

Annual Report 2009-2010

Chief Drinking Water Inspector



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Table of Contents

Message from the Chief Drinking Water Inspector	2
Message from the Chief Medical Officer of Health — Small Drinking Water Systems Program Update	3
Having Confidence in Your Drinking Water.....	5
What's in this Report	5
Our Safety Net: Achieving Excellence in Drinking Water Protection	5
Protecting Your Drinking Water Sources	8
Delivering High Quality Tap Water	11
Performing Drinking Water Testing.....	19
Proven Performance Results	21
Overview of the Performance of Your Drinking Water Systems	22
2009-10 Drinking Water Quality Test Results	27
2009-10 Report on the Drinking Water Systems Inspection Program	34
2009-10 Small Drinking Water Systems Program Results	41
2009-10 Laboratory Licensing & Compliance Program Results	43
Operator Certification and Training	45
2009-10 Convictions	45
Closing Statement.....	46
Glossary	47
List of Figures, Charts and Tables	49

*The 2009-2010 Chief Drinking Water Inspector's Report **Appendices** are published separately and are available on the Drinking Water Ontario website. The appendices include individual inspection ratings and drinking water quality results for municipal residential drinking water systems and details of orders and convictions for drinking water systems and licensed laboratories.*

Message from the Chief Drinking Water Inspector



I am pleased to report, once again, that you can have confidence in the quality and safety of the drinking water provided by the systems we regulate. Ontario's drinking water continues to meet our strict standards, and the performance of our drinking water systems continues to improve.

The ministry and our partners share a common commitment to excellence, and this commitment is borne out by strong performance results. In 2009-10, more than 645,000 tests were conducted on samples from Ontario's drinking water systems. 99.88 per cent of results from municipal residential drinking water systems met Ontario's rigorous health-based standards. This is great news. We have seen strong drinking water quality results now for six consecutive years.

Dr. Arlene King, Ontario's Chief Medical Officer of Health, has also provided summary data on small drinking water systems regulated by the Ministry of Health and Long-Term Care.

I am proud to say that our approach to protecting drinking water is earning recognition and interest from other areas of the world. For example, last fall, the province of Jiangsu, China, invited us to share source protection and environmental monitoring information about Ontario's drinking water.

I would like to take this opportunity to personally thank our many dedicated partners. Through our cooperative efforts, Ontario is a leading clean water jurisdiction in North America.

I encourage you to take the time to read the sixth annual report on drinking water — and learn more about what we are doing to make sure Ontarians enjoy safe drinking water.

John Stager

Chief Drinking Water Inspector

Message from the Chief Medical Officer of Health — Small Drinking Water Systems Program Update



I would like to take this opportunity to provide an update on the Ministry of Health and Long-Term Care's Small Drinking Water Systems Program. Oversight responsibility of Ontario's small drinking water systems was transferred to the Ministry of Health and Long-Term Care from the Ministry of the Environment on December 1, 2008.

Since the transfer took place, the Ministry of Health and Long-Term Care has undertaken a comprehensive and collaborative approach to implementing the program. Funding, training and resources have been provided to local health units to support its successful implementation. As we reach the half-way mark of the program's implementation, we will continue to support small drinking water system operators with their commitment to the provision of safe drinking water.

The program involves a new risk-based approach for regulating small drinking water systems. This approach sets specific requirements for each system to maintain safe drinking water. Specially

trained public health inspectors, employed at local health units, carry out site-specific risk assessments and set the individual requirements for system operators to follow. This approach not only promotes collaboration between public health inspectors and system operators, but also provides an opportunity for raising awareness on the importance of safe drinking water.

The Ministry of Health and Long-Term Care shares its commitment to excellence with the Ministry of the Environment and its partners by safeguarding drinking water sources and treatment systems across the province through effective partnerships with provincial and local public health officials.

I would like to take this opportunity to thank the local public boards of health and all of our drinking water partners for their efforts, continued support and commitment to ensure safe drinking water for all Ontarians and their families.

Arlene King, MD, MHSc, FRCP

Chief Medical Officer of Health
Ministry of Health and Long-Term Care

For more information about the MOHLTC Small Drinking Water Systems Program, please see:

www.health.gov.on.ca/english/public/program/pubhealth/safewater/safewater_resources.html.

