The use of such tools ensures the Risk Management Official is aware of all threats on a property and how they are being managed and provides an opportunity for the Risk Management Official to discuss alternative locations that might eliminate the significant threat, best management practices and any local education and outreach or incentive programs that might be available to assist in managing those threats.

It is intended that the principles of the Nutrient Management Act, 2002, and any prescribed instruments issued under that Act, would serve as the general basis for the development of an RMP for the application of commercial fertilizer. However, it is noted that there are no existing significant threat activities concerning the application of commercial fertilizer to land within the vulnerable area identified in this plan. The County is aware that the Nutrient Management Act (NMA, 2002) prohibits the land application of nutrients (including commercial fertilizer) within the WHPA-A for those farming operations regulated (phased in) under the NMA and that risk management officials and inspectors will be made aware of and trained on these requirements.

The handling and storage of road salt – potentially exposed to precipitation or runoff

Risk Management Plan (RMPS), for both existing and future road salt handling and storage potentially exposed to precipitation and runoff, were determined to be the most appropriate approach for all property uses, with the exception of residential use. The risk management measures included in a RMP can adequately manage the level of risk posed by this activity, such that the activity ceases to be or never becomes a significant drinking water threat. Examples of road salt storage containers potentially exposed to precipitation or run-off include salt bins/boxes and three-sided containers.

The storage of snow
This activity can only be a significant drinking water threat under certain circumstances (i.e. any amount of snow storage on properties where the predominant land use is commercial or industrial by any means other than a storm water drainage system outfall). The Assessment Report did not identify any existing threats in the County of Oxford, nor are any suspected. Although unlikely, if an existing occurrence of this threat activity were to be discovered, it was determined that a Risk Management Plan would be sufficient to adequately manage the risk such that the activity ceases to be a

significant threat. Given that any amount of snow storage, i.e., from 5kg to 500 tonnes, could be a significant threat under certain circumstances, it was determined that the most practical approach is also a RMP for future activities. Risk Management Plans can be used adequately to mitigate the risk for commercial and industrial properties. Prohibition policies were considered too strict for the lesser amounts.

The handling and storage of fuel

Although prohibition was determined to be the most appropriate approach for addressing future handling and storage of fuel for the reasons outlined under the Part IV prohibition rationale, given the number of potential existing occurrences of this activity in the County of Oxford, it was determined that a Risk Management Plan was the more appropriate approach for addressing existing threats. This approach was also selected to provide the necessary flexibility to allow for new fuel storage required for back-up generators at municipal wells (which are required for emergency purposes) provided appropriate risk management measures are in place. The Risk Management Plan process can be used to ensure compliance with the requirements of the Technical Standards and Safety Act, 2000 and any other requirements deemed necessary by the Risk Management Official to protect municipal drinking water sources.

The handling and storage of a dense non-aqueous phase liquid (DNAPLs) in WHPA-A

DNAPLs are a significant threat in a WHPA-A, B and C regardless of vulnerability scores. It was determined important to prohibit the establishment of future DNAPL threat activities in WHPA-A, as it is the highest risk area. It was not deemed to be appropriate to apply this prohibition to existing activities or to extend it to all areas where this activity would be a significant threat, due to the large area affected and the potential impact on existing and planned employment uses and associated economic development opportunities.

Although the use of DNAPLs may potentially be associated with residential uses, as the chemicals may be found within many commonly used products, the quantities are likely to be small and manageable through an education and outreach program focused on the safe storage, handling and disposal of these chemicals. However, existing DNAPL handling and storage and future DNAPL handling and storage outside of WHPA-A involving quantities and concentrations of DNAPLs that, in the opinion of the Risk Management Official (RMO) exceed that typical of household use, would still be designated for the purposes of Section 58 and require the establishment of a Risk Management Plan. Specific quantities, concentrations, or risk management measures were not identified in the policies to allow the RMO the flexibility to effectively manage the risks and focus on the instances of this threat that pose the greatest risk to the municipal drinking water systems.

The handling and storage of organic solvents

Section 58 was used for existing handling and storage of organic solvents to allow activities to only be undertaken when the risks can be adequately managed through a Risk Management Plan (RMP). While prohibition of future activities was determined to be the most appropriate approach to address new occurrences of this threat for the

reasons outlined in the rationale for Section 57 policies, prohibition of existing activities was not deemed to be necessary and therefore, management through the use of Section 58 was selected.

