



# ANNUAL REPORT

CTC Source Protection Region

2017

# CTC SOURCE PROTECTION REGION

The *Clean Water Act, 2006* established Source Protection Areas and Regions across Ontario, largely based on the watershed boundaries of Ontario's conservation authorities. The CTC Source Protection Region encompasses three such Areas: Credit Valley, Toronto and Region, and Central Lake Ontario.

There are nineteen Source Protection Committees which were created to undertake a technical assessment of sources of drinking water servicing municipal drinking water systems. These committees were also tasked with developing a Source Protection Plan with requirements of municipalities, conservation authorities, the Province, and other stakeholder to protect these systems.

The CTC Source Protection Region spans more than 10,000 square kilometers and includes 33 municipalities. The most densely populated region in Canada, it supports a wide variety of sometimes conflicting water needs: from drinking water supply and recreation to industrial and agricultural uses.



**Map of Municipal Drinking Water Systems in CTC SPR**

# PROGRAM ASSESSMENT



## Progress in the CTC Source Protection Region

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Provincially, progress on implementing source protection plans is ranked through three categories.



### **PROGRESSING WELL (ON TARGET)**

Most of the source protection plan policies have been implemented and/or are progressing according to the timelines in the source protection plan.



### **SATISFACTORY**

Some of the source protection plan policies have been implemented and/or are progressing according to the timelines in the source protection plan.



### **LIMITED PROGRESS MADE**

A few source protection plan policies have been implemented and/or are progressing in according to the timelines in the source protection plan.

### **In 2017, the CTC Source Protection Plan was:**



### **PROGRESSING WELL (ON TARGET)**



# MUNICIPAL INDICATORS

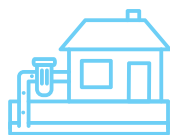
Since the CTC Source Protection Plan became effective two years ago, Risk Management Officials (RMOs) have accomplished measured steps towards reducing significant drinking water threats. Threats are characterized through risk assessments that determine whether they pose a low, moderate, or significant risk. Significant drinking water threats have a high hazard level, and are located in areas that are near drinking water sources, or are in an area that is vulnerable to impacts.

RMOs verify where threats exist, work with land and business owners to change practices or materials to remove threats, or where this is impossible, develop risk management plans. Risk management plans must be established within five years from the date the CTC Source Protection Plan took effect.



## Screening Section 59 Notices

Under the *Clean Water Act, 2006* Section 59 governs development applications that are required to follow the policies in the Source Protection Plan. RMOs review applications to make sure that the land use will not threaten drinking water sources.



## Septic System Inspections

The Ontario Building Code's Mandatory Septic System Inspection Program gives public officials the responsibility for ensuring septic systems are inspected every five years. These inspections ensure that septic systems are properly maintained and reduce the potential for threats to public health. In the CTC Source Protection Region, septic systems were required to be inspected by January 2017.



## Inspections

Risk Management Officials and Inspectors may enter property if they believe an activity, identified in the Source Protection Plan, that has the potential to threaten sources of drinking water, is taking place. Inspections are also scheduled to verify whether there are drinking water threats actually present and to ensure the actions outlined in Risk Management Plans are being implemented. Most municipalities in the CTC Source Protection Region had completed threat verification inspections prior to 2017.

# PRESCRIBED INSTRUMENTS

## EXAMPLES OF PRESCRIBED INSTRUMENTS

### *Ontario Water Resources Act*

- Permit to Take Water

### *Environmental Protection Act*

- Environmental Compliance Approvals

### *Aggregate Resources Act*

- Application for Licenses

Prescribed instruments are created under Ontario legislation and include permits, licenses, approvals, authorizations, and directions or orders. Many threats to drinking water identified under the *Clean Water Act, 2006* are already regulated through provincial instruments. Instruments are specific to the activity being carried out and include requirements designed to protect the environment and human health. The CTC Source Protection Plan has a number of policies that direct the Province to manage a particular activity using a prescribed instrument. In some cases, existing instruments for activities that pose a significant threat to drinking water may need to be amended to ensure they conform with source protection plan policies. Policies in the CTC Source Protection Plan require prescribed instruments to be reviewed, and if necessary, amended, within three years of the plan having been made effective (i.e. by December 2018).

