

Approved

Maitland Valley Source Protection Plan

This document contains the
Source Protection Plan
for the Maitland Valley Source Protection Area

Ausable Bayfield Maitland Valley
Drinking Water Source Protection Committee (SPC)

Approved January 19, 2015

Effective April 1, 2015

Amended February 5, 2019

ACKNOWLEDGEMENTS

The Ausable Bayfield Maitland Valley Source Protection Committee is proud of how the people of this community worked so well together to prepare this plan. We thank them for their important work:

Municipalities

The six counties and 24 lower-tier municipalities in the Ausable Bayfield Maitland Valley Source Protection Region provided vital knowledge, active participation, and guidance to the creation of this plan.

Property Owners, Residents, and Other Stakeholders

Owners of homes, businesses, farms, and other properties, and other interested people, attended public meetings and events, offered questions and comments, and provided valuable input.

Ministries, Public Health, and Sector Experts

Provincial ministries, federal departments, local health units, and sector experts provided helpful information and advice during the creation of the plan. Ontario's Ministry of the Environment funded the development of source protection plans, including this one, in Ontario.

Staff

Many source protection authority staff members contributed to the development of this source protection plan. The staff members include:

Jenna Allain	Rob Carnegie
Cathie Brown	Donna Clarkson
Aaron Clarke	Tim Cumming
Geoff Cade	Mary Lynn MacDonald

PREFACE

Effective Date and General Authority

The effective date of the source protection plan for the Maitland Valley Source Protection Area is April 1, 2015. The plan has legal effect, as of this date, as provided by the Ontario Clean Water Act, 2006. The respective plan applies to the Maitland Valley Source Protection Area, as designated in Ontario Regulation 284/07.

Note regarding amendments of the Source Protection Plan:

For vulnerable areas added to the plan through amendments, policies have legal effect in these areas from the Effective Date of the amendment(s). This means the timelines for risk management plan policies and prescribed instrument policies shall be from the date the amendments take effect.

Reading this Plan

This plan should be read in conjunction with all other applicable land use planning policy, regulations, and standards. These documents include, but are not limited to: the Provincial Policy Statement; Ministerial zoning orders under Section 47 of the Planning Act; Other provincial land use plans; Upper, lower, and single-tier municipal official plans and zoning bylaws; and regulations where more specific provincial plans or regulations apply to lands within the source protection areas.

Accompanying Explanatory Document

A companion document to this plan outlines the reasons and rationale for each policy and how financial considerations and climate change were considered during policy development. This accompanying Explanatory Document can be found at www.sourcewaterinfo.on.ca

Assessment Report

This plan builds on the technical information described in the Assessment Report for the Maitland Valley Source Protection Area, which can be found at www.sourcewaterinfo.on.ca. The report describes wellhead and intake protection areas and describes the threats to water quality for each water system.

Notice of Amendments

Amendments to this document, made under the Ontario Clean Water Act, 2006, following approval on April 1, 2015, are summarized below:

Date of Amendment	Description of Amendments
April 2016	<p>CWA Section 51 Amendment:</p> <p>Carriage Lane and Harbour Lights well systems were taken out of service by the Municipality of Bluewater, and were therefore removed from this Plan in 2016.</p>
<p>Approved January 31, 2019</p> <p>Effective February 5, 2019</p>	<p>CWA Section 34 Amendment:</p> <p>Change to five wellhead protection areas (WHPA) in Maitland Valley SPA:</p> <ol style="list-style-type: none"> 1. Revision to the Blyth WHPA to include new well #5 2. Adjustment of the Benmiller WHPA as a result of a new replacement well near the existing well building. 3. Revision of the Dungannon WHPA to reflect removal of well # 1, which was decommissioned in 2017 4. Adjustment of the Molesworth WHPA as a result of a replacement well near the existing well building. 5. Addition of Ripley well system: the revised WHPA extends into the Maitland Valley SPA <p>Revisions to two policies:</p> <p>Policy P.12.1-Resticted Land Use: This policy would be amended to allow Risk Management Officials to provide written direction to municipal staff about the types of applications that could be excluded from CWA, Part IV Section 59 screening, allowing more flexibility in the type of applications that are reviewed by Risk Management Officials</p> <p>Policy P.12.2 – Effective Date for Section 58 Risk Management Plan Policies: This policy would be revised to extend the timeline for risk management plan completion from three years to five years.</p>

TABLE OF CONTENTS

Part I – Introduction.....	3
1.0 Background	3
1.1 Importance of Drinking Water Source Protection	3
1.2 Clean Water Act, 2006	4
1.3 Source Protection Areas and Regions.....	4
1.4 Source Protection Authorities	5
1.5 Source Protection Committee	5
1.6 Source Protection Process	6
1.7 Other Factors	7
2.0 Policy development.....	9
2.1 Drinking Water Threats.....	10
2.2 Drinking Water Sources and Vulnerable Areas.....	11
2.3 Plan Objectives	15
2.4 Policy Tools	16
2.5 Legal Effect.....	18
2.6 Explanatory Document	18
2.7 Future Considerations	18
3.0 Establishment of Source Protection Policy Areas	19
Part II – Plan Policies.....	22
4.0 Policies	22
Explanation of Policy Codes	22
4.1 Residential Land Uses	23
Residential Policies – Septic Systems	23
Residential Policies – Fuel Handling and Storage.....	24
Residential Policies – Grazing, Pasturing and Outdoor Confinement Areas	26
Residential Policies – Sewage System or Sewage Works	27
Residential Policies – Waste Disposal Sites	32
Residential Policies – Dense Non-Aqueous Phase Liquids (DNAPLs) Handling and Storage	35
Residential Policies – Organic Solvents Storage	35
Residential Policies – Road Salt Handling, Storage and Application	36
Residential Policies – Agricultural Source Material (ASM), Non-Agricultural Source Material (NASM), Commercial Fertilizer and Pesticides Application and Storage	37
Residential Policies – Snow Storage	38
4.2 Agricultural Land Uses	39

Agricultural Policies – Septic Systems	39
Agricultural Policies – Fuel Handling and Storage	40
Agricultural Policies – Grazing, Pasturing and Outdoor Confinement Areas	42
Agricultural Policies – Sewage System or Sewage Works	43
Agricultural Policies – Waste Disposal Sites	47
Agricultural Policies – Dense Non-Aqueous Phase Liquids (DNAPLs) Handling and Storage	50
Agricultural Policies – Storage of Organic Solvents.....	51
Agricultural Policies – Road Salt Handling, Storage and Application*.....	52
Agricultural Policies – Agricultural Source Material (ASM), Non-Agricultural Source Material (NASM), Commercial Fertilizer and Pesticides Application and Storage	52
Agricultural Policies – Snow Storage	57
4.3 All Other Uses (Commercial, Industrial, Institutional, Recreation, Open Space, Extraction, etc.).....	57
All Other Uses Policies – Septic Systems	57
All Other Uses Policies – Fuel Handling and Storage.....	59
All Other Uses Policies – Grazing, Pasturing and Outdoor Confinement Areas	60
All Other Uses Policies – Sewage System or Sewage Works	62
All Other Uses Policies – Waste Disposal Sites.....	66
All Other Uses Policies – Handling and Storage of Dense Non-Aqueous Phase Liquids (DNAPLs).....	69
All Other Uses Policies – Storage of Organic Solvents.....	70
All Other Uses Policies – Road Salt Handling, Storage and Application	70
All Other Uses – Agricultural Source Material (ASM), Non-Agricultural Source Material (NASM), Commercial Fertilizer, and Pesticides	72
All Other Uses Policies – Snow Storage and Runoff from Aircraft De-Icing	75
4.4 Other Permitted Policies.....	77
4.5 Administrative, Effective Dates, Monitoring and Transition Policies	78
Part III – Plan Administration	83
5.0 Compliance and Applicable Law	83
6.0 Plan Administration	83
7.0 Enforcement and Penalties.....	84
Appendices	85
Appendix A – Glossary	85
Appendix B – List of Acronyms and Abbreviations.....	92
Appendix C – Consultation Record	94
Appendix D – Requirements Under Section 34 of Regulation 287/07	99
Appendix E – Education and Outreach	104
Schedules.....	105

PART I – INTRODUCTION

1.0 BACKGROUND

1.1 Importance of Drinking Water Source Protection

The reality of what can happen when sources of drinking water become contaminated was no more apparent than in Walkerton Ontario in May 2000. After Walkerton's groundwater became contaminated with *E. coli* 0157:H7 and *Campylobacter*, seven people died while thousands more were made ill.

Justice Dennis O'Connor led a public inquiry that looked into this tragedy. The inquiry made 121 recommendations to better protect Ontario's drinking water in the future. A key conclusion was the need to have multiple layers of protection in place, a concept commonly referred to as the "multi-barrier approach".

Protecting drinking water through a multi-barrier approach is not a new concept. For years, drinking water has been protected directly or indirectly through a variety of regulations, policies and programs. These have been administered by federal, provincial and municipal governments, as well as health units and conservation authorities. What the Walkerton Inquiry highlighted was a need to ensure every barrier is robust so there is a strong safety net protecting Ontario's drinking water. The Government of Ontario responded to the inquiry recommendations by strengthening existing legislation and introducing new legislation to fill regulatory gaps. A key part of this response was enacting the *Clean Water Act* in 2006, and funding the drinking water source protection program that followed.

The Need for Drinking Water Source Protection

- Water treatment is not always enough. Water treatment systems do not remove all contaminants from water, particularly chemicals such as fuels and solvents. The safest approach is to prevent contamination.
- Prevention saves money. It is much cheaper to keep water clean than it is to try and remove contaminants. A 2010 spill from a home heating oil tank in Eastern Ontario cost about \$1 million to clean up. The spill might have been avoided through a few preventive changes to the tank and supply lines.
- Contamination can ruin a water source forever. Sometimes contamination cannot be cleaned up and a water supply must be shut down. The community of Hensall decided to pipe in water from the Lake Huron Primary Water Supply System after one of their wells was contaminated with nitrogen.
- Source protection has other benefits. Clean and plentiful sources of drinking water also support tourism, recreation, business development and fish and wildlife habitat - all of which are important to our local economies.

1.2 Clean Water Act, 2006

PURPOSE

The *Clean Water Act, 2006* is not designed to protect water resources in general. Its purpose is to protect those water resources that are used as a source of drinking water. Specifically, it is focused on protecting rivers, lakes and groundwater where they supply municipal drinking water systems (the large systems that serve towns, villages and cities). Under the *Act*, sources of water for these municipal systems must be studied and policies created to protect them from contamination and depletion. Protecting “the source” is intended to complement the work of water treatment plant operators who ensure municipal drinking water is properly treated, tested and safely distributed to homes and businesses.

While the focus of the *Clean Water Act* is protecting sources of municipal drinking water, it does provide some opportunities to help protect regional groundwater. Under the *Act*, groundwater supplying private wells is studied at a regional scale to determine where highly vulnerable aquifers and significant recharge areas are and how non-restrictive policies can be created to help protect it.

APPROACH

Unlike other legislation, the *Clean Water Act* does not apply a standard set of policies across Ontario. Instead, multi-stakeholder committees created policies to protect their local sources of drinking water. The *Act* specified the list of drinking water threats that committees had to write policies for, the tools they could use to manage or prohibit these threats and the technical studies that had to be undertaken to understand where policies should apply. Committees then had to create policies that were reasonable and effective for their watershed.

FUNDING

The Ontario Ministry of the Environment and Climate Change (MOECC) oversees the implementation of the *Clean Water Act* and has fully funded the source protection process up to the completion of source protection plans. This included costs associated with technical studies, policy development, staff and committees. In addition, many municipalities, conservation authorities, businesses, residents, farmers and members of the public generously contributed their time in support of local source protection work.

1.3 Source Protection Areas and Regions

The Walkerton Inquiry recognized that source protection should be undertaken at the watershed scale. This is because a source of drinking water often flows through many municipalities before it is drawn into a drinking water system. Being able to study the whole watershed and develop policies that cross political boundaries is the only way to protect a source of drinking water.

The *Clean Water Act* divided southern Ontario and parts of Northern Ontario into 38 source protection areas. These are watershed-based areas, most of which mirror conservation authority boundaries. Many of these areas were then grouped into regions so staff and resources could be shared to reduce costs. The result was 19 source protection regions or individual areas administering the source protection program across Ontario.

Two or more Source Protection Areas may be combined to create a Source Protection Region. The Ausable Bayfield Source Protection Area and the Maitland Valley Source Protection Area were combined to form the Ausable Bayfield Maitland Valley Source Protection Region (ABMV SPR).

1.4 Source Protection Authorities

While the MOECC oversees the *Clean Water Act* provincially, conservation authorities are tasked with administering the program at the local level. Their role is to manage the source protection budget, establish a source protection committee, submit deliverables completed by the committee to the MOECC for review and approval, and report annually to the MOECC on policy implementation. Conservation authorities were selected because they already operate at the watershed scale and have experience protecting water resources. Officially, conservation authorities are referred to as source protection authorities (SPAs) when undertaking their responsibilities under the *Clean Water Act*.

The Ausable Bayfield and Maitland Valley Source Protection Authorities are made up of the Board of Directors of both respective Conservation Authorities.

1.5 Source Protection Committee

The *Clean Water Act, 2006* established that source protection committees (SPCs) be created for each source protection area or region made up of:

- 1/3 municipal members
- 1/3 agriculture, commercial or industrial sector members
- 1/3 environmental, health, public or other sector members
- Committee chair (non-voting member)

The ABMV Source Protection Committee is comprised of:

- Five municipal representatives – North, East, West, South, Central
- Five economic representatives – 3 agricultural, 1 commerce, 1 industry
- Five representatives from other interests – 2 environmental, 1 land owner, 2 public-at-large
- Non-voting liaisons – SPA, public health, MOECC, (initially First Nations)

The role of the Source Protection Committee is to oversee the process of gathering information about the Source Protection Region, assess threats and ultimately assemble this information into a comprehensive Drinking Water Source Protection Plan for each source protection area.

1.6 Source Protection Process

Under the Clean Water Act, the process to develop science-based policies required Source Protection Committees to develop Terms of Reference, Assessment Reports and Source Protection Plans.

Terms of References – 2008

Terms of Reference outlined how Assessment Reports and Source Protection Plans would be developed and who was responsible for each task. The Terms of Reference for the Ausable Bayfield and Maitland Valley Source Protection Areas were approved by the MOECC on June 8, 2009.

Assessment Reports – 2010

Assessment Reports identify where local drinking water comes from, the areas where it is most vulnerable to contamination and what potential sources of contamination might be in those areas. These technical findings were used to make source protection policy decisions and they determine the areas where policies apply. Assessment Reports for the Ausable Bayfield and Maitland Valley Source Protection Areas were approved on January 9, 2012. Updated Assessment Reports were approved December 10, 2014.

View Terms of Reference and Assessment Reports

Approved documents can be viewed online at:

- www.sourcewaterinfo.on.ca

Electronic copies can also be obtained by contacting:

- Ausable Bayfield Conservation Authority at 519-235-2610 or 1-888-286-2610
- Maitland Valley Conservation Authority at 519-335-3557

Source Protection Plan – 2012

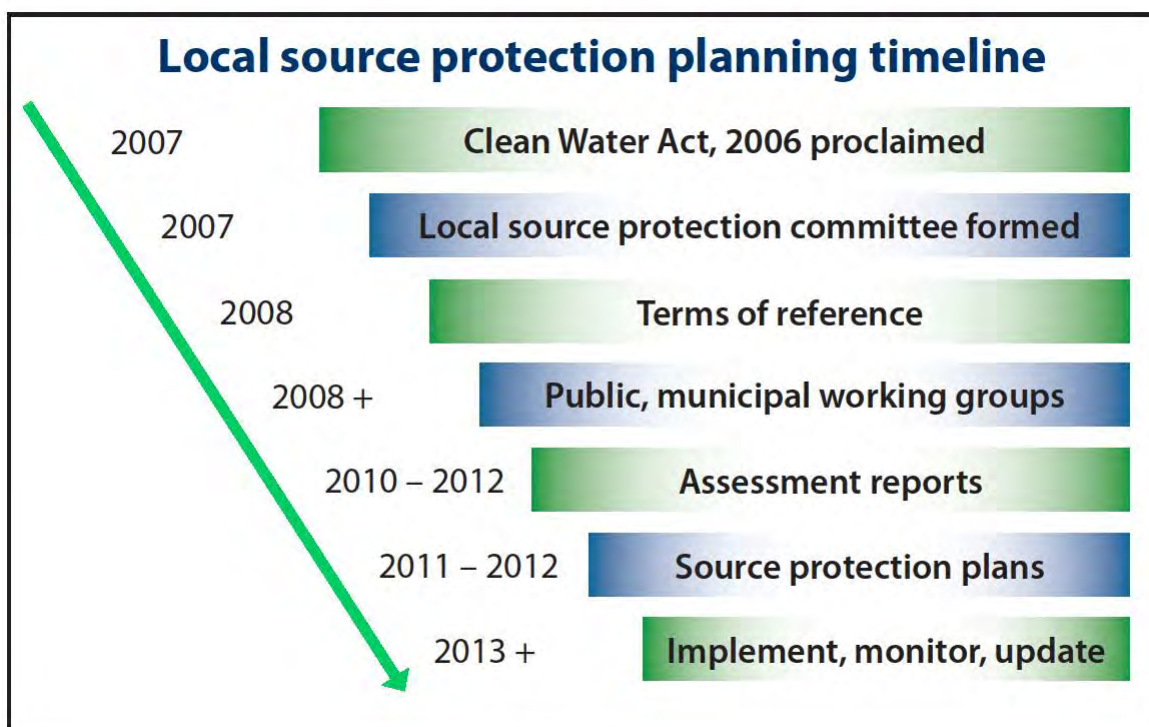
Source Protection Plans contain policies to protect local sources of drinking water from contamination and overuse. This Source Protection Plans for the Ausable Bayfield and Maitland Valley Source Protection Areas contain:

- Required policies
- Other permissible policies for property owners and municipalities to “have regard” for

- Where each policy applies
- Body responsible for implementing each policy
- Date by which each policy must be implemented
- Policies to monitor implementation progress

Implementation and Updates – 2013+

Once approved, the policies in this Plan will be implemented by a variety of agencies including municipalities, provincial ministries and conservation authorities. There is also a requirement to monitor implementation progress and report on it annually. The source protection process is intended to continue over the long term and this Plan will be reviewed and updated as needed.



1.7 Other Factors

EXISTING POLICY FRAMEWORK

The source protection planning process is not happening in a vacuum. In order to be effective, there must be an awareness of other initiatives intended to protect water quality and quantity on a local, provincial, national and international level.

Other Water Agreements:

- International Joint Commission
- Canada United States Great Lakes Water Quality Agreement
- Canada – Ontario Agreement Respecting the Great Lakes Basin Ecosystem
- Ontario Provincial Policy Statement

EXISTING PROGRAMS AND INITIATIVES

There are a number of ongoing programs which provide compatible actions to those in the source protection plans. Understanding of these programs will assist in avoiding duplication and maximize the benefits of these initiatives.

Conservation Authority stewardship staff work with private landowners to implement on-the-ground projects to protect and improve groundwater and surface water quality. Important secondary benefits of these projects include soil conservation, increased biodiversity, carbon sequestration, making the watershed more resilient to climate change and improving the long-term economic sustainability of farming operations.

Projects near municipal wells and surface water intakes were also funded through the Ontario Drinking Water Stewardship Program (ODWSP). Federal, provincial and local governments and foundations financially helped citizens complete water quality improvement projects. The Canada-Ontario Environmental Farm Plan Program and associated grant programs encouraged many farmers to implement Best Management Practices (BMPs). In many cases, these grants were combined with other funding to cover more of the landowners' water stewardship cost.

Stewardship funding programs may include:

- Ontario Drinking Water Stewardship Program under the *Clean Water Act*.
- Clean Water Project – Huron and Perth Counties
- Wellington Rural Water Quality Program
- Canada-Ontario Agreement – Ontario Ministry of Natural Resources and Forestry and Ontario Ministry of Agriculture, Food and Rural Affairs
- Trees Ontario Foundation
- Canada-Ontario Farm Stewardship Program

Programs funded a variety of BMPs depending on specific program goals: clean water diversion, septic system upgrades, wellhead protection and decommissioning, watercourse livestock access restriction, erosion control measures, fragile land retirement, buffers and afforestation.

PUBLIC ENGAGEMENT AND PARTNERSHIPS

The primary goal of the Ausable Bayfield Maitland Valley Source Protection Committee is to arrive at locally created source protection plans which respect the characteristics and

composition of its two source protection areas yet is also based on sound science. One of the keys to locally derived plans which can be effectively implemented is meaningful consultation with the local stakeholders, property owners, business associations, municipalities and the public. To this end the Ausable Bayfield Maitland Valley Source Protection Region has been implementing a focused process of outreach, education, information and consultation.

Consultation strategies have included:

- Print and broadcast media, e.g., media release, advertisements, public services announcements, etc.
- Six local multi-stakeholder community working groups comprising 100 people with an extensive educational component that provided 50 policy suggestions to the ABMV SPC
- Twelve meetings with 24 lower tier municipalities, 9 that have drinking water systems with significant risks. These meetings produced additional policy suggestions
- Notices and copies of documents to abutting SPCs as well as meetings and teleconferences with staff to manage regional boundary differences
- Direct distribution of letters, fact sheets, folders, pamphlets, etc.
- Online tools
- Public events, e.g., open houses, open well events, public meetings, conferences and displays

The record of public consultation required by Regulation is found in Appendix C

While there are no First Nation reserves in the ABMV SPA, from the beginning of the project, nearby Bands have been circulated materials and comments invited. The Chippewas of Kettle and Stony Point First Nation were actively interested in the project and attended the source protection committee until they established their own project in early 2011.

2.0 POLICY DEVELOPMENT

Everyone has an interest in drinking water source protection, from wanting to ensure their source of drinking water is protected to having input into source protection policies that may affect their property. The ABMV Source Protection Committee is tasked with generating a source protection plan for each source protection area, in keeping with the *Clean Water Act, 2006* and its regulations. This plan is specifically aimed at a) the sources of drinking water named in the terms of reference, and b) significant risks to drinking water. The goal is to create policies that would effectively protect source water while at the same time be implemental and reasonable for local communities.

2.1 Drinking Water Threats

Prescribed Drinking Water Threats

The MOECC, in collaboration with a Technical Experts Committee, identified 21 land use activities that have the potential to contaminate or deplete sources of drinking water. These activities are designated as prescribed drinking water threats under Ontario Regulation 287/07. They are:

1. The establishment, operation or maintenance of a **waste disposal site** within the meaning of Part V of the Environmental Protection Act.
2. The establishment, operation or maintenance of a system that collects, stores, transmits, treats or disposes of **sewage**.
3. The application of **agricultural source material** to land.
4. The storage of agricultural source material.
5. The management of agricultural source material.
6. The application of **non-agricultural source material** to land.
7. The storage and handling of non-agricultural source material to land.
8. The application of **commercial fertilizer** to land.
9. The handling and storage of commercial fertilizer.
10. The application of **pesticide** to land.
11. The handling and storage of pesticide.
12. The application of **road salt**.
13. The handling and storage of road salt.
14. The storage of **snow**.
15. The handling and storage of **fuel**.
16. The handling and storage of a **dense non-aqueous phase liquid** (DNAPLs).
17. The handling and storage of an **organic solvent**.
18. The management of runoff that contains chemicals used in the **de-icing of aircraft**.
19. An activity that takes **water from an aquifer** or a surface water body without returning the water taken to the same aquifer or surface water body.
20. An activity that **reduces the recharge** of an aquifer.
21. The use of land as **livestock grazing** or pasturing land, an **outdoor confinement** area or a farm-animal yard.

Threats affecting Water Quality

Most of the prescribed drinking water threats listed above are land use activities that have the potential to contaminate drinking water. They are activities that through spills, leaks or mishandling would release chemicals or pathogens that could contaminate surface water or groundwater. Should this happen near a municipal well, municipal intake or in areas where groundwater is highly vulnerable to contamination, sources of drinking water could become

contaminated. Identifying these activities and minimizing their risk is the purpose of drinking water source protection and the primary focus of the policies in this Plan.

Threat Circumstances

For each prescribed drinking water threat, the MOECC specifies under what circumstances it is considered a significant, moderate or low drinking water threat. The circumstances depend on:

- Where the activity is taking place (relative to a source of drinking water)
- What the nature of the activity is (its contamination potential)

All circumstances are catalogued in a large document produced by the MOECC called the Tables of Drinking Water Threats. The Tables of Drinking Water Threats are accessible via the source protection homepage of ontario.ca or an online "Source Water Protection Threats Tool", accessible via <http://swpip.ca/> Most of the policies in this Plan address activities when they are considered a significant drinking water threat (these policies are required under *the Clean Water Act*). Some policies also address moderate and low threats (these policies are allowed at the discretion of the Source Protection Committee).

Threats Affecting Water Quantity

Prescribed drinking water threats 19 and 20 are activities that could deplete, not contaminate sources of drinking water. No threats to water quantity (existing or future) can be identified unless local water budget assessments determine that there is stress on a specific well system. Currently no systems in the ABMV region have been identified as being under enough stress to identify water quantity threats. However, local assessments are still under way. If any water quantity threats are identified through this process, policies to address these threats will be included in the next round of planning.

2.2 Drinking Water Sources and Vulnerable Areas

In Ausable Bayfield Maitland Valley Source Protection Region there are 26 municipal groundwater well systems as well as two Lake Huron intakes. There are also two well systems in the Saugeen SPR whose WHPAs reach the Maitland Valley SPR (Clifford and Ripley). The Assessment Report studied the sources of water supplying each of these drinking water systems and delineated four types of vulnerable areas: Wellhead Protection Areas, Intake Protection Zones, Highly Vulnerable Aquifers and Significant Groundwater Recharge Areas. These are vulnerable areas where pollutants on the surface could enter the source of municipal drinking water, potentially causing contamination.

Wellhead Protection Areas

Wellhead protection areas (WHPAs) illustrate where groundwater is coming from to supply a municipal well and how fast it is travelling horizontally through the aquifer toward the well. A total of four areas are identified around each well:

- **WHPA-A** is a 100 metre radius around the wellhead
- **WHPA-B** is the area within which groundwater could reach the well within two years
- **WHPA-C** is the area within which groundwater could reach the well within five years
- **WHPA-D** is the area within which groundwater could reach the well within 25 years
- **WHPA-E** is for a GUDI well (Groundwater Under the Direct Influence of surface water) and is the area within which the surface water could reach the well within two hours

The Assessment Report used this information to assign vulnerability scores in each area. Scores are highest closest to the well and where the vulnerability is high.

- **WHPA-A** always receives a **vulnerability score of 10** regardless of vulnerability
- **WHPA-B** can receive a **vulnerability score of 6, 8 or 10** depending on the area's vulnerability
- **WHPA-C** can receive a **vulnerability score of 4, 6 or 8** depending on area's vulnerability
- **WHPA-D** can receive a **vulnerability score of 2, 4 or 6** depending on the area's vulnerability
- There is only one **WHPA-E** within the ABMV Region which has a **vulnerability score of 7.2**

The **Schedules** found at the end of this document show the wellhead protection areas and vulnerability scores for each well system in the Maitland Valley Source Protection Area.

In the ABMV Source Protection Region...

The Wellhead Protection Areas are:

- Ashfield-Colborne-Wawanosh – Century Heights, Dungannon, Huron Sands
- Bluewater –Varna, Zurich *
- Central Huron – Auburn, Benmiller, Clinton, Kelly, McClinchey, SAM, Vandewetering
- Huron East – Brucefield, Brussels, Seaforth
- Huron-Kinloss – Lucknow, Ripley, Whitechurch **
- Minto – Clifford (well system itself is outside ABMV SPR), Harriston, Palmerston
- Morris-Turnberry – Belgrave
- North Huron – Blyth, Wingham ***
- North Perth – Atwood, Gowanstown, Listowel, Molesworth

The Intake Protection Zones are:

- Lake Huron Primary Water Supply System
- Goderich Water Supply

** Please be advised that the Carriage Lane and Harbour Lights well systems have been taken out of service by the Municipality of Bluewater, and have therefore been removed from the plan. The Varna well system was added to the AB SPP in 2017, following designation as a municipal drinking water system*

*** The Ripley well system is located in the Saugeen SPA. The Ripley WHPA was re-delineated in 2017 due to addition of a new well. The WHPA-C now extends into the Maitland SPA.*

**** Blyth added a new well in 2016. The revised Blyth WHPA is included in this Plan.*

Intake Protection Zones

The Intake Protection Zone (IPZ) illustrates where surface water is coming from to supply a municipal intake at a water treatment plant and how fast it is travelling toward the intake. A total of two zones are identified:

- **IPZ-1** is a 1 km radius around the intake or up to a 120 m buffer on land
- **IPZ-2** is the area within which surface water could reach the intake within two hours

The Assessment Reports then looked at how vulnerable the intake was to contamination – in deep or shallow water, far or close to shore, river intake or great lake and the number of

drinking water issues. These factors along with travel time from the intake were used to assign vulnerability scores in each zone. Scores are highest closest to the intake and where the vulnerability is high.

- **IPZ-1** can receive a **vulnerability score of 9 or 10**, however, great lakes intakes, because they are large bodies of water, are adjusted to **final vulnerability scores of 5 to 8**.
- **IPZ-2** can receive a **vulnerability score of 8 or 9** however, great lakes intakes, because they are large bodies of water, are adjusted to **final vulnerability scores of 4 to 6**.

The **Schedules** found at the end of this document show the intake protection zones and vulnerability scores for the Goderich Water Supply System, the only intake located in the Maitland Valley Source Protection Area.

What the Vulnerability Scores mean...

Areas with a Vulnerability Score of 8 to 10

Activities can only be considered a “significant drinking water threat” in areas where the vulnerability score is 8 to 10 (except for Dense Non-Aqueous Phase Liquids (DNAPLs)), which are a significant threat anywhere in WHPA-A, B or C). Under the *Clean Water Act*, Source Protection Plans must include policies to address significant threats. Only significant threats can be prohibited or made to require a Risk Management Plan. Since areas with a score of 8 to 10 cover only 1% of the Ausable Bayfield Maitland Valley Source Protection Region, most properties will not be affected by the majority of policies in this Plan.

Areas with a Vulnerability Score Less Than 8

No activities (except DNAPLs) can be considered a significant drinking water threat in areas where the vulnerability score is less than 8. This means more restrictive policies like Prohibition and Risk Management Plans cannot be used in these areas.

Highly Vulnerable Aquifers

The ABMV region has a variety of soil types that filter water from the surface and protect the underlying aquifers. Depending on the soil type and soil depth these features can make the underlying groundwater very vulnerable to surface contaminants so these areas are called Highly Vulnerable Aquifers (HVA). Maps contained in this plan show the HVAs for the region.

- **Highly Vulnerable Aquifers** receive a **vulnerability score of 6**

The **Schedules** found at the end of this document show the highly vulnerable aquifers and the vulnerability scores for these areas in the Maitland Valley Source Protection Area.

Significant Groundwater Recharge Areas

Areas where there are gravel deposits or soil features (such as sink holes) that allow a significant amount of rain or snow melt to infiltrate down into groundwater are called Significant Groundwater Recharge Areas (SGRA), and can contribute to the quantity of groundwater available within the ABMV region. Groundwater can also be vulnerable to contamination in these areas depending on the depth and type of soil.

- **Significant Groundwater Recharge Areas** receive a **vulnerability score of 2 to 6** depending on the area's vulnerability

The **Schedules** found at the end of this document show the significant groundwater recharge areas and the vulnerability scores for these areas in the Ausable Bayfield Source Protection Area.

2.3 Plan Objectives

Under the *Clean Water Act*, Section 22 of Ontario Regulation 287/07 lays out the objectives of the source protection plan as follows:

- “1. To protect existing and future drinking water sources in the source protection area.
2. To ensure that, for every area identified in an assessment report as an area where an activity is or would be a significant drinking water threat,
 - i. the activity never becomes a significant drinking water threat, or
 - ii. if the activity is occurring when the source protection plan takes effect, the activity ceases to be a significant drinking water threat”

Required Policies

The *Clean Water Act* therefore requires source protection plans to include:

- Policies to address all significant drinking water threats and the implementing body

Other Permissible Policies

The *Clean Water Act* also allows plans to include other types of policies including:

- Policies to address moderate or low drinking water threats
- General policies like education and incentive programs
- Policies to address Emergency Response Plans
- Policies that target the collection of climate data

Overview of the Policies Contained in This Plan...

Education Everywhere

This Plan uses education to raise awareness about all vulnerable areas and drinking water threats.

Significant Threats

While some exceptions apply, in general, the policies in this Plan that address significant drinking water threats:

- Prohibit future activities that pose too high a risk or are unnecessary to locate in a vulnerable area)
- Manage existing activities that pose a potential risk

Moderate and Low Threats

Policies in the Plan address moderate and low threats through:

- Education and outreach

Other Permissible Policies

Policies also address:

- Spills
- Climate Data
- Stewardship Funding
- Signage on Highways

2.4 Policy Tools

The *Clean Water Act* identifies a number of policy tools that can be used to protect source water in vulnerable areas. They range from management measures to prohibition. Many of these are existing tools that are already used to regulate development and land uses. The *Act* places limitations on the most restrictive tools (Prohibition and Risk Management) to ensure that they are only used to address significant drinking water threats. Below is a description of the policy tools used in the Plan to protect sources of drinking water.

Education and Outreach

Programs can educate property owners and businesses about how to address drinking water threats on their property. Such programs can be used to address one threat, a group of threats or all threats. Education policies can also be used to complement other policy tools. Use of materials already developed by other agencies will be incorporated.

Land Use Planning

Municipalities use *Planning Act* tools like official plans and zoning by-laws to direct new development to appropriate areas. Municipal planning documents can therefore be amended

to prohibit or restrict certain types of new development in vulnerable areas that would create a new drinking water threat. For example, source protection policies could require a municipality to prohibit new waste disposal sites in certain vulnerable areas.

Prescribed Instruments

A “prescribed instrument” is a permit or other legal document issued by the provincial government allowing an activity to take place (e.g., Nutrient Management Plans and Environmental Compliance Approvals). These instruments usually contain provisions to protect human health and the environment. Source protection policies can require that an instrument be examined and amended, if necessary to better manage a drinking water threat or policies can be prescriptive and specify content to be included in the instrument. Policies can also prohibit new instruments from being issued to prevent the creation of new significant threats.

Prohibition (including Section 57 of the *Clean Water Act*)

Policies can prohibit activities in vulnerable areas to eliminate or prevent significant drinking water threats. Prescribed Instruments, land use planning or Section 57 of the *Clean Water Act* can be used to prohibit an activity. Only a significant drinking water threat can be prohibited.

Risk Management Plans (Section 58 of the *Clean Water Act*)

Requiring a Risk Management Plan is a new tool created by Section 58 of the *Clean Water Act*. A Risk Management Plan outlines how a person must manage significant drinking water threats on their property. Policies can specify the content of a Risk Management Plan or the content can be developed jointly by a Risk Management Official and the property owner. One Plan can be used to address multiple threats on a single property but plans are only valid for a current property owner. Risk Management Plans recognize current practices that have already been implemented to decrease risk, such as agricultural best management practices.

Incentives

Financial incentives or recognition can be offered to those who address drinking water threats on their property.

Restricted Land Uses (Section 59 of the *Clean Water Act*)

This is a new administrative tool that was created by Section 59 of the *Clean Water Act*. It is used to flag applications made under the Planning Act of the Ontario Building Code that may be prohibited under Section 57 or require a Risk Management Plan under Section 58 of the *Clean Water Act*. These flagged applications are forwarded to the Risk Management Official to determine if the proposed activity is prohibited or requires a Risk Management Plan. If it is prohibited the application does not proceed. If it requires a Risk Management Plan, the proponent and the official need to establish a plan before the application can proceed.

2.5 Legal Effect

The Clean Water Act specifies what legal effect each type of policy can have. Under the *Act*, some policies can be legally binding on implementing bodies (e.g., municipalities, provincial ministries, SPAs or local boards), while others cannot. Appendix D contains lists that identify the legal effect of each policy in the Plan.

In This Plan...

The policies in the Source Protection Plan have one of three types of legal effect:

- “Must conform/comply with”
- “Have regard to”
- “Non-legally binding”

An explanation of which policies fall under which type can be found in Appendix D

2.6 Explanatory Document

The goal of the Ausable Bayfield Maitland Valley Source Protection Committee was to work with the local community to create policies that were:

- **Effective** at protecting source water;
- **Practical** to implement
- **Cost-effective** to implement; and
- **Accepted** broadly.

In deciding whether or not a policy met these guiding principles, the Committee considered a huge amount of background information and took many factors into consideration. An Explanatory Document, which accompanies this Plan, captures what information and factors influenced policy decisions and reasons behind each policy.

2.7 Future Considerations

When this Plan is reviewed and updated in the future the following items could be considered.

Other Drinking Water Systems

There is a clause in the Clean Water Act that allows municipal councils or the Ministry of the Environment and Climate Change to include two other types of drinking water systems in the source protection planning process:

- Clusters of 6 or more private wells
- Systems that supply public and private facilities (schools, community centres, trailer parks)

Although there has been discussion with municipalities regarding these possibilities, no municipality felt there were issues with water safety that warranted including any other water systems in the plan at this time.

Sinkholes

The ABMV Source Protection Region is host to a unique category of geological features related to karst topography – sinkholes. Large sinkholes located in several areas in the region have natural and agricultural drainage directed into them under the *Drainage Act* (now discouraged). These features allow for direct recharge of the bedrock aquifers which in rain events can mean contaminants are quickly carried to the bedrock aquifer. Preliminary evidence reveals that post-storm events alter water chemistry (increased nitrates) in local drinking water sources. However, as these areas are not in a wellhead protection area, and do not constitute significant risks, they were not considered in this round of planning. Further consideration of potential policies in these areas will be discussed in the next round of planning.

3.0 ESTABLISHMENT OF SOURCE PROTECTION POLICY AREAS

Each significant threat policy identifies where it applies within the wellhead protection areas where the vulnerability score is either 8 or 10, or within WHPA-A, WHPA-B, and WHPA-C where DNAPL threats are possible. Other policies in the plan are applicable in significant groundwater recharge areas and highly vulnerable aquifers (as specified within each policy). The Schedules included at the end of this document show the locations of each of these areas within the ABMV Region. A list of these schedules is included below. It should be noted that some wellhead protection areas fall into more than one municipality. In these cases, the schedule is listed under whichever municipality owns and operates the well system. Municipalities that have jurisdiction over properties that fall into the WHPA of a system that is owned and operated by a neighbouring municipality should refer to the schedules listed under that municipality.

Schedule Name		Municipality	Map Name
Key Map		All Municipalities in the MV SPA	Wellhead Protection Areas
Schedule	MV-ACW-1	Ashfield-Colborne-Wawanosh	Benmiller
Schedule	MV-ACW-2	Ashfield-Colborne-Wawanosh	Century Heights
Schedule	MV-ACW-3	Ashfield-Colborne-Wawanosh	Dungannon
Schedule	MV-ACW-4	Ashfield-Colborne-Wawanosh	Huron Sands
Schedule	MV-ACW-5	Ashfield-Colborne-Wawanosh	SGRA/HVA
Schedule	MV-CH-1	Central Huron	Auburn
Schedule	MV-CH-2	Central Huron	Clinton
Schedule	MV-CH-3	Central Huron	Kelly

Schedule	MV-CH-4	Central Huron	McClinchey
Schedule	MV-CH-5	Central Huron	SGRA/HVA
Schedule	MV-GO-1	Goderich	SGRA/HVA
Schedule	MV-GO-2	Goderich	IPZ
Schedule	MV-HO-1	Howick	SGRA/HVA
Schedule	MV-HE-1	Huron East	Brussels
Schedule	MV-HE-2	Huron East	Seaforth
Schedule	MV-HE-3	Huron East	SGRA/HVA
Schedule	MV-HK-1	Huron-Kinloss	Lucknow
Schedule	MV-HK-2	Huron-Kinloss	Ripley
Schedule	MV-HK-3	Huron-Kinloss	Whitechurch
Schedule	MV-HK-4	Huron-Kinloss	SGRA/HVA
Schedule	MV-MI-1	Minto	Clifford
Schedule	MV-MI-2	Minto	Harriston
Schedule	MV-MI-3	Minto	Palmerston
Schedule	MV-MI-4	Minto	SGRA/HVA
Schedule	MV-MT-1	Morris-Turnberry	Belgrave
Schedule	MV-MT-2	Morris-Turnberry	SGRA/HVA
Schedule	MV-NH-1	North Huron	Blyth
Schedule	MV-NH-2	North Huron	Wingham
Schedule	MV-NH-3	North Huron	SGRA/HVA
Schedule	MV-NP-1	North Perth	Atwood
Schedule	MV-NP-2	North Perth	Gowanstown
Schedule	MV-NP-3	North Perth	Listowel
Schedule	MV-NP-4	North Perth	Molesworth
Schedule	MV-NP-5	North Perth	SGRA/HVA
Schedule	MV-PE-1	Perth East	SGRA/HVA
Schedule	MV-SB-1	South Bruce	SGRA/HVA
Schedule	MV-WN-1	Wellington North	SGRA/HVA
Schedule	MV-WP-1	West Perth	SGRA/HVA

Vulnerable areas should be defined in local official plans. This may be achieved through such means as an overlay. The overlay should identify wellhead protection areas, intake protection zones, highly vulnerable aquifers and significant groundwater recharge areas.

The overlay should also identify that activities and land uses, on lands located within the identified areas, may be subject to policies of the Ausable Bayfield or Maitland Valley Source Protection Area Source Protection Plans, and that the reader should refer to these plans for further information.

PART II – PLAN POLICIES

4.0 POLICIES

Explanation of Policy Codes

The policies listed below are divided into four different sections,

- Policies that address specific prescribed drinking water threat activities:
 - **Section 4.1** – Residential Land Use Policies (all policy codes start with the letter “R”)
 - **Section 4.2** – Agricultural Land Use Policies (all policy codes start with the letter “A”)
 - **Section 4.3** – All Other Land Uses (all policy codes start with the letter “C”)
- Policies that do NOT address specific prescribed drinking water threat activities:
 - **Section 4.4** – Other Permitted Policies (all policy codes start with the letter “O”)
 - **Section 4.5** – Administrative, Effective Dates, Monitoring and Transition Policies (all policy codes start with the letter “P”)

Within each section, the policies are further organized into subcategories based on the threat they address. The second character within each unique policy code represents the threat subcategory, which is organized as follows:

- Second character is a 1: Policies addresses septic systems
- Second character is a 2: Policies address the handling and storage of fuel
- Second character is a 3: Policies address grazing, pasturing and outdoor confinement areas
- Second character is a 4: Policies address sewage
- Second character is a 5: Policies address waste disposal sites
- Second character is a 6: Policies address dense non-aqueous phase liquids (DNAPLs)
- Second character is a 7: Policies address organic solvents
- Second character is a 8: Policies address salt storage and application
- Second character is a 9: Policies address application and storage of agricultural source material (ASM), non-agricultural source material (NASM), commercial fertilizer and pesticides
- Second character is a 10: Policies address snow storage and aircraft de-icing
- Second character is an 11 or 12: Policies do not address a specific threat but are permitted policies under the *Clean Water Act*

The third character in the policy code is simply the policy number within each subcategory.

4.1 Residential Land Uses

Residential Policies – Septic Systems

Policy R.1.1 – Planning Prohibition of Future Septic Systems

For those lands located within a wellhead protection area where the vulnerability score is 10, and where septic systems would be a significant drinking water threat, new lots will only be permitted where they are serviced by municipal sanitary sewers or where an on-site septic system could be located outside of a vulnerable area with a vulnerability score of 10.

Policy R.1.2 –Prescribed Instrument Prohibition for Future Large Septic Systems

For those lands located within a wellhead protection area where the vulnerability score is 10, future septic systems which are regulated under the *Ontario Water Resources Act* and would be a significant drinking water threat will not be permitted.

Policy R.1.3 - Specific Action for Future Septic Systems

For those lands located within a wellhead protection area where the vulnerability score is 10, the lot size for any proposed development on existing “lots of record” that would include a small on-site sewage system where it would be a significant drinking water threat, shall be based at a minimum on the most current version of the Ministry of the Environment and Climate Change’s Guidelines for Individual On-site Sewage Systems. The hydrogeological assessment to determine appropriate development density shall be conducted by a professional, licensed to carry out that work (P.Geo. or P.Eng with training in hydrogeology).

Policy R.1.4 – Planning Policy Regarding the Location of Future/Replacement Septic Systems

For those areas within a wellhead protection area where the vulnerability score is 10 where no municipal sanitary sewer exists and where systems already exist or where developable lots have been previously approved, all future or replacement private septic systems on lots where they would be a significant drinking water threat shall be located as far as practically possible from the wellhead while remaining in compliance of the Building Code.

Policy R.1.5 – Specific Action for Existing Septic Systems

For those areas within a wellhead protection area where the vulnerability score is 10, each municipality shall require all properties directly abutting an existing municipal sanitary sewer to be connected to that sewer, and that any existing private septic systems on those lots which is a significant drinking water threat, be decommissioned to the satisfaction of the agency having jurisdiction over approval of septic systems, within the earlier of:

- a) 3 years or,
- b) within 2 years of the time of sale

Policy R.1.6 – Prescribed Instrument for Existing Large Septic Systems

Within three years of the Plan coming into effect, The Ontario Ministry of the Environment and Climate shall review and amend as required, all existing Environmental Compliance Approvals for those septic systems which are systems regulated under the *Ontario Water Resources Act*, and are located within a wellhead protection area where the vulnerability score is 10, and where they are a significant drinking water threat. The Environmental Compliance Approval shall include terms and conditions which when implemented will adequately manage the risk to sources of municipal drinking water.