You can have confidence in the quality and safety of the drinking water provided by the systems we regulate.



Having Confidence in Your Drinking Water

The ministry and all our partners remain dedicated to protecting your drinking water.

WHAT'S IN THIS REPORT

This is the Chief Drinking Water Inspector's sixth annual report.

In the first section of my report — **Having Confidence in Your Drinking Water** — you will find an overview of the actions the ministry and our partners have taken to protect Ontario's drinking water, highlighting our progress since my last report. We describe how we help ensure that the drinking water systems we regulate are delivering safe, high quality tap water to your homes, schools and businesses.

Throughout the first section, we have included profiles — **recognizing excellence** in drinking water protection.

In the second section of the report — **Proven Performance Results** — we provide detailed data on the quality of the drinking water, as well as the performance of drinking water systems and licensed and eligible laboratories from April 1, 2009 to March 31, 2010.

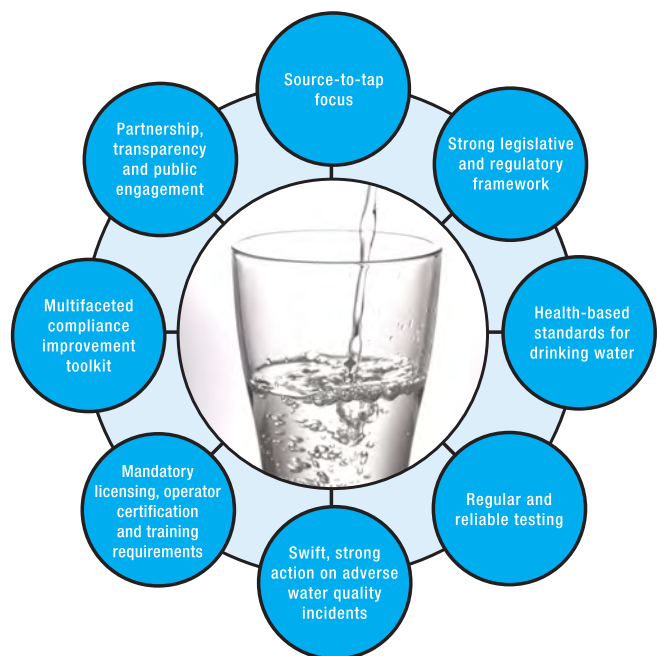
We invite you to read this annual report and discover how Ontario's drinking water is among the best protected in the world, based on independent jurisdictional assessments.

OUR SAFETY NET: Achieving Excellence in Drinking Water Protection

I can say with confidence that we have a world-class system to protect drinking water, which we call our safety net. It continues to earn your confidence, as well as recognition and interest from other areas of the world.

The safety net is an extensive network of safeguards that covers the drinking water system from the source to your tap (see **Figure 1**). You can find more information about the eight key elements of the drinking water **safety net** on the Drinking Water Ontario website.

Figure 1: The Drinking Water Safety Net



Ontario is recognized as a leader in providing safe drinking water. I am pleased to report that we continue to take action to strengthen the safety net framework. Below are some key achievements that demonstrate Ontario's progress in drinking water protection:

For 2009-10, 99.88 per cent of the drinking water tests reported by **municipal residential** drinking water systems met Ontario's rigorous, health-based standards. These systems serve more than 80 per cent of Ontario's population.

- Test results for lead from the drinking water systems — and the plumbing at schools and day nurseries — continue to demonstrate that the protective measures we have in place are working. Testing from schools and day nurseries found that 95.79 per cent of samples taken after the pipes had been flushed met the Ontario standard for lead, and 88.54 per cent of standing (non-flushed) samples met the standard, indicating that flushing is an effective way to reduce lead levels in drinking water.

Source protection planning is well underway. Communities across Ontario have developed science-based reports to identify threats to our drinking water sources. By the end of 2010, all 19 community source protection committees had submitted their assessment reports, identifying existing and potential risks to the quality and quantity of **source water** in their respective areas.