Drinking water threat counts that are included in this report for each municipality include those threats addressed using prescribed instruments. Provincial ministries have developed processes to ensure that all applications once received are screened appropriately for source protection considerations.

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## 2016 and 2017 Progress on Prescribed Instruments under the *Clean Water Act, 2006* in the CTC Source Protection Region

	PIs Subject to CTC Source Water Policies	PIs with Completed Review	PIs Amended or Replaced
MOECC – Fuel Handling and Storage	17	6	0
MOECC – Permit to Take Water	6	1	1
MOECC – Wastewater, Sewage Works	108	29	0
MOECC – Landfilling and Storage	9	4	0
OMAFRA – Nutrient Management Strategies	1	1	0



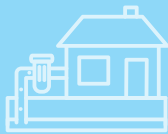
# YORK REGION

PROGRESSING WELL (ON TARGET)



2017 Screening:  
Section 59 Notices

7



Septic System  
Inspections

100%

Total Inspections: 75



2017 Inspections

Threat Verification: 0  
Enforcement: 0



Official Plan

Required	In progress	Completed
7	5	0

Bylaw Conformity

Required	In progress	Completed
6	2	1



Risk Management Plans

REQUIRED	IN DEVELOPMENT	COMPLETED
32	14	18



Drinking Water Threats

Significant Drinking Water  
Threats Addressed



Significant Drinking Water  
Threats Still To Be Addressed



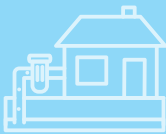
# PEEL REGION

PROGRESSING WELL (ON TARGET)



2017 Screening:  
Section 59 Notices

22



Septic System  
Inspections

100%

Total Inspections: 36



2017 Inspections

Threat Verification: 0

Enforcement: 0



Official Plan

Required	In progress	Completed
4	1	0

Bylaw Conformity

Required	In progress	Completed
4	0	0



Risk Management Plans

REQUIRED	IN DEVELOPMENT	COMPLETED
15	2	0



Drinking Water Threats

Significant Drinking Water  
Threats Addressed



Significant Drinking Water  
Threats Still To Be Addressed



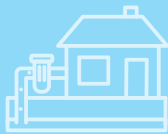
# HALTON REGION

PROGRESSING WELL (ON TARGET)



2017 Screening:  
Section 59 Notices

15



Septic System  
Inspections

98%

Total Inspections: 57



2017 Inspections

Threat Verification: 8  
Enforcement: 0



Official Plan

Required	In progress	Completed
4	1	0

Bylaw Conformity

Required	In progress	Completed
4	0	0



Risk Management Plans

REQUIRED	IN DEVELOPMENT	COMPLETED
234	6	7



Drinking Water Threats

Significant Drinking Water  
Threats Addressed



Significant Drinking Water  
Threats Still To Be Addressed





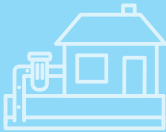
# DURHAM REGION

PROGRESSING WELL (ON TARGET)



2017 Screening:  
Section 59 Notices

0



Septic System  
Inspections

100%

Total Inspections: 3



2017 Inspections

Threat Verification: 0  
Enforcement: 1



Official Plan

Required	In progress	Completed
2	1	1

Bylaw Conformity

Required	In progress	Completed
1	0	1



Risk Management Plans

REQUIRED	IN DEVELOPMENT	COMPLETED
1	0	1



Drinking Water Threats

Significant Drinking Water  
Threats Addressed



Significant Drinking Water  
Threats Still To Be Addressed



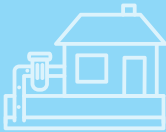
# WELLINGTON COUNTY

PROGRESSING WELL (ON TARGET)