The management of runoff that contains chemicals used in the de-icing of aircraft

There were no existing threats associated with aircraft de-icing noted in the Assessment Report for the County of Oxford. Further, the potential for an airport to be constructed that is of a size and in a location that would be considered a significant drinking water threat is minimal. Therefore, the County of Oxford was confident that a policy to address existing occurrences of this threat activity was not required. However a policy was developed to address future occurrences of this threat to encompass the unlikely development of new airports or the reclassification of an existing airport's threat level due to changes in passenger service. While airports and related activities are regulated by the Federal government, it was determined that municipalities should work collaboratively with airport authorities to ensure that activities associated with this drinking water threat never become significant. A Risk Management Plan is a formalization of the collaborative effort between the airport authority and the Risk Management Official.

The use of land as livestock grazing or pasturing land, an outdoor confinement area or a farm animal yard

Although outdoor confinement areas are regulated by the Nutrient Management Act, 2002, not all farms contained within significant threat areas are subject to the Nutrient Management Act, 2002 and, therefore, required to have Nutrient Management Plans and/or Strategies. In addition, the Nutrient Management Act, 2002 does not regulate livestock grazing or pasturing activities. Therefore, it was determined that Risk Management Plans (RMP) would be the most consistent, appropriate and effective means of addressing this threat.

Using Section 58 policies would ensure that all properties and operations associated with such activities in significant threat areas are subject to the same review process and monitoring and management requirements. As well, properties containing such significant threat activities are also likely to contain other significant threats that would require a RMP. Therefore, the use of the RMP process and other Part IV tools would allow for all threats on a property to be dealt with consistently by the Risk Management Official. Using such processes also ensures the Risk Management Official is aware of all threats on a property and how they are being managed and provides an opportunity for the Risk Management Official (RMO) to discuss alternative locations that might eliminate the threat, best management practices and any local education and outreach or incentive programs that might be available to assist in managing those threats. It is intended that the principles of the Nutrient Management Act, 2002, and any prescribed instruments issued under that Act, would serve as the general basis for the development of a RMP for such significant drinking water threats and it is anticipated that the RMO will work closely with OMAFRA staff to determine how best to apply such principles.

Direct prohibition of future occurrences of this activity was not selected as the preferred approach given the difficulty of differentiating between existing and future occurrences of these activities, which typically do not require a building permit or other development approvals. However, given that no existing outdoor confinement areas have been identified in the County of Oxford within the vulnerable areas and there are few, if any, existing livestock barns located within significant threat areas, it is anticipated that the RMP process can be used to achieve location or relocation of such activities outside of significant threat areas in most cases.

Section 59 Restricted Land Use

Intent:
To designate all land uses, with the exception of residential land uses, in areas where significant threat activities are designated for the purposes of Section 57 and/or 58 of the Clean Water Act, 2006 (WHPA A, B and C), as Restricted Land uses under Section 59 of the Clean Water Act, 2006 to help ensure that any applicable Part IV tools are considered early in the development process.

The intent of these policies is to 'flag' new Planning Act and building permit applications that could result in the establishment of a new significant drinking water threat subject to Part IV policies. This 'flagging' process is intended to ensure that applicants proposing development that may result in the establishment of a significant threat and the planning and building permit approval authorities are made aware of applicable Source Protection Plan policies prior to development approval. This is beneficial to both the municipality and the proponent because it would reduce the need to initiate enforcement of prohibition or risk management measures after a building or land use associated with a significant threat activity has been established. Where Section 58 policies would apply to the activity, the Section 59 policies would require the proponent to negotiate or otherwise have their Risk Management Plan (RMP) established prior to proceeding with the application. Being aware of the RMP requirements at the outset may also make it easier for the proponent to re-locate the significant threat activity on the site, or undertake other adjustments to the building or facility design/layout or associated processes, to address RMP requirements that may have been more difficult or costly if the activity was already established.

This process also helps to ensure significant threat activities that would be prohibited, or require the establishment of a RMP, are not inadvertently approved, or allowed to establish as a result of a local development approval process, in contravention of the Source Protection Plan policies.

Rationale:
These policies were developed to require all applications under the Planning Act and Ontario Building Code Act, 1992 with the exception of those associated with residential uses, within areas where activities are, or would be significant drinking water threat to be reviewed by the Risk Management Official, who would then advise the applicant/landowner if Section 57 (Prohibition) or Section 58 (Risk Management Plans) of the Clean Water Act, 2006 apply.