- By the end of 2010, 86 per cent of municipal drinking water system owners had received their final or draft drinking water licences. Ontario is the first jurisdiction in North America to mandate a quality management system for drinking water systems which requires all owners to utilize the best available

practices and work to continuously improve their performance.

- In June 2010, the Walkerton Clean Water Centre's new permanent state-of-the-art facility was officially opened, with Justice O'Connor in attendance. Between commencing operations and December 31, 2010, this world-class facility had coordinated and delivered drinking water training to more than 26,400 course participants.

Ontario's leadership in drinking water protection continues to be recognized by other jurisdictions. For example, in October 2010 we were invited to the province of Jiangsu in China to share our expertise and lessons learned in developing Ontario's drinking water safety net and our provincial source protection and monitoring programs. We have also hosted a number of international delegations interested in our approach to protecting Ontario's drinking water.

There is no doubt that the past decade has been an important time in transforming drinking water protection in Ontario. I believe that we have built a framework that is highly effective, while also being adaptive to new science and innovative developments in technology.

RECOGNIZING EXCELLENCE

Ontario's Drinking Water Expertise Valued by China



The province of Jiangsu, China, has made it very clear they consider Ontario a world leader in source protection. Last fall, the Jiangsu Environmental Protection Department hosted a delegation from Ontario to learn more about Ontario's drinking water safety net, source water protection and environmental monitoring programs. The mission built on the ongoing collaboration which was formalized in a Memorandum of Understanding on Environmental Cooperation in 2008.

"I was really impressed with [the province's] interest and their passion for learning more about Ontario. They see considerable benefits in Ontario being a partner with them," says John Stager, Chief Drinking Water Inspector, who led the group of Ontario water experts.

The delegation from Ontario, who were selected to provide a comprehensive perspective on Ontario's drinking water programs, also included Ian Smith

and John Mayes of the Ministry of the Environment, Eric Hodgins of the Regional Municipality of Waterloo and Lorrie Minshall of the Grand River Conservation Authority.

The delegation formally met their Jiangsu counterparts for technical exchanges on Ontario's source protection program and regional and municipal implementation programs in the context of the safety net.

When asked about the overall impression and outcomes of the trip, Stager reflects, "...Experiencing their culture and meeting face to face....I think went a long way in building and strengthening the partnership that we have with [the province of Jiangsu]," adding that the partnership "will continue to benefit both provinces."



Officials from the province of Jiangsu met with the delegation from Ontario.

PROTECTING YOUR DRINKING WATER SOURCES

In simple terms, the sources of drinking water are surface water — lakes and rivers — or groundwater (aquifers). For most Ontarians, this water is then pumped into a regulated drinking water treatment system where it is treated and samples are taken for testing at a licensed or **eligible laboratory**. The drinking water then goes through a network of pipes, known as a distribution system, to reach the tap in your home, business or school. For some of the population, drinking water can be provided through private or other types of smaller systems.

The bottom line is that protecting Ontario's drinking water sources — through our source protection program — is the first step in helping to ensure our drinking water is of the highest quality.



COMMUNITIES WORKING TOGETHER TO PROTECT THEIR MUNICIPAL WATER SOURCES

I am pleased to report that the ministry and our partners are making significant progress on enhancing the protection of Ontario's municipal drinking water sources. Our 19 locally based source protection committees, along with conservation authorities, are working hard on source protection planning across the province.

Under Ontario's Clean Water Act, each committee is required to prepare a science-based assessment report identifying the existing and future activities that pose risks to drinking water sources. They are also required to prepare a source protection plan that highlights actions to address the most significant risks, in order to protect both the quality and quantity of their drinking water sources. These reports and

plans are developed locally, collaboratively and use sound science. The local authorities and committees have done a fantastic job of bringing together municipalities, businesses, the health sector, First Nations and local residents to achieve this.

It is encouraging to see that the committees have, as of December 31, 2010, prepared and submitted assessment reports for all of the 38 source protection areas. I am pleased to report that the ministry has already approved 3 of these reports as of the end of 2010.