2017 Screening:  
Section 59 Notices

8



Septic System  
Inspections

100%

Total Inspections: 127



2017 Inspections

Threat Verification: 3  
Enforcement: 0



Official Plan

Required	In progress	Completed
2	0	1

Bylaw Conformity

Required	In progress	Completed
1	1	0



Risk Management Plans

REQUIRED	IN DEVELOPMENT	COMPLETED
23	0	0



Drinking Water Threats

Significant Drinking Water  
Threats Addressed



Significant Drinking Water  
Threats Still To Be Addressed



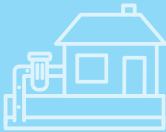
# TOWN OF ORANGEVILLE

PROGRESSING WELL (ON TARGET)



2017 Screening:  
Section 59 Notices

32



Septic System  
Inspections

100%

Total Inspections: 2



2017 Inspections

Threat Verification: 0

Enforcement: 0



Official Plan

Required	In progress	Completed
1	0	0

Bylaw Conformity

Required	In progress	Completed
1	0	0



Risk Management Plans

REQUIRED	IN DEVELOPMENT	COMPLETED
65	2	4



Drinking Water Threats

Significant Drinking Water  
Threats Addressed



Significant Drinking Water  
Threats Still To Be Addressed



# TOWNSHIP OF AMARANTH

PROGRESSING WELL (ON TARGET)



2017 Screening:  
Section 59 Notices

0



Septic System  
Inspections

100%

Total Inspections: 48



2017 Inspections

Threat Verification: 0

Enforcement: 0



Official Plan

Required In progress Completed  
1 0 0

Bylaw Conformity

Required In progress Completed  
1 0 0



Risk Management Plans

REQUIRED IN DEVELOPMENT COMPLETED  
10 1 0



Drinking Water Threats

Significant Drinking Water  
Threats Addressed



Significant Drinking Water  
Threats Still To Be Addressed



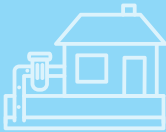
# TOWNSHIP OF EAST GARAFRAXA

PROGRESSING WELL (ON TARGET)



2017 Screening:  
Section 59 Notices

1



Septic System  
Inspections

100%

Total Inspections: 7



2017 Inspections

Threat Verification: 2  
Enforcement: 0



Official Plan

Required In progress Completed  
1 0 0

Bylaw Conformity

Required In progress Completed  
1 0 0



Risk Management Plans

REQUIRED IN DEVELOPMENT COMPLETED  
3 0 2



Drinking Water Threats

Significant Drinking Water  
Threats Addressed



Significant Drinking Water  
Threats Still To Be Addressed





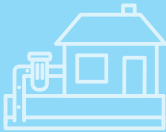
# TOWN OF MONO

PROGRESSING WELL (ON TARGET)



2017 Screening:  
Section 59 Notices

0



Septic System  
Inspections

100%

Total Inspections: 24



2017 Inspections

Threat Verification: 16

Enforcement: 0



Official Plan

Required	In progress	Completed
1	1	0

Bylaw Conformity

Required	In progress	Completed
1	0	0



Risk Management Plans

REQUIRED	IN DEVELOPMENT	COMPLETED
16	2	4



Drinking Water Threats

Significant Drinking Water  
Threats Addressed



Significant Drinking Water  
Threats Still To Be Addressed



# LAKE ONTARIO

## Peel – Toronto – Durham

### PROGRESSING WELL (ON TARGET)

Event-based modeling was used as a tool to identify activities that could be significant threats to municipal drinking water systems on Lake Ontario. A number of scenarios based on past events were developed to understand to what extent existing activities, such as spills from bulk petroleum storage facilities, wastewater treatment plants, nuclear generating stations, or pipelines transporting petroleum products containing benzene could impact municipal intakes on Lake Ontario. Ongoing work is taking place to develop and further improve existing practices to ensure that intakes are protected from activities taking place on lands adjacent to Lake Ontario.

The Ministry of the Environment and Climate Change is working in partnership with the municipalities of Peel, Toronto, and Durham to collaboratively undertake actions to support the implementation of policies in the CTC Source Protection Plan specific to protecting Lake Ontario as a source of drinking water. The group focuses on improving technical knowledge and enhancing communications in the event of a spill, which could impact drinking water systems on Lake Ontario within the CTC Source Protection Region.