Residential land uses were excluded from the restricted land use policy as they are unlikely to be associated with new significant drinking water threat activities that would be prohibited or require Risk Management Plans (RMP). As well, given the number of residential properties located within significant threat areas, the volume of residential building permits that the Risk Management Official (RMO) may have been required to review could be considerable, with very little potential of involving threat activities that would be subject to Section 57 or 58 policies. It was also determined that the Section 59 review of applications for residential uses may have placed unnecessary pressure on limited RMO/RMI staffing resources, resulting in potential delays in development approvals and implementation of other Part IV Source Protection Plan policies (e.g. RMP's for existing activities), while providing little to no implementation benefit.

The only significant threats that would generally be associated with residential land use would be on-site sewage systems, application of commercial fertilizer and fuel storage. On-site sewage systems and commercial fertilizer application in the County of Oxford are not dealt with by Section 57 or 58 policies, so Section 59 would not apply. Furthermore, Section 59 screening was not seen to be necessary for fuel storage on residential properties, as installation of new underground fuel storage tanks, which would require a Risk Management Plan, was deemed to be unlikely.

The policies also enable the RMO to screen applications for activities identified as significant drinking water threats within vulnerable areas. The policies also contain provisions to allow for the RMO to issue written guidance that would allow for a Planning Authority or Building official to make a determination that the development proposed by a particular Planning Act or Building Permit application is not designated for the purposes of Section 59, under specified circumstances. The intent is to allow for the Restricted Land Use process to be refined over time, so that only those applications that are likely to be associated with, or affect, a significant threat activity would require review by the RMO. It is also anticipated that the RMO will establish requirements for the provision of additional documentation or detailed information (e.g. specific nature of the land use and associated activities and location on the site) to assist in the screening and review of development proposals.

5.3.4 Prescribed Instruments

Ministry of the Environment, Conservation and Parks: Prohibit Environmental Compliance Approvals (ECA)

Intent:
The Ministry of the Environment, Conservation and Parks is required to prohibit activities within the Environmental Compliance Approval (ECA) process where they would be significant drinking water threats under Subsection 39 of the Clean Water Act, 2006.

Rationale:

New waste disposal site that requires an Environmental Compliance Approval Non-Agricultural Source Material Plans (NASM)

Although the Environmental Compliance Approval process and NASM plans are considered to be rigorous, prohibition of these future activities through the ECA and NASM process was determined to be the most appropriate approach. This was for the same reasons as outlined in the rationale provided for the uses of Section 57 prohibition for future occurrences of this threat that are not subject to an ECA.

New onsite sewage works, wastewater treatment facilities and associated parts, stormwater management facilities and drainage systems and industrial effluent discharge

Given that the area affected by these policies is relatively small and there is ample area where these activities could be located without becoming a significant threat, the prohibition of these activities through the Environmental Compliance Approval process was determined reasonable. The prohibition will not have a significant impact on the municipality or on future development opportunities, particularly given that the establishment of new septic systems is already prohibited in the WHPA-A by the water quality policies contained in the County of Oxford's Official Plan.

Ministry of the Environment, Conservation and Parks: prepare or review and amend Environmental Compliance Approvals

Intent:

The Ministry of the Environment, Conservation and Parks is required to prepare or review and amend activities within the Environmental Compliance Approval (ECA) process where they are significant drinking water threats under Subsection 39 of the Clean Water Act, 2006.

Rationale:

Existing waste disposal site that requires an Environmental Compliance Approval

Existing onsite sewage works, wastewater treatment facilities and associated parts, and wastewater collection facilities and associated parts that require an Environmental Compliance Approval

Existing NASM Plans

Environmental Compliance Approvals and Non-Agricultural Source Material Plans are not to be approved unless terms and conditions are imposed that, when implemented, will ensure that these activities ceases to be significant drinking water threats, with the exception of new combined sewer overflow systems. Environmental Compliance Approvals would likely never be approved for this activity. Policies using the Prescribed Instrument tool rely on the authorities of the Ministry of the Environment, Conservation and Parks and OMAFRA to protect drinking water sources through their respective approval processes. It is generally a priority of the County of Oxford to use existing regulatory tools where available and effective for addressing a particular threat activity. Environmental Compliance Approvals have been a longstanding requirement for waste disposal and sewage, and the criteria used to assess these Certificates are thorough. Similarly, NASM Plans under the Nutrient Management Act, 2002 have comprehensive requirements and criteria that are used to address NASM. Requiring these Ministries to review Environmental Compliance Approvals and NASM Plans in light of the

circumstances that make the activity a significant drinking water threat ensures that terms and conditions are added to these approvals, where necessary.