Ultimately, the assessment reports will form the basis of the source protection plans which are to be submitted to the Minister of the Environment

by August 2012 for approval. You can access the assessment reports via links on [Conservation Ontario's website](#).

Source protection planning is an important initiative and a key component of our drinking water safety net. We continue to provide support to the committees and authorities as they prepare their source protection plans, for example:

- In July 2010, [O. Reg. 287/07](#) (General) was amended to set out requirements for the preparation and implementation of source protection plans under the Clean Water Act.
- We put together guidance to provide an overview of the regulation and outline what is required in these plans.
- In the fall of 2010 we held a number of training sessions to help the committees better understand the process of drafting protection plans.

- With the Ministry of Natural Resources, we funded 100 per cent of the planning costs.

Looking ahead, the assessment reports will also provide us with an important snapshot of how changes in the climate, for example drought, could potentially impact the quality and quantity of our drinking water.

With this in mind, the ministry is considering how drinking water source protection plans can include climate change adaptation measures to manage the impacts of climate change at a local level. We are also looking at how future assessment reports can include climate change information. For more details about drinking water source protection, go to www.ontario.ca/cleanwater.



RECOGNIZING EXCELLENCE

Grand River Watershed Wastewater Optimization Pilot: a Source Protection Stewardship Project



In the Grand River **watershed** there are 30 wastewater treatment plants upstream of four drinking water intakes.

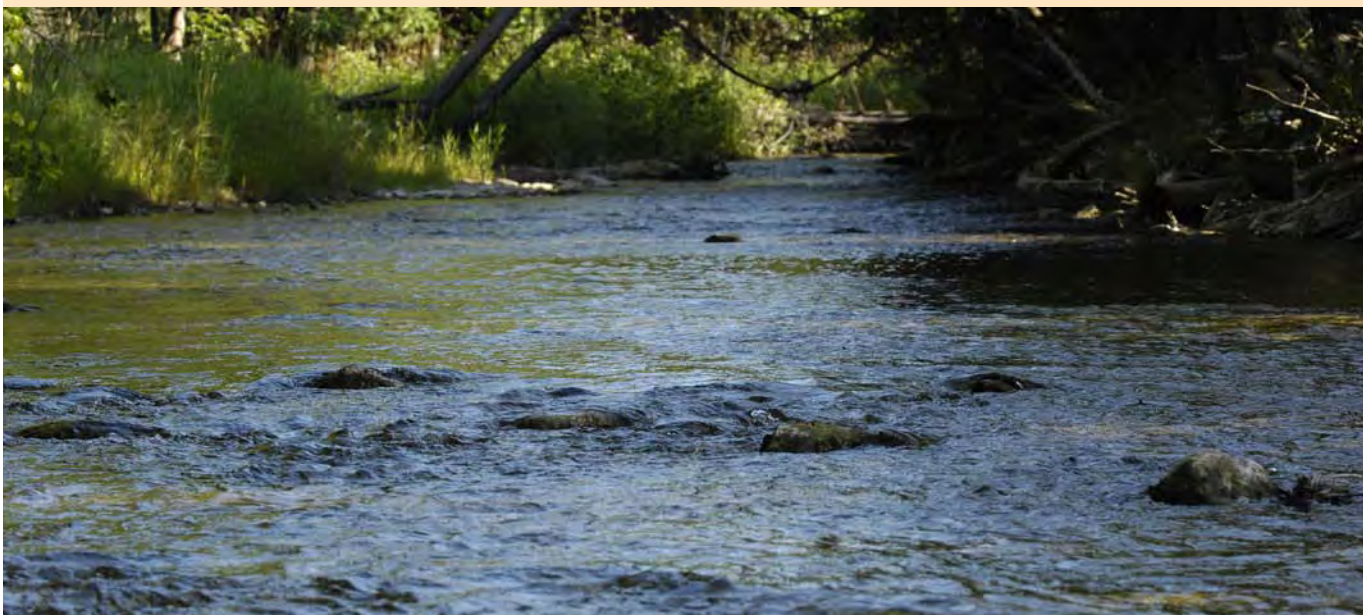
Wastewater management plants typically operate as separate entities, each one ensuring their treated out-flowing wastewater meets regulatory requirements. For the 30 wastewater treatment plants in the 13 municipalities along Ontario's Grand River, they are undertaking a very innovative partnership — they are working collectively to optimize their wastewater performance through a pilot project with the Grand River Conservation Area funded by the **Ontario Drinking Water Stewardship Program**.