MAP OF INTAKES

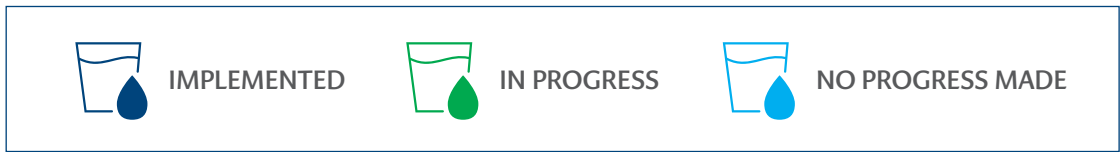
#### Spill procedures in place:

- PEEL
- TORONTO
- DURHAM

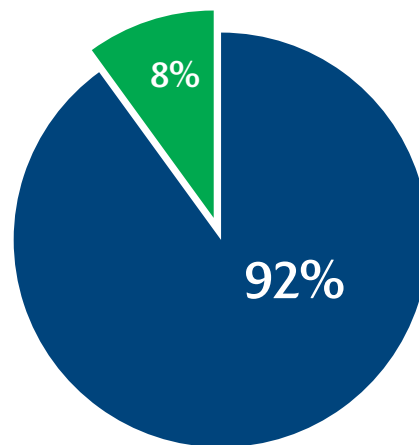
#### Annual reporting on sampling results:

- PEEL
- TORONTO
- DURHAM

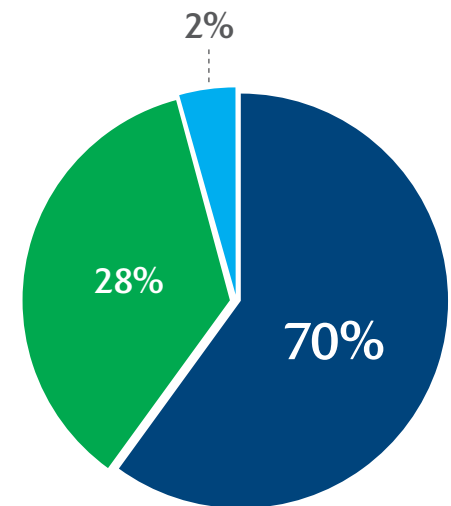
# IMPLEMENTATION STATUS



### MUNICIPAL POLICIES



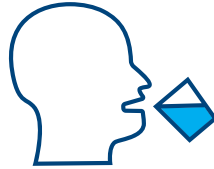
### PROVINCIAL POLICIES



# SOURCE PROTECTION in the CTC Source Protection Region

**2000**

Walkerton well *E. coli* contamination

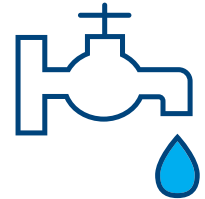


**2006** **Clean Water Act**

- Promote watershed-based, science-based, multi-stakeholder approach to protecting sources of drinking water
- Watershed characterization work completed to understand local conditions

**2007**

Source Protection Committees created



**2002**

Safe Drinking Water Act

**2010**

Public consultation for the three Assessment Reports

**2008**

Public consultation for Terms of Reference

**2015**

Release of CTC Source Protection Plan – policies to manage drinking water threats

**2013-2014**

Public consultation on water budget studies

**2012**

- Approval of Assessment Reports – provides scientific foundation for Source Protection Plan
- Water budget studies – understanding systems with water quantity stress



**2009**

- Approved Terms of Reference
- Technical studies to define vulnerable areas, and identify water quality and quantity issues

**2017**

- Education and Outreach, and Incentive policies are developed and implemented
- First round of septic inspections complete

**2018**

- Prescribed Instruments are reviewed and amended as necessary
- Amend Source Protection Plan through section 34 to improve implementation challenges
- CTC Source Protection Region submits workplan for next phase of source protection planning”

**2020**

Risk Management Plans are established for all threats that require a plan





**SOURCE WATER PROTECTION IS  
EVERYONE'S RESPONSIBILITY.**

**CTC Source Protection Region**

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