Ministry of Agriculture, Food and Rural Affairs/or MECP: Prohibit Application or New Storage of Non-Agricultural Source Material through NASM Plans/ECAs

Intent:
The Ministry of the Environment, Conservation and Parks or the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) as applicable, are required to prohibit the existing and future application of NASM and new storage of NASM through the Environmental Compliance Approval process or the Nutrient Management Act, 2002, as applicable, where such activities would be significant drinking water threats under Subsection 39 of the Clean Water Act, 2006.

Rationale:
As the application (both existing and future) or new storage of non-agricultural source material (NASM) appears to be comprehensively regulated by the applicable Prescribed Instruments (no gaps or exceptions were identified), the County of Oxford determined that these existing regulatory tools were the most appropriate for achieving the desired prohibition of such activities where they would be a significant threat.

The Nutrient Management Act, 2002 prohibits the application or storage of NASM within 100 m of a well (WHPA-A). Therefore, based on the Clean Water Act, 2006 science, it was determined that the most appropriate and consistent policy approach would be to prohibit the application of NASM within the WHPA-A. The same policy approach has been applied to both existing and future occurrences of this threat, given that NASM application does not occur on an on-going basis on the same parcel of land and, therefore, in effect there can be no application of NASM that would be considered ‘existing’ under the County of Oxford’s definition.

Given that existing storage of NASM was not identified, or suspected, in significant threat areas in Brownsville, prohibition of existing NASM storage was not deemed necessary. However, it was determined that managing future storage of NASM was not appropriate, when prohibition of future NASM storage was both a reasonable and more precautionary policy approach, particularly given the limited area of agricultural land that would be affected within Brownsville. Prohibition prevents the establishment of new significant threats of this type and therefore, provides the most certainty in achieving the overall goal of protecting municipal drinking water systems.

The County of Oxford included prohibition policies for the application and storage of NASM to apply within a WHPA-B with a vulnerability score of 10 in the Long Point Region and Grand River Source Protection Plans. However, only the WHPA-A for the Brownsville wells has a vulnerability score of 10; therefore, this activity is not a significant drinking water threat in the WHPA-B.

Ministry of Agriculture, Food and Rural Affairs and/or MECP: Review and Amend Existing Non-Agricultural Source Material (NASM) Plans

Intent:
The Ministry of the Environment, Conservation and Parks or Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) as applicable, are required to review and, if necessary, amend Environmental Compliance Approvals or Non-Agricultural Source Material (NASM) Plans to ensure the existing storage of NASM is managed such that it ceases to be a significant drinking water threat.

Rationale:
As the storage of NASM appears to be comprehensively regulated by the applicable Prescribed Instruments (no gaps or exceptions were identified), the County of Oxford determined that these existing regulatory tools were the most appropriate for managing such activities where they would be a significant threat. Although no existing NASM storage facilities were identified, or suspected, in significant threat areas in the County of Oxford, given the fact that such facilities may involve considerable investment/infrastructure, it was determined that it would be more reasonable to manage these existing facilities in the unlikely event one were to be identified prior to approval of the Source Protection Plan.

5.3.5 Land Use Planning

Management / Regulation through Planning Act

Intent:
The general land use planning policies are intended to ensure local planning documents are amended to include information that will serve as a resource for identifying and communicating the areas and activities that are regulated by the Source Protection Plan to those considering or making land use decisions. Further the policies require Official Plans and Zoning by-laws, as applicable, to be amended to conform with the significant threat policies set out in the Source Protection Plan, which in the case of the County of Oxford pertains to the prohibition of development on onsite sewage systems regulated by the Ontario Building Code through land use planning.

Rationale:
The purpose of these policies is to provide direction as to what needs to be amended/included in the Official Plan and Zoning Bylaw to ensure all land use planning decisions conform with the significant threat policies contained in the Source Protection Plan. These policies also identify specific uses that will be prohibited or managed through land use planning documents. The transition policies of OC-CW-1.2 also allow for transitioning of certain Planning Act and Building Code Act, 1992 applications to be processed under the “existing” policy requirements.

Official Plans and zoning by-laws are the primary land use documents used by planning authorities (municipalities) to communicate permitted land uses and associated requirements to developers, landowners and the general public. Given that all planning decisions are required to conform with the Source Protection Plan policies on the date the Source Protection Plan takes effect, it is important that local land use planning documents are consistent with the Source Protection Plan as soon as possible. Having local land use planning documents up to date will assist in ensuring that those making

local land use decisions e.g. business operators, perspective purchasers, developers, real estate agents and municipal staff and Council are aware of the Source Protection Plan policies and how they may affect land uses or activities in a particular area, before making any such decisions.