Policy R.1.7 – Education and Outreach for Existing Septic Systems

Municipalities in collaboration with the lead Source Protection Authority (SPA) shall implement an outreach and education program, developed by the lead SPA, for landowners who own or operate a septic system that is a significant drinking water threat within a wellhead protection area where the vulnerability score is 10. The education and outreach materials shall be developed and staff trained to deliver those materials within one year of the Plan coming into effect. Delivery of the outreach and education program should be initiated in conjunction with the septic inspection program that is mandatory under the Building Code.

Policy R.1.8 – Prescribed Instrument Policy for Future/Replacement Large Septic Systems (Moderate and Low Threats)

Upon the Plan coming into effect, all future Environmental Compliance Approvals issued by the Ontario Ministry of the Environment and Climate for new or replacement septic systems which are systems regulated under the *Ontario Water Resources Act*, and which are proposed to be located within a highly vulnerable aquifer or significant groundwater recharge area where they would be a moderate or low drinking water threat, should include terms and conditions which when implemented will adequately manage the risk to sources of municipal drinking water. It is recommended that where the Director considers it appropriate, the following terms and conditions be included: require all new or replacement septic systems to be tertiary treatment systems.

Policy R.1.9 - Specific Action for Existing and Future Septic Systems

For those areas within a wellhead protection area where the vulnerability score is 10, and where existing and future on-site sewage systems are or would be a significant drinking water threat, the Principal Authorities shall:

- implement the mandatory On-Site Sewage System Maintenance Inspection Program as required by, and in accordance with, the time frame set out in the *Ontario Building Code*.

Residential Policies – Fuel Handling and Storage

Policy R.2.1 – Section 57 Prohibition of Future Fuel Handling and Storage

For those lands located within a wellhead protection area where the vulnerability score is 10, the handling and storage of fuel, where it would be a significant drinking water threat (future), is designated for the purpose of Section 57 of the *Clean Water Act*, as prohibited. This includes the following, for

example, but not limited to (for full circumstance details refer to the Tables of Drinking Water Threats);

- a) below grade or partially below grade storage of fuel where the quantity would be greater than 250 litres, or
- b) above grade storage or handling of fuel where the quantity would be greater than 2,500 litres.

Policy R.2.2 – Risk Management Plan for Existing Fuel Handling and Storage

The following existing activities are designated for the purpose of Section 58 of the *Clean Water Act*, and require Risk Management Plans: the storage (for any period of time), or handling of fuel where it is a significant drinking water threat either entirely or partially within a wellhead protection area where the vulnerability score is 10, including, for example, but not limited to (for full circumstance details refer to the Tables of Drinking Water Threats):

- a.) below grade or partially below grade storage of fuel where the quantity is greater than 250 litres, or
- b.) above grade storage or handling of fuel where the quantity is greater than 2,500 litres.

The Risk Management Official shall negotiate or establish a RMP with the person engaged in the designated threat activity within three years of the Plan coming into effect, including persons seeking a demolition permit as part of a proposal to remove a fuel oil heating system. The Risk Management Plan is to contain, at a minimum, structural or management alterations (if any), which when implemented will ensure that existing operations continue to function, or that decommissioning occurs, in a manner which minimizes the risk to sources of municipal drinking water. Risk Management Plans should reflect current Ontario Regulations such as, but not limited to, the requirements of the Liquid Fuels Handling Code and/or the Fuel Oil Code.

Policy R.2.3 – Education and Outreach Policy for Existing Fuel Handling and Storage

Within one year of the Plan coming into effect, municipalities, in collaboration with the lead Source Protection Authority (SPA), shall implement an outreach and education program, developed by the lead SPA, for delivery to all landowners within their jurisdiction storing (for any period of time), or handling fuel where it is a significant drinking water threat within a wellhead protection area where the vulnerability score is 10. This includes, for example, but is not limited to (for full circumstance details refer to the Tables of Drinking Water Threats):

- a.) below grade or partially below grade storage of fuel where the quantity is greater than 250 litres, or
- b.) above grade storage or handling of fuel where the quantity is greater than 2,500 litres

The outreach and education program is intended to help inform affected landowners of risks to sources of local municipal drinking water and help identify means by which such risks can be minimized.

Policy R.2.4 – Education and Outreach Policy for Existing Fuel Handling and Storage (Moderate and Low Threats)

Within one year of the Plan coming into effect, municipalities, in collaboration with the lead Source Protection Authority (SPA), should implement an outreach and education program, developed by the lead SPA, for delivery to all landowners within their jurisdiction which handle or store fuel where it

would be a moderate or low threat within a wellhead protection area where the vulnerability score is 10. The outreach and education program is intended to help inform affected landowners of risks to sources of local municipal drinking water and help identify means by which such risks can be minimized.

Residential Policies – Grazing, Pasturing and Outdoor Confinement Areas

Policy R.3.1 – Section 57 Prohibition of Future Outdoor Confinement Areas in WHPA-B

For those lands located within Wellhead Protection Area B where the vulnerability score is 10, any operation of an outdoor confinement area where it would be a significant drinking water threat (future), is designated for the purpose of Section 57 of the *Clean Water Act*, as prohibited.

Policy R.3.2 – Section 57 Prohibition of Existing and Future Grazing, Pasturing and Outdoor Confinement Areas in WHPA-A

Within Wellhead Protection Area A, the following existing and future activities, where they are, or would be a significant drinking water threat, are designated for the purpose of Section 57 of the *Clean Water Act*, 2006 as prohibited:

- a) grazing or pasturing where greater than 1 nutrient unit per acre is or would be generated or
- b) the operation of an outdoor confinement area.

As per Section 57 (2) of the *Act*, where this policy applies to existing activities, the prohibition of those activities shall not take effect until 180 days after the plan takes effect.

Policy R.3.3 – Risk Management Plan for Existing and Future Grazing and Pasturing in WHPA-B

Within Wellhead Protection Area B where the vulnerability score is 10, grazing or pasturing that is or would be a significant drinking water threat, is designated for the purpose of Section 58 of the *Clean Water Act*, and requires a Risk Management Plan.

The Risk Management Official shall negotiate or establish a Risk Management Plan with the person engaged in the designated threat activity within three years of the Plan coming into effect. The RMP shall include terms and conditions which when implemented will ensure that existing operations continue to function in a manner which minimizes the risk to sources of municipal drinking water. Prescribed Instruments such as Nutrient Management Strategies or Nutrient Management Plans are expected to form the basis of the Risk Management Plan.

Policy R.3.4 – Risk Management Plan for Existing Outdoor Confinement Areas in WHPA-B

Within Wellhead Protection Area B where the vulnerability score is 10, the operation of an outdoor confinement area where it is a significant drinking water threat, is designated for the purpose of Section 58 of the *Clean Water Act*, and requires a Risk Management Plan.

The Risk Management Official shall negotiate or establish a Risk Management Plan with the person engaged in the designated threat activity within three years of the Plan coming into effect. The RMP shall include terms and conditions which when implemented will ensure that existing operations continue to function in a manner which minimizes the risk to sources of municipal drinking water.

Prescribed Instruments such as Nutrient Management Strategies or Nutrient Management Plans are expected to form the basis of the Risk Management Plan.

Policy R.3.5 – Risk Management Plan for Existing and Future Grazing and Pasturing in WHPA-A

Within Wellhead Protection Area A, grazing and pasturing where less than 1 nutrient unit per acre is generated, and that is or would be a significant drinking water threat, is designated for the purpose of Section 58 of the *Clean Water Act*, and requires a Risk Management Plan.

The Risk Management Official shall negotiate or establish a Risk Management Plan with the person engaged in the designated threat activity within three years of the Plan coming into effect. The RMP shall include terms and conditions which when implemented will ensure that existing operations continue to function in a manner which minimizes the risk to sources of municipal drinking water. Prescribed Instruments such as Nutrient Management Strategies or Nutrient Management Plans are expected to form the basis of the Risk Management Plan.

Policy R.3.6 – Education and Outreach for Existing Grazing, Pasturing and Outdoor Confinement Areas

Within one year of the Plan coming into effect, municipalities in collaboration with the lead Source Protection Authority (SPA,) shall implement an outreach and education program, developed by the lead SPA, for delivery to all landowners within their jurisdiction who own, board or keep large animals where the use of land as livestock grazing or pasturing land, an outdoor confinement area, or a farm-animal yard could be a significant drinking water threat within a wellhead protection area where the vulnerability score is 10. The outreach and education program is intended to help inform affected landowners of risks to sources of local municipal drinking water and help identify means by which such risks can be minimized.

Residential Policies – Sewage System or Sewage Works

Policy R.4.1 – Prescribed Instrument Prohibition of Future Sewage Systems or Sewage Works

Unless otherwise stated, for those lands located within a wellhead protection area where the vulnerability score is 10, future sewage systems or sewage works where they would be a significant drinking water threat, will not be permitted. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats);

- a) a stormwater management facility handling run-off from more than 100 ha. or
- b) sewage treatment plant effluent discharges (includes lagoons) that discharges to land or surface water through a means other than a designed bypass or
- c) a sewage treatment tank or sewage holding tank that is part of a wastewater collection facility or a wastewater treatment facility.

Policy R.4.2 – Section 57 Prohibition for Future Sewage Systems or Sewage Works

Unless otherwise stated, for those lands located within a wellhead protection area where the vulnerability score is 10, future sewage systems or sewage works where they would be a significant drinking water threat, and provided that they are not regulated under the Building Code and no

Environmental Compliance Approval is required, are designated for the purpose of Section 57 of the *Clean Water Act*, as prohibited. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats);

- a) a stormwater management facility handling run-off from more than 100 ha. or
- b) sewage treatment plant effluent discharges (includes lagoons) that discharges to land or surface water through a means other than a designed bypass or
- c) a sewage treatment tank or sewage holding tank that is part of a wastewater collection facility or a wastewater treatment facility.

Policy R.4.3 – Prescribed Instrument for Managing Future Sewage Systems or Sewage Works

Despite policies 4.1 and 4.2, all future Environmental Compliance Approvals issued by the Ontario Ministry of the Environment and Climate Change for future sewage systems or sewage works that would be a significant drinking water threat within a wellhead protection area where the vulnerability score is 10 shall include terms and conditions which when implemented will adequately manage the risk to sources of municipal drinking water. This includes:

- sanitary sewers and related pipes that collect, store, transmit, treat or dispose of sewage but does not include any part of a facility that is a sewage storage tank or works used to carry out a designed bypass.

It is recommended that the MOECC include the following condition: the proponent conduct camera inspections every 5 years.

Policy R.4.4 – Prescribed Instrument Prohibition for Future Sewage Systems or Sewage Works

For those lands located within a wellhead protection area where the vulnerability score is 8, future sewage systems or sewage works where they would be a significant drinking water threat will not be permitted. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a below grade or partially below grade sewage treatment tank or sewage holding tank that is part of a wastewater collection facility or wastewater treatment facility which is designed to discharge treated sanitary sewage at an average daily rate of more than 50,000 cubic metres and where a spill may result in the release of a vinyl chloride or a DNAPL that could degrade to a vinyl chloride.

Policy R.4.5 – Section 57 Prohibition for Future Sewage Systems or Sewage Works

For those lands located within a wellhead protection area where the vulnerability score is 8, future sewage systems and sewage works where they would be a significant drinking water threat, and provided that they are not regulated under the Building Code and no Environmental Compliance Approval is required, are designated for the purpose of Section 57 of the *Clean Water Act*, as prohibited. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats);

- a below grade or partially below grade sewage treatment tank or sewage holding tank that is part of a wastewater collection facility or wastewater treatment facility which is designed to discharge treated sanitary sewage at an average daily rate of more than 50,000 cubic metres and where a spill may result in the release of a vinyl chloride or a DNAPL that could degrade to a vinyl chloride.

Policy R.4.6 – Prescribed Instrument for Existing Sewage Systems or Sewage Works

Within three years of the Plan coming into effect the Ontario Ministry of the Environment and Climate Change shall review and amend as required all existing Environmental Compliance Approvals issued for sewage systems and sewage works where they are a significant drinking water threat within a wellhead protection area where the vulnerability score is 10. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) a stormwater management facility handling run-off from more than 100 ha. or
- b) sanitary sewers and related pipes that collect, store, transmit, treat or dispose of sewage but does not include any part of a facility that is a sewage storage tank or works used to carry out a designed bypass or
- c) sewage treatment plant effluent discharges (includes lagoons) that discharges to land or surface water through a means other than a designed bypass or
- d) a sewage treatment tank or sewage holding tank that is part of a wastewater collection facility or a wastewater treatment facility.

The Environmental Compliance Approval shall include terms and conditions which when implemented will adequately manage the risk to sources of municipal drinking water.

Policy R.4.7 – Prescribed Instrument for Existing Sewage Systems or Sewage Works

Within three years of the Plan coming into effect the Ontario Ministry of the Environment and Climate Change shall review and amend as required, all existing Environmental Compliance Approvals issued for sewage systems and sewage works where they are a significant drinking water threat within a wellhead protection area where the vulnerability score is 8. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a below grade or partially below grade sewage treatment tank or sewage holding tank that is part of a wastewater collection facility or wastewater treatment facility which is designed to discharge treated sanitary sewage at an average daily rate of more than 50,000 cubic metres and where a spill may result in the release of a vinyl chloride or a DNAPL that could degrade to a vinyl chloride.

The Environmental Compliance Approval shall include terms and conditions which when implemented will adequately manage the risk to sources of municipal drinking water.

Policy R.4.8 – Risk Management Plans for Existing Sewage Systems or Sewage Works

Within a wellhead protection area where the vulnerability score is 10, any existing sewage system or sewage works which is a significant drinking water threat, provided that it is not regulated under the Building Code and no Environmental Compliance Approval is required, is designated for the purpose of Section 58 of the *Clean Water Act*, and requires a Risk Management Plan. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) a stormwater management facility handling run-off from more than 100 ha., or
- b) sanitary sewers and related pipes that collect, store, transmit, treat or dispose of sewage but does not include any part of a facility that is a sewage storage tank or works used to carry out a designed bypass, or
- c) sewage treatment plant effluent discharges (includes lagoons) that discharges to land or surface water through a means other than a designed bypass, or
- d) a sewage treatment tank or sewage holding tank that is part of a wastewater collection facility or a wastewater treatment facility.

The Risk Management Official shall negotiate or establish a Risk Management Plan with the person engaged in the designated threat activity within three years of the plan coming into effect. The RMP is to contain, at a minimum, structural or management alterations (if any) which when implemented will ensure that existing operations continue to function in a manner which minimizes the risk to sources of municipal drinking water.

Policy R.4.9 – Risk Management Plan for Existing Sewage System or Sewage Works

Within a wellhead protection area where the vulnerability score is 8, any existing sewage system or sewage works which is a significant drinking water threat, provided that it is not regulated under the Building Code and no Environmental Compliance Approval is required, is designated for the purpose of Section 58 of the *Clean Water Act*, and requires a Risk Management Plan. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a below grade or partially below grade sewage treatment tank or sewage holding tank that is part of a wastewater collection facility or wastewater treatment facility which is designed to discharge treated sanitary sewage at an average daily rate of more than 50,000 cubic metres and where a spill may result in the release of a vinyl chloride or a DNAPL that could degrade to a vinyl chloride.

The Risk Management Official shall negotiate or establish a Risk Management Plan with the person engaged in the designated threat activity within three years of the Plan coming into effect. The RMP is to contain, at a minimum, structural or management alterations (if any), which when implemented will ensure that existing operations continue to function in a manner which minimizes the risk to sources of municipal drinking water.

Policy R.4.10 – Education and Outreach for Existing Sewage Systems or Sewage Works

Within one year of the Plan coming into effect, municipalities, in collaboration with the lead Source Protection Authority (SPA), shall implement an outreach and education program, developed by the lead SPA, for delivery to all owners and operators of sewage systems or sewage works which are a significant drinking water threat.

Within a wellhead protection area with a vulnerability score of 10 this includes for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) a stormwater management facility handling run-off from more than 100 ha., or
- b) sanitary sewers and related pipes that collect, store, transmit, treat or dispose of sewage but does not include any part of a facility that is a sewage storage tank or works used to carry out a designed bypass, or
- c) sewage treatment plant effluent discharges (includes lagoons) that discharges to land or surface water through a means other than a designed bypass, or
- d) a sewage treatment tank or sewage holding tank that is part of a wastewater collection facility or a wastewater treatment facility.

Within a wellhead protection area with a vulnerability score of 8, this includes for example but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) a sewage treatment tank or sewage holding tank that is part of a wastewater collection facility or wastewater treatment facility and where a spill may result in the release of vinyl chloride or a DNAPL that could degrade to a vinyl chloride.

The outreach and education program is intended to inform affected owners, and operators, of the potential risks to sources of local municipal drinking water and help identify means by which such risks can be minimized.

Policy R.4.11 – Specific Action for Future Sewage System or Sewage Works

Wherever feasible, municipalities shall locate future sewage systems or sewage works that would be a significant drinking water threat outside of wellhead protection areas where the vulnerability score is 10. This includes:

- (future) sanitary sewers and related pipes that collect, store, transmit, treat or dispose of sewage but does not include any part of a facility that is a sewage storage tank or works used to carry out a designed bypass.

Residential Policies – Waste Disposal Sites

Policy R.5.1 – Prescribed Instrument Prohibition of Future Waste Disposal Sites

For those lands within a wellhead protection area where the vulnerability score is 10, future waste disposal sites within the meaning of Part V of the *Environmental Protection Act* which would be a significant drinking water threat will not be permitted. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) the application of septage to land (hauled sewage), or
- b) the storage, treatment and discharge of tailings from mines when:
 - i. tailings are stored in a pit, or
 - ii. tailings are stored in an above grade impoundment structure,
- c) the landfarming of petroleum refining waste in areas that are more than 10 hectares or
- d) the landfilling of: hazardous waste, liquid industrial waste, municipal waste, solid non-hazardous industrial or commercial waste, or
- e) the injection of liquid industrial waste into a well where the combined rate of discharge from all wells located at the site is more than 380 cubic metres per year, or
- f) PCB waste storage either below grade, partially below grade in a tank, or outdoors and not in an approved container, or
- g) the storage of hazardous waste or liquid industrial waste, or
- h) the storage of wastes as described in clauses (p), (q), (r), (s), (t), or (u) of the definition of hazardous waste at a site that is not approved to accept hazardous waste or liquid industrial waste.

Policy R.5.2 – Section 57 Prohibition of Future Waste Disposal Sites

For those lands located within a wellhead protection area where the vulnerability score is 10, and where no Environmental Compliance Approval is required, future waste disposal sites within the meaning of Part V of the *Environmental Protection Act* which would be a significant drinking water threat (future), are designated for the purpose of Section 57 of the *Clean Water Act*, as prohibited. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats);

- a) PCB waste storage either below grade, partially below grade in a tank, or outdoors and not in an approved container, or
- b) the storage of hazardous waste or liquid industrial waste, or
- c) the storage of wastes as described in clauses (p), (q), (r), (s), (t), or (u) of the definition of hazardous waste at a site that is not approved to accept hazardous waste or liquid industrial waste.

Policy R.5.3 – Prescribed Instrument Prohibition of Future Waste Disposal Sites

For those lands within a wellhead protection area where the vulnerability score is 8, future waste disposal sites within the meaning of Part V of the *Environmental Protection Act*, which would be a significant drinking water threat, will not be permitted. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) landfilling of municipal waste or solid non-hazardous industrial/commercial waste where the fill area is greater than 10 hectares and results in the release of vinyl chloride or a DNAPL that could degrade to a vinyl chloride, or

- b) liquid industrial waste injection into a well where the combined rate of discharge from all wells located at the site is greater than 38,000,000 cubic metres per year and results in the release of vinyl chloride or a DNAPL that could degrade to a vinyl chloride.

Policy R.5.4 – Prescribed Instruments for Existing Waste Disposal Sites

Within three years of the Plan coming into effect, the Ontario Ministry of the Environment and Climate Change shall review and amend as required all existing Environmental Compliance Approvals issued for waste disposal sites within the meaning of Part V of the *Environmental Protection Act* which are a significant drinking water threat within wellhead protection areas with a score of 10. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) The application of septage to land (hauled sewage), or
- b) the storage, treatment and discharge of tailings from mines when:
 - i. tailings are stored in a pit, or
 - ii. tailings are stored in an above grade impoundment structure,
- c) the landfarming of petroleum refining waste in areas that are more than 10 hectares or
- d) the landfilling of: hazardous waste, liquid industrial waste, municipal waste, solid non-hazardous industrial or commercial waste, or
- e) the injection of liquid industrial waste into a well where the combined rate of discharge from all wells located at the site is more than 380 cubic metres per year, or
- f) PCB waste storage either below grade, partially below grade in a tank, or outdoors and not in an approved container, or
- g) the storage of hazardous waste or liquid industrial waste, or
- h) the storage of wastes as described in clauses (p), (q), (r), (s), (t), or (u) of the definition of hazardous waste at a site that is not approved to accept hazardous waste or liquid industrial waste.

The Environmental Compliance Approval shall include terms and conditions which when implemented will adequately manage the risk to sources of municipal drinking water.

Policy R.5.5 – Risk Management Plans for Existing Waste Disposal Sites

Within a wellhead protection area where the vulnerability score is 10, and where no Environmental Compliance Approval is required, waste disposal sites within the meaning of Part V of the *Environmental Protection Act* which are a significant drinking water threat, are designated for the purpose of Section 58 of the *Clean Water Act*, and require Risk Management Plans. This includes, for example, but is not limited to the following:

- a) PCB waste storage either below grade, partially below grade in a tank, or outdoors and not in an approved container or
- b) the storage of hazardous waste or liquid industrial waste, or
- c) the storage of wastes as described in clauses (p), (q), (r), (s), (t), or (u) of the definition of hazardous waste at a site that is not approved to accept hazardous waste or liquid industrial waste.

The Risk Management Official shall negotiate or establish a Risk Management Plan with the person engaged in the designated threat activity within three years of the Plan coming into effect. The RMP is to contain, at a minimum, structural or management alterations (if any) which when implemented will ensure that existing operations continue to function in a manner which minimizes the risk to sources of municipal drinking water.

Policy R.5.6 – Education and Outreach for Existing Waste Disposal Sites

Within one year of the Plan coming into effect, municipalities, in collaboration with the lead Source Protection Authority (SPA), shall implement an outreach and education program, developed by the lead SPA, for delivery to all owners and operators of waste disposal sites within the meaning of Part V of the *Environmental Protection Act* which are a significant drinking water threat within a wellhead protection area where the vulnerability score is 10. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) the application of septage to land (hauled sewage) or
- b) the storage, treatment and discharge of tailings from mines when:
 - i. tailings are stored in a pit or
 - ii. tailings are stored in an above grade impoundment structure,
- c) the landfarming of petroleum refining waste in areas that are more than 10 hectares or
- d) the landfilling of: hazardous waste, liquid industrial waste, municipal waste, solid non-hazardous industrial or commercial waste or
- e) the injection of liquid industrial waste into a well where the combined rate of discharge from all wells located at the site is more than 380 cubic metres per year or
- f) PCB waste storage either below grade, partially below grade in a tank, or outdoors and not in an approved container or
- g) the storage of hazardous waste or liquid industrial waste or
- h) the storage of wastes as described in clauses (p), (q), (r), (s), (t), or (u) of the definition of hazardous waste at a site that is not approved to accept hazardous waste or liquid industrial waste.

The outreach and education program is intended to inform affected owners and operators of the potential risks to sources of local municipal drinking water and help identify means by which such risks can be minimized.

Policy R.5.7 – Education and Outreach for Existing Waste Disposal Sites (Moderate and Low Threats)

Within one year of the Plan coming into effect, municipalities in collaboration with the lead Source Protection Authority (SPA) shall implement an outreach and education program, developed by the lead SPA, for delivery to all landowners and operators of waste disposal sites within the meaning of Part V of the *Environmental Protection Act*, which are a moderate or low drinking water threat, within wellhead protection areas with vulnerability scores of 8. The intent of the education and outreach program is to promote the proper disposal of hazardous waste.

Policy R.5.8 – General Outreach Policy for Existing Waste Disposal Sites

Upon the Plan coming into effect, where a waste disposal site within the meaning of Part V of the *Environmental Protection Act*, which is a moderate or low drinking water threat, exists in a highly

vulnerable aquifer or significant groundwater recharge area, the local Ontario Ministry of the Environment and Climate Change (MOECC) office, or the municipality in the event that the information has not been submitted to the MOECC, is requested to alert the Source Protection Authority annually of any environmental problems or concerns at the respective sites.

Residential Policies – Dense Non-Aqueous Phase Liquids (DNAPLs) Handling and Storage

Policy R.6.1 – Section 57 Prohibition for Future DNAPLs Handling and Storage

For those lands located within wellhead protection areas A, B and C, the handling and storage of DNAPLs in quantities greater than 25 litres, where it would be a significant drinking water threat activity, is designated for the purpose of Section 57 of the *Clean Water Act* as prohibited.

Policy R.6.2 – Risk Management Plans for Existing DNAPL Handling and Storage

For those lands located within wellhead protection areas A, B or C, the handling and storage of DNAPLs in quantities greater than 25 litres, where it is a significant drinking water threat activity, is designated for the purpose of Section 58 of the *Clean Water Act*, and requires a Risk Management Plan.

The Risk Management Official shall negotiate or establish a Risk Management Plan with the person engaged in the designated threat activity within three years of the Plan coming into effect. The RMP is to contain, at a minimum, structural or management alterations (if any), which when implemented will ensure that existing operations continue to function in a manner which minimizes the risk to sources of municipal drinking water.

Policy R.6.3 – Education and Outreach for Existing DNAPL Handling and Storage

Within one year of the Plan coming into effect, municipalities in collaboration with the lead Source Protection Authority (SPA) shall implement an outreach and education program, developed by the lead SPA, for delivery to all landowners within their jurisdiction which handle or store DNAPLs within wellhead protection areas A, B or C, where they are a significant drinking water threat. The outreach and education program is intended to help inform affected landowners of risks to sources of local municipal drinking water and help identify means by which such risks can be minimized.

Residential Policies – Organic Solvents Storage

Policy R.7.1 – Section 57 Prohibition for Future Organic Solvents Storage

For those lands located within a wellhead protection area where the vulnerability score is 10, any storage of organic solvents where it would be a significant drinking water threat (future), is designated for the purpose of Section 57 of the *Clean Water Act*, as prohibited. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats);

- a) 25 litres, or more, of organic solvent stored either partially or entirely below grade, or
- b) 250 litres, or more, of organic solvent stored entirely above grade.

Policy R.7.2 – Risk Management Plan for Existing Organic Solvents Storage

Within a wellhead protection area where the vulnerability score is 10, any existing storage of organic solvents where it is a significant drinking water threat is designated for the purpose of Section 58 of the *Clean Water Act*, and requires a Risk Management Plan. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) 25 litres, or more, of organic solvent is stored either partially or entirely below grade, or
- b) 250 litres, or more, of organic solvent is stored entirely above grade.

The Risk Management Official shall negotiate or establish a Risk Management Plan with the person engaged in the designated threat activity within three years of the Plan coming into effect. The RMP is to contain, at a minimum, structural or management alterations (if any) which when implemented will ensure that existing operations continue to function in a manner which minimizes the risk to sources of municipal drinking water.

Policy R.7.3 – Education and Outreach for Existing Organic Solvents Storage

Within one year of the Plan coming into effect, municipalities in collaboration with the lead Source Protection Authority (SPA), shall implement an outreach and education program, developed by the lead SPA, for delivery to all landowners within their jurisdiction which store organic solvents where it is a significant drinking water threat within a wellhead protection area where the vulnerability score is 10. The outreach and education program is intended to help inform affected landowners of risks to sources of local municipal drinking water and help identify means by which such risks can be minimized.

Residential Policies – Road Salt Handling, Storage and Application

Policy R.8.1 – Risk Management Plan for Existing and Future Road Salt Handling, Storage and Application*

Within a wellhead protection area where the vulnerability score is 10 any existing and future road salt handling, storage or application* where it is a significant drinking water threat is designated for the purpose of Section 58 of the *Clean Water Act*, and requires a Risk Management Plan. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) application of road salt where the impervious surface is greater than 80%
- b) storage of road salt where the vulnerability score is 10 and the quantity stored is greater than 5,000 tonnes.

The Risk Management Official shall negotiate or establish a Risk Management Plan with the person engaged in the designated threat activity within three years of the Plan coming into effect. The RMP is to contain, at a minimum, structural or management alterations (if any) which when implemented will ensure that existing operations continue to function in a manner which minimizes the risk to sources of municipal drinking water. Risk Management Plans are expected to be based on existing programs such as “Smart About Salt” for commercial properties and the “Synthesis of Best Management Practices” for municipal properties.

Policy R.8.2 – Education and Outreach for Existing Road Salt Handling, Storage and Application*

Within one year of the Plan coming into effect, municipalities in collaboration with the lead Source Protection Authority (SPA) shall implement an outreach and education program, developed by the lead SPA, for delivery to all landowners within their jurisdiction engaged in road salt handling, storage or application* where it is a significant drinking water threat, either entirely or partially within a wellhead protection area where the vulnerability score is 10. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) application* of road salt where the impervious surface is greater than 80%
- b) storage of road salt where the vulnerability score is 10 and the quantity stored is greater than 5,000 tonnes.

The outreach and education program is intended to help inform affected landowners of risks to sources of local municipal drinking water and help identify means by which such risks can be minimized. The education program should be based on existing programs such as “Smart About Salt”.

* It should be noted that road salt application cannot become a significant threat to drinking water without an increase in the impervious surface area to 80% or more of the lands within wellhead protection areas (please refer to the explanatory document for further information).

Residential Policies – Agricultural Source Material (ASM), Non-Agricultural Source Material (NASM), Commercial Fertilizer and Pesticides Application and Storage

Policy R.9.1 – Education and Outreach for Existing ASM, NASM, Pesticides and Commercial Fertilizer Application and Storage

Within one year of the Plan coming into effect, municipalities, in collaboration with the lead Source Protection Authority (SPA), shall implement an outreach and education program, developed by the lead SPA, for delivery to all landowners, within a wellhead protection area where the vulnerability score is 10, and ASM, NASM, commercial fertilizer or pesticide is applied or stored where it is a significant drinking water threat. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) agricultural source material (ASM) in any quantity
- b) non-agricultural source material (NASM) where either:
 - i. the storage is at or above grade and the mass of nitrogen is greater than 5 tonnes or
 - ii. the storage is in a permanent nutrient storage facility below grade or partially above grade where the mass of nitrogen is at least 0.5 tonnes or
 - iii. the NASM being stored contains material generated by a meat plant or
 - iv. the NASM being applied contains material generated by a meat plant or sewage works
 - v. the livestock density (according to livestock density mapping) is sufficient to annually apply the NASM at a rate greater than 1.0 nutrient unit per acre or
 - vi. the application area has a managed lands percentage of greater than 80%
- c) commercial fertilizer where either:
 - i. it is stored for retail sale or application in quantities in excess of 2,500 kg or,
 - ii. the livestock density (according to livestock density mapping) is greater than 1 nutrient unit per acre or
 - iii. the percentage of managed land is greater than 80%
- d) pesticides where either:

- i. it is used for the purposes of extermination and is stored in quantities greater than 250 kg or
- ii. it is applied on lands greater than 1 ha.

The outreach and education program is intended to inform affected landowners of risks to sources of local municipal drinking water and help identify means by which such risks can be minimized.

Residential Policies – Snow Storage

Policy R.10.1 – Section 57 Prohibition for Future Snow Storage

For those lands located within a wellhead protection area where the vulnerability score is 10, the storage of snow, where it would be a significant drinking water threat (future) is designated for the purpose of Section 57 of the *Clean Water Act*, as prohibited. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats);

- a) the storage of snow in areas where the snow is stored either below grade and the area upon which it is stored is at least 0.01 hectares, or
- b) storage is above grade and the area upon which it is stored is more than 1 hectare.

Policy R.10.2 – Risk Management Plan for Existing Snow Storage

Within a wellhead protection area where the vulnerability score is 10, any existing storage of snow where it is a significant threat is designated for the purpose of Section 58 of the *Clean Water Act*, and requires a Risk Management Plan. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) the storage of snow in areas where the snow is stored either below grade and the area upon which it is stored is at least 0.01 hectares, or
- b) storage is above grade and the area upon which it is stored is more than 1 hectare.

The Risk Management Official shall negotiate or establish a Risk Management Plan with the person engaged in the designated threat activity within three years of the Plan coming into effect. The RMP is to contain, at a minimum, structural or management alterations (if any) which when implemented will ensure that existing operations continue to function in a manner which minimizes the risk to sources of municipal drinking water.

4.2 Agricultural Land Uses

Agricultural Policies – Septic Systems

Policy A.1.1 – Planning Prohibition of Future Septic Systems

For those lands located within a wellhead protection area where the vulnerability score is 10, and where septic systems would be a significant drinking water threat, new lots will only be permitted where they are serviced by municipal sanitary sewers, or where an on-site septic system could be located outside of a vulnerable area with a vulnerability score of 10.

Policy A.1.2 – Prescribed Instrument Prohibition for Future Large Septic Systems

For those lands located within a wellhead protection area where the vulnerability score is 10, future septic systems which are regulated under the *Ontario Water Resources Act* and would be a significant drinking water threat will not be permitted.

Policy A.1.3 – Specific Action for Future Septic Systems

For those lands located within a wellhead protection area where the vulnerability score is 10, the lot size for any proposed development on existing “lots of record” that would include a small on-site sewage system where it would be a significant drinking water threat, shall be based at a minimum on the most current version of the Ministry of the Environment and Climate Change’s Guidelines for Individual On-site Sewage Systems. The hydrogeological assessment to determine appropriate development density shall be conducted by a professional, licensed to carry out that work (P.Geo. or P.Eng with training in hydrogeology).

Policy A.1.4 – Planning Policy Regarding the Location of Future/Replacement Septic Systems

For those areas within a wellhead protection area where the vulnerability score is 10 where no municipal sanitary sewer exists and where systems already exist or where developable lots have been previously approved, all new or replacement private septic systems on lots where they would be a significant drinking water threat shall be located as far as practically possible from the wellhead while remaining in compliance of the Building Code.

Policy A.1.5 – Specific Action for Existing Septic Systems

For those areas within a wellhead protection area where the vulnerability score is 10, each municipality shall require all residences directly abutting an existing municipal sanitary sewer to be connected to that sewer, and that any existing private septic systems on those lots which is a significant drinking water threat, be decommissioned to the satisfaction of the agency having jurisdiction over approval of septic systems, within the earlier of:

- a) 3 years or,
- b) within 2 years of the time of sale

Policy A.1.6 – Prescribed Instrument for Existing Large Septic Systems

Within three years of the Plan coming into effect, The Ontario Ministry of the Environment and Climate Change shall review and amend as required, all existing Environmental Compliance Approvals for those septic systems which are systems regulated under the *Ontario Water Resources Act*, and are located within a wellhead protection area where the vulnerability score is 10, and where they are a significant drinking water threat. The Environmental Compliance Approval shall include terms and conditions which when implemented will adequately manage the risk to sources of municipal drinking water.

Policy A.1.7 – Education and Outreach for Existing Septic Systems

Municipalities in collaboration with the lead Source Protection Authority (SPA) shall implement an outreach and education program, developed by the lead SPA, for landowners who own or operate a septic system that is a significant drinking water threat within a wellhead protection area where the vulnerability score is 10. The education and outreach materials shall be developed and staff trained to deliver those materials within one year of the Plan coming into effect. Delivery of the outreach and education program should be initiated in conjunction with the septic inspection program that is mandatory under the Building Code.

Policy A.1.8 – Prescribed Instrument Policy for Future/Replacement Large Septic Systems (Moderate and Low Threats)

Upon the Plan coming into effect, all future Environmental Compliance Approvals issued by the Ontario Ministry of the Environment and Climate Change for new or replacement septic systems which are systems regulated under the *Ontario Water Resources Act*, and which are proposed to be located within a highly vulnerable aquifer or significant groundwater recharge area where they would be a moderate or low drinking water threat, should include terms and conditions which when implemented will adequately manage the risk to sources of municipal drinking water. It is recommended that where the Director considers it appropriate, the following terms and conditions be included: require all new or replacement systems to be tertiary treatment systems.

Policy A.1.9 - Specific Action for Existing and Future Septic Systems

For those areas within a wellhead protection area where the vulnerability score is 10, and where existing and future on-site sewage systems are or would be a significant drinking water threat, the Principal Authorities shall:

- implement the mandatory On-Site Sewage System Maintenance Inspection Program as required by, and in accordance with, the time frame set out in the *Ontario Building Code*.

Agricultural Policies – Fuel Handling and Storage

Policy A.2.1 – Section 57 Prohibition of Future Fuel Handling and Storage

For those lands located within a wellhead protection area where the vulnerability score is 10, the handling and storage of fuel where it would be a significant drinking water threat (future) is designated for the purpose of Section 57 of the *Clean Water Act*, as prohibited. This includes the following, for

example, but not limited to (for full circumstance details refer to the Tables of Drinking Water Threats);

- a) below grade or partially below grade storage of fuel where the quantity would be greater than 250 litres, or
- b) above grade storage or handling of fuel where the quantity would be greater than 2,500 litres.

Policy A.2.2 – Risk Management Plan for Existing Fuel Handling and Storage

The following existing activities are designated for the purpose of Section 58 of the *Clean Water Act*, and require Risk Management Plans: the storage (for any period of time), or handling of fuel where it is a significant drinking water threat either entirely or partially within a wellhead protection area where the vulnerability score is 10, including, for example, but not limited to (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) below grade or partially below grade storage of fuel where the quantity is greater than 250 litres, or
- b) above grade storage or handling of fuel where the quantity is greater than 2,500 litres.

The Risk Management Official shall negotiate or establish a Risk Management Plan with the person engaged in the designated threat activity within three years of the plan coming into effect, including persons seeking a demolition permit as part of a proposal to remove a fuel oil heating system. The RMP is to contain, at a minimum, structural or management alterations (if any) which when implemented will ensure that existing operations continue to function, or that decommissioning occurs, in a manner which minimizes the risk to sources of municipal drinking water. Risk Management Plans should reflect current Ontario Regulations such as, but not limited to, the requirements of the Liquid Fuels Handling Code and/or the Fuel Oil Code.

Policy A.2.3 – Education and Outreach for Existing Fuel Handling and Storage

Within one year of the Plan coming into effect municipalities, in collaboration with the lead Source Protection Authority (SPA), shall implement an outreach and education program, developed by the lead SPA, for delivery to all landowners within their jurisdiction handling or storing fuel where it would be a significant drinking water threat, either entirely or partially within a wellhead protection area where the vulnerability score is 10. This includes, for example, but is not limited to (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) below grade or partially below grade storage of fuel where the quantity is greater than 250 litres, or
- b) above grade storage or handling of fuel where the quantity is greater than 2,500 litres.

The outreach and education program is intended to help inform affected landowners of risks to sources of local municipal drinking water and help identify means by which such risks can be minimized.

Policy A.2.4 – Education and Outreach for Existing Fuel Handling and Storage (Moderate and Low Threats)

Within one year of the Plan coming into effect, municipalities, in collaboration with the lead Source Protection Authority (SPA), shall implement an outreach and education program, developed by the lead SPA, for delivery to all landowners within their jurisdiction which handle or store fuel where it would be

a moderate or low threat within a wellhead protection area where the vulnerability score is 10. The outreach and education program is intended to help inform affected landowners of risks to sources of local municipal drinking water and help identify means by which such risks can be minimized.

Agricultural Policies – Grazing, Pasturing and Outdoor Confinement Areas

Policy A.3.1 – Section 57 Prohibition of Future Outdoor Confinement Areas in WHPA-B

For those lands located within a Wellhead Protection Area B where the vulnerability score is 10, any operation of an outdoor confinement area where it would be a significant drinking water threat (future), is designated for the purpose of Section 57 of the *Clean Water Act*, as prohibited.

Policy A.3.2 – Section 57 Prohibition of Existing and Future Grazing, Pasturing and Outdoor Confinement Areas in WHPA-A

Within Wellhead Protection Area A, the following existing and future activities, where they are, or would be a significant drinking water threat, are designated for the purposes of Section 57 of the *Clean Water Act, 2006* as prohibited:

- a) grazing or pasturing where greater than 1 nutrient unit per acre is or would be generated or
- b) the operation of an outdoor confinement area.

As per Section 57 (2) of the *Act*, where this policy applies to existing activities, the prohibition of those activities shall not take effect until 180 days after the plan takes effect.

Policy A.3.3 – Risk Management Plan for Existing and Future Grazing and Pasturing in WHPA-B

Within Wellhead Protection Area B where the vulnerability score is 10, grazing or pasturing that is or would be a significant drinking water threat, is designated for the purpose of Section 58 of the *Clean Water Act*, and requires a Risk Management Plan.

The Risk Management Official shall negotiate or establish a Risk Management Plan with the person engaged in the designated threat activity within three years of the Plan coming into effect. The RMP shall include terms and conditions which when implemented will ensure that existing operations continue to function in a manner which minimizes the risk to sources of municipal drinking water. Prescribed Instruments such as Nutrient Management Strategies or Nutrient Management Plans are expected to form the basis of the Risk Management Plan.

Policy A.3.4 – Risk Management Plan for Existing Outdoor Confinement Areas in WHPA-B

Within Wellhead Protection Area B where the vulnerability score is 10, the operation of an outdoor confinement area where it is a significant drinking water threat, is designated for the purpose of Section 58 of the *Clean Water Act*, and requires a Risk Management Plan.

The Risk Management Official shall negotiate or establish a Risk Management Plan with the person engaged in the designated threat activity within three years of the Plan coming into effect. The RMP shall include terms and conditions which when implemented will ensure that existing operations continue to function in a manner which minimizes the risk to sources of municipal drinking water.

Prescribed Instruments such as Nutrient Management Strategies or Nutrient Management Plans are expected to form the basis of the Risk Management Plan.

Policy A.3.5 – Risk Management Plan for Existing and Future Grazing and Pasturing in WHPA-A

Within Wellhead Protection Area A, grazing and pasturing where less than 1 nutrient unit per acre is generated, and that is or would be a significant drinking water threat, is designated for the purpose of Section 58 of the *Clean Water Act*, and requires a Risk Management Plan.

The Risk Management Official shall negotiate or establish a Risk Management Plan with the person engaged in the designated threat activity within three years of the Plan coming into effect. The RMP shall include terms and conditions which when implemented will ensure that existing operations continue to function in a manner which minimizes the risk to sources of municipal drinking water. Prescribed Instruments such as Nutrient Management Strategies or Nutrient Management Plans are expected to form the basis of the Risk Management Plan.

Policy A.3.6 – Education and Outreach for Existing Grazing, Pasturing and Outdoor Confinement Areas

Within one year of the Plan coming into effect, municipalities, in collaboration with the lead Source Protection Authority (SPA), shall implement an outreach and education program, developed by the lead SPA, for delivery to all landowners within their jurisdiction who own, board or keep large animals where the use of land as livestock grazing or pasturing land, an outdoor confinement area, or a farm-animal yard could be a significant drinking water threat within a wellhead protection area where the vulnerability score is 10. The outreach and education program is intended to help inform affected landowners of risks to sources of local municipal drinking water and help identify means by which such risks can be minimized.

Agricultural Policies – Sewage System or Sewage Works

Policy A.4.1 – Prescribed Instrument Prohibition of Future Sewage Systems or Sewage Works

Unless otherwise stated, for those lands located within a wellhead protection area where the vulnerability score is 10, future sewage systems or sewage works where they would be a significant drinking water threat, will not be permitted. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats);

- a) a stormwater management facility handling run-off from more than 10 ha. or
- b) sewage treatment plant effluent discharges (includes lagoons) that discharges to land or surface water through a means other than a designed bypass or
- c) a sewage treatment tank or sewage holding tank that is part of a wastewater collection facility or a wastewater treatment facility.

Policy A.4.2 – Section 57 Prohibition for Future Sewage Systems or Sewage Works

Unless otherwise stated, for those lands located within a wellhead protection area where the vulnerability score is 10, future sewage systems or sewage works where they would be a significant drinking water threat, and provided that they are not regulated under the Building Code and no Environmental Compliance Approval is required, are designated for the purpose of Section 57 of the *Clean Water Act*, as prohibited. This includes, for example, but is not limited to the following (for full

circumstance details refer to the Tables of Drinking Water Threats);

- a) a stormwater management facility handling run-off from more than 10 ha. or
- b) sewage treatment plant effluent discharges (includes lagoons) that discharges to land or surface water through a means other than a designed bypass or
- c) a sewage treatment tank or sewage holding tank that is part of a wastewater collection facility or a wastewater treatment facility.

Policy A.4.3 – Prescribed Instrument for Managing Future Sewage Systems or Sewage Works

Despite policies 4.1 and 4.2, all future Environmental Compliance Approvals issued by the Ontario Ministry of the Environment and Climate Change for future sewage systems or sewage works that would be a significant drinking water threat within a wellhead protection area where the vulnerability score is 10 shall include terms and conditions which when implemented will adequately manage the risk to sources of municipal drinking water. This includes:

- sanitary sewers and related pipes that collect, store, transmit, treat or dispose of sewage but does not include any part of a facility that is a sewage storage tank or works used to carry out a designed bypass.

It is recommended that the MOECC include the following condition: the proponent conduct camera inspections every 5 years.