“Our pilot is to engage, educate and create awareness among the wastewater community — what optimization is and what it could mean for their plants,” says Sandra Cooke, Senior Water Quality Supervisor with the Grand River Conservation Authority. “It is also to create a community of wastewater operators.”

“The target we’re all going towards is high quality effluent coming out of the plants, not to just achieve compliance — it’s not good enough anymore to just meet compliance,” emphasises Cooke.

The Grand River Conservation Authority launched its wastewater optimization pilot project in the spring of 2010 with a series of workshops “to walk through the fundamental tools that are part of optimization,” explains Cooke. Using a framework from the United States’ Environmental Protection Agency, the conservation authority’s three workshops focused on explaining the framework and the tools available to help operators assess their plants.

Cooke is more than happy to share information about the project, suggesting it might be of interest to other conservation authorities who want to bring together their wastewater managers and operators.



DELIVERING HIGH QUALITY TAP WATER

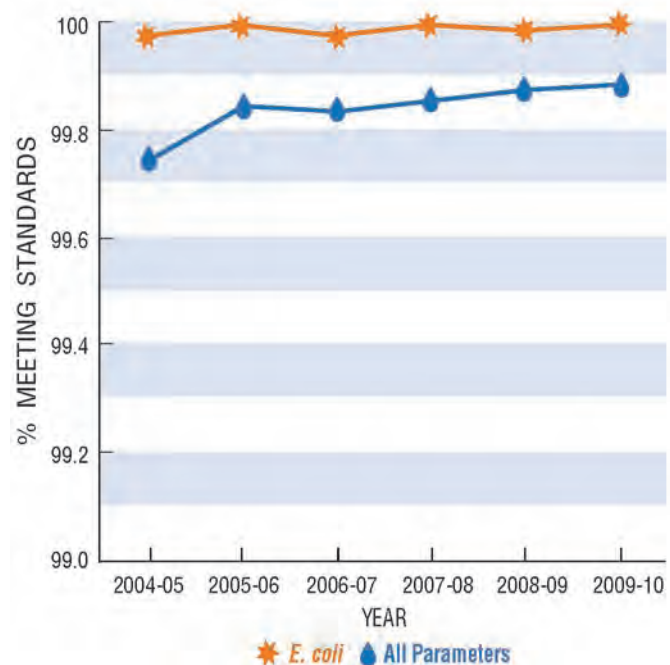
As your drinking water makes its way from our lakes, rivers and aquifers through the treatment and distribution systems, and into the taps of your homes, businesses and schools, we are committed to helping ensure the water meets our health-based standards for quality and safety.

The licensed and eligible laboratories that conduct hundreds of thousands of tests on samples from the drinking water systems are an integral part of our drinking water safety net.

During 2009-10, samples were taken from **municipal residential drinking water systems**, **non-municipal year-round residential drinking water systems** and **systems serving designated facilities** and the ministry received more than 645,000 drinking water test results from laboratories licensed and eligible to perform testing. These tests determine if the treated drinking water meets our **Ontario Drinking Water Quality Standards**.

I am pleased to report that for 2009-10, Ontario's drinking water systems continued to meet our stringent standards and provide high quality water to the people of Ontario. We have now consistently observed strong results from municipal residential drinking water systems for six consecutive years (see **Chart 1**).

Chart 1: Municipal Residential Drinking Water Systems' Drinking Water Quality Tests Meeting Ontario's Drinking Water Quality Standards for All Parameters and *E. coli* Over Six Years



It is encouraging that **99.88 per cent** of the tests for all parameters from our **municipal residential** drinking water systems met Ontario's rigorous, health-based standards. These systems serve more than 80 per cent of Ontario's population. This year I have also included a water quality analysis by system and am pleased to report that 97 per cent of municipal residential

Know More About the Broader Water Quality in Ontario

The Ministry of the Environment is not only monitoring drinking water – we also closely monitor the quality of Ontario's lakes, streams, rivers and groundwater to provide us with information on the progress we are making to protect and restore water resources in Ontario. Summaries are available in the **2008 Water Quality in Ontario Report**, released in April 2009 and in the 2010 Water Quality in Ontario Report, to be released in 2011.