New onsite sewage works, with the exception of onsite sewage works which are required for a municipal water supply well
Part IV tools under the Clean Water Act, 2006 cannot be used to prohibit sewage threats. Therefore, it was determined that the best remaining policy approach to prevent the establishment of new onsite sewage works regulated under the Ontario Building Code would be to prohibit/regulate development to be serviced by these types of onsite sewage works through land use planning, in areas where they would be a significant drinking water threat.

Amendments to the County of Oxford's Official Plan and, more importantly, Area Municipal Zoning By-laws would be required to implement this policy. The area affected by this prohibition is limited and, based on review of the properties potentially affected; the impact on future development in the County is anticipated to be minimal. Furthermore, development of new onsite sewage systems in the WHPA-A is already prohibited by the water quality policies contained in the County of Oxford's Official Plan, so the proposed policies will reduce the area where such significant threat activities are currently prohibited.

5.3.6 Education and Outreach

Education and Outreach Programs: Municipality and Conservation Authority delivered

Intent:
The general education and outreach policies are intended to indicate that the County of Oxford, together with the Conservation Authority and other bodies, where possible, may develop education and outreach programs directed at any, or all, significant drinking water threat activities where deemed necessary or appropriate.

The threat-specific education and outreach policies require the County of Oxford to develop mandatory education and outreach programs to address certain significant threat activities. The long-term funding of education and outreach programs is critical to their success and effectiveness. The financial involvement of the Province in these programs will help to ensure their ongoing effectiveness and in maintaining a level of consistency in program messaging across the province.

Rationale:
Education and outreach can be an effective tool to influence behaviours and practices for individuals and businesses. Therefore, the County of Oxford supports the use of this tool as a complementary policy approach for managing significant drinking water threats, where deemed necessary and/or appropriate. For example, the handling and storage of DNAPLs may be a necessary part of a business process, but if the users of these products are more aware of the risks associated with these products and the

need to consider alternatives, this awareness could improve the protection of the drinking water source.

The County of Oxford supports the potential use of education and outreach programs to address significant drinking water threats, where deemed necessary and/or appropriate and subject to available funding. However, education and outreach programs have also been selected as the primary policy tool for addressing the following activities:

The handling and storage of dense non-aqueous phase liquids (DNAPLs) - Household Concentrations/Quantities
As DNAPLs are considered a significant drinking water threat in any quantity, the use of small quantities or concentrations of DNAPLs in association with residential uses may potentially be a significant threat, as the chemicals are readily available and may be found within commonly used products. However, given the large number of residential properties that would need to be reviewed to determine whether DNAPLs were present and the likelihood of anything other than small 'household' type quantities being found, it was determined that an education and outreach program focused on the safe storage, handling and disposal of these chemicals would be adequate to ensure DNAPLs potentially associated with these land uses cease to be, or never become, a significant drinking water threat.

The application of commercial fertilizer in association with a residential use
In certain areas, the application of commercial fertilizer to residential properties is considered a significant drinking water threat. However, given the small number of residential properties affected, the very low percentage of the total managed land area in the County of Oxford comprised of residential uses and the fact that any other management approach (e.g. Risk Management Plan) would likely be limited primarily to education, it was determined that an education and outreach program focused on the proper application of commercial fertilizer would be adequate to ensure such activity ceases to be, or never becomes, a significant drinking water threat.

The handling and storage of road salt (exposed and potentially exposed to precipitation and runoff) in association with a residential use
The handling and storage of road salt (exposed and potentially exposed to precipitation and runoff) on residential properties is considered a significant drinking water threat in some vulnerable areas. Given the small number of residential properties affected, that salt quantities will likely be low and stored indoors, the very low percentage of the total managed land area in the County of Oxford comprised of residential uses, and the fact that any other management approach (e.g. Risk Management Plan) would likely be limited primarily to education, it was determined that an education and outreach program focused on the proper handling and storage of road salt would be adequate to ensure such activity ceases to be, or never becomes, a significant drinking water threat.

5.3.7 Incentive Programs

Incentive Programs: Municipality delivered (with the Ministry of the Environment, Conservation and Parks and other bodies where possible)

Intent:
The general incentive policies are intended to indicate that the County of Oxford, together with other bodies, where possible, may develop and implement incentive programs directed at significant drinking water threat activities where deemed necessary or appropriate. These policies also request that the Ministry of the Environment, Conservation and Parks consider reinstating funding for incentive programs, such as the Ontario Drinking Water Stewardship Program.