Policy A.4.4 – Prescribed Instrument Prohibition for Future Sewage Systems or Sewage Works

For those lands located within a wellhead protection area where the vulnerability score is 8, future sewage systems or sewage works where they would be a significant drinking water threat will not be permitted. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a below grade or partially below grade sewage treatment tank or sewage holding tank that is part of a wastewater collection facility or wastewater treatment facility which is designed to discharge treated sanitary sewage at an average daily rate of more than 50,000 cubic metres and where a spill may result in the release of a vinyl chloride or a DNAPL that could degrade to a vinyl chloride.

Policy A.4.5 – Section 57 Prohibition for Future Sewage Systems or Sewage Works

For those lands located within a wellhead protection area where the vulnerability score is 8, future sewage systems and sewage works where they would be a significant drinking water threat, and provided that they are not regulated under the Building Code and no Environmental Compliance Approval is required, are designated for the purpose of Section 57 of the *Clean Water Act*, as prohibited. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats);

- a below grade or partially below grade sewage treatment tank or sewage holding tank that is part of a wastewater collection facility or wastewater treatment facility which is designed to discharge treated sanitary sewage at an average daily rate of more than 50,000 cubic metres and where a spill may result in the release of a vinyl chloride or a DNAPL that could degrade to a vinyl chloride.

Policy A.4.6 – Prescribed Instrument for Existing Sewage Systems or Sewage Works

Within three years of the Plan coming into effect the Ontario Ministry of the Environment and Climate Change shall review and amend as required all existing Environmental Compliance Approvals issued for sewage systems and sewage works where they are a significant drinking water threat within a wellhead protection area where the vulnerability score is 10. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) a stormwater management facility handling run-off from more than 10 ha. or
- b) sanitary sewers and related pipes that collect, store, transmit, treat or dispose of sewage but does not include any part of a facility that is a sewage storage tank or works used to carry out a designed bypass or
- c) sewage treatment plant effluent discharges (includes lagoons) that discharges to land or surface water through a means other than a designed bypass or
- d) a sewage treatment tank or sewage holding tank that is part of a wastewater collection facility or a wastewater treatment facility.

The Environmental Compliance Approval shall include terms and conditions which when implemented will adequately manage the risk to sources of municipal drinking water.

Policy A.4.7 – Prescribed Instrument for Existing Sewage Systems or Sewage Works

Within three years of the Plan coming into effect the Ontario Ministry of the Environment and Climate Change shall review and amend as required, all existing Environmental Compliance Approvals issued for sewage systems and sewage works where they are a significant drinking water threat within a wellhead protection area where the vulnerability score is 8. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a below grade or partially below grade sewage treatment tank or sewage holding tank that is part of a wastewater collection facility or wastewater treatment facility which is designed to discharge treated sanitary sewage at an average daily rate of more than 50,000 cubic metres and where a spill may result in the release of a vinyl chloride or a DNAPL that could degrade to a vinyl chloride.

The Environmental Compliance Approval shall include terms and conditions which when implemented will adequately manage the risk to sources of municipal drinking water.

Policy A.4.8 – Risk Management Plans for Existing Sewage Systems or Sewage Works

Within a wellhead protection area where the vulnerability score is 10, any existing sewage system or sewage works which is a significant drinking water threat, provided that it is not regulated under the Building Code and no Environmental Compliance Approval is required, is designated for the purpose of Section 58 of the *Clean Water Act*, and requires a Risk Management Plan. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) a stormwater management facility handling run-off from more than 10 ha. or

- b) sanitary sewers and related pipes that collect, store, transmit, treat or dispose of sewage but does not include any part of a facility that is a sewage storage tank or works used to carry out a designed bypass or
- c) sewage treatment plant effluent discharges (includes lagoons) that discharges to land or surface water through a means other than a designed bypass or
- d) a sewage treatment tank or sewage holding tank that is part of a wastewater collection facility or a wastewater treatment facility.

The Risk Management Official shall negotiate or establish a Risk Management Plan with the person engaged in the designated threat activity within three years of the plan coming into effect. The RMP is to contain, at a minimum, structural or management alterations (if any) which when implemented will ensure that existing operations continue to function in a manner which minimizes the risk to sources of municipal drinking water.

Policy A.4.9 – Risk Management Plan for Existing Sewage Systems or Sewage Works

Within a wellhead protection area where the vulnerability score is 8, any existing sewage system or sewage works which is a significant drinking water threat, provided that it is not regulated under the Building Code and no Environmental Compliance Approval is required, is designated for the purpose of Section 58 of the *Clean Water Act*, and requires a Risk Management Plan. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a below grade or partially below grade sewage treatment tank or sewage holding tank that is part of a wastewater collection facility or wastewater treatment facility which is designed to discharge treated sanitary sewage at an average daily rate of more than 50,000 cubic metres and where a spill may result in the release of a vinyl chloride or a DNAPL that could degrade to a vinyl chloride.

The Risk Management Official shall negotiate or establish a Risk Management Plan with the person engaged in the designated threat activity within three years of the Plan coming into effect. The RMP is to contain, at a minimum, structural or management alterations (if any), which when implemented will ensure that existing operations continue to function in a manner which minimizes the risk to sources of municipal drinking water.

Policy A.4.10 – Education and Outreach for Existing Sewage Systems or Sewage Works

Within one year of the Plan coming into effect, municipalities, in collaboration with the lead Source Protection Authority (SPA), shall implement an outreach and education program, developed by the lead SPA, for delivery to all owners and operators of sewage systems or sewage works which are a significant drinking water threat:

Within a wellhead protection area with a vulnerability score of 10 this includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) a stormwater management facility handling run-off from more than 10 ha. or

- b) sanitary sewers and related pipes that collect, store, transmit, treat or dispose of sewage but does not include any part of a facility that is a sewage storage tank or works used to carry out a designed bypass or
- c) sewage treatment plant effluent discharges (includes lagoons) that discharges to land or surface water through a means other than a designed bypass or
- d) a sewage treatment tank or sewage holding tank that is part of a wastewater collection facility or a wastewater treatment facility.

Within a wellhead protection area with a vulnerability score of 8, this includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) a sewage treatment tank or sewage holding tank that is part of a wastewater collection facility or wastewater treatment facility and where a spill may result in the release of vinyl chloride or a DNAPL that could degrade to a vinyl chloride.

The outreach and education program is intended to inform affected owners, and operators, of the potential risks to sources of local municipal drinking water and help identify means by which such risks can be minimized.

Policy A.4.11 – Specific Action for Future Sewage Systems or Sewage Works

Wherever feasible, municipalities shall locate future sewage systems or sewage works that would be a significant drinking water threat outside of wellhead protection areas where the vulnerability score is 10. This includes MOECC:

- (future) sanitary sewers and related pipes that collect, store, transmit, treat or dispose of sewage but does not include any part of a facility that is a sewage storage tank or works used to carry out a designed bypass.

Agricultural Policies – Waste Disposal Sites

Policy A.5.1 – Prescribed Instrument Prohibition of Future Waste Disposal Sites

For those lands within a wellhead protection area where the vulnerability score is 10, future waste disposal sites within the meaning of Part V of the *Environmental Protection Act* which would be a significant drinking water threat will not be permitted. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) the application of septage to land (hailed sewage), or
- b) the storage, treatment and discharge of tailings from mines when:
 - i. tailings are stored in a pit, or
 - ii. tailings are stored in an above grade impoundment structure,
- c) the landfarming of petroleum refining waste in areas that are more than 10 hectares or
- d) the landfilling of: hazardous waste, liquid industrial waste, municipal waste, solid non-hazardous industrial or commercial waste, or
- e) the injection of liquid industrial waste into a well where the combined rate of discharge from all wells located at the site is more than 380 cubic metres per year, or

- f) PCB waste storage either below grade, partially below grade in a tank, or outdoors and not in an approved container, or
- g) the storage of hazardous waste or liquid industrial waste, or
- h) the storage of wastes as described in clauses (p), (q), (r), (s), (t), or (u) of the definition of hazardous waste at a site that is not approved to accept hazardous waste or liquid industrial waste.

Policy A.5.2 – Section 57 Prohibition of Future Waste Disposal Sites

For those lands located within a wellhead protection area where the vulnerability score is 10, and where no Environmental Compliance Approval is required, future waste disposal sites within the meaning of Part V of the *Environmental Protection Act* which would be a significant drinking water threat (future), are designated for the purpose of Section 57 of the *Clean Water Act*, as prohibited. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats);

- a) PCB waste storage either below grade, partially below grade in a tank, or outdoors and not in an approved container, or
- b) the storage of hazardous waste or liquid industrial waste, or
- c) the storage of wastes as described in clauses (p), (q), (r), (s), (t), or (u) of the definition of hazardous waste at a site that is not approved to accept hazardous waste or liquid industrial waste.

Policy A.5.3 – Prescribed Instrument Prohibition of Future Waste Disposal Sites

For those lands within a wellhead protection area where the vulnerability score is 8, future waste disposal sites within the meaning of Part V of the *Environmental Protection Act*, which would be a significant drinking water threat, will not be permitted. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) landfilling of municipal waste or solid non-hazardous industrial/commercial waste where the fill area is greater than 10 hectares and results in the release of vinyl chloride or a DNAPL that could degrade to a vinyl chloride, or
- b) liquid industrial waste injection into a well where the combined rate of discharge from all wells located at the site is greater than 38,000,000 cubic metres per year and results in the release of vinyl chloride or a DNAPL that could degrade to a vinyl chloride.

Policy A.5.4 – Prescribed Instruments for Existing Waste Disposal Sites

Within three years of the Plan coming into effect, the Ontario Ministry of the Environment and Climate Change shall review and amend as required all existing Environmental Compliance Approvals issued for waste disposal sites within the meaning of Part V of the *Environmental Protection Act* which are a significant drinking water threat within wellhead protection areas with a score of 10. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) the application of septage to land (hauled sewage), or
- b) the storage, treatment and discharge of tailings from mines when:
 - i. tailings are stored in a pit, or
 - ii. tailings are stored in an above grade impoundment structure,
- c) the landfarming of petroleum refining waste in areas that are more than 10 hectares, or

- d) the landfilling of: hazardous waste, liquid industrial waste, municipal waste, solid non-hazardous industrial or commercial waste, or
- e) the injection of liquid industrial waste into a well where the combined rate of discharge from all wells located at the site is more than 380 cubic metres per year, or
- f) PCB waste storage either below grade, partially below grade in a tank, or outdoors and not in an approved container, or
- g) the storage of hazardous waste or liquid industrial waste, or
- h) the storage of wastes as described in clauses (p), (q), (r), (s), (t), or (u) of the definition of hazardous waste at a site that is not approved to accept hazardous waste or liquid industrial waste.

The Environmental Compliance Approval shall include terms and conditions which when implemented will adequately manage the risk to sources of municipal drinking water.

Policy A.5.5 – Risk Management Plans for Existing Waste Disposal Sites

Within a wellhead protection area where the vulnerability score is 10, and where no Environmental Compliance Approval is required, waste disposal sites within the meaning of Part V of the *Environmental Protection Act* which are a significant drinking water threat, are designated for the purpose of Section 58 of the *Clean Water Act*, and require Risk Management Plans. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) PCB waste storage either below grade, partially below grade in a tank, or outdoors and not in an approved container, or
- b) the storage of hazardous waste or liquid industrial waste, or
- c) the storage of wastes as described in clauses (p), (q), (r), (s), (t), or (u) of the definition of hazardous waste at a site that is not approved to accept hazardous waste or liquid industrial waste.

The Risk Management Official shall negotiate or establish a Risk Management Plan with the person engaged in the designated threat activity within three years of the Plan coming into effect. The RMP is to contain, at a minimum, structural or management alterations (if any) which when implemented will ensure that existing operations continue to function in a manner which minimizes the risk to sources of municipal drinking water.

Policy A.5.6 – Education and Outreach for Existing Waste Disposal Sites

Within one year of the Plan coming into effect, municipalities, in collaboration with the lead Source Protection Authority (SPA), shall implement an outreach and education program, developed by the lead SPA, for delivery to all owners and operators of waste disposal sites within the meaning of Part V of the *Environmental Protection Act* which are a significant drinking water threat within a wellhead protection area where the vulnerability score is 10. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) the application of septage to land (hauled sewage), or
- b) the storage, treatment and discharge of tailings from mines when:
 - i. tailings are stored in a pit, or
 - ii. tailings are stored in an above grade impoundment structure,
- c) the landfarming of petroleum refining waste in areas that are more than 10 hectares, or
- d) the landfilling of: hazardous waste, liquid industrial waste, municipal waste, solid non-hazardous industrial or commercial waste, or

- e) the injection of liquid industrial waste into a well where the combined rate of discharge from all wells located at the site is more than 380 cubic metres per year, or
- f) PCB waste storage either below grade, partially below grade in a tank, or outdoors and not in an approved container, or
- g) the storage of hazardous waste or liquid industrial waste, or
- h) the storage of wastes as described in clauses (p), (q), (r), (s), (t), or (u) of the definition of hazardous waste at a site that is not approved to accept hazardous waste or liquid industrial waste.

The outreach and education program is intended to inform affected owners and operators of the potential risks to sources of local municipal drinking water and help identify means by which such risks can be minimized.

Policy A.5.7 – Education and Outreach for Existing Waste Disposal Sites (Moderate and Low Threats)

Within one year of the Plan coming into effect, municipalities in collaboration with the lead Source Protection Authority (SPA) shall implement an outreach and education program, developed by the lead SPA, for delivery to all landowners and operators of waste disposal sites within the meaning of Part V of the *Environmental Protection Act*, which are a moderate or low drinking water threat, within wellhead protection areas with vulnerability scores of 8. The intent of the education and outreach program is to promote the proper disposal of hazardous waste.

Policy A.5.8 – General Outreach Policy for Existing Waste Disposal Sites

Upon the Plan coming into effect, where a waste disposal site within the meaning of Part V of the *Environmental Protection Act*, which is a moderate or low drinking water threat, exists in a highly vulnerable aquifer or significant groundwater recharge area, the local Ontario Ministry of the Environment and Climate Change (MOECC) office, or the municipality in the event that the information has not been submitted to the MOECC, is requested to alert the Source Protection Authority annually of any environmental problems or concerns at the respective sites.

Agricultural Policies – Dense Non-Aqueous Phase Liquids (DNAPLs) Handling and Storage

Policy A.6.1 – Section 57 Prohibition for Future DNAPL Handling and Storage

For those lands located within Wellhead Protection Areas A, B and C, the handling and storage of DNAPLs in quantities greater than 25 litres, that would be a significant drinking water threat activity is designated for the purpose of Section 57 of the *Clean Water Act* as prohibited.

Policy A.6.2 – Risk Management Plans for Existing DNAPL Handling and Storage

For those lands located within wellhead protection areas A, B or C, the handling and storage of DNAPLs in quantities greater than 25 litres, that is a significant drinking water threat activity, is designated for the purpose of Section 58 of the *Clean Water Act*, and requires a Risk Management Plan.

The Risk Management Official shall negotiate or establish a Risk Management Plan with the person

engaged in the designated threat activity within three years of the Plan coming into effect. The RMP is to contain, at a minimum, structural or management alterations (if any) which when implemented will ensure that existing operations continue to function in a manner which minimizes the risk to sources of municipal drinking water.

Policy A.6.3 – Education and Outreach for Existing DNAPL Handling and Storage

Within one year of the Plan coming into effect, municipalities, in collaboration with the lead Source Protection Authority (SPA), shall implement an outreach and education program, developed by the lead SPA, for delivery to all landowners within their jurisdiction which handle or store DNAPLs within Wellhead Protection Areas A, B or C where they are a significant drinking water threat. The outreach and education program is intended to help inform affected landowners of risks to sources of local municipal drinking water and help identify means by which such risks can be minimized.

Agricultural Policies – Storage of Organic Solvents

Policy A.7.1 – Section 57 Prohibition for Future Organic Solvents Storage

For those lands located within a wellhead protection area where the vulnerability score is 10, any storage of organic solvents where it would be a significant drinking water threat (future), is designated for the purpose of Section 57 of the *Clean Water Act*, as prohibited. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats);

- a) 25 litres, or more, of organic solvent stored either partially or entirely below grade, or
- b) 250 litres, or more, of organic solvent stored entirely above grade.

Policy A.7.2 – Risk Management Plan for Existing Organic Solvents Storage

Within a wellhead protection area where the vulnerability score is 10, any existing storage of organic solvents where it is a significant drinking water threat is designated for the purpose of Section 58 of the *Clean Water Act*, and requires a Risk Management Plan. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) 25 litres, or more, of organic solvent is stored either partially or entirely below grade, or
- b) 250 litres, or more, of organic solvent is stored entirely above grade.

The Risk Management Official shall negotiate or establish a Risk Management Plan with the person engaged in the designated threat activity within three years of the Plan coming into effect. The RMP is to contain, at a minimum, structural or management alterations (if any) which when implemented will ensure that existing operations continue to function in a manner which minimizes the risk to sources of municipal drinking water.

Policy A.7.3 – Education and Outreach for Existing Organic Solvents Storage

Within one year of the Plan coming into effect, municipalities, in collaboration with the lead Source Protection Authority (SPA), shall implement an outreach and education program, developed by the lead SPA, for delivery to all landowners within their jurisdiction which store organic solvents where it is a significant drinking water threat within a wellhead protection area where the vulnerability score is 10.

The outreach and education program is intended to help inform affected landowners of risks to sources of local municipal drinking water and help identify means by which such risks can be minimized.

Agricultural Policies – Road Salt Handling, Storage and Application*

Policy A.8.1 – Risk Management Plan for Existing and Future Road Salt Handling, Storage and Application*

Within a wellhead protection area where the vulnerability score is 10 any existing and future road salt handling, storage or application* where it would be a significant drinking water threat is designated for the purpose of Section 58 of the *Clean Water Act*, and requires a Risk Management Plan. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) application* of road salt where the impervious surface is greater than 80%
- b) storage of road salt where the vulnerability score is 10 and the quantity stored is greater than 5,000 tonnes.

The Risk Management Official shall negotiate or establish a Risk Management Plan with the person engaged in the designated threat activity within three years of the Plan coming into effect. The RMP is to contain, at a minimum, structural or management alterations (if any) which when implemented will ensure that existing operations continue to function in a manner which minimizes the risk to sources of municipal drinking water. Risk Management Plans are expected to be based on existing programs such as “Smart About Salt” for commercial properties and the “Synthesis of Best Management Practices” for municipal properties.

Policy A.8.2 – Education and Outreach for Existing Road Salt Handling, Storage and Application*

Within one year of the Plan coming into effect, municipalities in collaboration with the lead Source Protection Authority (SPA) shall implement an outreach and education program, developed by the lead SPA, for delivery to all landowners within their jurisdiction engaged in road salt handling, storage or application* where it is a significant drinking water threat, either entirely or partially within a wellhead protection area where the vulnerability score is 10. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) application* of road salt where the impervious surface is greater than 80%
- b) storage of road salt where the vulnerability score is 10 and the quantity stored is greater than 5,000 tonnes.

The outreach and education program is intended to help inform affected landowners of risks to sources of local municipal drinking water and help identify means by which such risks can be minimized. The education program should be based on existing programs such as “Smart About Salt”.

* It should be noted that road salt application cannot become a significant threat to drinking water without an increase in the impervious surface area to 80% or more of the lands within wellhead protection areas (please refer to the explanatory document for further information).

Agricultural Policies – Agricultural Source Material (ASM), Non-Agricultural Source Material (NASM), Commercial Fertilizer and Pesticides Application and Storage

Policy A.9.1 – Section 57 Prohibition of Existing and Future ASM and NASM Application and Storage

Within Wellhead Protection Area A, any existing or future ASM or NASM application or storage where it is or would be a significant drinking water threat, is designated for the purposes of Section 57 of the *Clean Water Act, 2006* as prohibited. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) the Agricultural Source Materials (ASM) application and storage in any quantity
- b) the Non-Agricultural Source Materials (NASM) application and storage in any quantity

As per Section 57 (2) of the *Act*, where this policy applies to existing activities, the prohibition of those activities shall not take effect until 180 days after the plan takes effect.

Policy A.9.2 – Risk Management Plan for Existing and Future ASM and NASM Application

Within Wellhead Protection Area B, where the vulnerability score is 10, any existing or future application of ASM or NASM where it is or would be a significant drinking water threat, is designated for the purpose of Section 58 of the *Clean Water Act*, and requires a Risk Management Plan. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) Agricultural Source Materials (ASM) in any quantity,
- b) the application of Non-agricultural Source Materials (NASM) where either:
 - i. the material is removed from a meat plant or sewage works or
 - ii. the livestock density (according to livestock density mapping) is greater than 1 nutrient unit / acre, or
 - iii. the percentage of managed land is greater than 80%.

The Risk Management Official shall negotiate or establish a Risk Management Plan with the person engaged in the designated threat activity within three years of the Plan coming into effect. The RMP shall include terms and conditions which when implemented will ensure that existing operations continue to function in a manner which minimizes the risk to sources of municipal drinking water. Prescribed Instruments such as Nutrient Management Strategies, Nutrient Management Plans or NASM Plans are expected to form the basis of the Risk Management Plan.

Policy A.9.3 – Risk Management Plan for Existing ASM and NASM Storage in WHPA-B

Within Wellhead Protection Area B where the vulnerability score is 10, any existing storage of ASM or NASM where it is a significant threat is designated for the purpose of Section 58 of the *Clean Water Act*, and requires a Risk Management Plan. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) Agricultural Source Materials (ASM) in any quantity,
- b) Non-Agricultural Source Materials (NASM) where either:
 - i. the storage is at or above grade and the mass of nitrogen is greater than 5 tonnes, or
 - ii. the storage is in a permanent nutrient storage facility below grade or partially above grade where the mass of nitrogen is at least 0.5 tonnes, or
 - iii. the NASM being stored contains material generated by a meat plant

The Risk Management Official shall negotiate or establish a Risk Management Plan with the person engaged in the designated threat activity within three years of the Plan coming into effect. The RMP shall include terms and conditions which when implemented will ensure that existing operations

continue to function in a manner which minimizes the risk to sources of municipal drinking water. Prescribed Instruments such as Nutrient Management Strategies, Nutrient Management Plans or NASM Plans are expected to form the basis of the Risk Management Plan.

Policy A.9.4 – Section 57 Prohibition of Future ASM and NASM Storage in WHPA-B

For those lands located within a Wellhead Protection Area B where the vulnerability score is 10, any ASM or NASM storage where it would be a significant drinking water threat (future), is designated for the purpose of Section 57 of the *Clean Water Act*, as prohibited. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats);

- a) the storage of Agricultural Source Materials (ASM) in any quantity.
- b) the storage of Non-agricultural Source Materials (NASM) where either:
 - i. the storage is at or above grade and the mass of nitrogen is greater than 5 tonnes, or
 - ii. the storage is in a permanent nutrient storage facility below grade or partially above grade where the mass of nitrogen is at least 0.5 tonnes, or
 - iii. the NASM being stored contains material generated by a meat plant.

Policy A.9.5 – Risk Management Plan for Existing and Future Commercial Fertilizer and Pesticide Application

Within a wellhead protection area where the vulnerability score is 10, any existing or future commercial fertilizer or pesticide application where it is or would be a significant drinking water threat, is designated for the purpose of Section 58 of the *Clean Water Act*, and requires a Risk Management Plan. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) the application of commercial fertilizers where either
 - i. the livestock density (according to livestock density mapping) is greater than 1.0 nutrient unit/acre or
 - ii. the percentage of managed land is greater than 80%.
- b) the application of pesticides to an area of land greater than 1 hectare resulting in the presence of chemicals listed in the MOECC Table of Circumstances.

The Risk Management Official shall negotiate or establish a Risk Management Plan with the person engaged in the designated threat activity within three years of the Plan coming into effect. The RMP is to contain, at a minimum, structural or management alterations (if any) which when implemented will ensure that existing operations continue to function in a manner which minimizes the risk to sources of municipal drinking water. Prescribed Instruments such as Nutrient Management Strategies or Nutrient Management Plans are expected to form the basis of the Risk Management Plan.

Policy A.9.6 – Risk Management Plan for Existing Commercial Fertilizer and Pesticide Storage

Within a wellhead protection area where the vulnerability score is 10, any existing commercial fertilizer or pesticide storage where it is a significant drinking water threat is designated for the purpose of Section 58 of the *Clean Water Act*, and requires a Risk Management Plan. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) the storage of commercial fertilizers where the mass of materials, in any form, is greater than 2,500 kilograms
- b) the storage of pesticides for retail sale or extermination and the mass of materials is greater than 250 kilograms or
- c) the storage of pesticides where they are manufactured, processed or wholesaled and the mass of materials is greater than 2,500 kilograms.

The Risk Management Official shall negotiate or establish a Risk Management Plan with the person engaged in the designated threat activity within three years of the Plan coming into effect. The RMP is to contain, at a minimum, structural or management alterations (if any) which when implemented will ensure that existing operations continue to function in a manner which minimizes the risk to sources of municipal drinking water. Prescribed Instruments such as Nutrient Management Strategies or Nutrient Management Plans are expected to form the basis of the Risk Management Plan.

Policy A.9.7 – Section 57 Prohibition of Future Commercial Fertilizer and Pesticide Storage

For those lands located within a wellhead protection area where the vulnerability score is 10, any commercial fertilizer or pesticide storage where it would be a significant drinking water threat (future), is designated for the purpose of Section 57 of the *Clean Water Act*, as prohibited. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats);

- a) the storage of commercial fertilizers where the mass of materials, in any form, is greater than 2,500 kilograms
- b) the storage of pesticides for retail sale or extermination and the mass of materials is greater than 250 kilograms or
- c) the storage of pesticides where manufactured, processed or wholesaled and the mass of materials is greater than 2,500 kilograms.

Policy A.9.8 – Education and Outreach for Existing ASM, NASM, Pesticides and Commercial Fertilizer Storage and Application

Within one year of the Plan coming into effect, municipalities, in collaboration with the lead Source Protection Authority (SPA), shall implement an outreach and education program, developed by the lead SPA, for delivery to all landowners within their jurisdiction located within a wellhead protection area where the vulnerability score is 10, and apply or store ASM, NASM, commercial fertilizer or pesticide where it is a significant drinking water threat. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) agricultural source material (ASM) in any quantity
- b) non-agricultural source material (NASM) where either:
 - i. the storage is at or above grade and the mass of nitrogen is greater than 5 tonnes or
 - ii. the storage is in a permanent nutrient storage facility below grade or partially above grade where the mass of nitrogen is at least 0.5 tonnes or
 - iii. the NASM being stored contains material generated by a meat plant or
 - iv. the NASM being applied contains material generated by a meat plant or sewage works
 - v. the livestock density (according to livestock density mapping) is sufficient to annually apply the NASM at a rate greater than 1.0 nutrient unit per acre or

- vi. the application area has a managed lands percentage of greater than 80%
- c) commercial fertilizer where either:
 - i. it is stored for retail sale or application in quantities in excess of 2,500 kg or
 - ii. the livestock density (according to livestock density mapping) is greater than 1 nutrient unit per acre or
 - iii. the percentage of managed land is greater than 80%
- d) pesticides where either:
 - i. it is used for the purposes of extermination and is stored in quantities greater than 250 kg or
 - ii. it is applied on lands greater than 1 ha.

The outreach and education program is intended to inform affected landowners of risks to sources of local municipal drinking water and help identify means by which such risks can be minimized.

Policy A.9.9 – Education & Outreach for Existing Pesticide Storage and Application (Moderate and Low Threats)

Within one year of the Plan coming into effect, municipalities, in collaboration with the lead Source Protection Authority (SPA), shall implement an outreach and education program, developed by the lead SPA, for delivery to all landowners within their jurisdiction who are located within a wellhead protection area where the vulnerability score is 10, and apply or store pesticides where it is a moderate or low drinking water threat. The outreach and education program is intended to inform affected landowners of risks to sources of local municipal drinking water and help identify means by which such risks can be minimized.

Agricultural Policies – Snow Storage

Policy A.10.1 – Section 57 Prohibition for Future Snow Storage

For those lands located within a wellhead protection area where the vulnerability score is 10, the storage of snow where it would be a significant drinking water threat (future) is designated for the purpose of Section 57 of the *Clean Water Act*, as prohibited. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats);

- a) the storage of snow in areas where the snow is stored either below grade and the area upon which it is stored is at least 0.01 hectares, or
- b) stored above grade and the area upon which it is stored is more than 1 hectare.

Policy A.10.2 – Risk Management Plan for Existing Snow Storage

Within a wellhead protection area where the vulnerability score is 10, any existing storage of snow where it is a significant threat is designated for the purpose of Section 58 of the *Clean Water Act*, and requires a Risk Management Plan. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) the storage of snow in areas where the snow is stored either below grade and the area upon which it is stored is at least 0.01 hectares, or
- b) storage is above grade and the area upon which it is stored is more than 1 hectare.

The Risk Management Official shall negotiate or establish a Risk Management Plan with the person engaged in the designated threat activity within three years of the Plan coming into effect. The RMP is to contain, at a minimum, structural or management alterations (if any) which when implemented will ensure that existing operations continue to function in a manner which minimizes the risk to sources of municipal drinking water.

4.3 All Other Uses (Commercial, Industrial, Institutional, Recreation, Open Space, Extraction, etc.)

All Other Uses Policies – Septic Systems

Policy C.1.1 – Planning Prohibition of Future Septic Systems

For those lands located within a wellhead protection area where the vulnerability score is 10, and where septic systems would be a significant drinking water threat, new lots will only be permitted where they are serviced by municipal sanitary sewers or where an on-site septic system could be located outside of a vulnerable area with a vulnerability score of 10.

Policy C.1.2 – Prescribed Instrument Prohibition for Future Large Septic Systems

For those lands located within a wellhead protection area where the vulnerability score is 10, future septic systems which are regulated under the *Ontario Water Resources Act* and would be a significant

drinking water threat will not be permitted.

Policy C.1.3 – Specific Action for Future Septic Systems

For those lands located within a wellhead protection area where the vulnerability score is 10, the lot size for any proposed development on existing “lots of record” that would include a small on-site sewage system where it would be a significant drinking water threat shall be based at a minimum on the most current version of the Ministry of the Environment and Climate Change’s Guidelines for Individual On-site Sewage Systems. The hydrogeological assessment to determine appropriate development density shall be conducted by a professional, licensed to carry out that work (P.Geo. or P.Eng with training in hydrogeology).

Policy C.1.4 – Planning Policy Regarding the Location of Future/Replacement Septic Systems

For those areas within a wellhead protection area where the vulnerability score is 10 where no municipal sanitary sewer exists and where systems already exist or where developable lots have been previously approved, all new or replacement private septic systems on lots where they would be a significant drinking water threat shall be located as far as practically possible from the wellhead while remaining in compliance of the Building Code.

Policy C.1.5 – Specific Action for Existing Septic Systems

For those areas within a wellhead protection area where the vulnerability score is 10, each municipality shall require all properties directly abutting an existing municipal sanitary sewer to be connected to that sewer, and that any existing private septic systems on those lots which is a significant drinking water threat be decommissioned to the satisfaction of the agency having jurisdiction over approval of septic systems. Within the earlier of:

- a) 3 years or,
- b) within 2 years of the time of sale

Policy C.1.6 – Prescribed Instrument for Existing Large Septic Systems

Within three years of the Plan coming into effect, The Ontario Ministry of the Environment and Climate Change shall review and amend as required, all existing Environmental Compliance Approvals for those septic systems which are systems regulated under the *Ontario Water Resources Act*, and are located within a wellhead protection area where the vulnerability score is 10, and where they are a significant drinking water threat. The Environmental Compliance Approval shall include terms and conditions which when implemented will adequately manage the risk to sources of municipal drinking water.

Policy C.1.7 – Education and Outreach for Existing Septic Systems

Municipalities in collaboration with the lead Source Protection Authority (SPA) shall implement an outreach and education program, developed by the lead SPA, for landowners who own or operate a septic system that is a significant drinking water threat within a wellhead protection area where the vulnerability score is 10. The education and outreach materials shall be developed and staff trained to deliver those materials within one year of the Plan coming into effect. Delivery of the outreach and education program should be initiated in conjunction with the septic inspection program that is

mandatory under the Building Code.

Policy C.1.8 – Prescribed Instrument Policy for Future/Replacement Large Septic Systems (Moderate and Low Threats)

Upon the Plan coming into effect, all future Environmental Compliance Approvals issued by the Ontario Ministry of the Environment and Climate Change for new or replacement septic systems which are systems regulated under the *Ontario Water Resources Act*, and which are proposed to be located within a highly vulnerable aquifer or significant groundwater recharge area where they would be a moderate or low drinking water threat, should include terms and conditions which when implemented will adequately manage the risk to sources of municipal drinking water. It is recommended that where the Director considers it appropriate, the following terms and conditions be included: require all new or replacement systems to be tertiary treatment systems.

Policy C.1.9 - Specific Action for Existing and Future Septic Systems

For those areas within a wellhead protection area where the vulnerability score is 10, and where existing and future on-site sewage systems are or would be a significant drinking water threat, the Principal Authorities shall:

- implement the mandatory On-Site Sewage System Maintenance Inspection Program as required by, and in accordance with, the time frame set out in the *Ontario Building Code*.

All Other Uses Policies – Fuel Handling and Storage

Policy C.2.1 – Section 57 Prohibition of Future Fuel Handling and Storage

For those lands located within a wellhead protection area where the vulnerability score is 10, the handling and storage of fuel, where it would be a significant drinking water threat (future) is designated for the purpose of Section 57 of the *Clean Water Act*, as prohibited. This includes the following, for example, but is not limited to (for full circumstance details refer to the Tables of Drinking Water Threats);

- a) below grade or partially below grade storage of fuel where the quantity would be greater than 250 litres, or
- b) above grade storage or handling of fuel where the quantity would be greater than 2,500 litres

Policy C.2.2 – Risk Management Plan for Existing Fuel Handling and Storage

The following existing activities are designated for the purpose of Section 58 of the *Clean Water Act*, and require Risk Management Plans: the storage (for any period of time), or handling of fuel where it is a significant drinking water threat either entirely or partially within a wellhead protection area where the vulnerability score is 10, including, for example, but not limited to (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) below grade or partially below grade storage of fuel where the quantity is greater than 250 litres, or
- b) above grade storage or handling of fuel where the quantity is greater than 2,500 litres.

The Risk Management Official shall negotiate or establish a Risk Management Plan with the person engaged in the designated threat activity within three years of the Plan coming into effect, including persons seeking a demolition permit as part of a proposal to remove a fuel oil heating system. The RMP is to contain, at a minimum, structural or management alterations (if any) which when implemented will ensure that existing operations continue to function, or that decommissioning occurs, in a manner which minimizes the risk to sources of municipal drinking water. Risk Management Plans should reflect current Ontario Regulations such as, but not limited to, the requirements of the Liquid Fuels Handling Code and/or the Fuel Oil Code.

Policy C.2.3 – Education and Outreach for Existing Fuel Handling and Storage

Within one year of the Plan coming into effect, municipalities, in collaboration with the lead Source Protection Authority (SPA), shall implement an outreach and education program, developed by the lead SPA, for delivery to all landowners within their jurisdiction storing (for any period of time), or handling fuel where it would be a significant drinking water threat within a wellhead protection area where the vulnerability score is 10. This includes, for example, but is not limited to (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) below grade or partially below grade storage of fuel where the quantity is greater than 250 litres, or
- b) above grade storage or handling of fuel where the quantity is greater than 2,500 litres

The outreach and education program is intended to help inform affected landowners of risks to sources of local municipal drinking water and help identify means by which such risks can be minimized.

Policy C.2.4 – Education and Outreach for Existing Fuel Handling and Storage (Moderate and Low Threats)

Within one year of the Plan coming into effect municipalities, in collaboration with the lead Source Protection Authority (SPA), shall implement an outreach and education program, developed by the lead SPA, for delivery to all landowners within their jurisdiction which handle or store fuel where it would be a moderate or low drinking water threat within a wellhead protection area where the vulnerability score is 10. The outreach and education program is intended to help inform affected landowners of risks to sources of local municipal drinking water and help identify means by which such risks can be minimized.

All Other Uses Policies – Grazing, Pasturing and Outdoor Confinement Areas

Policy C.3.1 – Section 57 Prohibition of Future Outdoor Confinement Areas in WHPA-B

For those lands located within a Wellhead Protection Area B where the vulnerability score is 10, any operation of an outdoor confinement area where it would be a significant drinking water threat (future), is designated for the purpose of Section 57 of the *Clean Water Act*, as prohibited.

Policy C.3.2 – Section 57 Prohibition of Existing and Future Grazing, Pasturing and Outdoor Confinement Areas in WHPA-A

Within Wellhead Protection Area A, the following existing and future activities, where they are, or would be a significant drinking water threat, are designated for the purposes of Section 57 of the *Clean Water Act, 2006* as prohibited:

- a) grazing or pasturing where greater than 1 nutrient unit per acre is or would be generated or
- b) the operation of an outdoor confinement area.

As per Section 57 (2) of the *Act*, where this policy applies to existing activities, the prohibition of those activities shall not take effect until 180 days after the plan takes effect.

Policy C.3.3 – Risk Management Plan for Existing and Future Grazing and Pasturing in WHPA-B

Within Wellhead Protection Area B where the vulnerability score is 10, grazing or pasturing that is or would be a significant drinking water threat, is designated for the purpose of Section 58 of the *Clean Water Act*, and requires a Risk Management Plan.

The Risk Management Official shall negotiate or establish a Risk Management Plan with the person engaged in the designated threat activity within three years of the Plan coming into effect. The RMP shall include terms and conditions which when implemented will ensure that existing operations continue to function in a manner which minimizes the risk to sources of municipal drinking water. Prescribed Instruments such as Nutrient Management Strategies or Nutrient Management Plans are expected to form the basis of the Risk Management Plan.

Policy C.3.4 – Risk Management Plan for Existing Outdoor Confinement Areas in WHPA-B

Within Wellhead Protection Area B where the vulnerability score is 10, the operation of an outdoor confinement area where it is a significant drinking water threat, is designated for the purpose of Section 58 of the *Clean Water Act*, and requires a Risk Management Plan.

The Risk Management Official shall negotiate or establish a Risk Management Plan with the person engaged in the designated threat activity within three years of the Plan coming into effect. The RMP shall include terms and conditions which when implemented will ensure that existing operations continue to function in a manner which minimizes the risk to sources of municipal drinking water. Prescribed Instruments such as Nutrient Management Strategies or Nutrient Management Plans are expected to form the basis of the Risk Management Plan.

Policy C.3.5 – Risk Management Plan for Existing and Future Grazing and Pasturing in WHPA-A

Within Wellhead Protection Area A, grazing and pasturing where less than 1 nutrient unit per acre is generated and that is or would be a significant drinking water threat, is designated for the purpose of Section 58 of the *Clean Water Act*, and requires a Risk Management Plan.

The Risk Management Official shall negotiate or establish a Risk Management Plan with the person engaged in the designated threat activity within three years of the Plan coming into effect. The RMP shall include terms and conditions which when implemented will ensure that existing operations continue to function in a manner which minimizes the risk to sources of municipal drinking water.

Prescribed Instruments such as Nutrient Management Strategies or Nutrient Management Plans are expected to form the basis of the Risk Management Plan.

Policy C.3.6 – Education and Outreach for Existing Grazing, Pasturing and Outdoor Confinement Areas

Within one year of the Plan coming into effect, municipalities, in collaboration with the lead Source Protection Authority (SPA), shall implement an outreach and education program, developed by the lead SPA, for delivery to all landowners within their jurisdiction who own, board or keep large animals where the use of land as livestock grazing or pasturing land, an outdoor confinement area, or a farm-animal yard could be a significant drinking water threat within a wellhead protection area where the vulnerability score is 10. The outreach and education program is intended to help inform affected landowners of risks to sources of local municipal drinking water and help identify means by which such risks can be minimized.

All Other Uses Policies – Sewage System or Sewage Works

Policy C.4.1 – Prescribed Instrument Prohibition of Future Sewage Systems or Sewage Works

Unless otherwise stated, for those lands located within a wellhead protection area where the vulnerability score is 10, future sewage systems or sewage works where they would be a significant drinking water threat, will not be permitted. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats);

- a) a stormwater management facility handling run-off from more than 10 ha. or
- b) sewage treatment plant effluent discharges (includes lagoons) that discharges to surface water through a means other than a designed bypass or
- c) a sewage treatment tank or sewage holding tank that is part of a wastewater collection facility or a wastewater treatment facility.

Policy C.4.2 – Section 57 Prohibition for Future Sewage Systems or Sewage Works

Unless otherwise stated, for those lands located within a wellhead protection area where the vulnerability score is 10, future sewage systems or sewage works that would be a significant drinking water threat, and provided that they are not regulated under the Building Code and no Environmental Compliance Approval is required, are designated for the purpose of Section 57 of the *Clean Water Act*, as prohibited. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats);

- a) a stormwater management facility handling run-off from more than 10 ha. or
- b) sewage treatment plant effluent discharges (includes lagoons) that discharges to land or surface water through a means other than a designed bypass or
- c) a sewage treatment tank or sewage holding tank that is part of a wastewater collection facility or a wastewater treatment facility.

Policy C.4.3 – Prescribed Instrument for Managing Future Sewage Systems or Sewage Works

Despite policies 4.1 and 4.2, all future Environmental Compliance Approvals issued by the Ontario

Ministry of the Environment and Climate Change for future sewage systems or sewage works that would be a significant drinking water threat within a wellhead protection area where the vulnerability score is 10, shall include terms and conditions which when implemented will adequately manage the risk to sources of municipal drinking water. This includes:

- sanitary sewers and related pipes that collect, store, transmit, treat or dispose of sewage but does not include any part of a facility that is a sewage storage tank or works used to carry out a designed bypass

It is recommended that the MOECC include the following condition: the proponent conduct camera inspections every 5 years.

Policy C.4.4 – Prescribed Instrument Prohibition for Future Sewage Systems or Sewage Works

For those lands located within a wellhead protection area where the vulnerability score is 8, future sewage systems or sewage works where they would be a significant drinking water threat will not be permitted. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a below grade or partially below grade sewage treatment tank or sewage holding tank that is part of a wastewater collection facility or wastewater treatment facility which is designed to discharge treated sanitary sewage at an average daily rate of more than 50,000 cubic metres and where a spill may result in the release of a vinyl chloride or a DNAPL that could degrade to a vinyl chloride.

Policy C.4.5 – Section 57 Prohibition for Future Sewage Systems or Sewage Works

For those lands located within a wellhead protection area where the vulnerability score is 8, future sewage systems and sewage works where they would be a significant drinking water threat, and provided that they are not regulated under the Building Code and no Environmental Compliance Approval is required, are designated for the purpose of Section 57 of the *Clean Water Act*, as prohibited. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats);

- a below grade or partially below grade sewage treatment tank or sewage holding tank that is part of a wastewater collection facility or wastewater treatment facility which is designed to discharge treated sanitary sewage at an average daily rate of more than 50,000 cubic metres and where a spill may result in the release of a vinyl chloride or a DNAPL that could degrade to a vinyl chloride.

Policy C.4.6 – Prescribed Instrument for Existing Sewage Systems or Sewage Works

Within three years of the Plan coming into effect the Ontario Ministry of the Environment and Climate Change shall review and amend as required, all existing Environmental Compliance Approvals issued sewage systems and sewage works where they are a significant drinking water threat within a wellhead protection area where the vulnerability score is 10. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) a stormwater management facility handling run-off from more than 10 ha. or

- b) sanitary sewers and related pipes that collect, store, transmit, treat or dispose of sewage but does not include any part of a facility that is a sewage storage tank or works used to carry out a designed bypass or
- c) sewage treatment plant effluent discharges (includes lagoons) that discharges to land or surface water through a means other than a designed bypass or
- d) a sewage treatment tank or sewage holding tank that is part of a wastewater collection facility or a wastewater treatment facility.

The Environmental Compliance Approval shall include terms and conditions which when implemented will adequately manage the risk to sources of municipal drinking water.

Policy C.4.7 – Prescribed Instrument for Existing Sewage Systems or Sewage Works

Within three years of the Plan coming into effect the Ontario Ministry of the Environment and Climate Change shall review and amend as required, all existing Environmental Compliance Approvals issued for sewage systems and sewage works where they are a significant drinking water threat within a wellhead protection area where the vulnerability score is 8. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a below grade or partially below grade sewage treatment tank or sewage holding tank that is part of a wastewater collection facility or wastewater treatment facility which is designed to discharge treated sanitary sewage at an average daily rate of more than 50,000 cubic metres and where a spill may result in the release of a vinyl chloride or a DNAPL that could degrade to a vinyl chloride.

The Environmental Compliance Approval shall include terms and conditions which when implemented will adequately manage the risk to sources of municipal drinking water.

Policy C.4.8 – Risk Management Plans for Existing Sewage Systems or Sewage Works

Within a wellhead protection area where the vulnerability score is 10, any existing sewage system or sewage works which is a significant drinking water threat, provided that it is not regulated under the Building Code and no Environmental Compliance Approval is required, are designated for the purpose of Section 58 of the *Clean Water Act*, and requires a Risk Management Plan. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) a stormwater management facility handling run-off from more than 10 ha. or
- b) sanitary sewers and related pipes that collect, store, transmit, treat or dispose of sewage but does not include any part of a facility that is a sewage storage tank or works used to carry out a designed bypass or
- c) sewage treatment plant effluent discharges (includes lagoons) that discharges to land or surface water through a means other than a designed bypass or
- d) a sewage treatment tank or sewage holding tank that is part of a wastewater collection facility or a wastewater treatment facility.