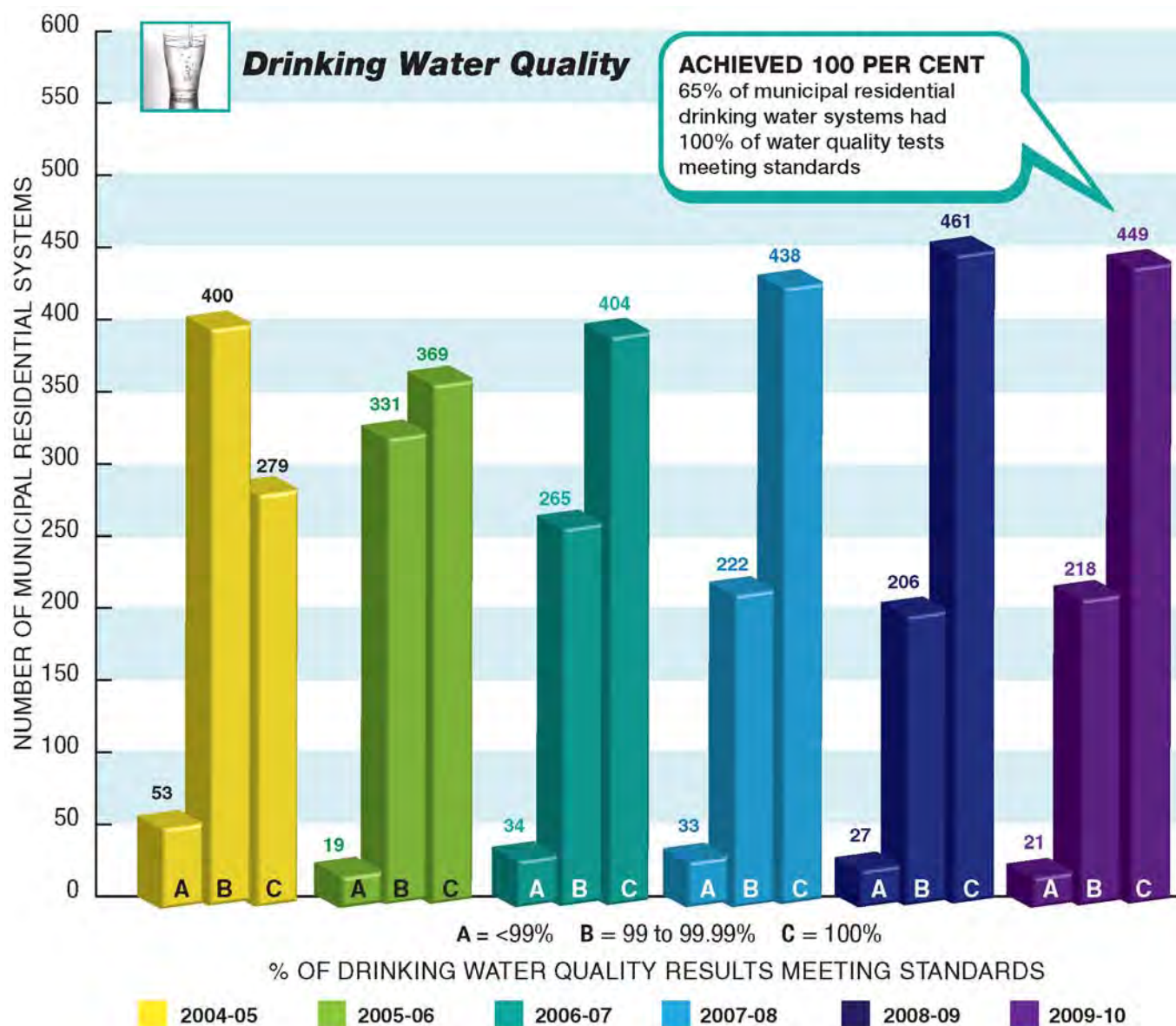
drinking water systems had 99 per cent or more of their tests meeting our standards and 65 per cent of the systems had 100 per cent of their drinking water quality tests meeting standards (see **Chart 2**).