Rationale:
Incentives can be an effective tool for influencing behaviours and practices for individuals and businesses. The County of Oxford supports the use of this tool as a complementary policy approach to assist in addressing significant drinking water threats, where deemed necessary and/or appropriate. Although the County of Oxford supports the potential use of Incentive programs to address significant drinking water threats, where deemed necessary and/or appropriate, such programs are dependent on available funding. Reinstating funding for incentive programs from the Ministry of the Environment, Conservation and Parks is a key component in assessing the potential financial impacts on the municipality associated with undertaking any such programs. Therefore, the Source Protection Plan includes a policy requesting the Province to consider reinstating funding for incentive programs, such as the Ontario Drinking Water Stewardship Program. As Source Protection is a provincial initiative, it was determined that reinstated provincial funding for incentive programs should be provided to ensure the effective implementation of the Source Protection Plan policies.

5.3.8 Stewardship Programs

Decommissioning of Abandoned Wells that serve as Transport Pathways

Intent:
The intent is to ensure transport pathways such as abandoned wells are properly managed to reduce the risks to municipal drinking water sources.

Rationale:
Abandoned wells are often located on private property and it may be cost prohibitive to properly decommission or upgrade these wells. A specific transport pathway policy to support ongoing stewardship programs to decommission abandoned wells would help reduce the ability of contaminants to enter the groundwater within vulnerable areas. This may further reduce the vulnerability of an area and the number of identified threats.

5.3.9 Specify Action

Spill Prevention, Spill Contingency and Emergency Response Plans along highways, railway lines or shipping lanes

Intent:
To ensure that emergency plans, contingency plans and spill containment plans are updated with respect to spills that occur within WHPAs.

Rationale:

Municipal emergency services are often the first responders to events that may adversely impact a source of municipal drinking water. Therefore, spill prevention and contingency/response plans should be updated to include maps that clearly detail the vulnerable areas. Quick and effective response to spills could prevent an emergency from affecting a municipal drinking water source. Additionally, updates to the current spill prevention and contingency/response plans could act as a communication tool for the municipalities and the public and ensure residents are aware of the location of WHPAs and knowledgeable regarding the appropriate response in the event of a spill in these areas.

Liquid Hydrocarbon Pipelines

During the initial round of source protection planning, liquid hydrocarbon pipelines were not included in regulation as a prescribed drinking water threat. For threats relating to oil pipelines, the Lake Erie Region Source Protection Committee applied to the Director of the Source Protection Programs Branch to consider a request to add this as a local threat. The application was made in February 2011 and the Director approved the conveyance of oil by way of underground pipeline in June 2011 as a local threat in the Grand River, Long Point Region, Catfish Creek and Kettle Creek source protection areas. In July 2018, the “establishment and operation of a liquid hydrocarbon pipeline” was added as a prescribed drinking water threat to General Regulation (O. Reg. 287/07) under the Clean Water Act.

Within Lake Erie Source Protection Region, hydrocarbon pipelines cross the Grand River upstream of several surface water intakes (i.e. Dunnville Emergency Intake, Brantford Intake, and Ohsweken Intake). The pipeline crossings are in an area of low vulnerability. Although the likelihood of a pipeline rupture is low, the consequences of a rupture could have significant impacts on downstream drinking water intakes. Due to the likely high impacts in the event of a hydrocarbon pipeline rupture, moderate and low policies have been developed for both existing and future hydrocarbon pipelines within WHPAs and IPZs across the Lake Erie Source Protection Region. The pipeline policies are non-binding and for future threat activities; there are no existing pipeline crossing vulnerable areas in Catfish Creek Source Protection Area.

Consideration of Drinking Water Source Protection in Decision-Making Framework for Liquid Hydrocarbon Pipelines

Intent:

Recommend that bodies responsible for assessment and / or regulation of liquid hydrocarbon pipelines in Ontario consider drinking water source protection in their decision-making framework.

Rationale:

As the liquid hydrocarbon pipeline industry is heavily regulated both federally and provincially, the policy focuses on the need for source protection integration into the decision-making framework. The responsibility for assessment and to make decisions that incorporate source protection lies with the regulatory bodies. Some implementing bodies may already consider source protection and the policy would act as a formal confirmation of their efforts.

Use of Source Protection Information when Developing, Operating and Maintaining Liquid Hydrocarbon Pipelines

Intent:
Recommend that pipeline owners ensure that best available source protection information is used when developing, operating and maintaining liquid hydrocarbon pipelines.

Rationale:
The policy focuses on the need for source protection integration into the decision-making framework of pipeline owners. The responsibility is on the pipeline owners to ensure that they have the latest and best information, such as vulnerable areas, in the development, operation and maintenance of liquid hydrocarbon pipelines. Some pipeline owners may already consider source protection and the policy would act as a formal confirmation of their efforts.