The Risk Management Official shall negotiate or establish a Risk Management Plan with the person engaged in the designated threat activity within three years of the Plan coming into effect. The RMP is to contain, at a minimum, structural or management alterations (if any) which when implemented will ensure that existing operations continue to function in a manner which minimizes the risk to sources of

municipal drinking water.

Policy C.4.9 – Risk Management Plan for Existing Sewage Systems or Sewage Works

Within a wellhead protection area where the vulnerability score is 8, any existing sewage system or sewage works which is a significant drinking water threat, provided that it is not regulated under the Building Code and no Environmental Compliance Approval is required, is designated for the purpose of Section 58 of the *Clean Water Act*, and requires a Risk Management Plan. This includes, for example, but is not limited to the following:

- a below grade or partially below grade sewage treatment tank or sewage holding tank that is part of a wastewater collection facility or wastewater treatment facility which is designed to discharge treated sanitary sewage at an average daily rate of more than 50,000 cubic metres and where a spill may result in the release of a vinyl chloride or a DNAPL that could degrade to a vinyl chloride.

The Risk Management Official shall negotiate or establish a Risk Management Plan with the person engaged in the designated threat activity within three years of the Plan coming into effect. The RMP is to contain, at a minimum, structural or management alterations (if any), which when implemented will ensure that existing operations continue to function in a manner which minimizes the risk to sources of municipal drinking water.

Policy C.4.10 – Education and Outreach for Existing Sewage Systems or Sewage Works

Within one year of the Plan coming into effect, municipalities, in collaboration with the lead Source Protection Authority (SPA), shall implement an outreach and education program, developed by the lead SPA, for delivery to all owners and operators of sewage systems or sewage works which are a significant drinking water threat.

Within a wellhead protection area with a vulnerability score of 10 this includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) a stormwater management facility handling run-off from more than 10 ha. or
- b) sanitary sewers and related pipes that collect, store, transmit, treat or dispose of sewage but does not include any part of a facility that is a sewage storage tank or works used to carry out a designed bypass or
- c) sewage treatment plant effluent discharges (includes lagoons) that discharges to land or surface water through a means other than a designed bypass or
- d) a sewage treatment tank or sewage holding tank that is part of a wastewater collection facility or a wastewater treatment facility.

Within a wellhead protection area with a vulnerability score of 8, this includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) a sewage treatment tank or sewage holding tank that is part of a wastewater collection facility or wastewater treatment facility and where a spill may result in the release of vinyl chloride or a DNAPL that could degrade to a vinyl chloride.

The outreach and education program is intended to inform affected owners, and operators, of the

potential risks to sources of local municipal drinking water and help identify means by which such risks can be minimized.

Policy C.4.11 – Specific Action for Future Sewage Systems or Sewage Works

Wherever feasible, municipalities shall locate future sewage systems or sewage works that would be a significant drinking water threat outside of wellhead protection areas where the vulnerability score is 10. This includes:

- (future) sanitary sewers and related pipes that collect, store, transmit, treat or dispose of sewage but does not include any part of a facility that is a sewage storage tank or works used to carry out a designed bypass.

All Other Uses Policies – Waste Disposal Sites

Policy C.5.1 – Prescribed Instrument Prohibition of Future Waste Disposal Sites

For those lands within a wellhead protection area where the vulnerability score is 10, future waste disposal sites within the meaning of Part V of the *Environmental Protection Act* which would be a significant drinking water threat will not be permitted. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) the application of septage to land (hauled sewage), or
- b) the storage, treatment and discharge of tailings from mines when:
 - i. tailings are stored in a pit, or
 - ii. tailings are stored in an above grade impoundment structure,
- c) the landfarming of petroleum refining waste in areas that are more than 10 hectares, or
- d) the landfilling of: hazardous waste, liquid industrial waste, municipal waste, solid non-hazardous industrial or commercial waste, or
- e) the injection of liquid industrial waste into a well where the combined rate of discharge from all wells located at the site is more than 380 cubic metres per year, or
- f) PCB waste storage either below grade, partially below grade in a tank, or outdoors and not in an approved container, or
- g) the storage of hazardous waste or liquid industrial waste, or
- h) the storage of wastes as described in clauses (p), (q), (r), (s), (t), or (u) of the definition of hazardous waste at a site that is not approved to accept hazardous waste or liquid industrial waste.

Policy C.5.2 – Section 57 Prohibition of Future Waste Disposal Sites

For those lands located within a wellhead protection area where the vulnerability score is 10, and where no Environmental Compliance Approval is required, future waste disposal sites within the meaning of Part V of the *Environmental Protection Act* which would be a significant drinking water threat (future), are designated for the purpose of Section 57 of the *Clean Water Act*, as prohibited. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) PCB waste storage either below grade, partially below grade in a tank, or outdoors and not in an approved container, or

- b) the storage of hazardous waste or liquid industrial waste, or
- c) the storage of wastes as described in clauses (p), (q), (r), (s), (t), or (u) of the definition of hazardous waste at a site that is not approved to accept hazardous waste or liquid industrial waste.

Policy C.5.3 – Prescribed Instrument Prohibition of Future Waste Disposal Sites

For those lands within a wellhead protection area where the vulnerability score is 8, future waste disposal sites within the meaning of Part V of the *Environmental Protection Act*, which would be a significant drinking water threat, will not be permitted. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) landfilling of municipal waste or solid non-hazardous industrial/commercial waste where the fill area is greater than 10 hectares and results in the release of vinyl chloride or a DNAPL that could degrade to a vinyl chloride, or
- b) liquid industrial waste injection into a well where the combined rate of discharge from all wells located at the site is greater than 38,000,000 cubic metres per year and results in the release of vinyl chloride or a DNAPL that could degrade to a vinyl chloride.

Policy C.5.4 – Prescribed Instruments for Existing Waste Disposal Sites

Within three years of the Plan coming into effect, the Ontario Ministry of the Environment and Climate Change shall review and amend as required all existing Environmental Compliance Approvals issued for waste disposal sites within the meaning of Part V of the *Environmental Protection Act* which are a significant drinking water threat within wellhead protection areas with a score of 10. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) the application of septage to land (hauled sewage), or
- b) The storage, treatment and discharge of tailings from mines when:
 - i. tailings are stored in a pit, or
 - ii. tailings are stored in an above grade impoundment structure,
- c) the landfarming of petroleum refining waste in areas that are more than 10 hectares, or
- d) the landfilling of: hazardous waste, liquid industrial waste, municipal waste, solid non-hazardous industrial or commercial waste, or
- e) the injection of liquid industrial waste into a well where the combined rate of discharge from all wells located at the site is more than 380 cubic metres per year, or
- f) PCB waste storage of hazardous waste or liquid industrial waste, or
- g) the storage of hazardous waste or liquid industrial waste, or
- h) the storage of wastes as described in clauses (p), (q), (r), (s), (t), or (u) of the definition of hazardous waste at a site that is not approved to accept hazardous waste or liquid industrial waste.

The Environmental Compliance Approval shall include terms and conditions which when implemented will adequately manage the risk to sources of municipal drinking water.

Policy C.5.5 – Risk Management Plans for Existing Waste Disposal Sites

Within a wellhead protection area where the vulnerability score is 10, and where no Environmental Compliance Approval is required, waste disposal sites within the meaning of Part V of the *Environmental*

Protection Act which are a significant drinking water threat, are designated for the purpose of Section 58 of the *Clean Water Act*, and require Risk Management Plans. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) PCB waste storage either below grade, partially below grade in a tank, or outdoors and not in an approved container, or
- b) the storage of hazardous waste or liquid industrial waste, or
- c) the storage of wastes as described in clauses (p), (q), (r), (s), (t), or (u) of the definition of hazardous waste at a site that is not approved to accept hazardous waste or liquid industrial waste.

The Risk Management Official shall negotiate or establish a Risk Management Plan with the person engaged in the designated threat activity within three years of the Plan coming into effect. The RMP is to contain, at a minimum, structural or management alterations (if any) which when implemented will ensure that existing operations continue to function in a manner which minimizes the risk to sources of municipal drinking water.

Policy C.5.6 – Education and Outreach for Existing Waste Disposal Sites

Within one year of the Plan coming into effect, municipalities, in collaboration with the lead Source Protection Authority (SPA), shall implement an outreach and education program, developed by the lead SPA, for delivery to all owners and operators of waste disposal sites within the meaning of Part V of the *Environmental Protection Act* which are a significant drinking water threat within a wellhead protection area where the vulnerability score is 10. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) the application of septage to land (hauled sewage) or,
- b) the storage, treatment and discharge of tailings from mines when:
 - i. tailings are stored in a pit or
 - ii. tailings are stored in an above grade impoundment structure,
- c) the landfarming of petroleum refining waste in areas that are more than 10 hectares or,
- d) the landfilling of: hazardous waste, liquid industrial waste, municipal waste, solid non-hazardous industrial or commercial waste or,
- e) the injection of liquid industrial waste into a well where the combined rate of discharge from all wells located at the site is more than 380 cubic metres per year or,
- f) PCB waste storage either below grade, partially below grade in a tank, or outdoors and not in an approved container or,
- g) the storage of hazardous waste or liquid industrial waste or,
- h) the storage of wastes as described in clauses (p), (q), (r), (s), (t), or (u) of the definition of hazardous waste at a site that is not approved to accept hazardous waste or liquid industrial waste.

The outreach and education program is intended to inform affected owners and operators of the potential risks to sources of local municipal drinking water and help identify means by which such risks can be minimized.

Policy C.5.7 – Education and Outreach for Existing Waste Disposal Sites (Moderate and Low Threats)

Within one year of the Plan coming into effect, municipalities in collaboration with the lead Source

Protection Authority (SPA) shall implement an outreach and education program, developed by the lead SPA, for delivery to all landowners and tenants of waste disposal sites within the meaning of Part V of the *Environmental Protection Act*, which are a moderate or low drinking water threat, within wellhead protection areas with vulnerability scores of 8. The intent of the education and outreach program is to promote the proper disposal of hazardous waste.

Policy C.5.8 – General Outreach Policy for Existing Waste Disposal Sites

Upon the Plan coming into effect, where a waste disposal site within the meaning of Part V of the *Environmental Protection Act*, which is a moderate or low drinking water threat, exists in a highly vulnerable aquifer or significant groundwater recharge area, the local Ontario Ministry of the Environment and Climate Change (MOECC) office, or the municipality in the event that the information has not been submitted to the MOECC, is requested to alert the Source Protection Authority annually of any environmental problems or concerns at the respective sites.

All Other Uses Policies – Handling and Storage of Dense Non-Aqueous Phase Liquids (DNAPLs)

Policy C.6.1 – Section 57 Prohibition for Future Handling and Storage of DNAPLs

For those lands located within wellhead protection areas A, B and C, the handling and storage of DNAPLs in quantities greater than 25 litres, where it would be a significant drinking water threat activity, is designated for the purpose of Section 57 of the *Clean Water Act* as prohibited.

Policy C.6.2 – Risk Management Plans for Existing Handling and Storage of DNAPLs

For those lands located within wellhead protection areas A, B or C, the handling and storage of DNAPLs in quantities greater than 25 litres, where it is a significant drinking water threat activity, is designated for the purpose of Section 58 of the *Clean Water Act*, and requires a Risk Management Plan.

The Risk Management Official shall negotiate or establish a Risk Management Plan with the person engaged in the designated threat activity within three years of the Plan coming into effect. The RMP is to contain, at a minimum, structural or management alterations (if any) which when implemented will ensure that existing operations continue to function in a manner which minimizes the risk to sources of municipal drinking water.

Policy C.6.3 – Education and Outreach for Existing Handling and Storage of DNAPLs

Within one year of the Plan coming into effect, municipalities, in collaboration with the lead Source Protection Authority (SPA), shall implement an outreach and education program, developed by the lead SPA, for delivery to all landowners within their jurisdiction which handle or store DNAPLs within Wellhead Protection Areas A, B or C, where they are a significant drinking water threat. The outreach and education program is intended to help inform affected landowners of risks to sources of local municipal drinking water and help identify means by which such risks can be minimized.

All Other Uses Policies – Storage of Organic Solvents

Policy C.7.1 – Section 57 Prohibition for Future Storage of Organic Solvents

For those lands located within a wellhead protection area where the vulnerability score is 10, any storage of organic solvents where it would be a significant drinking water threat (future), is designated for the purpose of Section 57 of the *Clean Water Act*, as prohibited. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats);

- a) 25 litres, or more, of organic solvent stored either partially or entirely below grade, or,
- b) 250 litres, or more, of organic solvent stored entirely above grade

Policy C.7.2 – Risk Management Plan for Existing Storage of Organic Solvents

Within a wellhead protection area where the vulnerability score is 10, any existing storage of organic solvents where it is a significant drinking water threat is designated for the purpose of Section 58 of the *Clean Water Act*, and requires a Risk Management Plan. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) 25 litres, or more, of organic solvent is stored either partially or entirely below grade, or,
- b) 250 litres, or more, of organic solvent is stored entirely above grade

The Risk Management Official shall negotiate or establish a Risk Management Plan with the person engaged in the designated threat activity within three years of the Plan coming into effect. The RMP is to contain, at a minimum, structural or management alterations (if any) which when implemented will ensure that existing operations continue to function in a manner which minimizes the risk to sources of municipal drinking water.

Policy C.7.3 – Education and Outreach for Existing Storage of Organic Solvents

Within one year of the Plan coming into effect, municipalities in collaboration with the lead Source Protection Authority (SPA) shall implement an outreach and education program, developed by the lead SPA, for delivery to all landowners within their jurisdiction which store organic solvents where it is a significant drinking water threat within a wellhead protection area where the vulnerability score is 10. The outreach and education program is intended to help inform affected landowners of risks to sources of local municipal drinking water and help identify means by which such risks can be minimized.

All Other Uses Policies – Road Salt Handling, Storage and Application

Policy C.8.1 – Risk Management Plan for Existing and Future Road Salt Handling, Storage and Application*

Within a wellhead protection area where the vulnerability score is 10 any existing and future road salt handling, storage or application* where it is or would be a significant drinking water threat is designated for the purpose of Section 58 of the *Clean Water Act*, and requires a Risk Management Plan. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) application* of road salt where the impervious surface is greater than 80%, or
- b) storage of road salt where the vulnerability score is 10 and the quantity stored is greater than 5,000 tonnes.

The Risk Management Official shall negotiate or establish a Risk Management Plan with the person engaged in the designated threat activity within three years of the Plan coming into effect. The RMP is to contain, at a minimum, structural or management alterations (if any) which when implemented will ensure that existing operations continue to function in a manner which minimizes the risk to sources of municipal drinking water. Risk Management Plans are expected to be based on existing programs such as “Smart About Salt” for commercial properties and the “Synthesis of Best Management Practices” for municipal properties.

* It should be noted that road salt application cannot become a significant threat to drinking water without an increase in the impervious surface area to 80% or more of the lands within wellhead protection areas (please refer to the explanatory document for further information).

Policy C.8.2 – Best Management Practices for Existing and Future Road Salt Handling, Storage and Application (Moderate and Low Threat Policy)

Within three years of the Plan coming into effect, municipalities should require all commercial landowners within their jurisdiction which are located either entirely or partially within a wellhead protection area where the vulnerability score is 10 and engage in the handling, storage or application of road salt where it would be a moderate or low threat, to develop a salt management plan. The salt management plan will outline required (if any) structural or management alterations which when implemented will ensure that existing operations continue to function in a manner which minimizes the risk to sources of municipal drinking water. The salt management plans are expected to be based on existing programs such as “Smart About Salt”.

Policy C.8.3 – Education and Outreach for Existing Road Salt Handling, Storage and Application*

Within one year of the Plan coming into effect, municipalities in collaboration with the lead Source Protection Authority (SPA) shall implement an outreach and education program, developed by the lead SPA, for delivery to all landowners within their jurisdiction engaged in road salt handling, storage or application* where it is a significant drinking water threat, either entirely or partially within a wellhead protection area where the vulnerability score is 10. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) application* of road salt where the impervious surface is greater than 80%
- b) storage of road salt where the vulnerability score is 10 and the quantity stored is greater than 5,000 tonnes.

The outreach and education program is intended to help inform affected landowners of risks to sources of local municipal drinking water and help identify means by which such risks can be minimized. The education program should be based on existing programs such as “Smart About Salt”.

* It should be noted that road salt application cannot become a significant threat to drinking water without an increase in the impervious surface area to 80% or more of the lands within wellhead protection areas (please refer to the explanatory document for further information).

All Other Uses – Agricultural Source Material (ASM), Non-Agricultural Source Material (NASM), Commercial Fertilizer, and Pesticides

Policy C.9.1 – Section 57 Prohibition of Existing and Future Application and Storage of ASM and NASM in WHPA-A

Within Wellhead Protection Area A, any existing or future application or storage of ASM or NASM where it is or would be a significant drinking water threat, is designated for the purposes of Section 57 of the *Clean Water Act, 2006* as prohibited. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) the storage and application of Agricultural Source Materials (ASM) in any quantity,
- b) the storage and application of Non-Agricultural Source Materials (NASM) in any quantity

As per Section 57 (2) of the *Act*, where this policy applies to existing activities, the prohibition of those activities shall not take effect until 180 days after the plan takes effect.

Policy C.9.2 – Risk Management Plan for Existing and Future Application of ASM and NASM in WHPA-B

Within Wellhead Protection Area B, where the vulnerability score is 10, any existing or future application of ASM or NASM where it is or would be a significant drinking water threat, is designated for the purpose of Section 58 of the *Clean Water Act*, and requires a Risk Management Plan. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) Agricultural Source Materials (ASM) in any quantity,
- b) the application of non-agricultural source materials where either:
 - i. the material is removed from a meat plant or sewage works or,
 - ii. the livestock density (according to livestock density mapping) is greater than 1 nutrient unit / acre, or
 - iii. the percentage of managed land is greater than 80%.

The Risk Management Official shall negotiate or establish a Risk Management Plan with the person engaged in the designated threat activity within three years of the Plan coming into effect. The RMP shall include terms and conditions which when implemented will ensure that existing operations continue to function in a manner which minimizes the risk to sources of municipal drinking water. Prescribed Instruments such as Nutrient Management Strategies, Nutrient Management Plans or NASM Plans are expected to form the basis of the Risk Management Plan.

Policy C.9.3 – Risk Management Plan for Existing Storage of ASM and NASM in WHPA-B

Within Wellhead Protection Area B where the vulnerability score is 10, any existing storage of ASM or NASM where it is a significant threat is designated for the purpose of Section 58 of the *Clean Water Act*, and requires a Risk Management Plan. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) Agricultural Source Materials (ASM) in any quantity,
- b) Non-Agricultural Source Materials (NASM) where either:
 - i. the storage is at or above grade and the mass of nitrogen is greater than 5 tonnes, or

- ii. the storage is in a permanent nutrient storage facility below grade or partially above grade where the mass of nitrogen is at least 0.5 tonnes, or
- iii. the NASM being stored contains material generated by a meat plant

The Risk Management Official shall negotiate or establish a Risk Management Plan with the person engaged in the designated threat activity within three years of the Plan coming into effect. The RMP shall include terms and conditions which when implemented will ensure that existing operations continue to function in a manner which minimizes the risk to sources of municipal drinking water. Prescribed Instruments such as Nutrient Management Strategies, Nutrient Management Plans or NASM Plans are expected to form the basis of the Risk Management Plan.

Policy C.9.4 – Section 57 Prohibition of Future ASM and NASM Storage in WHPA-B

For those lands located within a Wellhead Protection Area B where the vulnerability score is 10, any ASM or NASM storage where it would be a significant drinking water threat (future), is designated for the purpose of Section 57 of the *Clean Water Act*, as prohibited. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats);

- a) the storage of Agricultural Source Materials (ASM) in any quantity.
- b) the storage of Non-agricultural Source Materials (NASM) where either:
 - i. the storage is at or above grade and the mass of nitrogen is greater than 5 tonnes, or
 - ii. the storage is in a permanent nutrient storage facility below grade or partially above grade where the mass of nitrogen is at least 0.5 tonnes, or
 - iii. the NASM being stored contains material generated by a meat plant.

Policy C.9.5 – Risk Management Plan for Existing and Future Commercial Fertilizer and Pesticide Application

Within a wellhead protection area where the vulnerability score is 10, any existing or future commercial fertilizer or pesticide application where it is or would be a significant drinking water threat, is designated for the purpose of Section 58 of the *Clean Water Act*, and requires a Risk Management Plan. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) the application of commercial fertilizers where either
 - i. the livestock density (according to livestock density mapping) is greater than 1.0 nutrient unit/acre or
 - ii. the percentage of managed land is greater than 80%.
- b) the application of pesticides to an area of land greater than 1 hectare resulting in the presence of chemicals listed in the MOECC Table of Circumstances.

The Risk Management Official shall negotiate or establish a Risk Management Plan with the person engaged in the designated threat activity within three years of the Plan coming into effect. The RMP is to contain, at a minimum, structural or management alterations (if any) which when implemented will ensure that existing operations continue to function in a manner which minimizes the risk to sources of municipal drinking water.

Policy C.9.6 – Risk Management Plan for Existing Commercial Fertilizer and Pesticide Storage

Within a wellhead protection area where the vulnerability score is 10, any existing storage of commercial fertilizer or pesticide where it is a significant drinking water threat is designated for the purpose of Section 58 of the *Clean Water Act*, and requires a Risk Management Plan. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) the storage of commercial fertilizers where the mass of materials, in any form, is greater than 2,500 kilograms
- b) the storage of pesticides for retail sale or extermination and the mass of materials is greater than 250 kilograms or
- c) the storage of pesticides where they are manufactured, processed or wholesaled and the mass of materials is greater than 2,500 kilograms.

The Risk Management Official shall negotiate or establish a Risk Management Plan with the person engaged in the designated threat activity within three years of the Plan coming into effect. The RMP is to contain, at a minimum, structural or management alterations (if any) which when implemented will ensure that existing operations continue to function in a manner which minimizes the risk to sources of municipal drinking water.

Policy C.9.7 – Section 57 Prohibition of Future Commercial Fertilizer and Pesticide Storage

For those lands located within a wellhead protection area where the vulnerability score is 10, any storage of commercial fertilizer or pesticide where it would be a significant drinking water threat (future), is designated for the purpose of Section 57 of the *Clean Water Act*, as prohibited. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) the storage of commercial fertilizers where the mass of materials, in any form, is greater than 2,500 kilograms
- b) the storage of pesticides for retail sale or extermination and the mass of materials is greater than 250 kilograms or
- c) the storage of pesticides where manufactured, processed or wholesaled and the mass of materials is greater than 2,500 kilograms.

Policy C.9.8 – Education and Outreach for Existing ASM, NASM, Pesticides and Commercial Fertilizer Storage and Application

Within one year of the Plan coming into effect, municipalities, in collaboration with the lead Source Protection Authority (SPA), shall implement an outreach and education program, developed by the lead SPA, for delivery to all landowners within their jurisdiction located within a wellhead protection area where the vulnerability score is 10, and apply or store ASM, NASM, commercial fertilizer or pesticide where it is a significant drinking water threat. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) agricultural source material (ASM) in any quantity
- b) non-agricultural source material (NASM) where either:
 - i. the storage is at or above grade and the mass of nitrogen is greater than 5 tonnes or

- ii. the storage is in a permanent nutrient storage facility below grade or partially above grade where the mass of nitrogen is at least 0.5 tonnes or
- iii. the NASM being stored contains material generated by a meat plant or
- iv. the NASM being applied contains material generated by a meat plant or sewage works
- v. the livestock density (according to livestock density mapping) is sufficient to annually apply the NASM at a rate greater than 1.0 nutrient unit per acre or
- vi. the application area has a managed lands percentage of greater than 80%
- c) commercial fertilizer where either:
 - i. it is stored for retail sale or application in quantities in excess of 2,500 kg or
 - ii. the livestock density (according to livestock density mapping) is greater than 1 nutrient unit per acre or
 - iii. the percentage of managed land is greater than 80%
- d) pesticides where either:
 - i. it is used for the purposes of extermination and is stored in quantities greater than 250 kg or
 - ii. it is applied on lands greater than 1 ha.

The outreach and education program is intended to inform affected landowners of risks to sources of local municipal drinking water and help identify means by which such risks can be minimized.

Policy C.9.9 – Education & Outreach for Existing Pesticides Storage and Application (Moderate and Low Threats)

Within one year of the Plan coming into effect, municipalities, in collaboration with the lead Source Protection Authority (SPA), shall implement an outreach and education program, developed by the lead SPA, for delivery to all landowners within their jurisdiction who are located within a wellhead protection area where the vulnerability score is 10, and apply or store pesticides where it is a moderate or low drinking water threat. The outreach and education program is intended to inform affected landowners of risks to sources of local municipal drinking water and help identify means by which such risks can be minimized.

All Other Uses Policies – Snow Storage and Runoff from Aircraft De-Icing

Policy C.10.1 – Section 57 Prohibition for Future Snow Storage

For those lands located within a wellhead protection area where the vulnerability score is 10, any storage of snow where it would be a significant drinking water threat (future) is designated for the purpose of Section 57 of the *Clean Water Act*, as prohibited. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats);

- a) the storage of snow in areas where the snow is stored either below grade and the area upon which it is stored is at least 0.01 hectares, or
- b) storage is above grade and the area upon which it is stored is more than 1 hectare.

Policy C.10.2 – Risk Management Plan for Existing Snow Storage

Within a wellhead protection area where the vulnerability score is 10, existing snow storage where it is a significant drinking water threat is designated for the purpose of Section 58 of the *Clean Water Act*, and requires a Risk Management Plan. This includes, for example, but is not limited to the following (for full circumstance details refer to the Tables of Drinking Water Threats):

- a) the storage of snow in areas where the snow is stored either below grade and the area upon which it is stored is at least 0.01 hectares, or
- b) stored above grade and the area upon which it is stored is more than 1 hectare.

The Risk Management Official shall negotiate or establish a Risk Management Plan with the person engaged in the designated threat activity within three years of the Plan coming into effect. The RMP is to contain, at a minimum, structural or management alterations (if any) which when implemented will ensure that existing operations continue to function in a manner which minimizes the risk to sources of municipal drinking water.

Policy C.10.3 – Specific Action for Future Runoff from Aircraft De-Icing

Upon the Plan coming into effect, relevant airport authorities or operators should include appropriate standards and management practices in all future national airport facilities to ensure that the run-off that contains chemicals used in the de-icing of aircraft does not become a significant drinking water threat.

4.4 Other Permitted Policies

Policy O.11.1 – Education and Outreach in Highly Vulnerable Aquifers (Moderate and Low Threats)

Within one year of the Plan coming into effect, the conservation authority should commence an outreach and education program to assist landowners and developers in understanding the impacts of land uses and activities on areas identified as highly vulnerable aquifers in the Assessment Report.

Policy O.11.2 – Education and Outreach in Significant Groundwater Recharge Areas (Moderate and Low Threats)

Within one year of the Plan coming into effect, the conservation authority should commence an outreach and education program to assist landowners and developers in understanding the impacts of land uses and activities on areas identified as significant groundwater recharge areas in the Assessment Report.

Policy O.11.3 –Policy for Spills

Each municipality should ensure that their emergency preparedness plans, and the spills containment plans, contain specific policies and actions to protect sources of drinking water within wellhead protection areas and intake protection zones along highways, railway lines or shipping lanes. This should be conducted during regular updates to these documents.

Policy O.11.4 –Policy for Climate Data

The Conservation Authority should collect available data pertaining to climate and annually provide information to the Source Protection Committee.

Policy O.11.5 – Specific Action Policy for Stewardship Funding

The Ministry of the Environment and Climate Change, in keeping with Section 97, *Clean Water Act 2006*, should provide adequate ongoing funding to the lead Source Protection Authority for the delivery of stewardship activities for the Source Protection Region. The purpose of the program is to provide financial assistance in accordance with the regulations to:

- persons whose activities or properties are affected by the *Act* and,
- persons and bodies who administer incentive programs and education and outreach programs that are related to source protection plans and,
- other persons and bodies, in circumstances specified in the regulations that are related to the protection of existing or future sources of drinking water.

Policy O.11.6 – Specific Action Policy for Signage on Highways

In accordance with Section 22 (7) of the *Clean Water Act*, the Ministry of Transportation, in collaboration with the Ministry of the Environment and Climate Change as well as in consultation with Source Protection Authorities (SPAs), should design a sign to the appropriate Provincial standards, to identify the locations of Wellhead Protection Areas and Intake Protection Zones. The Ministry of Transportation should manufacture, install and maintain the signs along Provincial Highways within the Wellhead Protection Areas with a vulnerability score of 10, and/or within an Intake Protection Zone or Wellhead Protection Area E with a vulnerability score of 8 or higher.

Municipalities will be responsible for the purchase, installation and maintenance of appropriate signs designed by the Province in collaboration with the SPAs. These signs should be placed, at a minimum, where municipal arterial roads are located within Wellhead Protection Areas with a vulnerability score of 10, and/or an Intake Protection or Wellhead Protection Area E with a vulnerability score of 8 or higher.

The above policies will be implemented as part of an overall education and outreach plan within each Source Protection Area. These policies, in conjunction with additional education and outreach policies, should be implemented within 2 years after the effective date of the plan.

4.5 Administrative, Effective Dates, Monitoring and Transition Policies

Policy P.12.1 – Section 59 Restricted Land Use Policy

In accordance with Section 59(1) of the *Clean Water Act*, all land uses set out within the official plans or zoning by-laws for the municipalities where this Source Protection Plan is in effect, are designated as restricted land uses in all areas where designated threats are or would be significant. In effect, a person shall not construct or change the use of a building in any location, or make an application under the *Planning Act* or *Condominium Act* where Section 57 (Prohibition) or Section 58 (Risk Management Plan) applies unless the risk management official issues a notice under s. 59 to the person.

Despite the above policy, a Risk Management Official may issue written direction specifying the circumstances under which a planning authority or building official may be permitted to make the determination that a site specific land use is not designated for the purposes of Section 59. Where such direction has been issued, a site-specific land use that is the subject of an application for approval under the *Planning Act* or the *Condominium Act*, or for a permit under the *Building Code Act*, is not designated for the purposes of Section 59, provided that the planning authority or building official, as the case may be, is satisfied that:

- The application complies with the circumstances specified in the written direction from the Risk Management Official; and
- The applicant has demonstrated that a significant drinking water threat activity designated for the purposes of Section 57 or 58 will not be engaged in, or will not be affected by the application.

Policy P.12.2 – Effective Date for Section 58 Risk Management Plan Policies

For the purpose of section 58(3) of the *Clean Water Act, 2006*, the date the policies regarding regulated activities comes into full force and effect is five years from the date the Source Protection Plan comes into full force and effect.

Policy P.12.3 – Effective Date for Section 59 Restricted Land Use Policy

For the purpose of section 59(1) of the *Clean Water Act, 2006*, the date for the policies regarding restricted land uses to come into full force and effect is the same date that the Source Protection Plan comes into full force and effect.

Policy P.12.4 – Effective Date for Prescribed Instrument Policies

For the purpose of section 43(2) of the *Clean Water Act, 2006*, the deadline for amendments to existing prescribed instruments is three years from the date that the Source Protection Plan comes into full force and effect.

Policy P.12.5 – Effective Date for Land Use Planning Policies

For the purpose of section 40(2) of the *Clean Water Act, 2006*, the municipal land use documents for the following municipalities must be amended to conform to the significant threat policies within five years from the date the Source Protection Plan comes into full force and effect:

- | | |
|------------------------------|--------------------|
| ○ County of Bruce | ○ Central Huron |
| ○ County of Huron | ○ Huron East |
| ○ County of Perth | ○ Morris-Turnberry |
| ○ County of Wellington | ○ North Huron |
| ○ Huron-Kinloss | ○ North Perth |
| ○ Ashfield-Colborne-Wawanosh | ○ Minto |

Policy P.12.6 – General Effective Date Policy

If no time period is set out below or no time period is specified within a policy, the policy comes into full force and effect immediately upon the date Ministry of the Environment and Climate Change that this Source Protection Plan takes effect, and therefore, must be complied with from that date forward.

Policy P.12.7 – Monitoring Policy for Land Use Planning Policies

Where a policy of this Plan relies on the Land Use Planning tool and affects decisions under the *Planning Act*, the Municipality shall report on how these policies were implemented to the Source Protection Authority.

This monitoring policy applies to the following policies:

R.1.1, R.1.4, A.1.1, A.1.4, C.1.1, C.1.4

Policy P.12.8 – Monitoring Policy for Prescribed Instrument Policies

Where a policy of this Plan prescribes the use of a prescribed instrument under the purview of the Ministry of the Environment and Climate Change, by February 1 of each year, the Ministry of the

Environment and Climate Change shall prepare and submit to the Source Protection Authority an annual summary of the action it has taken to implement policies.

This monitoring policy applies to the following policies:

R.1.2, R.1.6, R.4.1, R.4.3, R.4.4, R.4.6, R.4.7, R.5.1, R.5.3, R.5.4
A.1.2, A.1.6, A.4.1, A.4.3, A.4.4, A.4.6, A.4.7, A.5.1, A.5.3, A.5.4,
C.1.2, C.1.6, C.4.1, C.4.3, C.4.4, C.4.6, C.4.7, C.5.1, C.5.3, C.5.4,

Policy P.12.9 – Monitoring Policy for Policies where a Conservation Authority or Source Protection Authority is named as an Implementing Body

Where a policy of this Plan prescribes that the Conservation Authority or Source Protection Authority shall undertake an implementing action, the Authority shall, by February 1 of each year, prepare and submit to the Source Protection Authority a report in a form to be established, summarizing their actions and results for the previous year.

This monitoring policy applies to the following policies:

R.1.7, R.2.3, R.3.6, R.4.10, R.5.6, R.6.3, R.7.3, R.8.2, R.9.1
A.1.7, A.2.3, A.3.6, A.4.10, A.5.6, A.6.3, A.7.3, A.8.2, A.9.8,
C.1.7, C.2.3, C.3.6, C.4.10, C.5.6, C.6.3, C.7.3, C.8.3, C.9.8,

Policy P.12.10 – Monitoring Policy for Policies where a Municipality or Principal Authority is named as an Implementing Body

By February 01, 2016, and then thereafter annually by February 01, where a policy of this plan prescribes that a municipality or a principal authority shall undertake an implementing action, the municipality and the principal authority shall complete and submit to the Source Protection Authority, the monitoring report in a form to be established (this includes reporting from Risk Management Officials):

This monitoring policy applies to the following policies:

R.1.1, R.1.3, R.1.4, R.1.5, R.1.7, R.1.9, R.2.1, R.2.2, R.2.3, R.3.1, R.3.2, R.3.3, R.3.4, R.3.5, R.3.6, R.4.2, R.4.5, R.4.8, R.4.9, R.4.10, R.4.11, R.5.2, R.5.5, R.5.6, R.6.1, R.6.2, R.6.3, R.7.1, R.7.2, R.7.3, R.8.1, R.8.2, R.9.1, R.10.1, R.10.2
A.1.1, A.1.3, A.1.4, A.1.5, A.1.7, A.1.9, A.2.1, A.2.2, A.2.3, A.3.1, A.3.2, A.3.3, A.3.4, A.3.5, A.3.6, A.4.2, A.4.5, A.4.8, A.4.9, A.4.10, A.4.11, A.5.2, A.5.5, A.5.6, A.6.1, A.6.2, A.6.3, A.7.1, A.7.2, A.7.3, A.8.1, A.8.2, A.9.1, A.9.2, A.9.3, A.9.4, A.9.5, A.9.6, A.9.7, A.9.8, A.10.1, A.10.2
C.1.1, C.1.3, C.1.4, C.1.5, C.1.7, C.1.9, C.2.1, C.2.2, C.2.3, C.3.1, C.3.2, C.3.3, C.3.4, C.3.5, C.3.6, C.4.2, C.4.5, C.4.8, C.4.9, C.4.10, C.4.11, C.5.2, C.5.5, C.5.6, C.6.1, C.6.2, C.6.3, C.7.1, C.7.2, C.7.3, C.8.1, C.8.3, C.9.1, C.9.2, C.9.3, C.9.4, A.9.5, C.9.6, C.9.7, C.9.8, C.10.1, C.10.2

Policy P.12.11 – Monitoring Policy for Non-Legally Binding Policies where a Provincial Ministry, Municipality, Conservation Authority, or Source Protection Authority is named as an Implementing Body

Where a policy of this Plan recommends that a Provincial Ministry, Municipality, Conservation Authority, or Source Protection Authority should undertake an implementing action, the Municipality or Authority should, by February 1 of each year, prepare and submit to the Source Protection Authority a report in a form to be established, summarizing their actions and results for the previous year.

This monitoring policy corresponds to the following non-legally binding policies:

R.1.8, R.2.4, R.5.7, R.5.8

A.1.8, A.2.4, A.5.7, A.5.8, A.9.9

C.1.8, C.2.4, C.5.7, C.5.8, C.8.2, C.9.9

O.11.1, O.11.2, O.11.3, O.11.4, O.11.6

Policy P.12.12 – Monitoring Policy for Policies where Relevant Airport Authorities or Operators are named as an Implementing Body

The Source Protection Authority will communicate with relevant airport authorities or operators, if any national airports are proposed within wellhead protection areas in the Ausable Bayfield Maitland Valley Region. If any national airports are proposed, then an update will be obtained on progress related to the recommendations outlined in Policy C.10.3.

This monitoring policy applies to the following policies: C.10.3

Policy P.12.13 – Transition Policy

In this source protection plan, some drinking water threat activities are addressed by prohibiting “future” threats and managing “existing” threats.

This includes:

- Part IV – a “future” occurrence of a threat activity designated for the purpose of section 57 of the Clean Water Act and therefore prohibited while its “existing” occurrence is designated for the purpose of section 58 of the Clean Water Act and therefore requires a risk management plan.
- Prescribed Instruments – a “future” occurrence of a drinking water threat is prohibited while “existing” occurrences are managed.
- Land Use Planning – “future” drinking water threats are prohibited through decisions on planning matters, while other policy approaches, such as a specify action or an education and outreach policy, are used to manage the same “existing” drinking water threats.

Where a policy in this plan refers to an “existing” threat, it is generally understood to mean an activity that commenced on a day before the source protection plan comes into effect. A “future” threat activity is generally understood to mean an activity that commences on a day on or after the day the source protection plan comes into effect. However, despite these definitions, in order to be fair to bona fide applications in process and to recognize approvals obtained, it is important to allow certain “future”

prohibited activities to be treated as “existing” activities and therefore subject to the policies that apply to “existing” activities.

Where a policy in this Plan prohibits a “future” threat activity, the policy for managing “existing” drinking water threat activities applies in the following cases even though those activities will commence after the source protection plan comes into effect:

- A drinking water threat activity that is related to a development proposal where an application was made or an approval was obtained under the Planning Act or Condominium Act on a day before the source protection plan comes into effect. The policy for “existing” drinking water threats also applies to any further applications required under the Planning Act, Condominium Act, or prescribed instruments, to implement the development proposal.
- A drinking water threat activity that is related to an application made under the Building Code Act on a day before the source protection plan comes into effect.
- A drinking water threat activity that is related to an application made for the issuance or amendment of a prescribed instrument on a day before the source protection plan comes into effect.

PART III – PLAN ADMINISTRATION

5.0 COMPLIANCE AND APPLICABLE LAW

- 5.1 Legal Effect of Policies: Ontario Regulation 287/07 requires that the Source Protection Plan explicitly identify the applicable legal provisions of the policies. Without the appropriate statements, the policies in this Plan would not have the necessary legal effect under Part III of the *Clean Water Act*, 2006 to obligate agencies to comply. To satisfy this requirement, the appropriate statements have been set out within Appendix D. Municipalities or agencies with obligations to ensure their decisions conform with policies in this Plan or who are required to satisfy obligations in this Plan should refer to the lists in Appendix D.
- 5.2 Section 39 (2),(3), and (4) of the *Clean Water Act* sets out how conflicts between the source protection plan and other planning documents, policies and legislation should be addressed.
- 5.3 Implementing bodies shall ensure all staff who have a responsibility to implement parts of this plan are familiar with the contents of the plan and any amendments thereto.
- 5.4 Where education and outreach are the policy tools, Appendix “E” shall be used as a guide to the development of these programs.

6.0 PLAN ADMINISTRATION

- 6.1 As required by the *Clean Water Act*, 2006, by May 1 of each year the SPA will work with the SPC to provide the Annual Report which:
 - 6.1.1 Describes the measures that have been taken to implement the source protection plan, including measures taken to ensure that activities cease to be significant drinking water threats and measures taken to ensure that activities do not become significant drinking water threats;
 - 6.1.2 Describes the results of any monitoring program conducted by other implementing bodies
 - 6.1.3 Describes the extent to which the objectives set out in the source protection plan are being achieved; and
 - 6.1.4 Contains such other information as required
- 6.2 From time to time, as stipulated by the Minister of Environment, the Plan shall undergo a review to update information on the location of wells subject to the Plan, the vulnerability scores of new systems included in the Plan, identification

of risks and addressing newly found conditions, emerging issues and new areas of concern.

- 6.3 The SPC has made every effort to choose policy approaches which meet the objectives of the plan in the most cost effective manner possible. While the province is committed to continue to fund stewardship efforts under the *Act*, other costs for implementing this plan may include:

- 6.3.1 Full cost water pricing for provision of water
- 6.3.2 Fees for service

7.0 ENFORCEMENT AND PENALTIES

- 7.1 Dispute Resolution for matters not described in the *Act*.
- 7.1.1 The Risk Management Official or other designate of the municipality shall make reasonable attempts to work with property owners where a dispute arises concerning the implementation of policies using Part IV powers.
 - 7.1.2 Where the municipality disputes the implementation of the Plan, the Source Protection Authority will undertake to resolve the dispute using an external mediator if necessary.
- 7.2 Property owners should be aware that the *Act* contains penalties in Sections 67, 68, 69, and 77. The following clauses are intended to draw attention to this fact and do not replace the *Act*.
- 7.2.1 The *Act* provides that in the event the owner of a property subject to a Risk Management Plan does not fulfill their obligations, RMO/RMI has the authority to issue orders and a land owner has the right to seek leave to appeal that Order to the Environmental Tribunal Process (Sections 70-77).
 - 7.2.2 Any person who obstructs or provides false information to an employee or agent of a source protection authority or municipality is also subject to the penalties in the *Act* (Section 91).
 - 7.2.3 The penalties of the *Clean Water Act* are listed in Section 106 of the *Act*.
- 7.3 Section 106 (11) of the *Clean Water Act* stipulates that a proceeding shall not be commenced more than two years after the later of the following days:
- 7.3.1 The day on which the offence was committed.
 - 7.3.2 The day on which evidence of the offence first came to the attention of a risk management official, a risk management inspector or a person who enters property under section 88.