We observed similarly strong results from non-municipal year-round residential drinking water systems and systems serving designated facilities. **99.51 per cent** of the tests from **non-municipal year-round residential** drinking water systems

met provincial standards. These private systems serve residential developments and mobile home parks. And **99.49 per cent** of the tests from systems serving **designated facilities**, such as day nurseries, schools and health care centres that are not served by a municipal residential drinking water system, met provincial standards.

The results are good news for Ontarians. You should continue to have confidence in the quality of your tap water.

Chart 2: Municipal Residential Drinking Water Systems' Drinking Water Quality Tests Meeting Ontario's Drinking Water Quality Standards by System Over Six Years



Safety Net Demands Vigilance

Ongoing monitoring of drinking water is key to maintaining vigilance over the safety of our drinking water. The tests determine if the level of a **contaminant** exceeds the provincial standard. An exceedance is considered an **adverse water quality incident** and immediate **corrective action** is required.

The report of an adverse event does not necessarily mean that the drinking water is unsafe — it indicates that an incident has occurred and the safety of the drinking water supply needs to be confirmed. Actions that must be taken include reporting to the ministry and the local Medical Officer of Health. A Boil Water or Drinking Water Advisory may also be issued.

For more information on detailed drinking water test results and adverse water quality incidents, read the **Proven Performance Results** section in this report.

LEAD TESTING IN OUR COMMUNITIES, SCHOOLS AND DAY NURSERIES

I am pleased to report that test results for lead from drinking water systems — and the plumbing at schools and day nurseries — continue to demonstrate that the majority have met Ontario's standards.

I would like to assure you that Ontario has strict lead testing requirements in place. The government's **2007 Lead Action Plan** developed new testing requirements to collect better information about lead levels in our communities' drinking water and new requirements for schools and day nurseries to flush their pipes regularly (pipes are flushed by running the water from drinking water taps for at least five minutes).

We are finding that flushing is an effective way of ensuring lead levels are below the standard of ten micrograms per litre. Testing from schools and day nurseries found that 95.79 per cent of samples taken after pipes had been flushed met the Ontario standard for lead, and 88.54 per cent of standing (non-flushed) samples met the standard.

The results are consistent with those from prior years and clearly demonstrate that flushing works.

Local public health officials along with ministry staff are working closely with schools and day nurseries experiencing problems with lead to address and resolve the issue of lead in plumbing.



RECOGNIZING EXCELLENCE



Making a Clear Choice: City of Hamilton's Tap Water Campaign

Over the past year, many Ontario municipalities have been working to promote municipal tap water. In Hamilton, the city has put together a public education campaign around the value of their tap water. A plan was developed to help citizens make an informed choice through the “**I Drink Hamilton Tap Water**” campaign.

Launched in June 2010, with print ads in bus shelters and on billboards, the goal of the campaign is to encourage consumers to “make the clear choice” in choosing tap water. Julia Wagner, Project Manager of Conservation and Education for the City of Hamilton explains, “We wanted to build awareness amongst our community around the high quality of our tap water and to encourage individuals to choose tap water.”

One of the key messages highlighted by the campaign is the high quality of service and the efforts made towards protecting the drinking water in Hamilton. Wagner emphasises, “Our water was tested about 47,000 times in 2009 — we need to be proud of our local resources.”

To expand the reach of the campaign, it is being extended into other water-related events such as school presentations and upcoming water festivals.



INSPECTING ONTARIO'S DRINKING WATER SYSTEMS

The ministry's annual inspection program is one of the most important aspects of our drinking water safety net. These inspections tell us how well a system meets the province's strict regulations. The inspection consists of a series of regulatory questions and our risk-based inspection rating process allows inspection results to be quantified. The ministry and its partners share a common commitment to excellence and we continue to work toward the goal of 100 per cent regulatory compliance.