Notification of Proposed New Liquid Hydrocarbon Pipeline

Intent:
The location and siting of liquid hydrocarbon pipelines is not controlled by the local municipalities, therefore managing this activity through direction and recommendations to the appropriate approval authority is the most effective approach for this threat.

Rationale:
The primary concern regarding this threat relates to a potential spill from a pipeline. Encouraging the Canada Energy Regulator and the Ontario Energy Board to advise the Source Protection Authority and the Municipality of any proposed pipeline will assist the Municipality in identifying early in the process whether a proposed pipeline will affect the municipal drinking water supply. Directing the policy at the Canada Energy Regulator and the Ontario Energy Board also encourages the regulators to formally integrate source protection into their processes to ensure that the policy is implemented.

Reimbursement of Costs Incurred by Municipality

Intent:
Liquid hydrocarbon pipeline owners, where appropriate, reimburse costs incurred by the Municipality if specific work to be done or for any due diligence that is required by a regulator to protect public health and municipal drinking water sources.

Rationale:

The operation and maintenance of liquid hydrocarbon pipelines is not controlled by the local municipalities, nor are they the owners of the pipelines. In the event of a spill, for example, significant costs may be incurred by municipalities and should be reimbursed by pipeline owners as they are responsible for operations and maintenance. Pipelines regulated through the Canada Energy Regulator are required to bear all costs associated with the consequences of a spill; however, the Ontario Energy Board has no legally-enforceable requirements/guidelines for provincially regulated pipelines.

5.3.10 Monitoring Policies

Intent:
Monitoring Policies have been included for each policy listed above. In some instance one monitoring policy may apply to a number of different policies as the same information is required from the monitoring body.

Rationale:
The Clean Water Act, 2006 requires the Source Protection Authority to prepare and submit to the Director of the Ministry of the Environment, Conservation and Parks and the Source Protection Committee an annual report that describes the measures taken to implement the Source Protection Plan. In order to prepare this report, the Source Protection Authority requires other implementing bodies to report annually to the Source Protection Authority by February 1st of each year. Section 65(8) of O. Reg. 287/07 requires that annual reports from the Risk Management Official be submitted by February 1st of each year. The reporting policies use this date as the basis for establishing the reporting deadline for the other implementing bodies.

6.0 SUMMARY OF COMMENTS RECEIVED

6.1 Summary of Comments Received During Pre-Consultation

In accordance with Ontario Regulation 287/07 of the Clean Water Act, 2006, the Grand River Conservation Authority acting as the Grand River Source Protection Authority on behalf of Oxford County and the Source Protection Committee, completed pre-consultation for the Catfish Creek Source Protection Plan update with various implementing bodies affected by the plan.

The pre consultation process began on October 3, 2022. This update included policy and map amendments for the County. For a complete draft of the Source Protection Plan, agencies were directed to the Lake Erie Source Protection Region website.

Agencies were given until November 6, 2022 to provide comments. This period was the first opportunity for agencies to provide comments on the draft updates to the plan.

The following table summarizes comments received during the pre-consultation period.

Table 6-1: Summary of Pre-Consultation Comments Received on the draft Updated Catfish Creek Source Protection Plan

Summary of Comment	How Comment was Addressed
Source: Oxford County Amend policy OC-CW-12.1 as proposed. Additions to the policy are *italicized* and removal of wording are ~~strikethrough~~: To ensure any Existing or New handling and storage of road salt exposed to precipitation or runoff on ~~properties zoned for commercial or industrial~~ *all property uses, other than a residential use*, ceases to be or never becomes a significant drinking water threat, where this activity is, or would be a significant drinking water threat, it shall be designated for the purpose of Section 57 of the Clean Water Act, 2006 and shall be prohibited.	Policy amended as suggested.
Source: Oxford County Remove policy OC-CW-12.2 and combine with policy OC-CW-12.4.	Policy removed and combined as suggested.
Source: Oxford County	Policy amended as suggested.