APPENDICES

APPENDIX A – GLOSSARY

- **“Above Grade”** means above the average level of proposed or finished ground adjoining a building at all exterior walls (see the Building Code);
- **“Act”** means the *Clean Water Act, 2006*;
- **“Activity”** is an action that has the potential to contaminate or deplete a source of drinking water. Activities are prescribed in the *Table of Drinking Water Threats: Clean Water Act, 2006* dated December 12, 2008 and in the *Technical Rules: Assessment Report* (no “local threat activities” have been defined). Generally they include actions such as storage, handling and application of some material;
- **“Agriculture”** means agricultural operation within the meaning of the Nutrient Management Act, 2002 and within the meaning of each local municipal Zoning By-Law;
- **“Agricultural source material (ASM)”** has the same meaning as in section 1 of O. Reg. 276/03 (General) made under the *Nutrient Management Act, 2002*; specifically, “any of the following treated or untreated materials, other than compost that meets the Compost Guidelines, or a commercial fertilizer, if they are capable of being applied to land as nutrients:
 - 1) Manure produced by farm animals, including associated bedding materials.
 - 2) Runoff from farm-animal yards and manure storages.
 - 3) Wash waters from agricultural operations that have not been mixed with human body waste.
 - 4) Organic materials produced by intermediate operations that process materials described in paragraph 1, 2 or 3.
 - 5) Anaerobic digestion output, if,
 - i. the anaerobic digestion materials were treated in a mixed anaerobic digestion facility,
 - ii. at least 50 per cent, by volume, of the total amount of anaerobic digestion materials were on-farm anaerobic digestion materials, and
 - iii. the anaerobic digestion materials did not contain sewage biosolids or human body waste.
 - 6) Regulated compost as defined in subsection 1 (1) of Ontario Regulation 106/09 (Disposal of Dead Farm Animals) made under the Act”;
- **“Airport facilities”** means an airport with annual passenger traffic of 200,000 persons or more;
- **“Below Grade”** means below the average level of proposed or finished ground adjoining a building at all exterior walls (see the Building Code);
- **“Chemical”** means a substance of distinct molecular composition which has been deemed to be of concern to drinking water due to its toxicity, environmental fate, quantity in a specific circumstance (see the Ministry of the Environment and Climate Change publication *Table of Drinking Water Threats: Clean Water Act, 2006* dated December 12, 2008), method of release into the environment and type of vulnerable area into which it might be released;
- **“Commercial”** means all forms of business/commercial uses as defined in each local municipal Zoning By-Law;
- **“Commercial Fertilizer”** means a synthetic substance containing nitrogen, phosphorus, potassium or other plant food intended for use as a plant nutrient. For the purposes of source

- protection, commercial fertilizer does not include agricultural source material or non-agricultural source material;
- **“Commercial Waste”** includes asbestos waste;
 - **“Dense Non-Aqueous Phase Liquid (DNAPL)”** is defined as a heavier-than water organic liquid that is only slightly soluble in water. The primary classes of DNAPLs include creosote, coal tar, PCB oils and chlorinated solvents.
 - **“Drinking water”** has the same meaning as in the *Safe Drinking Water Act, 2002*;
 - **“Drinking Water Threat”** means an activity or condition that adversely affects or has the potential to adversely affect the quality (chemical or pathogen) or quantity of any water that is or may be used as a source of drinking water, and includes an activity or condition that is prescribed by the regulations as a drinking water threat. Regulation 287/07 sets out in Section 1.1 a prescribed list of drinking water threats;
 - **“Emergency Response Plans”** assign response coordination for various types of events to appropriate municipal officials, and provide for senior-level municipal officials to take charge of locally declared emergencies.
 - **“*Escherichia coli*”** (commonly abbreviated *E. coli*) is a Gram-negative rod-shaped bacterium commonly found in the lower intestine of warm-blooded organisms. This organism is used in drinking water testing as an indicator of bacterial contamination since the presence of *Escherichia coli* may indicate fecal contamination from a human or animal source.
 - **“Existing”** means any of the 21 prescribed threat activities (including activities associated with legal non-conforming) established at the day this plan takes effect, or that occurs seasonally or occasionally on the property and the activity has occurred at some point prior to the effective date of the Source Protection Plan. This includes expansions where no additional permissions would be required. Furthermore, where a Risk Management Inspector has conducted a property specific assessment and documented the significant threat activities on that property, any significant threat activity not so documented shall be subject to the policies pertaining to future threats;
 - **“Extraction”** means all forms of extraction or aggregate uses as defined in each local municipal Zoning By-Law;
 - **“Fuel”** means a product of petroleum that may include BTEX (benzene, toluene, ethylbenzene and xylene) or Petroleum Hydrocarbons F1, F2, F3, or F4 that is a liquid at standard temperatures and pressures and that is designed for use in an engine or heating and is governed under the Liquid Fuels Handling Code. O. Reg. 213/01 (Fuel Oil) and/or O. Reg. 217/01 (Liquid Fuels) made under the *Technical Standards and Safety Act, 2000*;
 - **“Future”** means the development of an activity which does not qualify as an existing activity, as defined above, on the day this plan takes effect;
 - **“Groundwater”** means water that collects or flows beneath the Earths’ surface, filling the porous spaces in soil, sediment, and rocks.
 - **“Hauled Sewage”** means,
 - (a) domestic waste that is human body waste, toilet or other bathroom waste, waste from other showers or tubs, liquid or water born culinary or sink waste or laundry waste, and
 - (b) other waste that is suitable for storage, treatment or disposal in a sewage system regulated under Part 8 of the building code made under the Building Code Act, 1992, if the waste is not fully disposed of at the site where it is produced, other than,
 - i. waste that is,
 - A. from a sewage works that is subject to an environmental compliance approval, and

- B. conveyed, by a sewer that is subject to an environmental compliance approval, away from the site where it is produced, or
 - ii. waste in a vehicle sewage holding tank;
- **“Hazardous Waste”** has the same meaning as in Regulation 347 (General – Waste Management), R.R.O. 1990, made under the *Environmental Protection Act*: specifically that hazardous waste “means a waste that is a;
 - (a) hazardous industrial waste,
 - (b) acute hazardous waste chemical,
 - (c) hazardous waste chemical,
 - (d) severely toxic waste,
 - (e) ignitable waste
 - (f) corrosive waste,
 - (g) reactive waste,
 - (h) radioactive waste, except radioisotope wastes disposed of in a landfilling site in accordance with the written instructions of the Canadian Nuclear Safety Commission,
 - (i) pathological waste,
 - (j) leachate toxic waste, or
 - (k) PCB wastebut does not include,
 - (l) hauled sewage,
 - (m) waste from the operation of a sewage works subject to the *Ontario Water Resources Act* where the works,
 - (i) is owned by a municipality,
 - (ii) is owned by the Crown or the Ontario Clean Water Agency, subject to an agreement with a municipality under the Ontario Water Resources Act, or
 - (iii) receives only waste similar in character to the domestic sewage from household,
 - (n) domestic waste,
 - (o) incinerator ash resulting from the incineration of waste that is neither hazardous waste nor liquid industrial waste,
 - (p) waste that is a hazardous industrial waste, hazardous waste chemical, ignitable waste, corrosive waste, leachate toxic waste or reactive waste and that is produced in any month in an amount less than five kilograms or otherwise accumulated in an amount less than five kilograms,
 - (q) waste that is an acute hazardous waste chemical and that is produced in any month in an amount less than one kilogram or otherwise accumulated in an amount less than one kilogram,
 - (r) an empty container or the liner from an empty container that contained hazardous industrial waste, hazardous waste chemical, ignitable waste, corrosive waste, leachate toxic waste or reactive waste,
 - (s) an empty container of less than twenty litres capacity or one or more liners weighing, in total, less than ten kilograms from empty containers, that contained acute hazardous waste chemical,
 - (t) the residues or contaminated materials from the clean-up of a spill of less than five kilograms of waste that is a hazardous industrial waste, hazardous waste chemical, ignitable waste, corrosive waste, leachate toxic waste or reactive waste, or

- (u) the residues or contaminated materials from the clean-up of a spill of less than one kilogram of waste that is an acute hazardous waste chemical”;
- **“Highly Vulnerable Aquifer (HVA)”** means an aquifer on which external sources have or are likely to have a significant adverse effect, and includes the land above the aquifer;
- **“Implementing Body”** can be (a) a municipality, local board or conservation authority, (b) a ministry, board, commission, agency or official of the Government of Ontario, or (c) a body prescribed by the regulations or an official of a body prescribed by the regulations or another person or group;
- **“Industrial”** means all forms of industrial uses as defined in each local municipal Zoning By-law;
- **“Industrial Waste”** means waste, other than municipal waste, from
 - (a) an enterprise or activity involving warehousing, storage or industrial, manufacturing or commercial processes or operations,
 - (b) research or an experimental enterprise or activity,
 - (c) an enterprise or activity to which clause (a) would apply if the enterprise or activity were carried on for profit,
 - (d) clinics that provide medical diagnosis or treatment,
 - (e) schools, laboratories or hospitals, or
 - (f) a facility or vehicle owned or operated by a municipality;
- **“Institutional”** means all forms of institutional uses as defined in each local municipal Zoning By-law;
- **“Intake Protection Zone” (IPZ)** means a zone established around a surface water intake of drinking water as prescribed in the *Technical Rules: Clean Water Act, 2006*. The IPZ-1 is a circle that has a radius of 1000 metres (1 km) from the centre point of every intake that serves as the source or entry point of raw water supply for the system. The Assessment Report identified that where the area delineated includes land, the IPZ-1 only included a setback on the land of up to 120 metres or the regulated limit. An area known as IPZ-2 was delineated in the Assessment Report based on a two hour time of travel to the centre point including surface water and drainage that would contribute to the two hour time of travel up to 120 metres in land.
- **“Landfarming Petroleum”** means the biodegradation of petroleum refining wastes by naturally occurring soil bacteria by means of controlled application of the wastes to land followed by periodic tilling;
- **“Landfilling”** means the disposal of waste by deposit, under controlled conditions, on land or on land covered by water, and includes compaction of the waste into a cell covering the waste with cover materials at regular intervals;
- **“Legal Effect”** means the requirements of the implementing body to fulfill the policy. The policies in the Source Protection Plan have one of three types of legal effect: “must conform/comply with” policies, “have regard to policies”, and “non-legally binding” policies. An explanation of which policies fall under each legal effect provision can be found in Appendix D;
- **“Liquid Industrial Waste”** means waste that is both liquid waste and industrial waste but does not include,
 - (a) hazardous waste,
 - (a.1) hauled sewage,
 - (b) waste from the operation of a sewage works described in clause (m) of the definition of “hazardous waste”,
 - (c) waste from the operation of a water works subject to the *Ontario Water Resources Act* or the *Safe Drinking Water Act, 2002*,

- (d) waste that is produced in any month in an amount less than twenty-five litres or otherwise accumulated in an amount less than twenty-five litres,
- (e) waste directly discharged by a generator from a waste generation facility into,
 - i. a sewage works, other than a storm sewer that is subject to the *Ontario Water Resources Act* or was established before April 3, 1957 or,
 - ii. a sewage system regulated under Part 8 of the building code made under the *Building Code Act, 1992*,
- (f) waste that results directly from food processing and preparation operations,
- (g) drilling fluids and produced waters associated with the exploration, development or production of crude oil or natural gas,
- (h) processed organic waste, or
- (i) asbestos waste;
- **“Livestock Density”** Livestock density means the number of farm animals grown, produced or raised per square kilometre of an area, separated by type of farm animals specified in section 3.1 of the Nutrient Management Protocol. It is the number of nutrient units over a given area, and is expressed by dividing the nutrient units by the number of acres in the same area, where,
 - (a) In respect of land used for the application of nutrients, the number of acres of agricultural managed land in the vulnerable area, and;
 - (b) In respect of land that is part of a farm unit and that is used for livestock, grazing or pasturing, the number of acres that is used for those purposes.
- **“Managed Lands”** means land to which materials are applied as nutrients. Managed lands are defined in the *Technical Rules: Clean Water Act, 2006* (section 1, page 3) and refer to any land where nutrients are applied (ASM, NASM or commercial fertilizer). Golf courses and tree farms may also be counted.
- **“Municipal Waste”** means,
 - (a) any waste, whether or not it is owned, controlled or managed by a municipality, except,
 - i. hazardous waste, or
 - ii. liquid industrial waste, or
 - iii. gaseous waste, and
 - (b) solid fuel, whether or not it is waste, that is derived in whole or in part from the waste included in clause (a);
- **“Non-agricultural source material (NASM)”** has the same meaning as in section 1 of O. Reg. 276/03 (General) made under the *Nutrient Management Act, 2002*; specifically
 - “any of the following materials, other than compost that meets the Compost Guidelines, or a commercial fertilizer, if the materials are intended to be applied to land as nutrients:
 - Pulp and paper biosolids.
 - Sewage biosolids.
 - Anaerobic digestion output, if less than 50 per cent, by volume, of the total amount of anaerobic digestion materials that were treated in the mixed anaerobic digestion facility were on-farm anaerobic digestion materials.
 - Any other material that is not from an agricultural source and that is capable of being applied to land as a nutrient”;
- **“Nutrient unit”** has the same meaning as in Section 1 of O. Reg. 267/03 (General) made under the *Nutrient Management Act, 2002*; specifically, the amount of nutrients that give the fertilizer

replacement value of the lower of 43 kilograms of nitrogen or 55 kilograms of phosphate as nutrient annually.

- **“Open Space”** means all forms of open space uses as defined in each local municipal Zoning By-law;
- **“Organic Solvent”** means any volatile organic compound that is used as a cleaning agent, dissolver, thinner, or viscosity reducer, or for a similar purpose.
- **“Outdoor Confinement Area”** is defined by Regulation as an enclosure for livestock or game animals that has all of the following characteristics; an unroofed area (with the exception of small wind or shade shelters that are under 20 m²/ 200 ft²), a grazing or foraging area that accounts for less than 50 percent of the animals’ dry matter intake, fences, pens, corrals or similar structures to confine the animals that are either permanent or temporary, access to a barn.
- **“Pasture, Grazing”** is the area where partial defoliation of forage plants by the animal takes place or to feed animals on growing grass or herbage; to forage
- **“Pathogen”** means any disease-producing agent, especially a virus, bacterium, or other microorganism;
- **“PCB Waste”** has the same meaning as in Regulation 362 of the Revised Regulations of Ontario, 1990 (Waste Management – PCBs) made under the Act;
- **“Pending”** means an activity for which a permit/approval has been sought but is still in the approvals process.
- **“Pesticide”** means those pesticides listed in the MOECC Provincial Table of Circumstances including, MCPA (2-methyl-4-chlorophenoxyacetic acid), Mecoprop, Atrazine, Dicamba, Dichlorophenoxy Acetic Acid (D-2,4), Dichloropropene-1,3, MCPB (4-(4-chloro-2-methylphenoxy)butanoic acid), Metalaxyl, Metolachlor or s-Metolachlor;
- **“Prescribed Instrument”** is any document of legal effect, including a permit, licence, approval, authorization, direction or order, that is issued or otherwise created under an Act and listed in Section 1.0.1 of Regulation 287/07;
- **“Recreational”** means all forms of recreational uses as defined in each local municipal Zoning By-Law;
- **“Residential”** means all forms of residential as defined in each local municipal Zoning By-law;
- **“Significant drinking water threat”** means a drinking water threat that, according to a risk assessment, poses or has the potential to pose a significant risk. The Provincial *Table of Drinking Water Threats: Clean Water Act, 2006* dated December 12, 2008 along with the vulnerability score in the Assessment report provides the basis for the risk assessment;
- **“Significant Groundwater Recharge Area (SGRA)”** is one of four types of vulnerable areas identified in the *Clean Water Act*. It is the area where an aquifer is replenished through the infiltration of rainfall and snowmelt and the seepage from lakes, streams and wetlands, or from built structures such as storm water management systems, are considered significant.
- **“Surface Water”** means water collecting in a stream, river, lake, and wetland. It is the source for drinking water from the Intakes in the Great lakes
- **“Tertiary System”** means an advanced septic system that complies with the Effluent Quality Criteria as regulated by the Ontario Building Code (OBC) table 8.6.2.2.A
- **“Transport Pathway”** means a condition of land resulting from human activity that increases the vulnerability of a raw water supply of a drinking water system (e.g. private wells, pits or quarries);
- **“Vulnerable Area”** means
 - 1) A significant groundwater recharge area,

- 2) A highly vulnerable aquifer,
- 3) A surface water intake protection zone, or
- 4) A wellhead protection area;
- **“Vulnerability Score”** is a score representing the susceptibility of an area to contamination. These scores are based on *Technical Rules: Clean Water Act, 2006*, where 10 is the most vulnerable and 2 is the least vulnerable. In a wellhead protection area (WHPA), significant threats are possible where the score is greater than 8 (dense non-aqueous phase liquids can be significant in WHPA-A, B or C).
- **“Wellhead Protection Area (WHPA)”** is one of four types of vulnerable areas identified in the *Clean Water Act*. It is the zone around a drinking water well. The WHPA-A is the 100 metre circle centred on the wellhead. The WHPA-B is the two year time of travel. WHPA-C is the five year time of travel. WHPA-D is the 25 year time of travel. WHPA-E is associated with a GUDI (groundwater under the direct influence of surface water) well is the area within which the surface water could reach the well within two hours.

Where there is a need for further clarity concerning these definitions, the definitions from the Technical Rules, Regulation 287/07, and the *Clean Water Act, 2006*, shall prevail.

APPENDIX B – LIST OF ACRONYMS AND ABBREVIATIONS

AR:	Assessment Report
ASM:	Agricultural Source Material
BMP:	Best Management Practice
BCA:	<i>Building Code Act</i>
CA:	Conservation Authority
CO:	Conservation Ontario
CofA:	Certificate of Approval (now called Environmental Compliance Approval)
CWA:	<i>Clean Water Act, 2006</i>
DNAPL:	Dense Non-Aqueous Phase Liquid
DWS:	Drinking Water System
DWSP:	Drinking Water Source Protection
EBR:	Environmental Bill of Rights, EBR Environmental Registry
ECA:	Environmental Compliance Approval (formerly Certificate of Approval)
ERT:	Environmental Review Tribunal
GIS:	Geographic Information Systems
GUDI:	Groundwater under the Direct Influence of Surface Water
GW:	Groundwater
HVA:	Highly Vulnerable Aquifers
IPZ:	Intake Protection Zone
ISI:	Intrinsic Susceptibility Index
LNAPL:	Light Non-Aqueous Phase Liquid
MFIPPA:	<i>Municipal Freedom of Information and Protection of Privacy Act</i>
MMAH:	Ministry of Municipal Affairs and Housing
MNRF:	Ministry of Natural Resources and Forestry
MOECC:	Ministry of the Environment and Climate Change
MPAC:	Municipal Property Assessment Corporation
MTO:	Ministry of Transportation
NASM:	Non-Agricultural Source Material
NMA:	<i>Nutrient Management Act</i>
NMP:	Nutrient Management Plan
NU:	Nutrient Unit
ODWSP:	Ontario Drinking Water Stewardship Program
OFA:	Ontario Federation of Agriculture
OMAFRA:	Ontario Ministry of Agriculture, Food and Rural Affairs
OMB:	Ontario Municipal Board
OP:	Official Plan
O.Reg.:	Ontario Regulation
PCB:	Polychlorinated Biphenyl
P.Eng:	Professional Engineer
P. Geo:	Professional Geoscientist
PM:	Project Manager

PPS: Provincial Policy Statement
PTTW: Permit To Take Water
QP: Qualified Person
RMI: Risk Management Inspector
RMO: Risk Management Official
RMP: Risk Management Plan
SDWA: *Safe Drinking Water Act*
SDWT: Significant Drinking Water Threat
SGRA: Significant Groundwater Recharge Area
SPA: Source Protection Authority
SPC: Source Protection Committee
SP: Source Protection
SPP: Source Protection Plan
SPPB: Source Protection Programs Branch
SPPDB: Source Protection Policy Database
SPR: Source Protection Region
SW: Surface Water
TEC: Technical Experts Committee
ToR: Terms of Reference
TOT: Time of Travel
TSSA: Technical Standards and Safety Authority
UAR: Updated Assessment Report
WHPA: Wellhead Protection Area

APPENDIX C – CONSULTATION RECORD

A fundamental principle for drinking water source protection is consultation with stakeholders. The SPC undertook formal consultation on the Terms of Reference, Assessment Reports and Source Protection Plans in accordance with the *Clean Water Act, 2006* and Provincial Regulation 287/07. A summary of these consultation efforts is provided below.

Consultation on the Terms of Reference

Formal consultation took place starting in January 2008 with notices to municipalities, neighbouring SPRs and First Nations. Four public opportunities took place (two in each Source Protection Area) on the Draft Proposed Terms of Reference in Wingham (Wednesday, May 21, 4-6 p.m.), Parkhill (Thursday, May 22, 4-6 p.m.), Varna (Saturday, May 24, 10-12 p.m.) and Holmesville (Wednesday, May 28, 4-6 p.m.). Newspaper notice indicating the dates and places of meetings to discuss the Draft Proposed Terms of Reference, and where copies of the Draft Proposed Terms of Reference could be inspected, were placed in 14 local weekly publications and on the internet.

At all public meetings copies of the Source Protection Area Draft Proposed Terms of Reference were made available, Source Protection Committee members and staff members were present, comment sheets were available, maps and user-friendly explanations of the Draft Proposed Terms of Reference were provided. In addition, materials which gave an overview of source protection and the process were available. Written comments were received by the Source Protection Committee and considered and acted upon at the June and July meetings in 2008.

During Phase 2 of the consultation, a notice was published notifying the public of the 30-day comment period (beginning on August 6 and finishing on September 5) on the Proposed Terms of Reference in 14 weekly publications and on the internet. All comments received by the public during this time were attached to the Terms of Reference and submitted to the Minister of the Environment for approval.

Consultation on the Assessment Report

Formal consultation was initiated on January 5th, 2010 with a draft proposed Assessment Report being published on the Ausable Bayfield Maitland Valley Drinking Water Source Protection website. In addition to the draft being posted on the internet, copies of the Draft Proposed Assessment Report were made available at both the Maitland Valley and the Ausable Bayfield Conservation Authority administrative offices for public inspection on January 5th, 2010. A newspaper notice indicating the details of the consultation were placed in 14 weekly publications and other media sources. Additionally a copy of the notice was sent for posting at each of the public libraries, and (where possible) at municipal offices located throughout the source protection region.

A letter, including the notice was sent by registered mail to: the Clerk of each municipality listed in the Terms of Reference, the Chief of Bands, the Chair of all neighbouring SPCs, and every person established under the Great Lakes Water Quality Agreement (GLWQA), Lake-wide

Management Plans (LaMPs), and Remedial Action Plans (RAPs). A letter was also sent to every person engaging in activities that are or would be a significant drinking water threat listed in the Assessment Report (AR).

Six public meetings were held (3 in each SPA) on the draft proposed Assessment Reports in Bayfield (Thursday, January 21, 3-5 p.m. and 6-8 p.m.), Wingham (Wednesday, January 27, 3-6 p.m.), Blyth (Thursday, February 18, 4-6 p.m.), Zurich (Thursday, February 25, 3-6 p.m.), Grand Bend (Saturday, March 6, 10 a.m – noon, and 1-3 p.m.), and Palmerston (Saturday, March 6, 10 a.m – noon, and 1-3 p.m.). The meeting on March 6th was also presented as a webinar and teleconference to accommodate seasonal residents and others who could not attend in person.

The final step in the consultation process was to post the Proposed Assessment Report on the DWSP website and advertise that final comments could be forwarded to the Source Protection Authorities. This was done on May 4th, 2010. Any additional comments received during this time were attached to the Proposed Assessment Report and submitted to the Minister of the Environment.

Consultation on the Source Protection Plan

The process undertaken to develop a Source Protection Plan for the two Source Protection Areas within the Ausable Bayfield Maitland Valley Source Protection Region commenced in February 2011. The first step in preparing the source protection plans was to send a notice of commencement to all landowners potentially affected by the policies to be developed. This notice was sent on February 14, 2011. Letters were also sent to all municipalities and First Nations within the Region to notify them of the commencement of plan preparation.

The first phase of consultation on the Source Protection Plan is pre-consultation on draft policies. Pre-Consultation is a phase designed for implementing bodies and other interested parties to review the draft policies and provide comment. Pre-consultation notices were mailed out along with the draft plan to all implementing bodies (municipalities, conservation authorities and provincial ministries) in mid-December 2011. Notices were also sent to any interested parties including industry groups and non-implementing provincial ministries. Five pre-consultation meetings were held for municipalities to explain the draft policies in January and February 2012. DWSP Staff were also invited by several municipal councils to provide presentations on the draft plan.

Pre-Consultation comments were required by February 8th, 2012 for provincial ministries and interested parties, and March 14th, 2012 for municipalities and conservation authorities. All comments received were reviewed by the SPC at meetings held in February, March and April of 2012. Changes were made to the draft plan based on pre-consultation feedback and a revised version of the plan was approved for public consultation on May 16th, 2012.

A 35-day public consultation was initiated on May 22nd, 2012 with draft proposed Source Protection Plans and a draft Explanatory Document being published on the Ausable Bayfield

Maitland Valley Drinking Water Source Protection website. In addition to the draft being posted on the internet, copies of both the Draft Proposed Plans and Draft Explanatory Document were made available at both the Maitland Valley and the Ausable Bayfield Conservation Authority administrative offices for public inspection on May 22nd, 2012. A newspaper notice indicating the details of the consultation were placed in 14 weekly publications and other media sources. A letter, including the notice was sent to: the Clerk of each municipality listed in the Terms of Reference, the Chiefs of nearby First Nations Bands, the Chair of all neighbouring SPCs, every person or body consulted with during pre-consultation and every person established under the Great Lakes Water Quality Agreement (GLWQA), Lake-wide Management Plans (LaMPs), and Remedial Action Plans (RAPs). A letter was also sent to every person believed to be engaging in one or more significant drinking water threat activities.

Three public meetings were held (1 in each SPA, and 1 in the most central location for the Region) on the draft proposed Source Protection Plans in Holmesville (Wednesday, June 13, 6:30 p.m. - 8 p.m.), Zurich (Friday, June 15, 2-4 p.m.), and Wingham (Tuesday, June 19, 11:30 a.m. – 1:30 p.m.). A webinar and teleconference was also held on Saturday, June 16 from 10 – 11 a.m. to accommodate seasonal residents and others who could not attend any of the meetings in person.

The deadline for public comments was Wednesday, June 27, 2012 by 4 p.m. The Source Protection Committee reviewed all comments received during the public consultation phase at a meeting held on July 4, 2012. Further amendments were made the Plans as a result of the feedback received.

The final step in the consultation process was to post the Proposed Source Protection Plans and Explanatory Document on the DWSP website for an additional 30 days, and advertise that final comments could be forwarded to the Source Protection Authorities. This was done on Friday, July 13, 2012. Any additional comments received during this 30-day timeframe (ending on Monday, August 13th) were attached to the Proposed Source Protection Plans and submitted to the Minister of the Environment.

In addition to the above noted consultation, six local, multi-stakeholder community working groups (from Listowel, Wingham, Clinton, Kingsbridge/Port Albert, Exeter, and Parkhill areas), made up of 100 citizens from around the region, and a sub-committee of municipal representatives were formed in February of 2008. These groups received an extensive drinking water source protection education based on the technical work being undertaken for the development of the Assessment Reports. In June of 2009 these groups presented fifty policy suggestions to the Source Protection Committee. The Committee considered these recommendations during the development of the Source Protection Plan policies.

Consultation on the Final Revisions to the Proposed Source Protection Plans

After submission of the Proposed Source Protection Plans on August 21st, 2012, initial

comments containing a number of recommended revisions were received from the Ontario Ministry of the Environment and Climate Change (MOECC) on August 2nd, 2013. A final set of recommended revisions were received from the MOECC on October 31st, 2013. The Source Protection Committee reviewed these comments, and provided direction to staff about appropriate revisions at meetings held in September and November 2013. Additionally, staff brought forward a recommendation to add an additional policy to the Plans, which was approved by the Committee at the September 2013 meeting.

As a result of the revisions, and the new policy that was added to the plans, the SPC directed staff to undertake additional consultation with implementing bodies and the public. This 46-day consultation period on the Revised Proposed Source Protection Plans began on December 6th, 2013 and ended on January 21st, 2014. The revised Proposed Source Protection Plans and revised Explanatory Document were posted on the DWSP website, and it was advertised that final comments could be forwarded to the Source Protection Authorities. In addition to the draft being posted on the internet, copies of both the revised Proposed Plans and revised Explanatory Document were made available at both the Maitland Valley and the Ausable Bayfield Conservation Authority administrative offices for public inspection. A letter, including the notice was sent to: every municipality in the Source Protection Region, and all other implementing bodies. A newspaper notice indicating the details of the consultation were placed in 14 weekly publications and other media sources. Any additional comments received during this 46-day timeframe were attached to the revised Proposed Source Protection Plans and submitted to the Minister of the Environment.

Consultation on Proposed Amendments to the Approved Source Protection Plan

Due to changes in a number of municipal wells as well as proposed revisions to two policies, an amendment of the approved SPP under Section 34 of the Clean Water Act was undertaken in 2017. The draft amendments include the following:

1. Revision to the Blyth wellhead protection area to account for an additional well;
2. Slight adjustment of the Benmiller and Molesworth wellhead protection areas as a result of a replacement wells;
3. Revision of the Dungannon wellhead protection area to reflect recent removal of well #1;
4. Addition of the Ripley municipal drinking water system, due to addition of a new well and subsequent re-delineation. The revised wellhead protection area now extends into the Maitland Valley SPA;
5. Revision to Policy P.12.1 to allow more flexibility in the type of applications that require review by Risk Management Officials;
6. Revision of Policy P.12.2 to extend the timeline for risk management plan completion from three years to five years.

The proposed amendments were approved by the SPC and SPAs in 2017. Following pre-consultation with implementing bodies, endorsement of the proposed amendments was provided by those municipalities impacted by the amendments.

A 35-day public consultation period began on January 3rd, 2018 and ended February 8th, 2018.

The amended Source Protection Plans, Explanatory Document and revised portion of the Assessment Reports were posted on the DWSP website, and made available at both the Maitland Valley and the Ausable Bayfield Conservation Authority administrative offices for public inspection. Property owners impacted by the proposed amendment were sent a Notice of consultation and information package. A Notice was also sent to implementing bodies, including municipalities. In addition, two public open houses were held during the Public Consultation period. A newspaper notice indicating the details of the consultation were placed in local weekly publications.

Any additional comments received during Public Consultation were submitted to the Minister of the Environment and Climate Change along with the amended Source Protection Plans.

APPENDIX D – REQUIREMENTS UNDER SECTION 34 OF REGULATION 287/07

The policies in the Source Protection Plan have one of three types of legal effect – “must conform/comply with” policies, “have regard to policies”, and “non-legally binding” policies. The following is an explanation of which policies fall under each legal effect provision. The appendices of the Source Protection Plan also contain lists of policies ensuring Source Protection Plan policies are designated the appropriate legal effect provision as outlined in the Clean Water Act. Specific reference to these lists is included in the definitions below, where applicable.

Must Conform With

- The Clean Water Act requires **municipalities; local boards or source protection authorities to comply** with any obligations imposed on it to address a **significant** drinking water threat/condition, regardless of the particular tool or approach used in the policy (see List E).
- The Act requires decisions under the ***Planning Act and Condominium Act, 1998*** to **conform** with **significant** threat/condition policies (see List A).
- The Act required decisions related to **prescribed instruments** to **conform** with **significant** threat/condition policies (see List C).
- Persons carrying out **significant** threat activities must **conform** with policies that use **Part IV** powers under the Clean Water Act.
- The source protection plan must designate a **public body**¹ to carry out **monitoring** required by the Clean Water Act and these public bodies must **conform** with the obligations set out in the monitoring policies (see List F).

Have Regard To

- The Act requires decisions under the ***Planning Act and Condominium Act, 1998*** to **have regard to moderate and low** threat/condition policies (see List B).
- The Act required decisions related to **prescribed instruments** to **have regard to moderate and low** threat/condition policies (see List D).

¹ Public body is defined in section 2 of the CWA and means “a municipality, local board or conservation authority, a ministry, board, commission, agency or official of the Government of Ontario, or a body prescribed by the regulations”. Based on this definition, a commission like the Niagara Escarpment Commission is a public body, whereas any federal government ministry and the TSSA are not.

Non-legally Binding

The source protection plan includes other types of policies that, while the committee may determine are important to achieving the Plan's objectives, are not given legal effect by the Act. These include:

- **Significant, moderate and low** threat/condition policies to be implemented by **bodies other than** municipalities, local boards or source protection authorities **and** which do not rely on Part IV, prescribed instrument or Planning Act tools.
- **Other permitted policies** governing:
 - Incentive programs and education & outreach programs, including for systems not in terms of reference
 - The update of spills prevention, contingency or response plans along highways, railways or shipping lanes
 - Climate conditions data collection
 - Transport pathways in WHPA or IPZ.
- **Optional monitoring policies** governing:
 - Moderate/low threats in areas where the threat could never become significant (see List J)
 - Monitoring of other permissible plan policies (eg, updates to spills prevention plans) (see List J).

List A: Significant threat policies that affect decisions under the Planning Act and Condominium Act, 1998

Clause 39 (1) (a), subsections 39 (2), (4) and (6), and sections 40 and 42 of the Clean Water Act, 2006 apply to the following policies:

R.1.1.1, R.1.1.4, A.1.1.1, A.1.1.4, C.1.1.1, C.1.1.4, P.12.1.1, P.12.1.5, P.12.1.6, P.12.1.13

List B: Moderate and low threat policies that affect decisions under the Planning Act and Condominium Act, 1998

Subsection 39 (1) (b) of the *Clean Water Act, 2006* applies to the following policies:

None.

List C: Significant threat policies that affect prescribed instrument decisions

Subsection 39 (6), clause 39 (7) (a), section 43 and subsection 44 (1) of the *Clean Water Act, 2006* apply to the following policies:

R.1.2, R.1.6, R.4.1, R.4.3, R.4.4, R.4.6, R.4.7, R.5.1, R.5.3, R.5.4, A.1.2, A.1.6, A.4.1, A.4.3, A.4.4, A.4.6, A.4.7, A.5.1, A.5.3, A.5.4, C.1.2, C.1.6, C.4.1, C.4.3, C.4.4, C.4.6, C.4.7, C.5.1, C.5.3, C.5.4, P.12.4, P.12.6, P.12.13

List D: Moderate and low threat policies that affect prescribed instrument decisions

Clause 39 (7) (b) of the *Clean Water Act, 2006* applies to the following policies:

R.1.8, A.1.8, C.1.8

List E: Significant threat policies that impose obligations on municipalities, source protection authorities and local boards

Section 38 and subsection 39 (6) of the *Clean Water Act, 2006* applies to the following policies:

R.1.3, R.1.5, R.1.7, R.1.9, R.2.3, R.3.6, R.4.10, R.4.11, R.5.6, R.6.3, R.7.3, R.8.2, R.9.1, A.1.3, A.1.5, A.1.7, A.1.9, A.2.3, A.3.6, A.4.10, A.4.11, A.5.6, A.6.3, A.7.3, A.8.2, A.9.8, C.1.3, C.1.5, C.1.7, C.1.9, C.2.3, C.3.6, C.4.10, C.4.11, C.5.6, C.6.3, C.7.3, C.8.3, C.9.8, P.12.5, P.12.6, P.12.13

List F: Monitoring policies referred to in subsection 22 (2) of the Clean Water Act, 2006

Section 45 of the *Clean Water Act, 2006* applies to the following policies:

P.12.7, P.12.8, P.12.9, P.12.10, P.12.12

List G: Policies related to section 57 of the Clean Water Act, 2006

The following policies relate to section 57 (prohibition) of the *Clean Water Act, 2006*:

R.2.1, R.3.1, R.3.2, R.4.2, R.4.5, R.5.2, R.6.1, R.7.1, R.10.1, A.2.1, A.3.1, A.3.2, A.4.2, A.4.5, A.5.2, A.6.1, A.7.1, A.9.1, A.9.4, A.9.7, A.10.1, C.2.1, C.3.1, C.3.2, C.4.2, C.4.5, C.5.2, C.6.1, C.7.1, C.9.1, C.9.4, C.9.7, C.10.1

List H: Policies related to section 58 of the Clean Water Act, 2006

The following policies relate to section 58 (risk management plans) of the *Clean Water Act, 2006*:

R.2.2, R.3.3, R.3.4, R.3.5, R.4.8, R.4.9, R.5.5, R.6.2, R.7.2, R.8.1, R.10.2, A.2.2, A.3.3, A.3.4, A.3.5, A.4.8, A.4.9, A.5.5, A.6.2, A.7.2, A.8.1, A.9.2, A.9.3, A.9.5, A.9.6, , A.10.2, C.2.2, C.3.3, C.3.4, C.3.5, C.4.8, C.4.9, C.5.5, C.6.2, C.7.2, C.8.1, C.9.2, C.9.3, C.9.5, C.9.6, C.10.2, P.12.2

List I: Policies related to section 59 of the Clean Water Act, 2006

The following policies relate to section 59 (restricted land use) of the *Clean Water Act, 2006*:

P.12.1, P.12.3

List J: Strategic Action Policies

For the purposes of section 33 of Ontario Regulation 287/07, the following policies are identified as strategic action policies:

R.2.4, R.5.7, R.5.8, A.2.4, A.5.7, A.5.8, A.9.9, C.2.4, C.5.7, C.5.8, C.8.2, C.9.9, O.11.1, O.11.2, O.11.3, O.11.4, O.11.5, O.11.6, P.12.11

List K: Significant threat policies that represent a non-legally binding commitment

C.10.3

Table 1: Prescribed Instruments which Apply to Source Protection Plan Policies in Lists C and D above (ss 34(4) of O.Reg. 287/07)

Policy ID #	Legal Effect (conform with, have regard to)	Aggregate Resources Act - licenses, wayside permits, aggregate permits, and site plans	Environmental Protection Act - waste sites and systems	Environmental Protection Act - renewable energy approvals	Nutrient Management Act - nutrient Management strategies	Nutrient Management Act - Nutrient management plans	Nutrient Management Act - NASM plans	Ontario Water Resources Act - permits to take water	Ontario Water Resources Act - sewage works	Pesticides Act - permits	Safe Drinking Water Act - permits, licences
R.1.2	Conform with								✓		
R.1.6	Conform with								✓		
R.1.8	Have regard to								✓		
R.4.1	Conform with								✓		
R.4.3	Conform with								✓		
R.4.4	Conform with								✓		
R.4.6	Conform with								✓		
R.4.7	Conform with								✓		
R.5.1	Conform with		✓								
R.5.3	Conform with		✓								
R.5.4	Conform with		✓								
A.1.2	Conform with								✓		
A.1.6	Conform with								✓		

Policy ID #	Legal Effect (conform with, have regard to)	Aggregate Resources Act - licenses, wayside permits, aggregate permits, and site plans	Environmental Protection Act - waste sites and systems	Environmental Protection Act – renewable energy approvals	Nutrient Management Act - nutrient Management strategies	Nutrient Management Act – Nutrient management plans	Nutrient Management Act – NASM plans	Ontario Water Resources Act – permits to take water	Ontario Water Resources Act – sewage works	Pesticides Act - permits	Safe Drinking Water Act – permits, licences
A.1.8	Have regard to								✓		
A.4.1	Conform with								✓		
A.4.3	Conform with								✓		
A.4.4	Conform with								✓		
A.4.6	Conform with								✓		
A.4.7	Conform with								✓		
A.5.1	Conform with		✓								
A.5.3	Conform with		✓								
A.5.4	Conform with		✓								
C.1.2	Conform with								✓		
C.1.6	Conform with								✓		
C.1.8	Have regard to								✓		
C.4.1	Conform with								✓		
C.4.3	Conform with								✓		
C.4.4	Conform with								✓		
C.4.6	Conform with								✓		
C.4.7	Conform with								✓		
C.5.1	Conform with		✓								
C.5.3	Conform with		✓								
C.5.4	Conform with		✓								
P.12.4	Conform with		✓						✓		
P.12.6	Conform with		✓						✓		
P.12.13	Conform with		✓						✓		

APPENDIX E – EDUCATION AND OUTREACH

Intent:

The purpose of these policies (R.1.7, R.2.3, R.2.4, R.3.6, R.4.10, R.5.6, R.5.7, R.6.3, R.7.3, R.8.2, R.9.1, A.1.7, A.2.3, A.2.4, A.3.6, A.4.10, A.5.6, A.5.7, A.6.3, A.7.3, A.8.2, A.9.8, A.9.9, C.1.7, C.2.3, C.2.4, C.3.6, C.4.10, C.5.6, C.5.7, C.6.3, C.7.3, C.8.3, C.9.8, C.9.9, O.11.1, O.11.2) is to ensure that the education program offered as implementation of the Source Protection Plan requirements should be comprehensive and lay the groundwork for Risk Management Plans where applicable. For those properties where landowners will be ultimately required to complete a risk management plan, the education program should equip the landowner with ample knowledge of best management practices intended to manage the specific risk.

The implementation of source protection policies has been staggered such that education precedes risk management plans. The principle is to educate thoroughly prior to requiring action.

Program Inputs:

The body implementing education policies should adequately promote the program to the target audience. Where education is aimed at properties where risk management plans will be required, direct contact with landowners/tenants is expected. It is anticipated that educators will meet with landowners in groups to deliver information on BMP's to mitigate specific risks identified as significant threats on properties. Materials such as the "Rural Landowners Stewardship Guide" should be developed and completed by landowners/tenants as part of the education strategy. Where the education is for HVA and SGRA source protection policy awareness, the program can be more generalized and utilize less direct outreach.

Program Outcomes:

The goal is that a landowner/tenant who will be required to carry out a risk management plan will be fully prepared to undertake a risk management plan after completing the education program. By understanding (and even adopting) BMP's prior to meeting with the Risk Management Official it will facilitate the development of the risk management plan. It is hoped that the plans developed during the education phase will satisfy the requirements of the risk management plan.

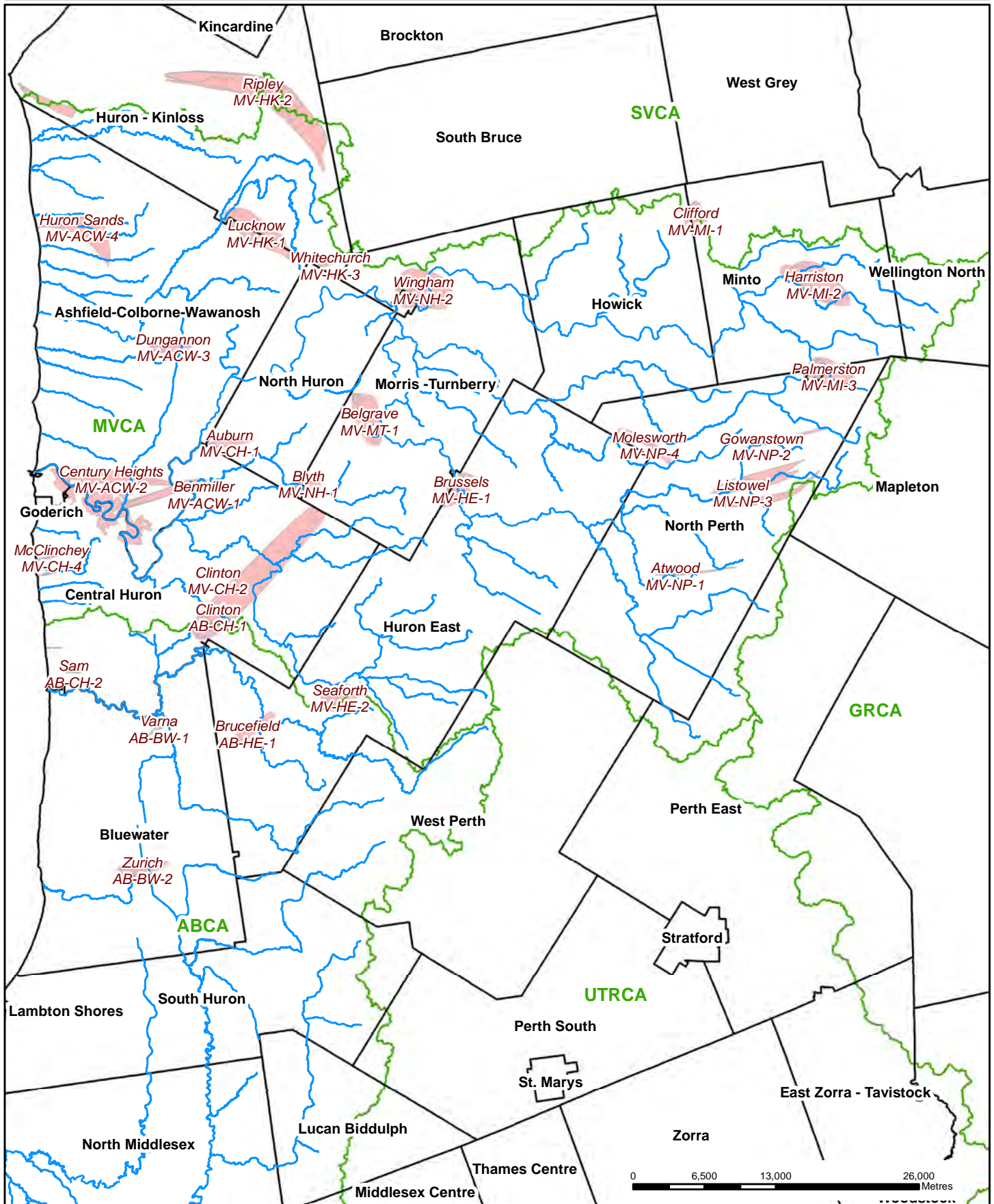
The more general goal is that all persons in areas where moderate or significant risk can exist will be more thoughtful stewards of the land.

SCHEDULES

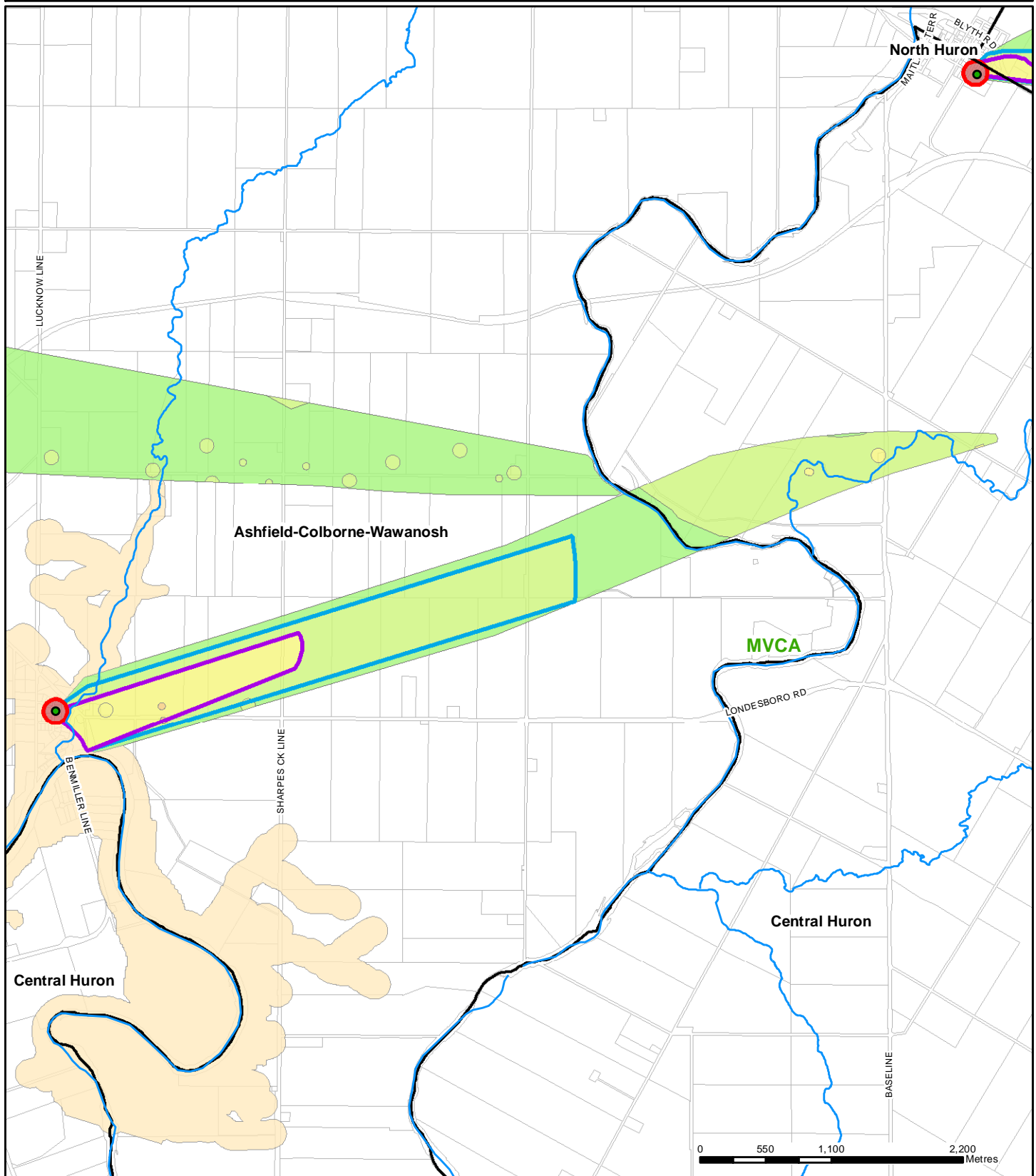
Schedule Name		Municipality	Map Name
Key Map		All Municipalities in the MV SPA	Wellhead Protection Areas
Schedule	MV-ACW-1	Ashfield-Colborne-Wawanosh	Benmiller
Schedule	MV-ACW-2	Ashfield-Colborne-Wawanosh	Century Heights
Schedule	MV-ACW-3	Ashfield-Colborne-Wawanosh	Dungannon
Schedule	MV-ACW-4	Ashfield-Colborne-Wawanosh	Huron Sands
Schedule	MV-ACW-5	Ashfield-Colborne-Wawanosh	SGRA/HVA
Schedule	MV-CH-1	Central Huron	Auburn
Schedule	MV-CH-2	Central Huron	Clinton
Schedule	MV-CH-3	Central Huron	Kelly
Schedule	MV-CH-4	Central Huron	McClinchey
Schedule	MV-CH-5	Central Huron	SGRA/HVA
Schedule	MV-GO-1	Goderich	SGRA/HVA
Schedule	MV-GO-2	Goderich	IPZ
Schedule	MV-HO-1	Howick	SGRA/HVA
Schedule	MV-HE-1	Huron East	Brussels
Schedule	MV-HE-2	Huron East	Seaforth
Schedule	MV-HE-3	Huron East	SGRA/HVA
Schedule	MV-HK-1	Huron-Kinloss	Lucknow
Schedule	MV-HK-2	Huron-Kinloss	Ripley
Schedule	MV-HK-3	Huron-Kinloss	Whitechurch
Schedule	MV-HK-4	Huron-Kinloss	SGRA/HVA
Schedule	MV-MI-1	Minto	Clifford
Schedule	MV-MI-2	Minto	Harriston
Schedule	MV-MI-3	Minto	Palmerston
Schedule	MV-MI-4	Minto	SGRA/HVA
Schedule	MV-MT-1	Morris-Turnberry	Belgrave
Schedule	MV-MT-2	Morris-Turnberry	SGRA/HVA
Schedule	MV-NH-1	North Huron	Blyth
Schedule	MV-NH-2	North Huron	Wingham

Schedule	MV-NH-3	North Huron	SGRA/HVA
Schedule	MV-NP-1	North Perth	Atwood
Schedule	MV-NP-2	North Perth	Gowanstown
Schedule	MV-NP-3	North Perth	Listowel
Schedule	MV-NP-4	North Perth	Molesworth
Schedule	MV-NP-5	North Perth	SGRA/HVA
Schedule	MV-PE-1	Perth East	SGRA/HVA
Schedule	MV-SB-1	South Bruce	SGRA/HVA
Schedule	MV-WN-1	Wellington North	SGRA/HVA
Schedule	MV-WP-1	West Perth	SGRA/HVA

Key Map (MVCA) Wellhead Protection Areas



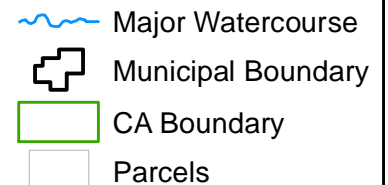
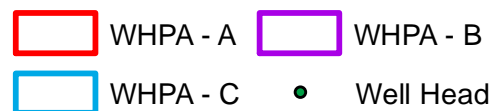
Schedule MV-ACW-1 (Benmiller)



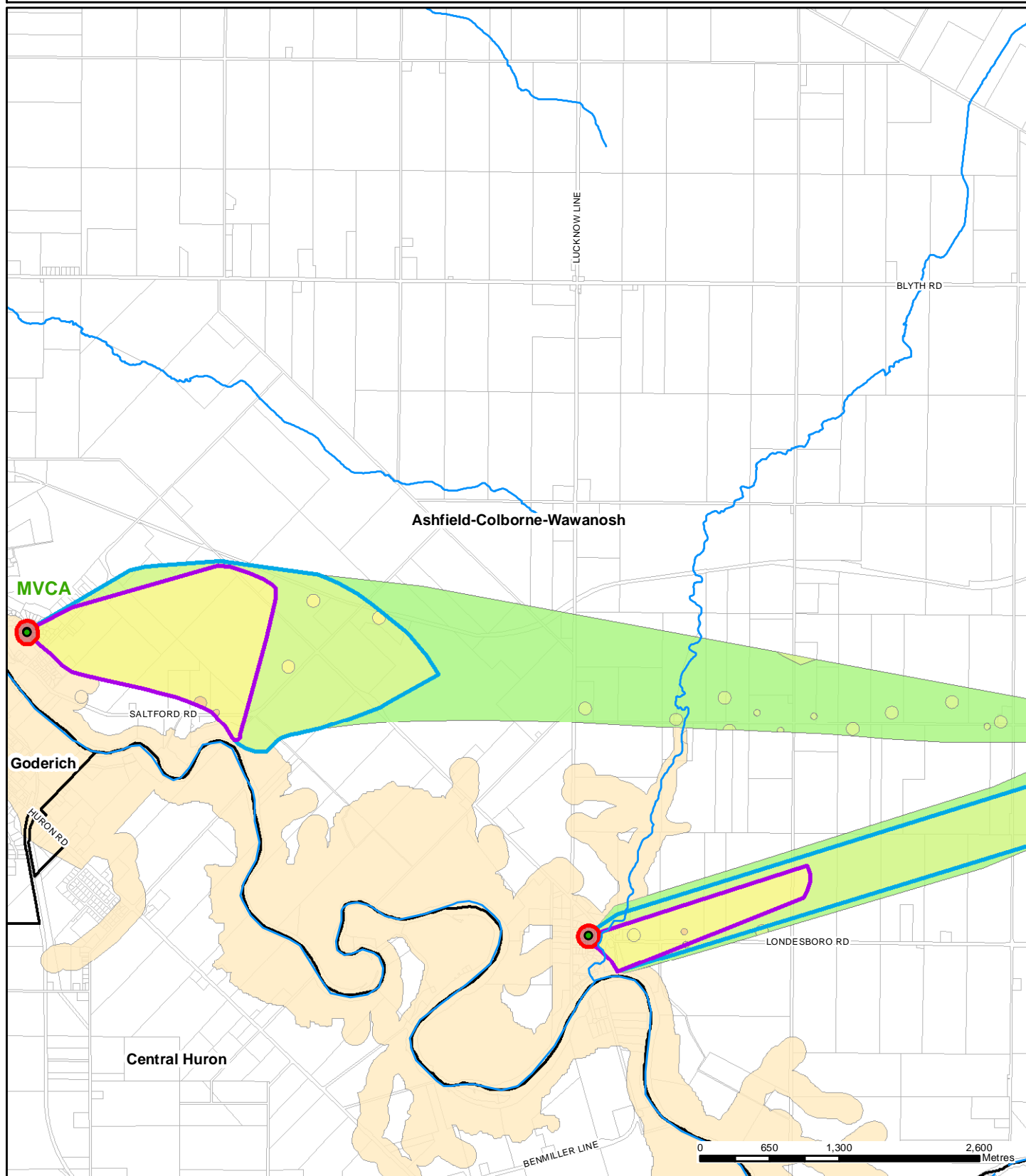
Groundwater Vulnerability



Wellhead Protection Area



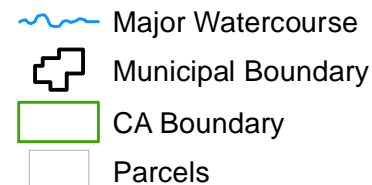
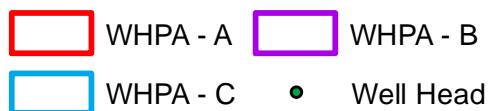
Schedule MV-ACW-2 (Century Heights)



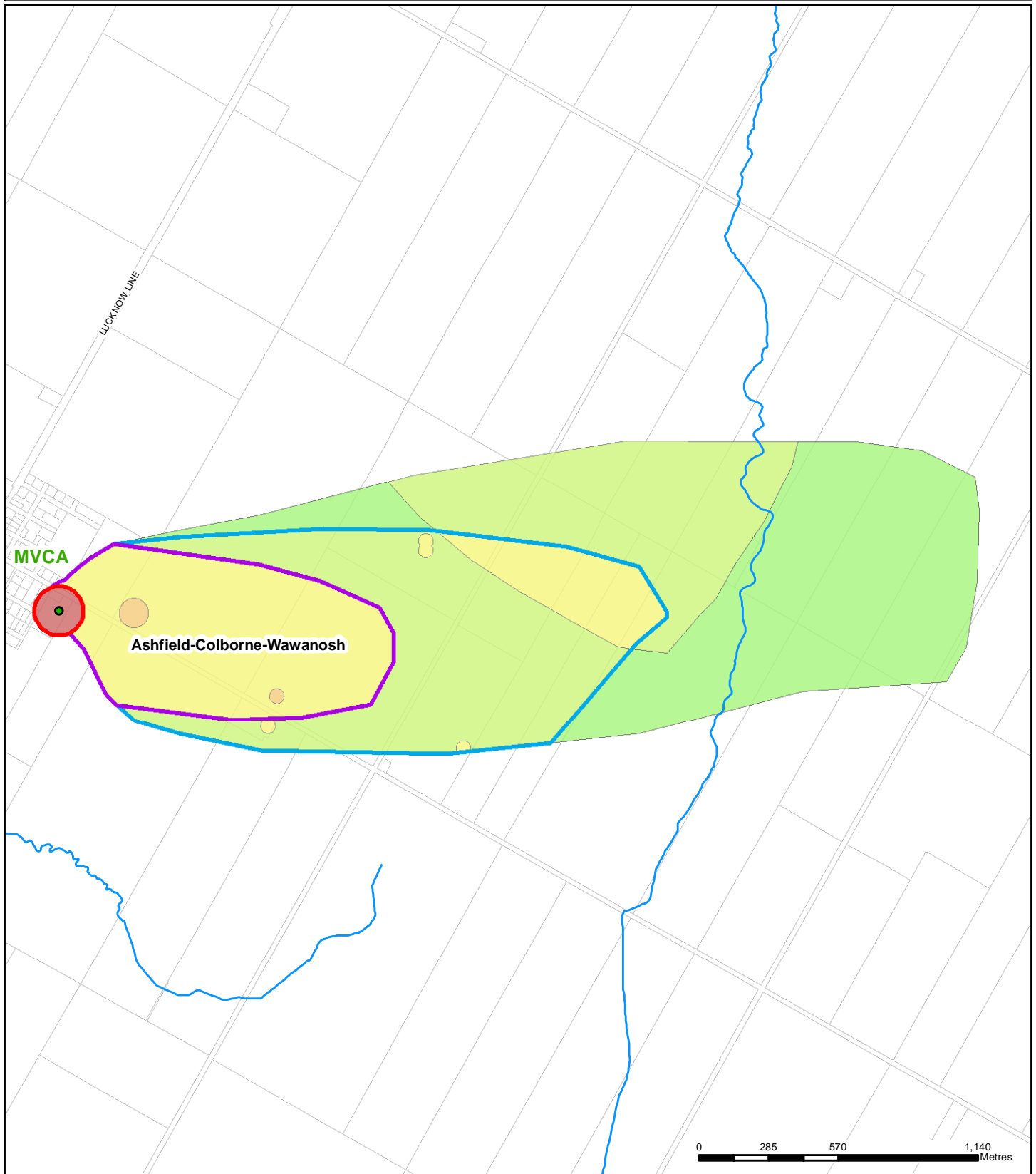
Groundwater Vulnerability



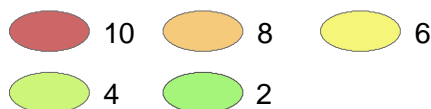
Wellhead Protection Area



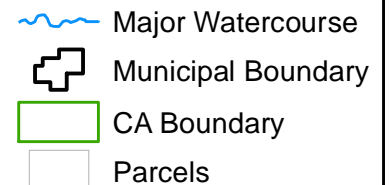
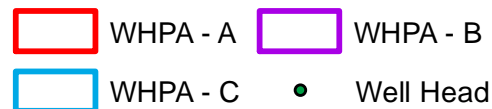
Schedule MV-ACW-3 (Dungannon)



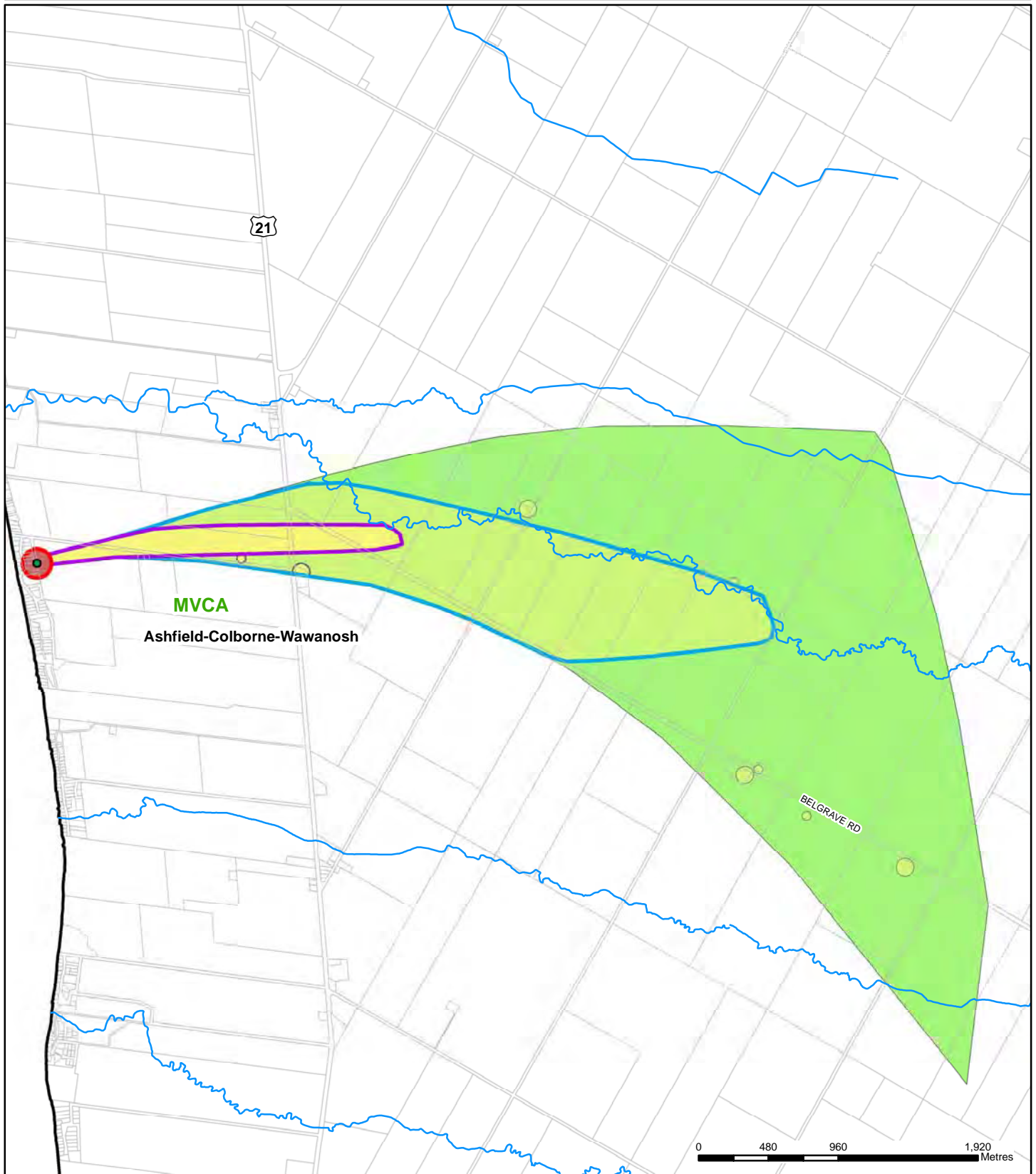
Groundwater Vulnerability



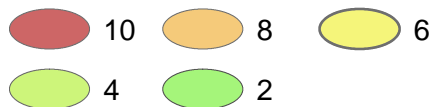
Wellhead Protection Area



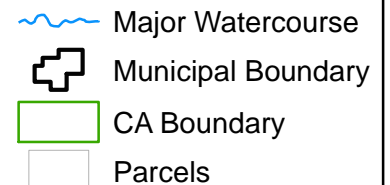
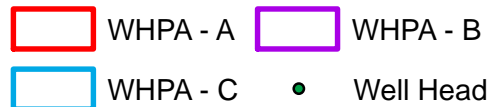
Schedule MV-ACW-4 (Huron Sands)



Groundwater Vulnerability



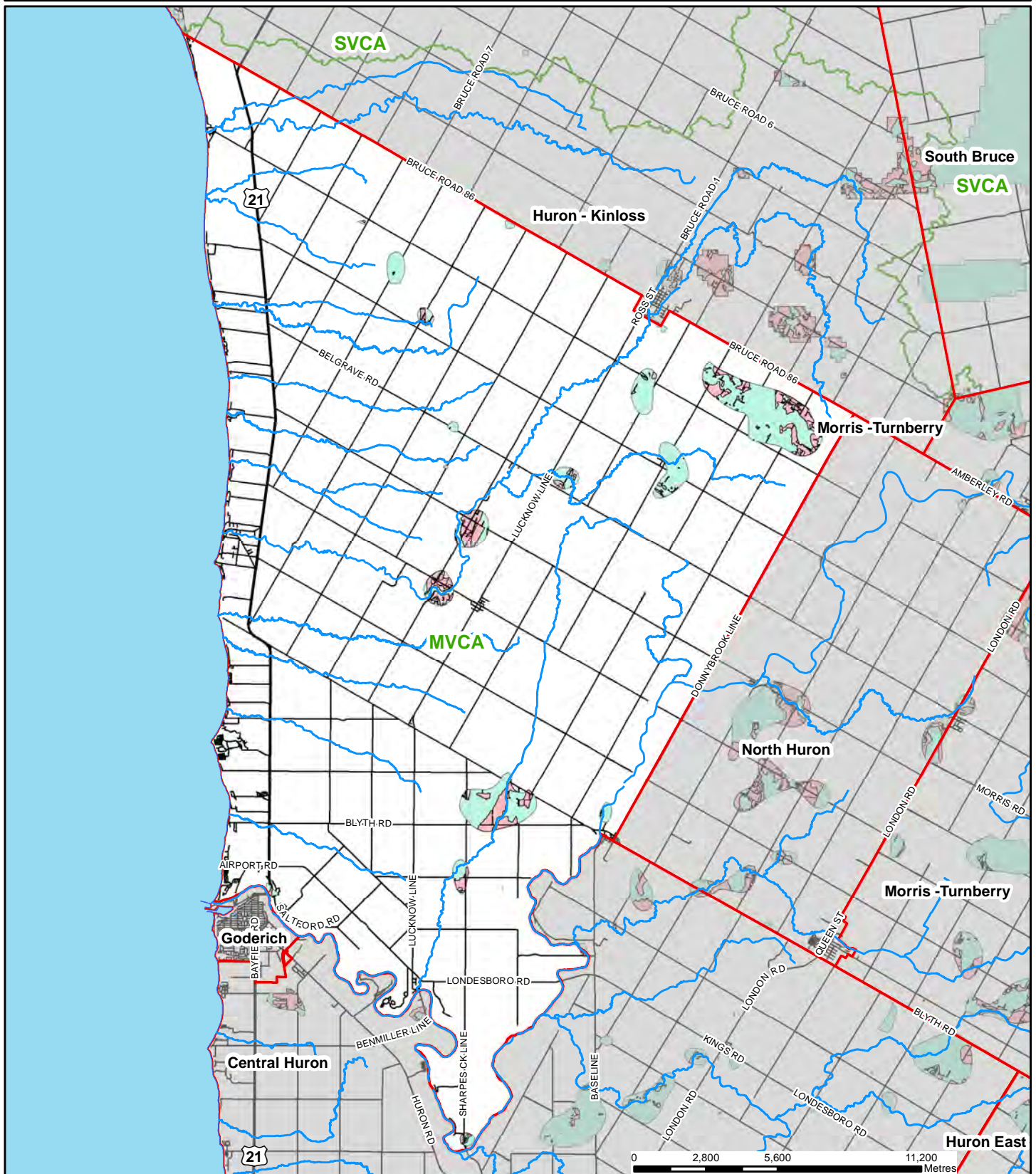
Wellhead Protection Area



Schedule MV-ACW-5 (Ashfield-Colborne-Wawanosh)

**DRINKING WATER
SOURCE PROTECTION**
ACT FOR CLEAN WATER

Ausable Bayfield
Maitland Valley
Source Protection
Region



Significant Groundwater Recharge Area

SGRA

Highly Vulnerable Aquifer

HVA

Major Watercourse

Municipal Boundary

CA Boundary

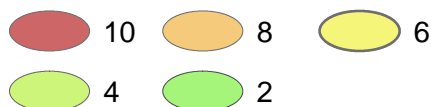
Date: (11/6/2017)
Produced by: Aaron Clarke

ABCAMVCA GIS Services Copyright (c) Queen's Printer, This map is for illustration purposes only. It is not a legal survey
Additional data layers supplied from Land Information Ontario and member municipalities

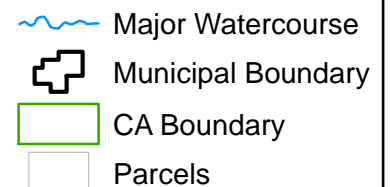
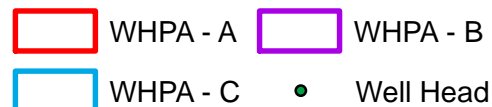
Schedule MV-CH-1 (Auburn)



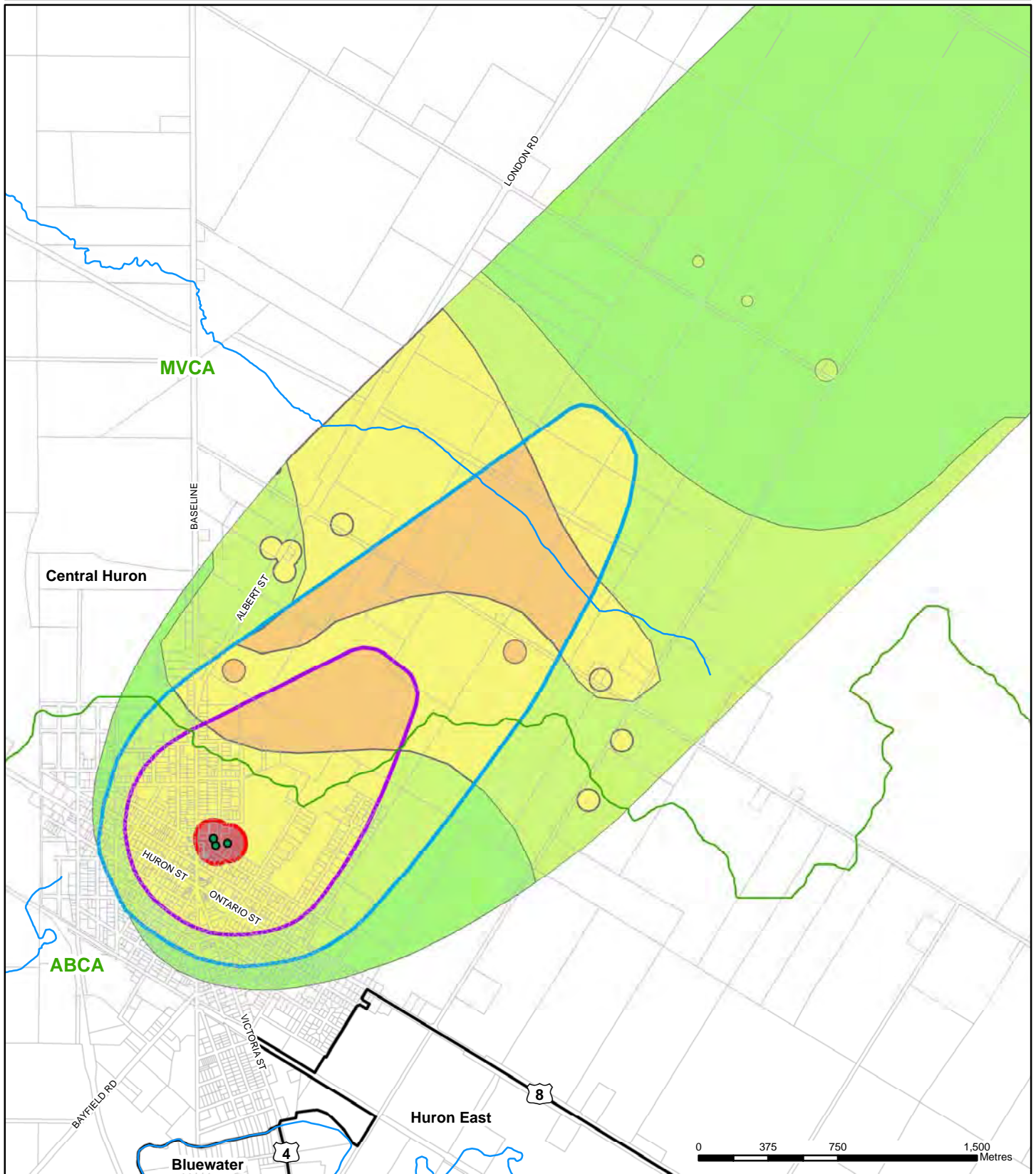
Groundwater Vulnerability



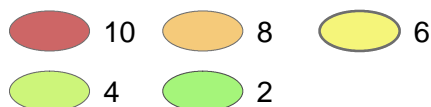
Wellhead Protection Area



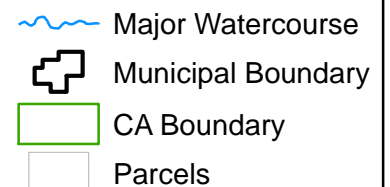
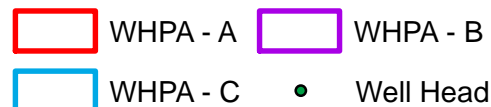
Schedule MV-CH-2 (Clinton)



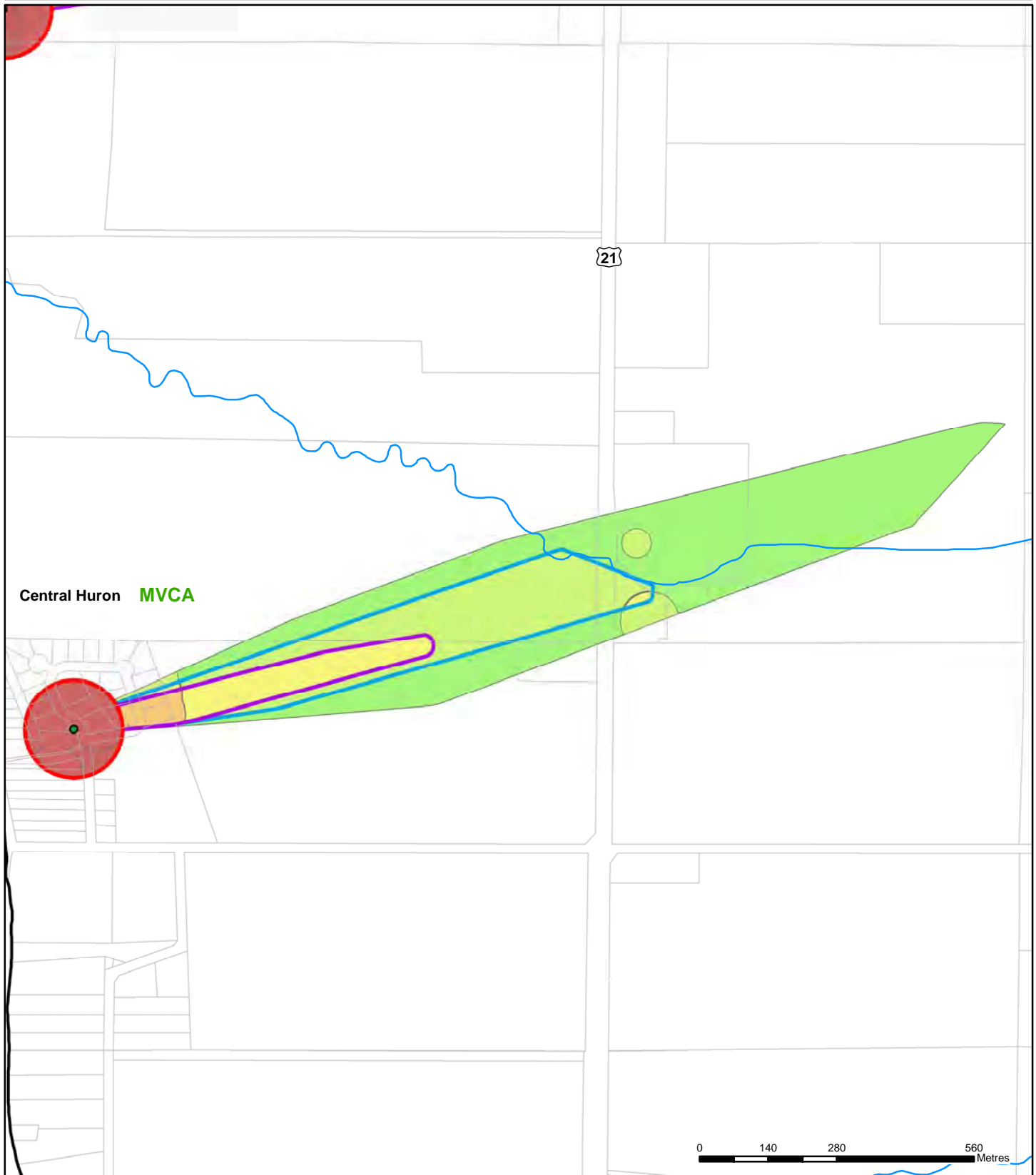
Groundwater Vulnerability



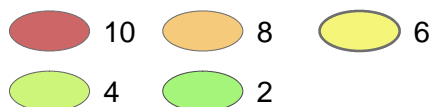
Wellhead Protection Area



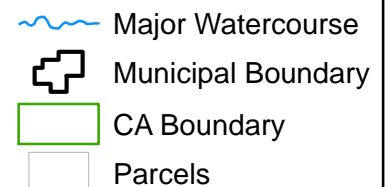
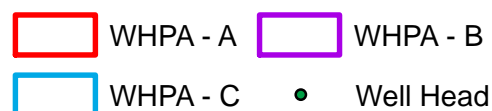
Schedule MV-CH-3 (Kelly)



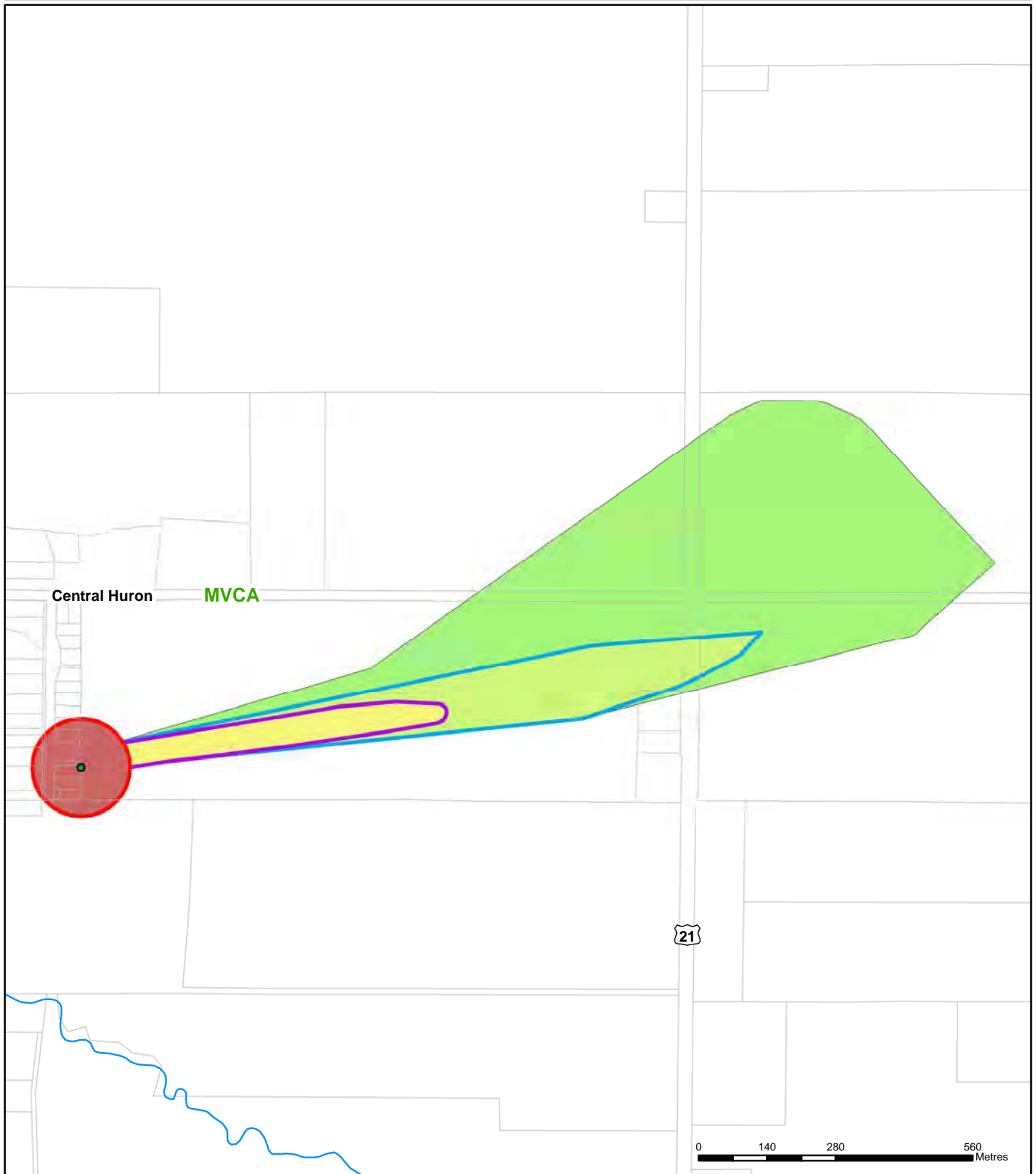
Groundwater Vulnerability



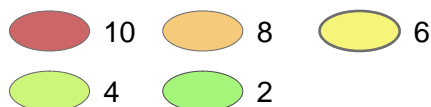
Wellhead Protection Area



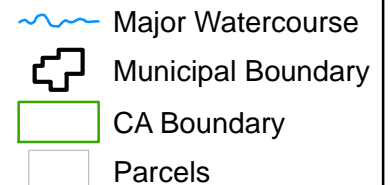
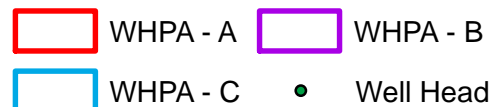
Schedule MV-CH-4 (McClinchey)



Groundwater Vulnerability



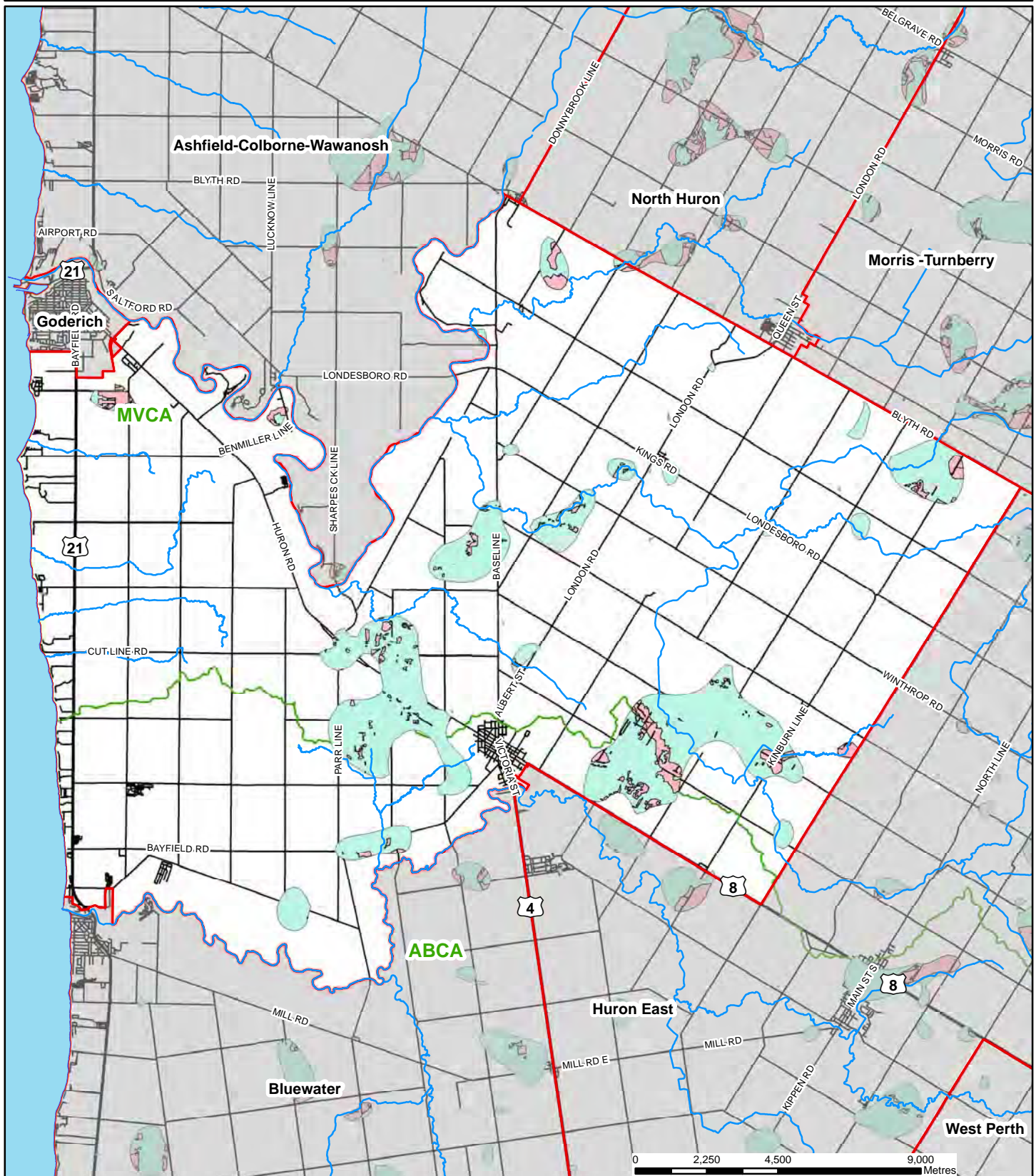
Wellhead Protection Area



Schedule MV-CH-5 (Central Huron)

**DRINKING WATER
SOURCE PROTECTION**
ACT FOR CLEAN WATER

Ausable Bayfield
Maitland Valley
Source Protection
Region



Significant Groundwater Recharge Area

SGRA

Highly Vulnerable Aquifer

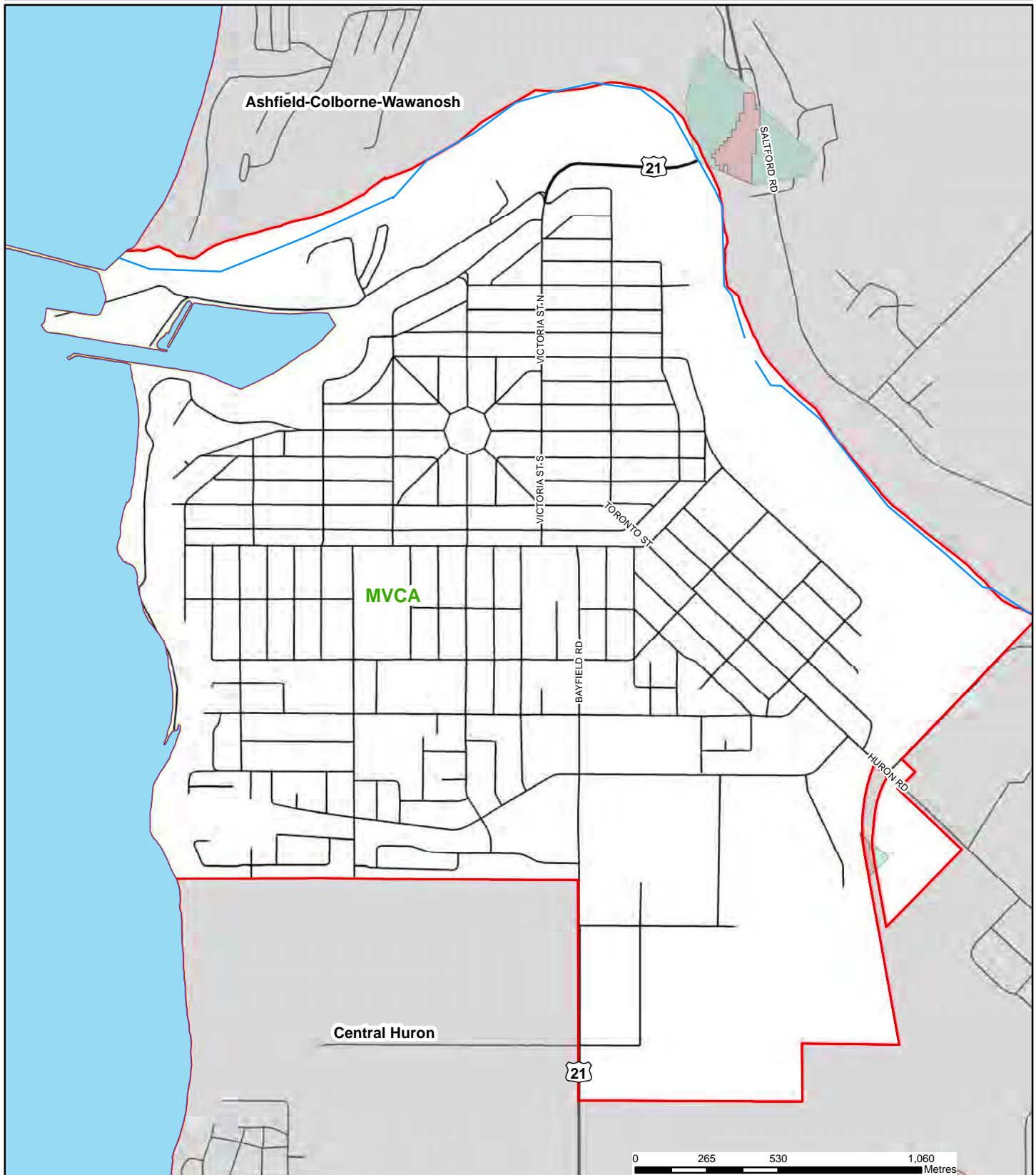
HVAs

Major Watercourse

Municipal Boundary

CA Boundary

Schedule MV-GO-1 (Goderich)