Summary of Comment	How Comment was Addressed
Amend policy OC-CW-12.3 as proposed. Additions to the policy are *italicized* and removal of wording are ~~strikethrough~~: To ensure any Existing or New handling and storage of road salt potentially exposed to precipitation or runoff on ~~properties zoned for commercial or industrial use~~ *all property uses, other than a residential use*, ceases to be or never becomes a significant drinking water threat, where this activity is or would be a significant drinking water threat, it shall be designated for the purpose of Section 58 of the Clean Water Act, 2006 and a Risk Management Plan.	
Source: Oxford County Combine policy OC-CW-12.2 and OC-CW-12.4 as proposed. Additions to the policy are *italicized* and removal of wording are ~~strikethrough~~: To ensure any Existing or New handling and storage of road salt *exposed and* potentially exposed to precipitation or runoff on ~~properties zoned for residential use~~ *a residential use* never becomes a significant drinking water threat, where this activity is or would be a significant drinking water threat, the County shall develop and implement an education and outreach program directed at the owners and/or occupants of such properties.	Policy amended as suggested. Phrase “exposed and potentially exposed” amended to read, “exposed or potentially exposed”.
Source: MECP Policy OC-MC-3.10 is a new proposed policy which prohibits future industrial effluent discharges within a Wellhead Protection Area (WHPA)-A scoring 10. This policy would currently only apply to the Brownsville drinking water system. The ministry notes that the current Catfish Creek Source Protection Plan already	Policy OC-MC-3.10 to remain as currently written. The County will not develop a complimentary Land Use Planning policy for the following reasons: • The threat is sufficiently addressed through the Prescribed Instrument prohibition. This is consistent with the Long Point Region and the Thames-Sydenham and Region Source

Summary of Comment	How Comment was Addressed
includes a policy for Land Use Planning (OC-MC-1.4) and the ministry supports this combined policy approach. In general, the ministry prefers the flexibility of policies that manage sewage activities through conditions in prescribed instruments rather than those that prohibit sewage infrastructure, as they can limit new growth and development. However, if the SPC/SPA chooses a policy approach to prohibit issuing an environmental compliance approval (ECA) for an activity, the ministry recommends that a complementary land use planning policy is included in the source protection plan to provide an early warning to proponents. The application for an ECA typically happens at the last phase of development, whereas the environmental assessment and planning approval phases happen earlier in the process. When a proponent applies for an ECA, they may have invested significant resources in the proposal. Ensuring proponents have information about which activities are subject to source protection plan prohibitions or risk management measures early in the development process will provide proponents with greater certainty about their project. This comment is for your awareness only, as the Catfish Creek plan adopts this approach.	Protection Plans, which do not have any related restricted land use policy. • The impact of a restrictive land use policy would be very broad, both in terms of the potential and non-specific land uses it would impact (e.g. potentially any new industrial, agricultural, agricultural business uses, etc.) from an Official Plan and zoning perspective, as well as from a geographical perspective when considering all four of the source protection plans in the County. This is very different from the septic prohibition. • The County does not specifically designate or zone for stormwater management infrastructure which could also be considered “future industrial effluent discharges”. • There are other methods that can be relied on to encourage due diligence and ensuring servicing feasibility early in the planning process (e.g. source protection screening and flagging Prescribed Instrument requirements), as many of the uses that would potentially have a future industrial effluent facility that would ‘discharge’ (i.e. have an outlet) would likely need at least some sort of re-zoning. The exception would be dairy operations as these are considered an agricultural use and would likely still be subject to building permits where this could be flagged ahead of time
Source: MECP Please ensure the Canada Energy Regulator, Ontario Energy Board and Technical Standards and Safety Authority (TSSA) are consulted as implementing	The Canada Energy Regulator, Ontario Energy Board and Technical Standards and Safety Authority (TSSA) have been notified of the opportunity to provide comments during the pre-consultation and public consultation periods.

Summary of Comment	How Comment was Addressed
bodies for the new proposed pipeline policies.	
Source: MECP Please make all the necessary corresponding changes to the Explanatory Document, especially where new policies are being added to the source protection plan, and existing policies are being revised.	The Explanatory Document has been amended accordingly.

6.2 Summary of Comments Received During Public Consultation

In accordance with O. Reg. 287/07 made under the Ontario Clean Water Act, 2006, The Grand River Conservation Authority acting as the Grand River Source Protection Authority on behalf of Oxford County and the Lake Erie Source Protection Committee posted the draft Updated Source Protection Plan for a 35-day public consultation period between January 25 and February 28, 2023. Public consultation comments and how they are addressed will be presented in a table below.

Detailed public consultation comments and how they were addressed for previous iterations of the Catfish Creek Source Protection Plan are available upon request.

Table 6-2: Summary of Public-Consultation Comments Received on the Draft Updated Catfish Creek Source Protection Plan

Summary of Comment	**How Comment was Addressed**
Source: MECP In CCSPA_SPPV_1 Report, Appendix B-2, the two sewage works subcategories (onsite sewage works and wastewater treatment facilities and associated parts) are not numbered. Please amend those threat subcategories in Appendix B-2 to be numbered.	All eight sewage subcategories are numbered.