Significant Groundwater Recharge Area

SGRA

Highly Vulnerable Aquifer

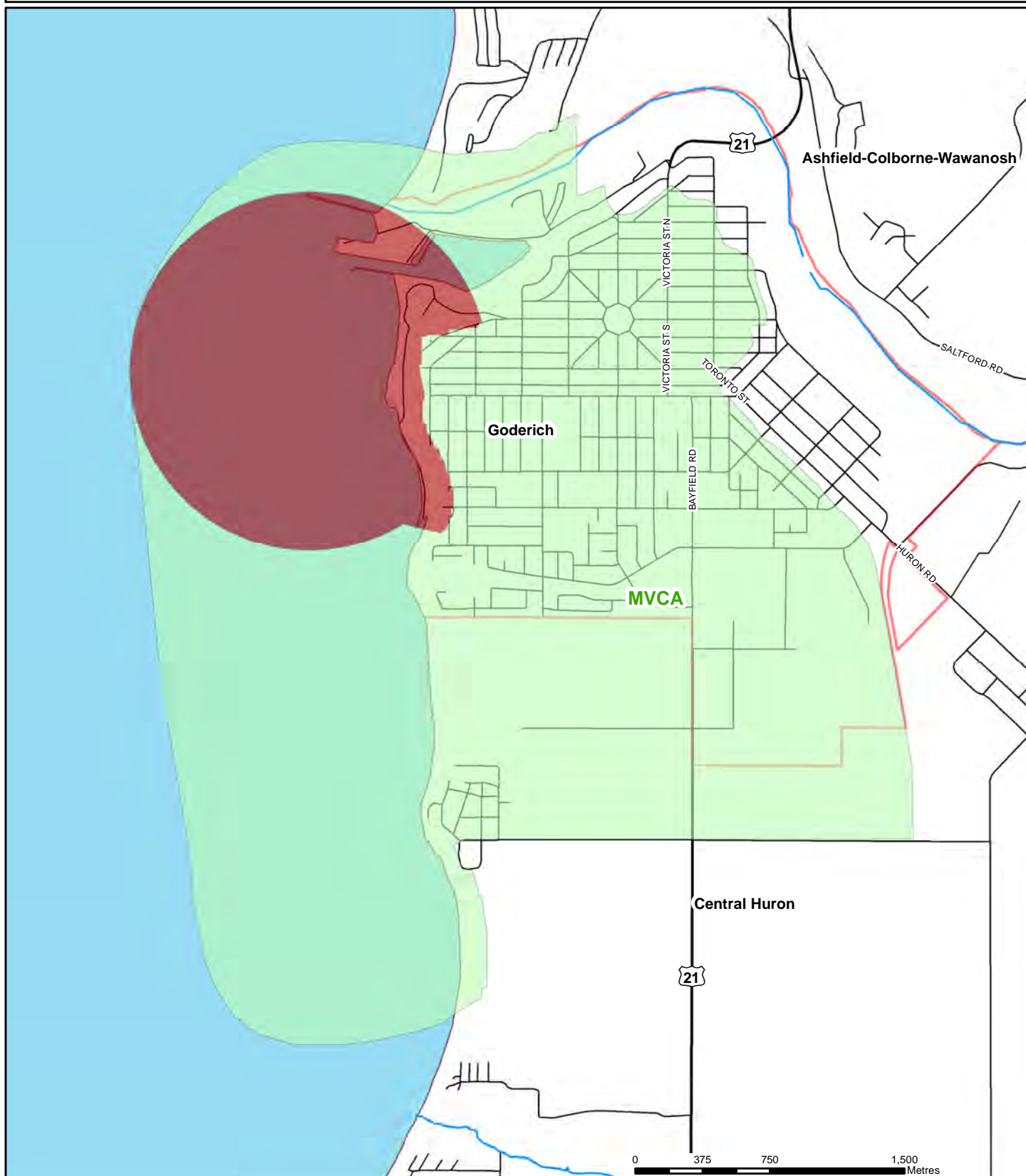
HVAs

Major Watercourse

Municipal Boundary

CA Boundary

Schedule MV-GO-2 (Goderich)



Intake Protection Zones (1 & 2)

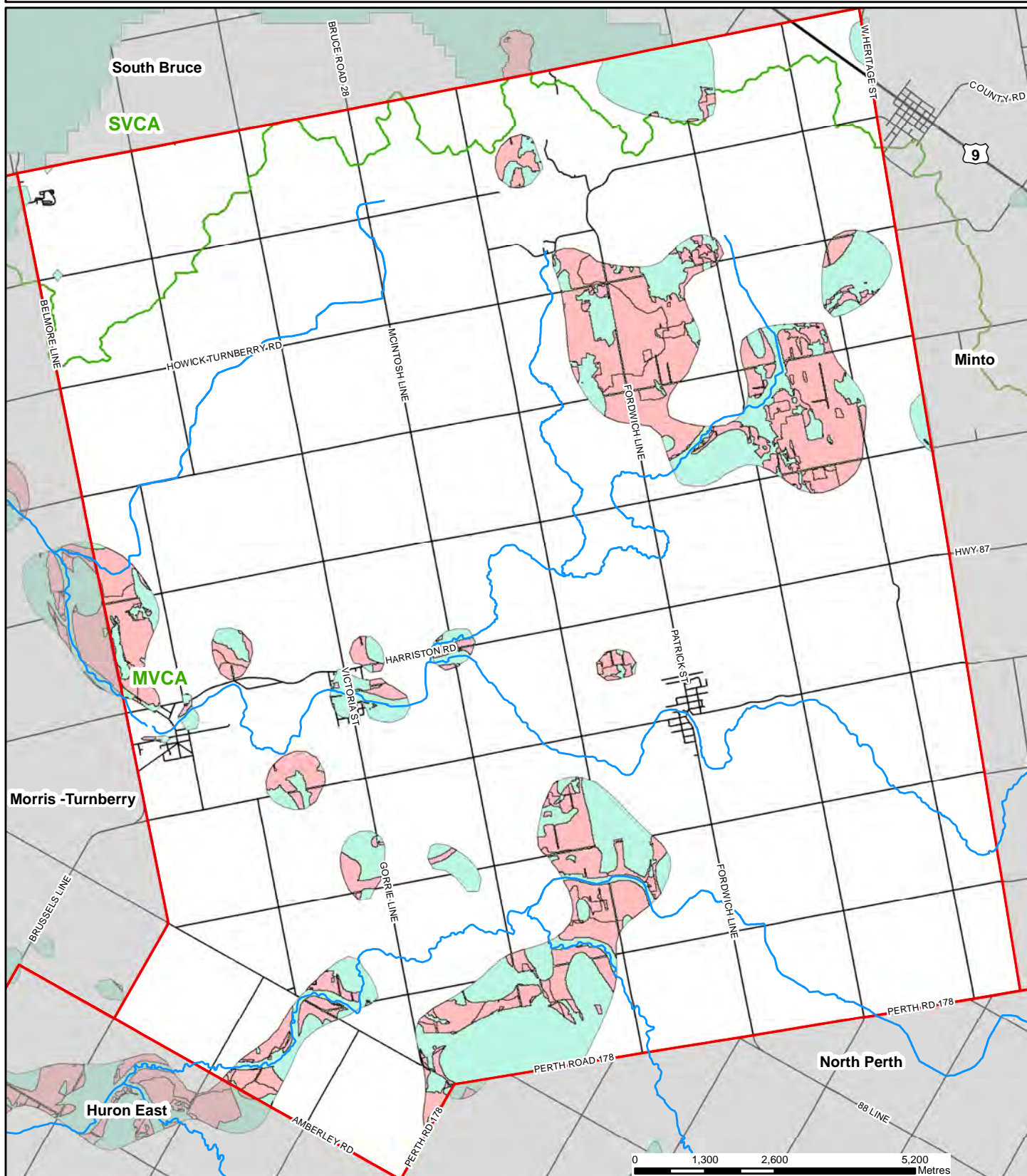
- IPZ1 - Vulnerability Score of 6
- IPZ2 - Vulnerability Score of 5.4

- Major Watercourse
- Municipal Boundary
- CA Boundary

Schedule MV-HO-1 (Howick)

**DRINKING WATER
SOURCE PROTECTION**
ACT FOR CLEAN WATER

Ausable Bayfield
Maitland Valley
Source Protection
Region



Significant Groundwater Recharge Area

SGRA

Highly Vulnerable Aquifer

HVAs

Major Watercourse

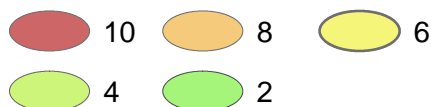
Municipal Boundary

CA Boundary

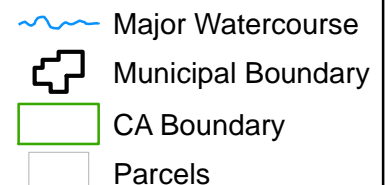
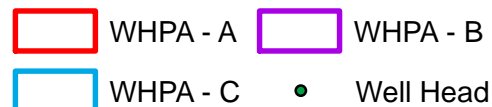
Schedule MV-HE-1 (Brussels)



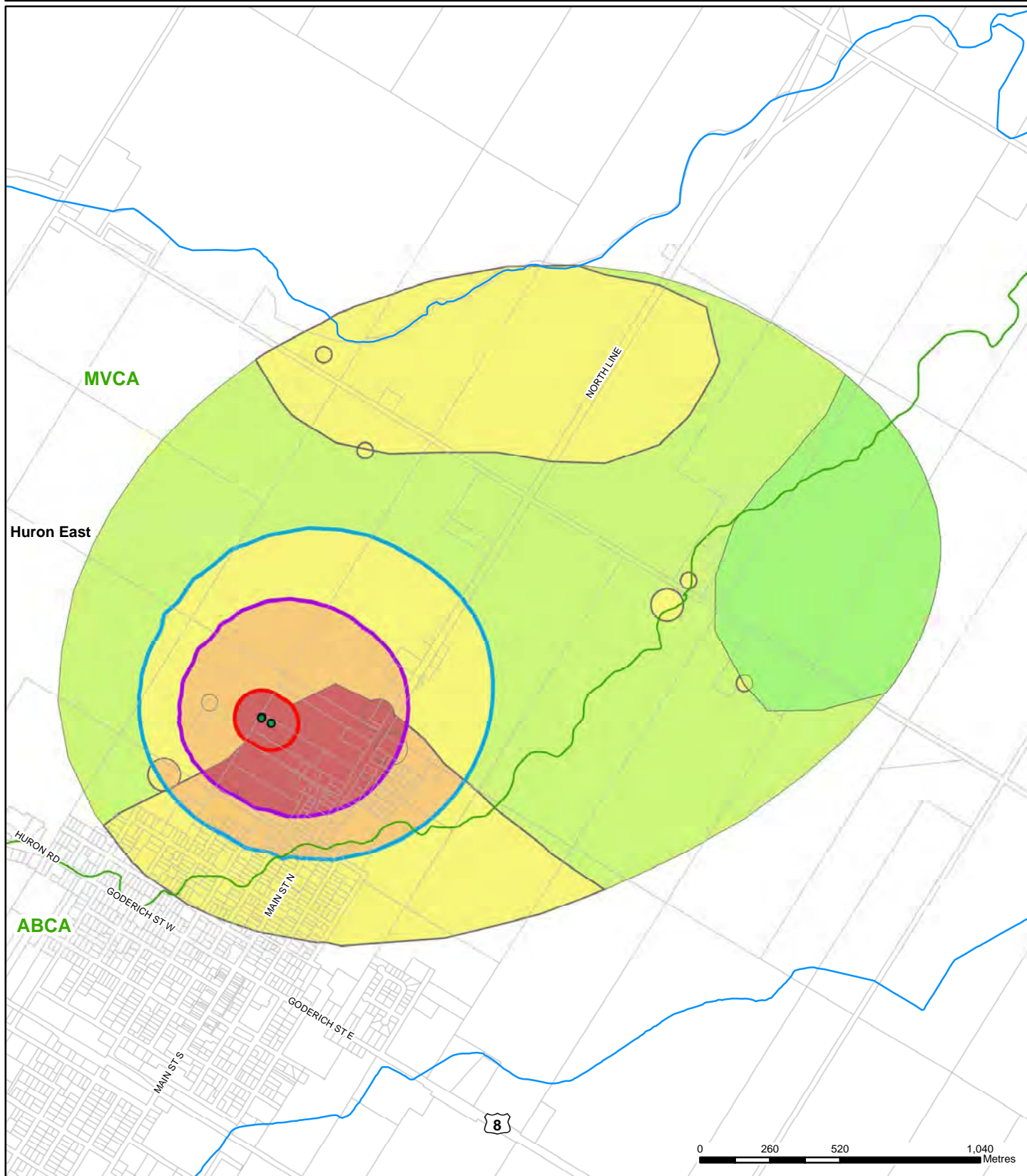
Groundwater Vulnerability



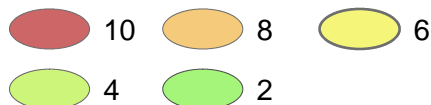
Wellhead Protection Area



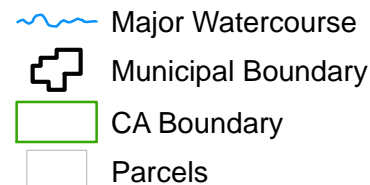
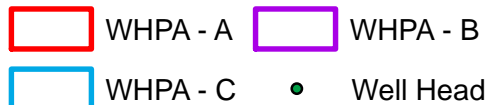
Schedule MV-HE-2 (Seaforth)



Groundwater Vulnerability



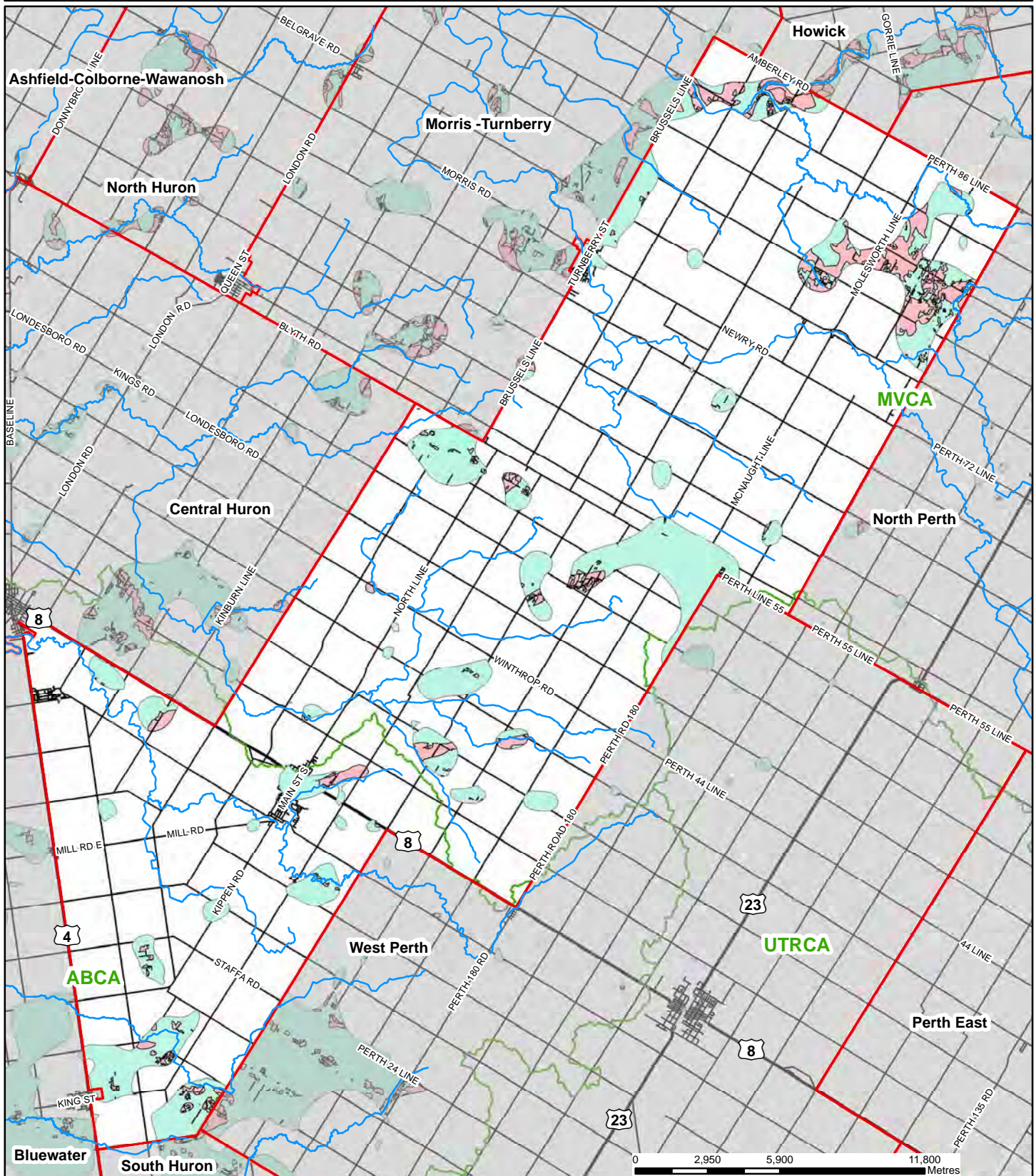
Wellhead Protection Area



Schedule MV-HE-3 (Huron East)

**DRINKING WATER
SOURCE PROTECTION**
ACT FOR CLEAN WATER

Ausable Bayfield
Maitland Valley
Source Protection
Region



Significant Groundwater Recharge Area

SGRA

Highly Vulnerable Aquifer

HVAs

Major Watercourse

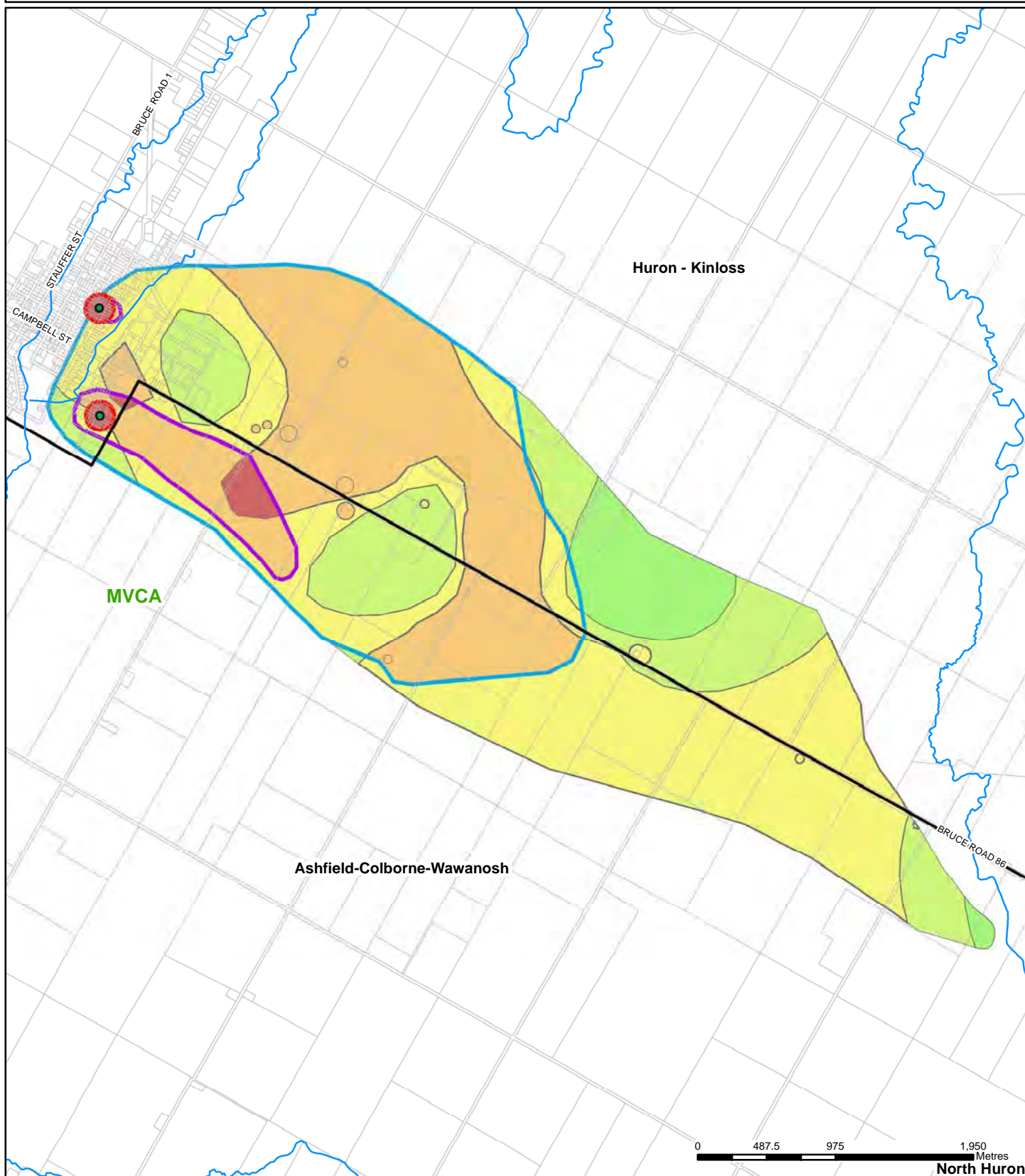
Municipal Boundary

CA Boundary

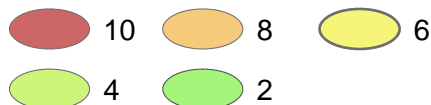
Date: (12/3/2013)
Produced by: Aaron Clarke

ABCA/MVCA GIS Services Copyright (c) Queen's Printer, This map is for illustration purposes only. It is not a legal survey
Additional data layers supplied from Land Information Ontario and member municipalities

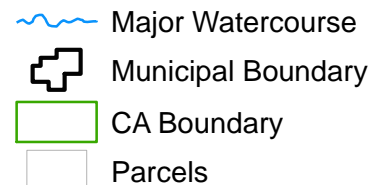
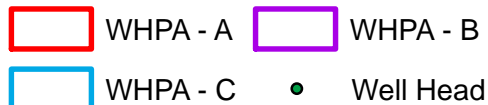
Schedule MV-HK-1 (Lucknow)



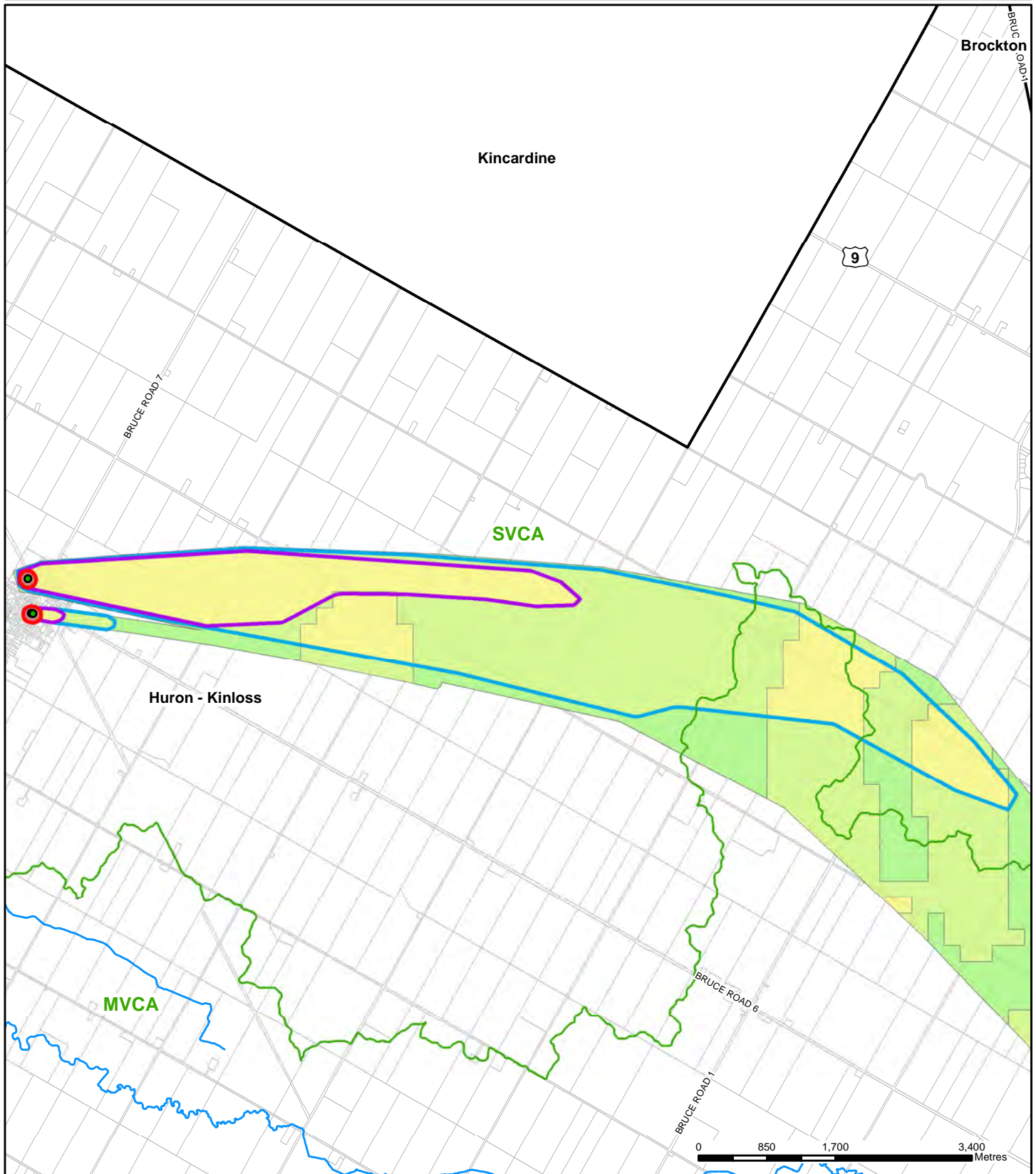
Groundwater Vulnerability



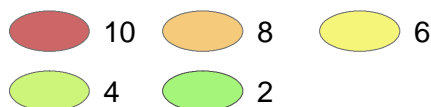
Wellhead Protection Area



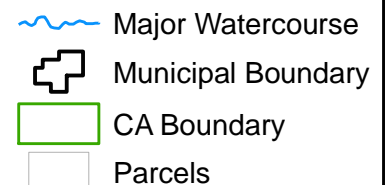
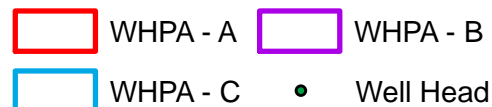
Schedule MV-HK-2 (Ripley)



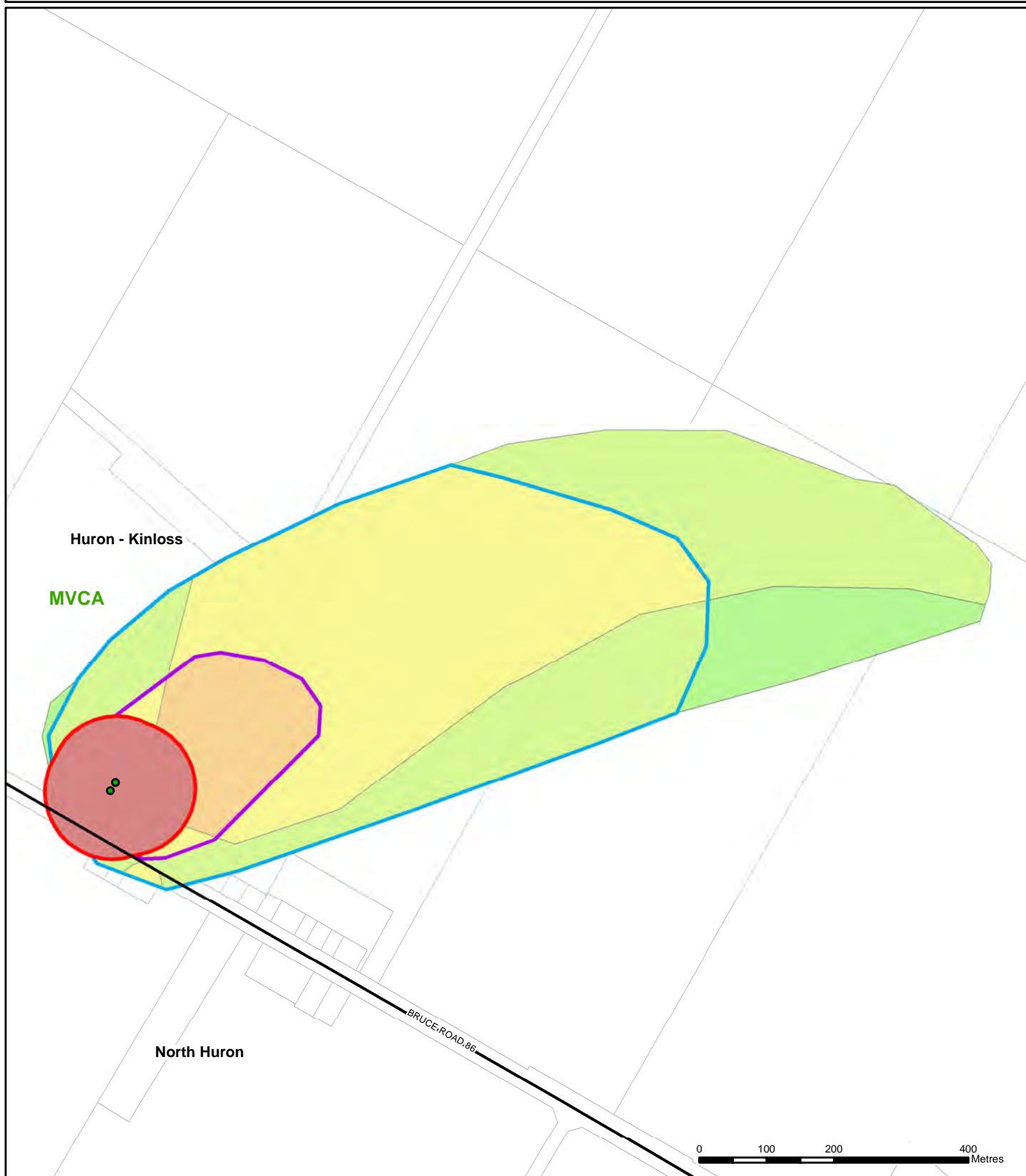
Groundwater Vulnerability



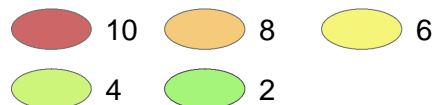
Wellhead Protection Area



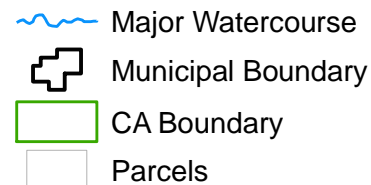
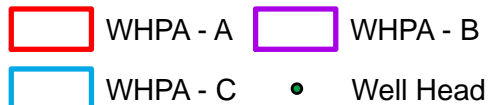
Schedule MV-HK-3 (Whitechurch)



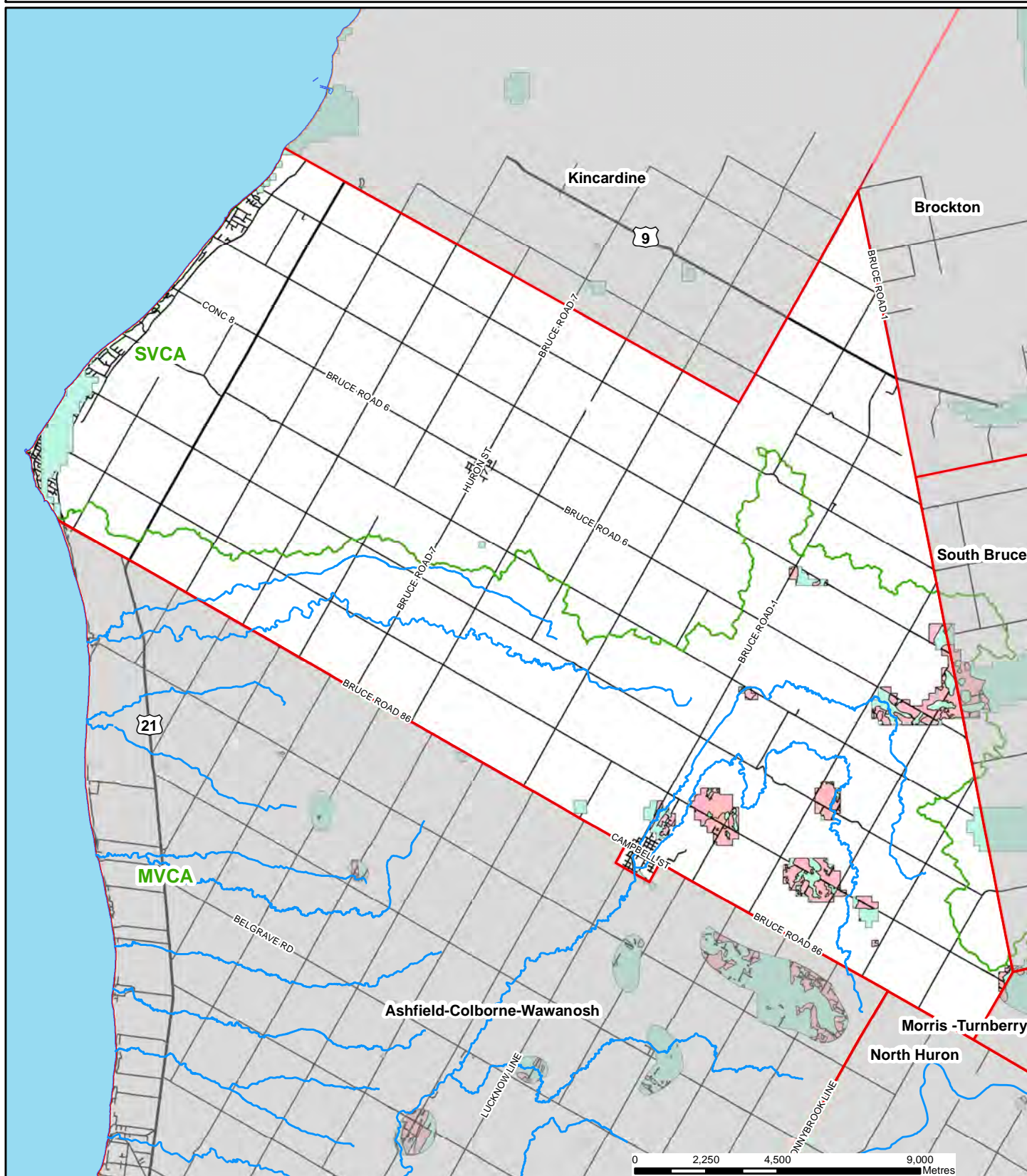
Groundwater Vulnerability




Wellhead Protection Area



Schedule MV-HK-4 (Huron - Kinloss)



Significant Groundwater Recharge Area

 SGRA

Highly Vulnerable Aquifer

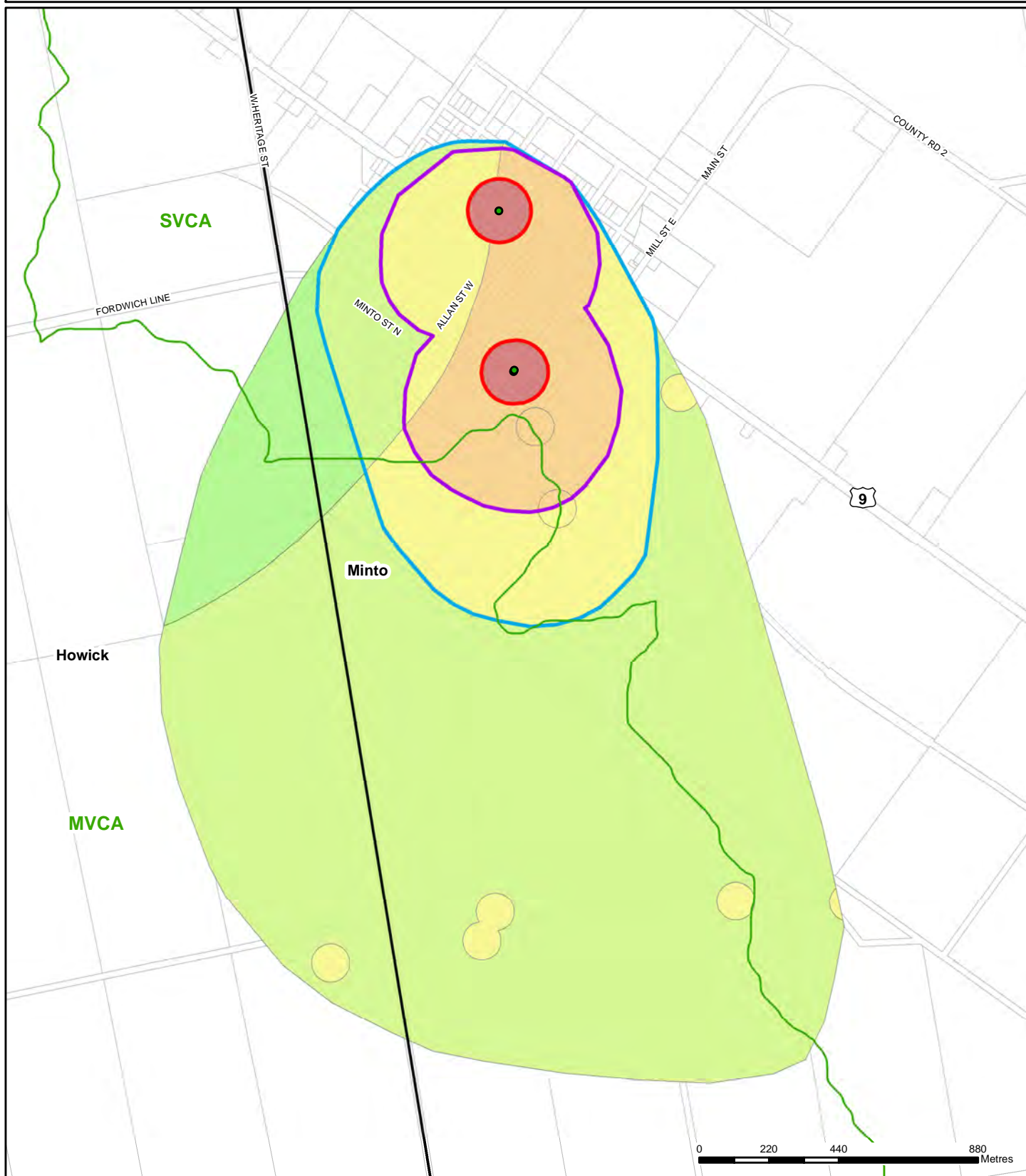
 HVAs

 Major Watercourse

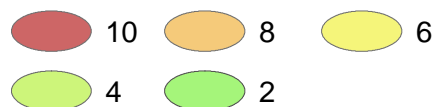
 Municipal Boundary

 CA Boundary

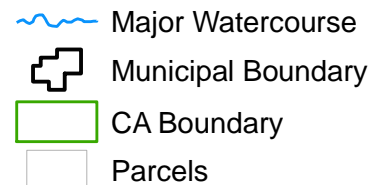
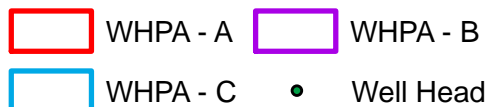
Schedule MV-MI-1 (Clifford)



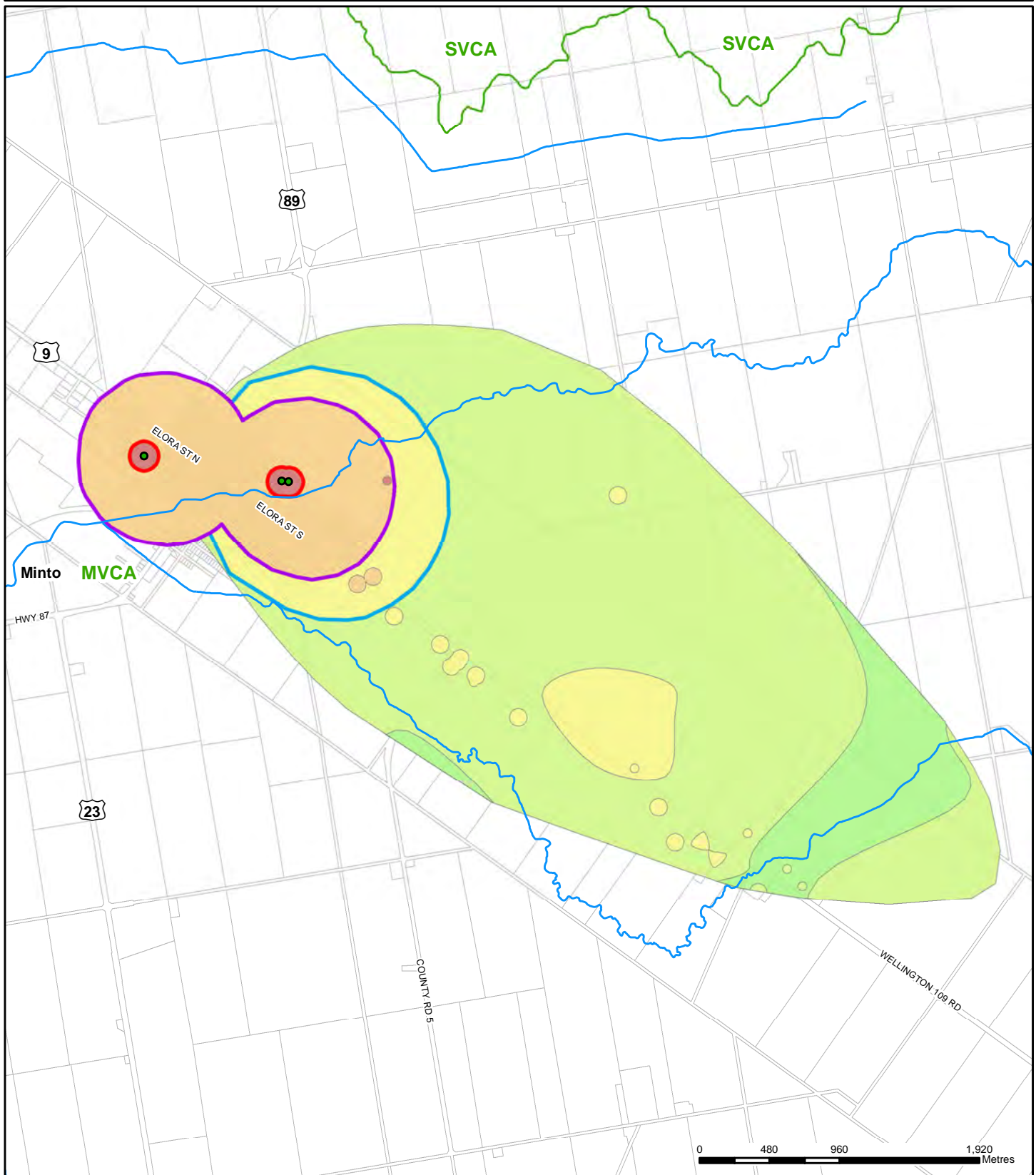
Groundwater Vulnerability



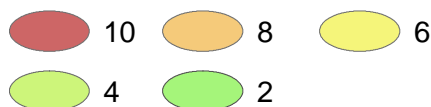
Wellhead Protection Area



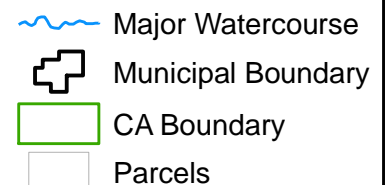
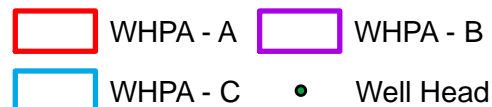
Schedule MV-MI-2 (Harriston)



Groundwater Vulnerability



Wellhead Protection Area

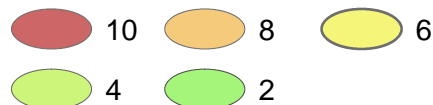


Schedule MV-MI-3 (Palmerston)

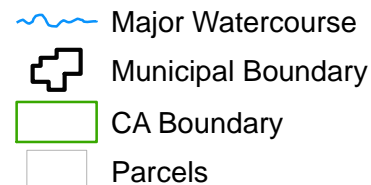
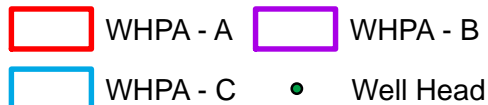


0 362.5 725 1,450 Metres

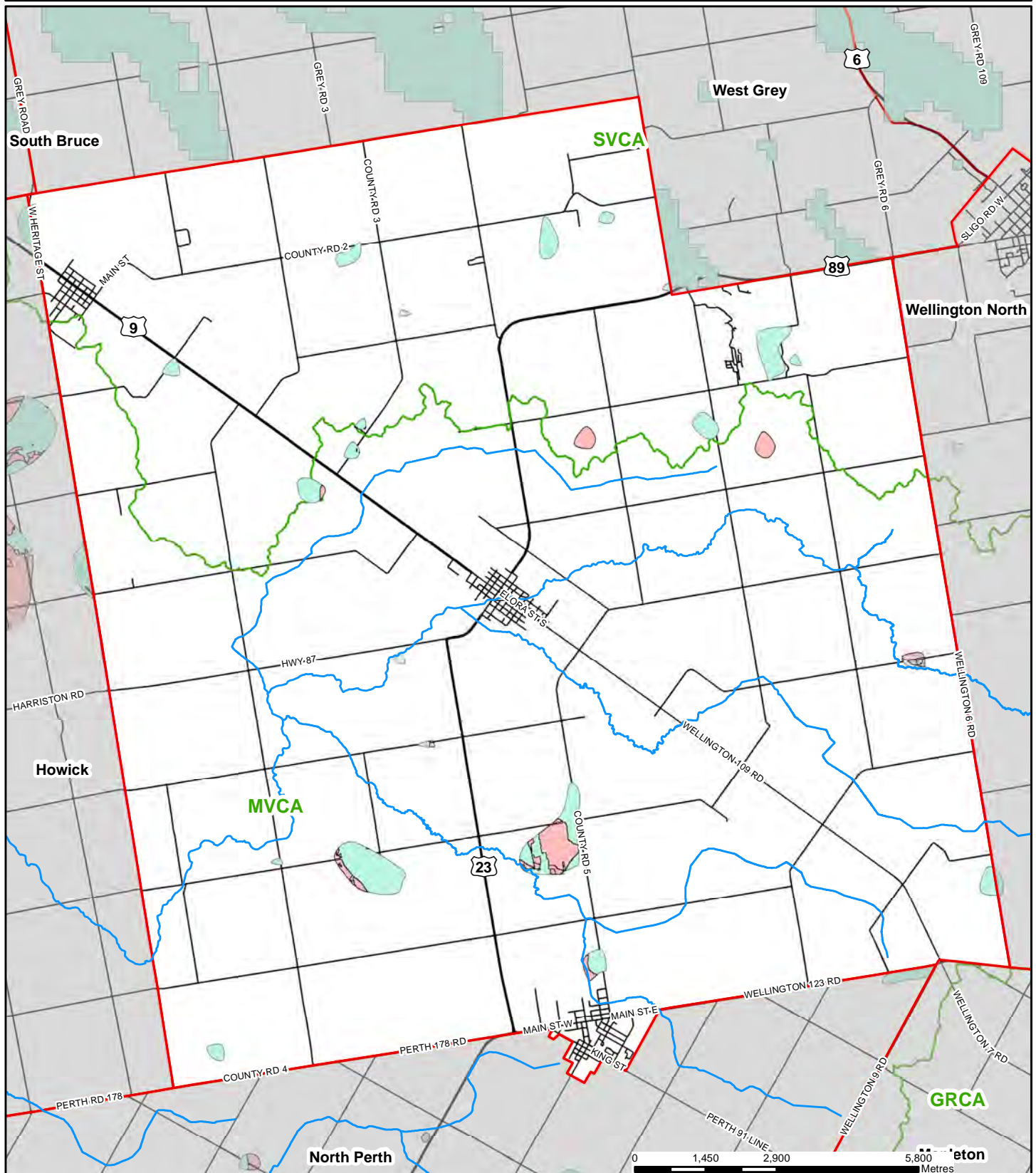
Groundwater Vulnerability



Wellhead Protection Area



Schedule MV-MI-4 (Minto)



Significant Groundwater Recharge Area



SGRA

Highly Vulnerable Aquifer



HVAs

Major Watercourse

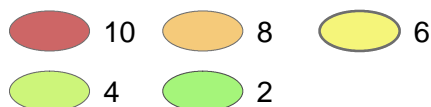
Municipal Boundary

CA Boundary

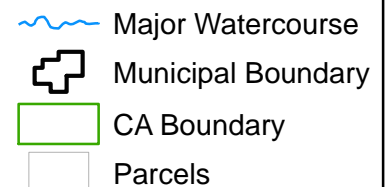
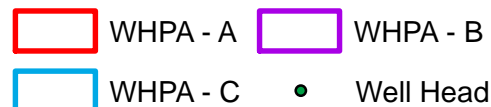
Schedule MV-MT-1 (Belgrave)



Groundwater Vulnerability



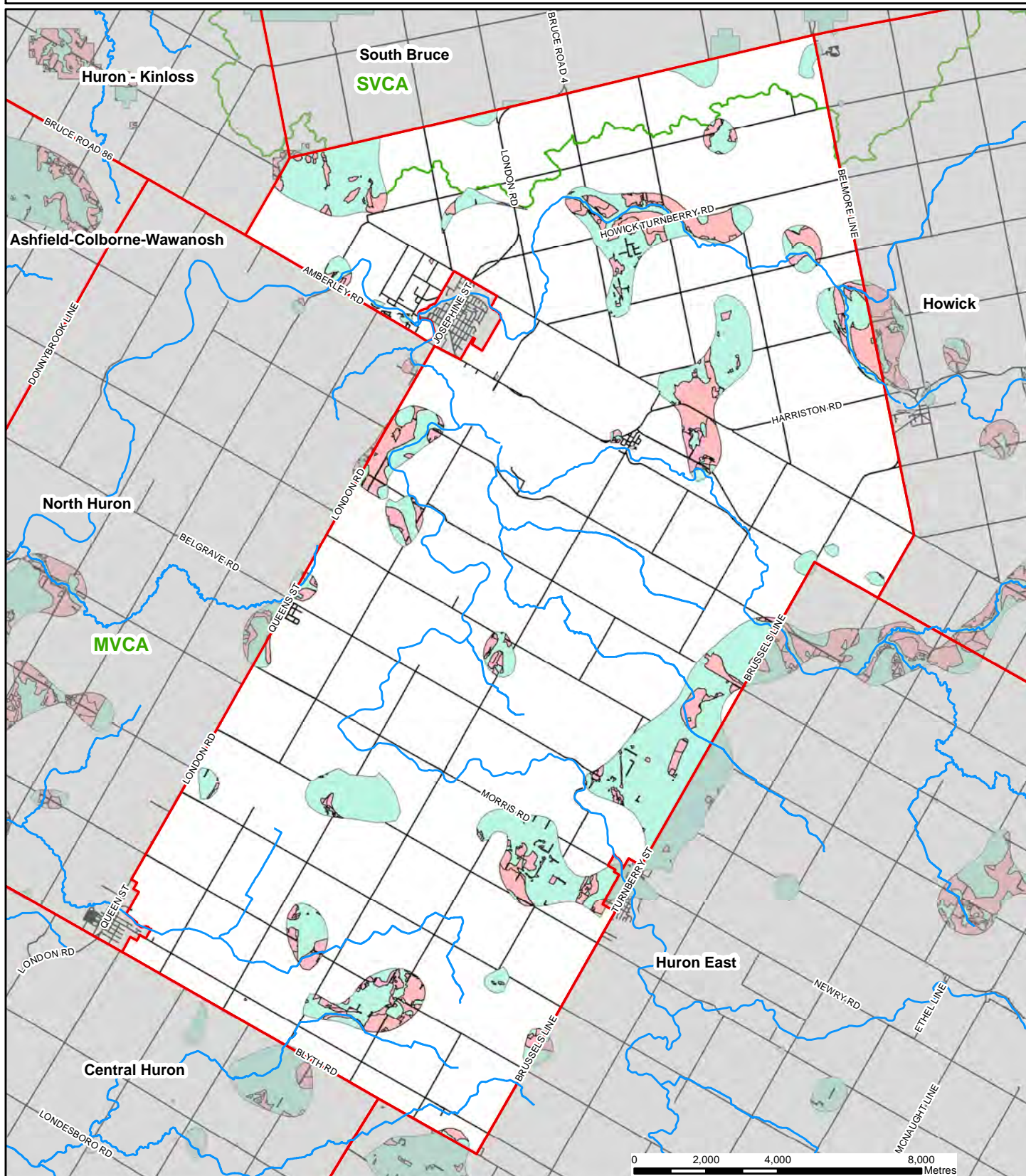
Wellhead Protection Area



Schedule MV-MT-2 (Morris -Turnberry)

**DRINKING WATER
SOURCE PROTECTION**
ACT FOR CLEAN WATER

Ausable Bayfield
Maitland Valley
Source Protection
Region




Significant Groundwater Recharge Area

 SGRA

Highly Vulnerable Aquifer

 HVAs

 Major Watercourse

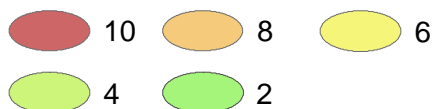
 Municipal Boundary

 CA Boundary

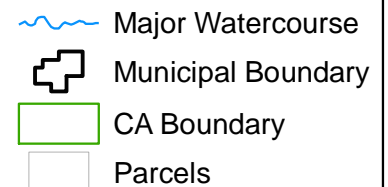
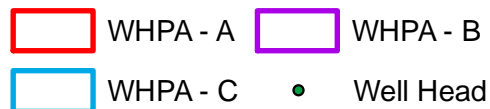
Schedule MV-NH-1 (Blyth)



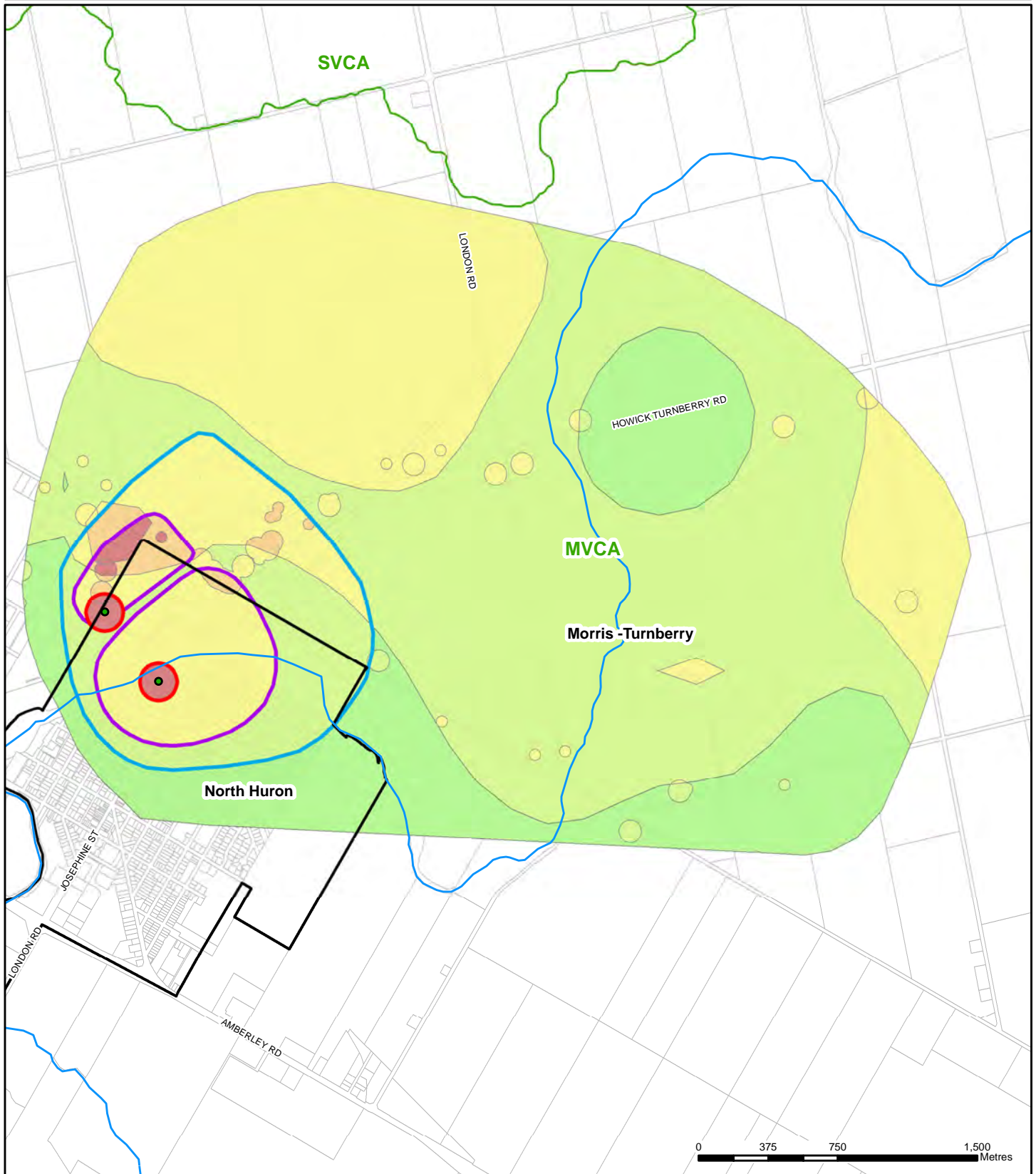
Groundwater Vulnerability



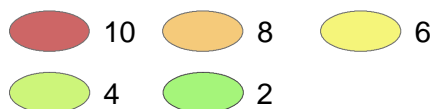
Wellhead Protection Area



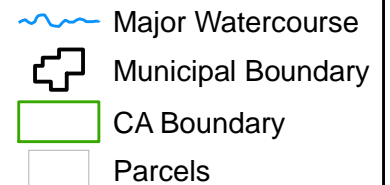
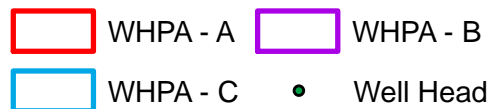
Schedule MV-NH-2 (Wingham)



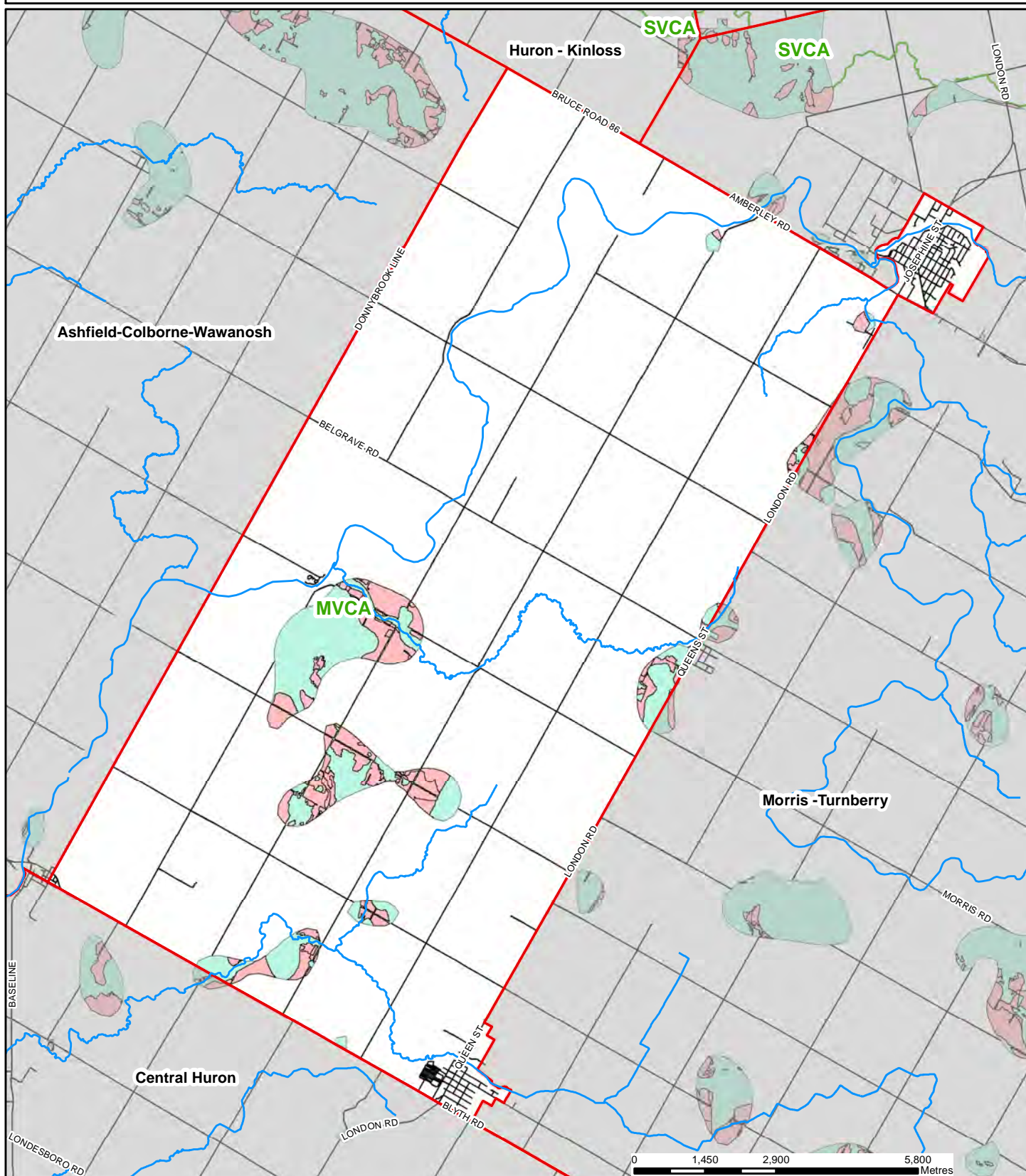
Groundwater Vulnerability



Wellhead Protection Area



Schedule MV-NH-3 (North Huron)



Significant Groundwater Recharge Area

SGRA

Highly Vulnerable Aquifer

HVAs

Major Watercourse

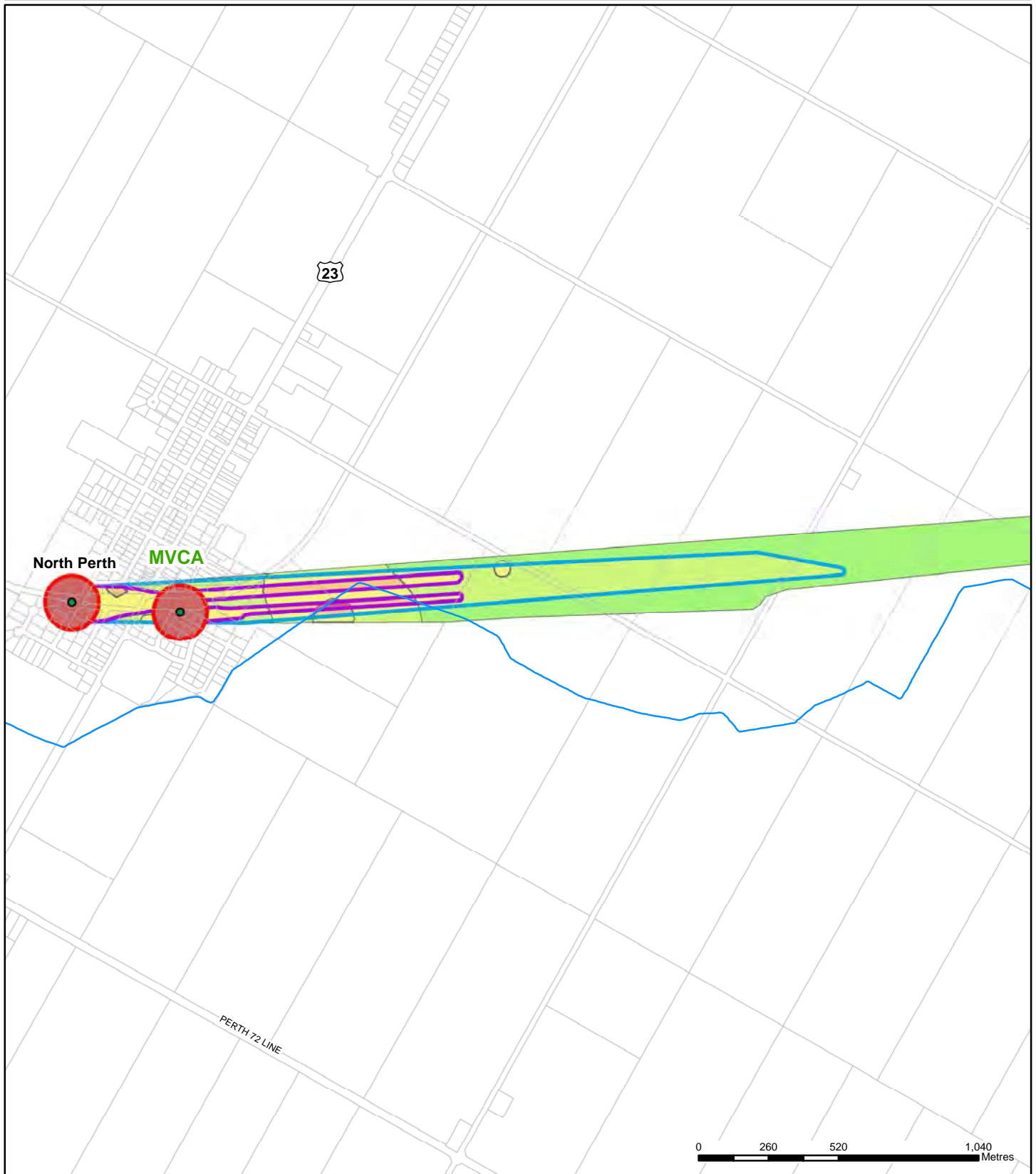
Municipal Boundary

CA Boundary

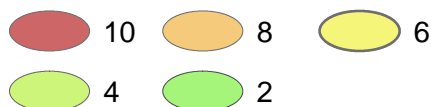
Schedule MV-NP-1 (Atwood)



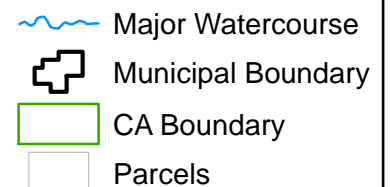
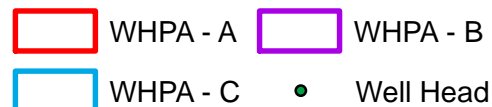
Ausable Bayfield
Maitland Valley
Source Protection
Region



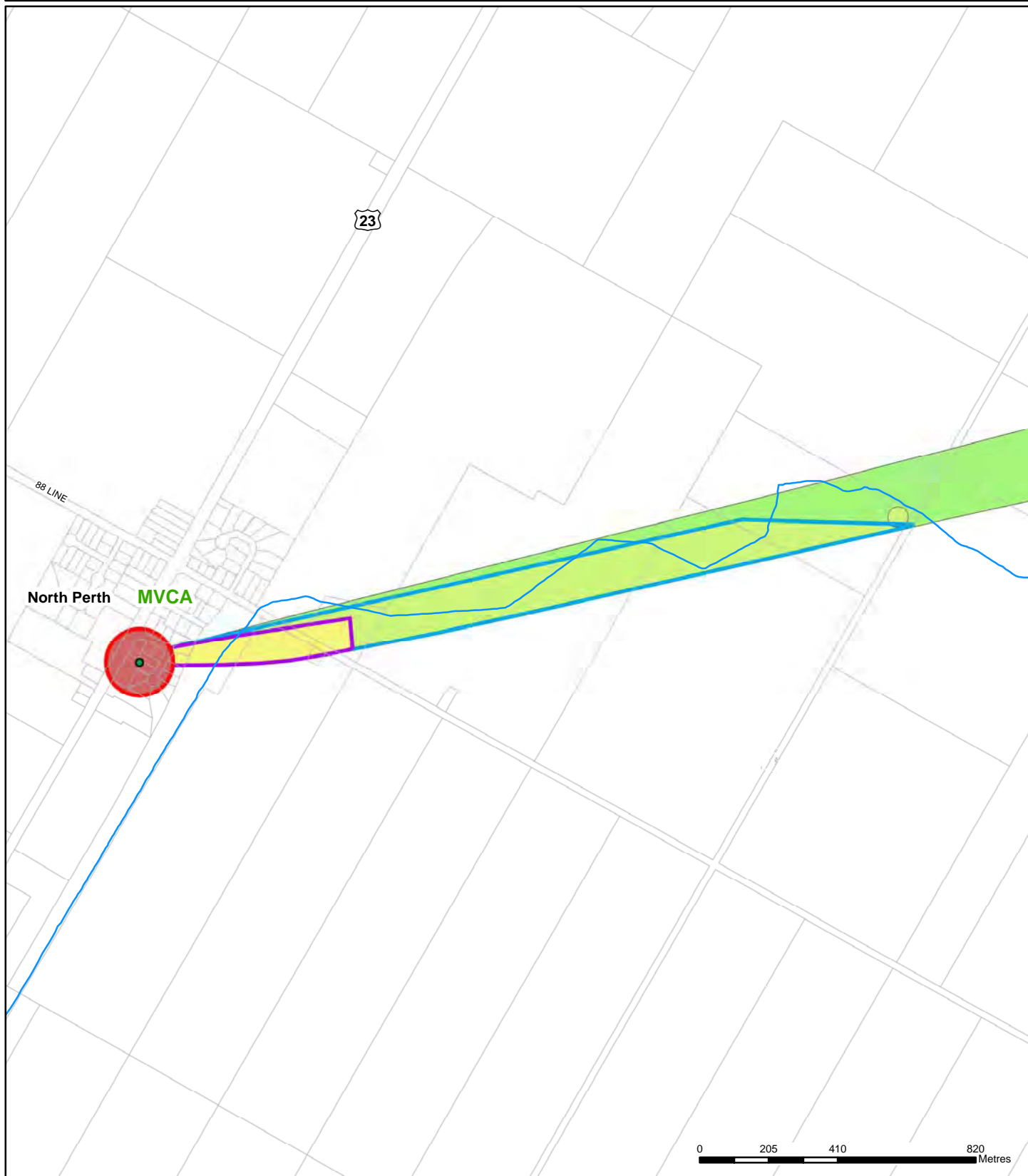
Groundwater Vulnerability



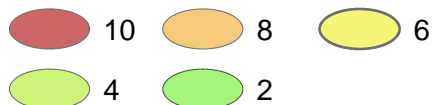
Wellhead Protection Area



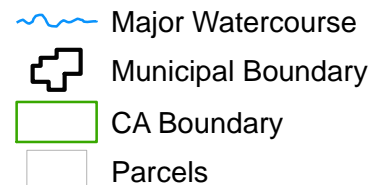
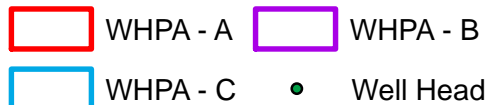
Schedule MV-NP-2 (Gowanstown)



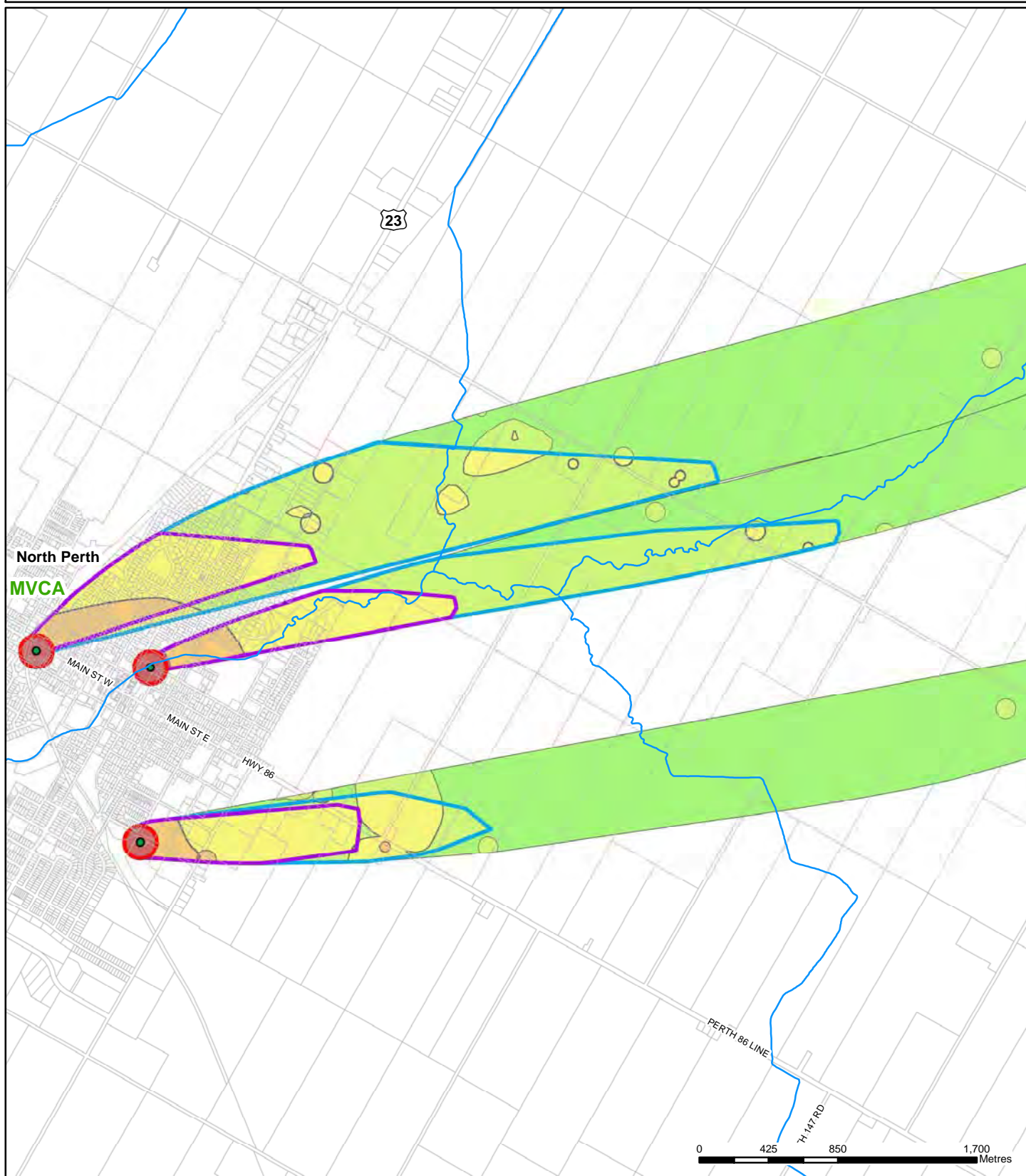
Groundwater Vulnerability



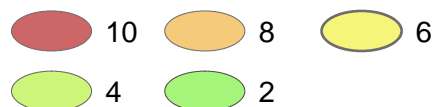
Wellhead Protection Area



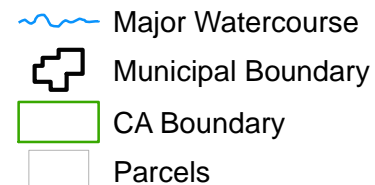
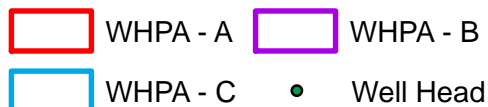
Schedule MV-NP-3 (Listowel)



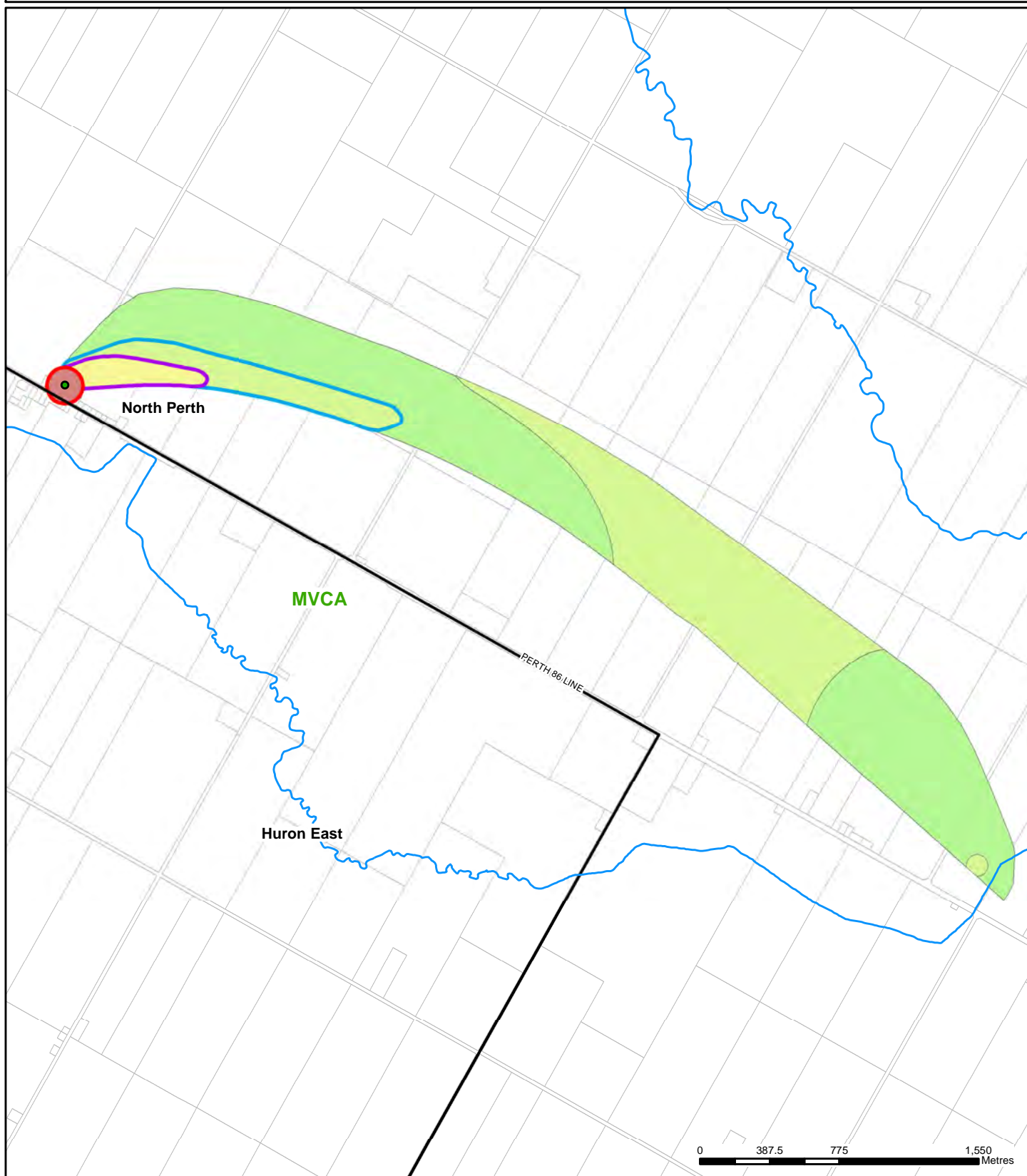
Groundwater Vulnerability



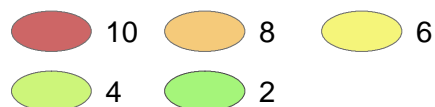
Wellhead Protection Area



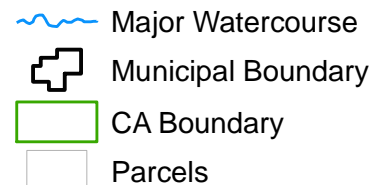
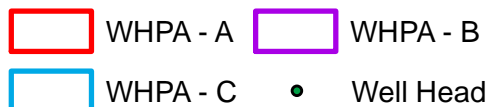
Schedule MV-NP-4 (Molesworth)

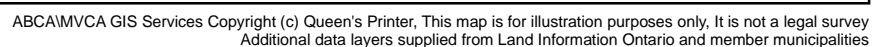


Groundwater Vulnerability



Wellhead Protection Area

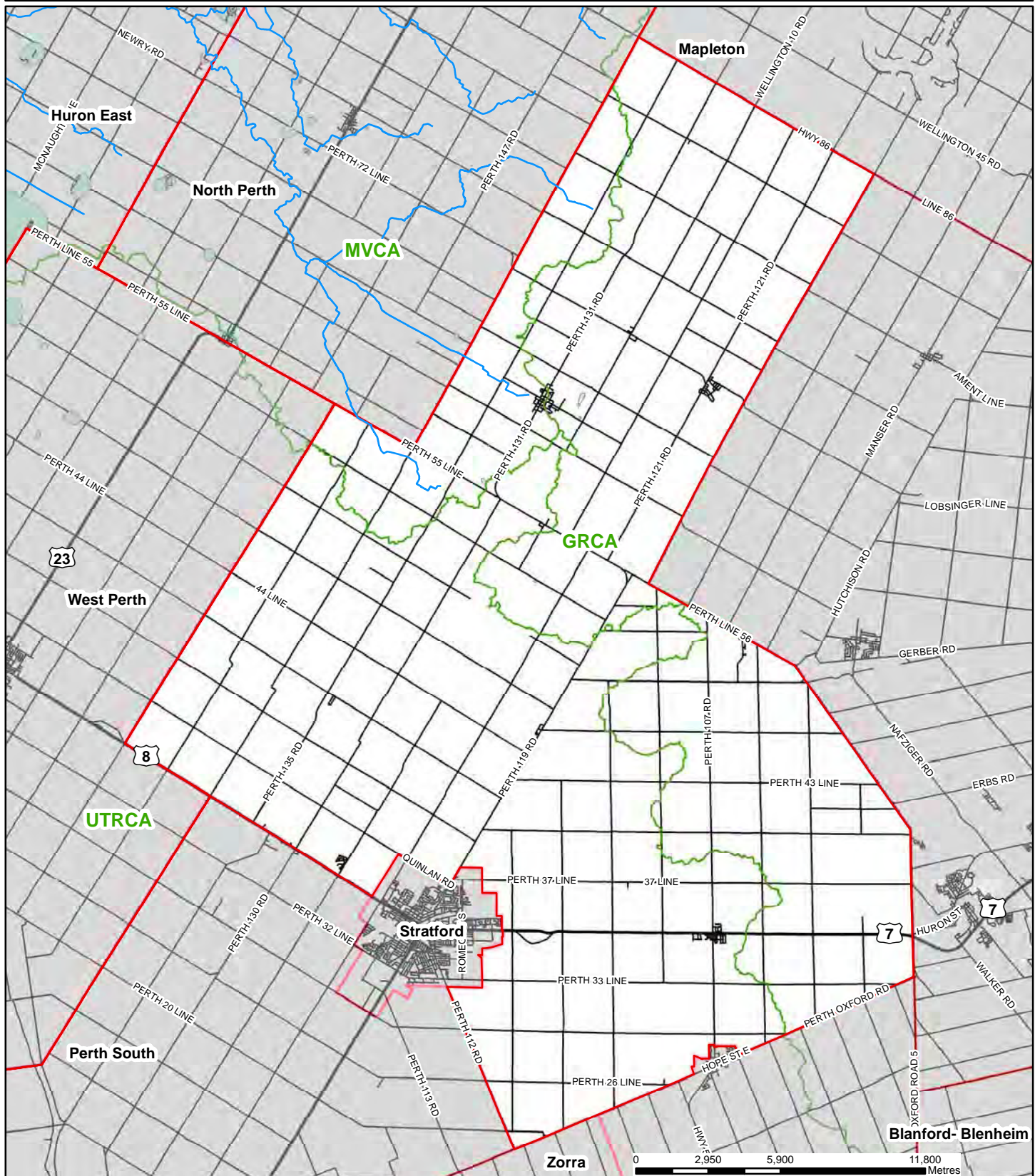




Schedule MV-PE-1 (Perth East)

**DRINKING WATER
SOURCE PROTECTION**
ACT FOR CLEAN WATER

Asable Bayfield
Maitland Valley
Source Protection
Region



Significant Groundwater Recharge Area

SGRA

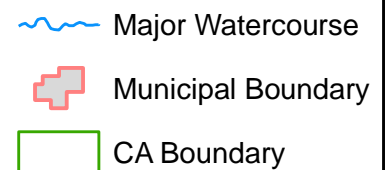
Highly Vulnerable Aquifer

HVAs

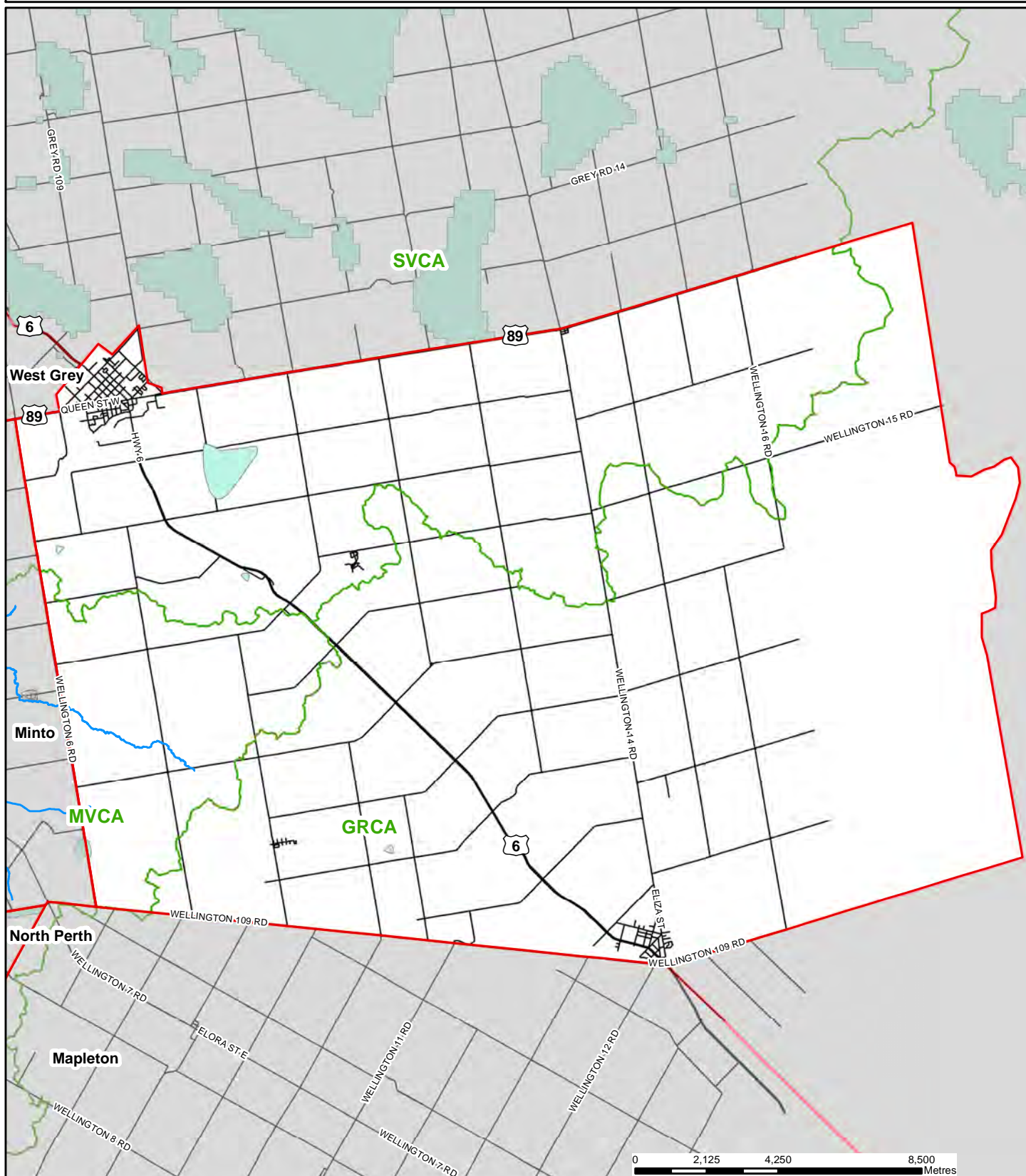
Major Watercourse

Municipal Boundary

CA Boundary



Schedule MV-WN-1 (Wellington North)




Significant Groundwater Recharge Area

 SGRA

Highly Vulnerable Aquifer

 HVAs

 Major Watercourse

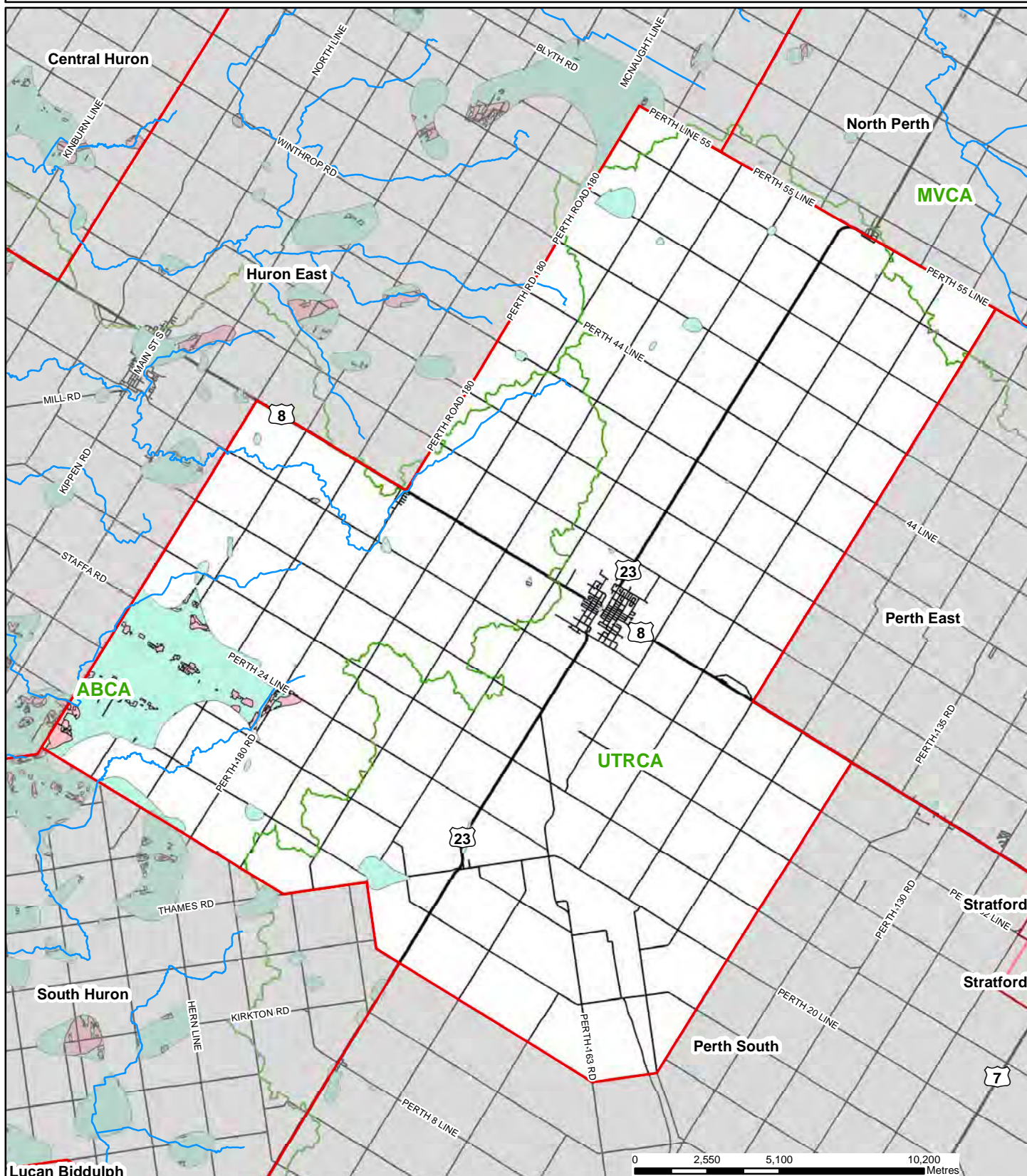
 Municipal Boundary

 CA Boundary

Schedule MV-WP-1 (West Perth)

DRINKING WATER
SOURCE PROTECTION
ACT FOR CLEAN WATER

Ausable Bayfield
Maitland Valley
Source Protection
Region



Significant Groundwater Recharge Area

SGRA

Highly Vulnerable Aquifer

HVAs

Major Watercourse

Municipal Boundary

CA Boundary