Inspection results for municipal residential drinking water systems

I am pleased to report that for 2009-10, our 693 municipal residential drinking water systems continued to perform very well.

More than half (59 per cent) of the systems achieved a 100 per cent inspection rating, meaning they were in full compliance with the regulations. This is great news. It represents a 10 per cent increase from 2008-09 — the highest operational performance since 2005-06. These results repre-



Also, 84 per cent of the inspection ratings were 95 per cent or higher, meaning the systems were 95 per cent in compliance with the regulations. And 95 per cent of the inspection ratings were 90 per cent or higher.

that the drinking water from the system is unsafe. It shows areas where a system's operation can improve. To that end, the ministry works with owners and operators of systems to make sure they know what they need to do to achieve full compliance.

For more information on the inspection results, go to the Proven Performance Results section — **2009-10 Report on the Drinking Water Systems Inspections Program.**

Operational Performance

ACHIEVED 100 PER CENT
26% increase in 100% ratings over 5 years
• From 33% to 59%

% Rating Banding	2005-06	2006-07	2007-08	2008-09	2009-10	100% Rating
>50% to 80%	18	13	5	7	7	0
>80% to 95%	182	159	122	107	101	0
>95% to 100%	233	279	257	223	242	179
Total	512	538	572	586	585	406

% RATING BANDING BY YEAR

2005-06 2006-07 2007-08 2008-09 2009-10 100% Rating

RECOGNIZING EXCELLENCE

Innovative Clean Water Technology at the Thornbury Water Treatment Plant



In his 22 years working with the municipal water and wastewater systems for the Town of The Blue Mountains, John Caswell, Manager of Water & Wastewater Services, has seen a lot of changes. “This area has seen tremendous growth over time and our population can even fluctuate greatly by the day,” he says, “given our four season tourist industry.”

Since 1977, the **Thornbury Water Treatment Plant** had been using conventional **filtration**. However, in 2002, **turbidity** problems began, and, considering the projected population growth, John knew the system needed upgrading.

The town decided on an innovative **membrane microfiltration** system featuring advanced technology for water filtration including: intake, **low lift pumping** facilities, three **membrane trains**, a **clearwell** for storage, **high lift pumps**, gas chlorine disinfection, a **backwash wastewater system** and ultraviolet disinfection.

According to John, this provides a combination of environmental and economic benefits, adding, “We were able to build the new system onto our existing facility’s footprint, saving money and time in not having to build on a new site. Our old filtration system, still fully functional, has now been installed in the Hanover Water Treatment Plant, ensuring it doesn’t end up as waste.” The new system also allows Thornbury to expand its filtration operations as the population grows.

John says the success of the upgrade is the direct result of his superb team, noting, “The water operators deserve all the credit for their efforts working with the general contractor while the new system was installed. Their dedication and responsiveness was unbelievable.”

The Thornbury Water Treatment Plant upgrade is a great example of innovative clean water technology, land use planning and waste minimization.

Inspection results for non-municipal year-round residential drinking water systems and systems serving designated facilities

These systems provide drinking water to mobile home parks, residential developments, health care centres, schools and day nurseries. Results for 2009-10 show the quality of water delivered to these residents continues to be good.

We also inspect these systems to ensure they comply with Ontario’s drinking water regulations. For 2009-10, we inspected more facilities — 483 systems, up from 259 inspected in 2008-09.

We also inspected eight local services boards which provide local water services in areas that have no municipal structure.

We continue to work closely with owners of non-municipal year-round residential systems to help them understand their responsibilities and improve their compliance with regulations. In addition to continued inspections and compliance actions, other approaches include information kits and an educational **video** that provides practical information and advice.

Inspection results for schools and day nurseries

As part of our Lead Action Plan, we help ensure day nurseries and public and private schools flush their taps, submit samples to laboratories licensed and eligible to test drinking water and keep records of their findings. Inspection results indicate an improvement in the compliance of day nurseries and schools since the Lead Action Plan was implemented in 2007.

LICENSING THE MUNICIPAL SYSTEMS THAT PROVIDE DRINKING WATER

We have made excellent progress on our licensing program for municipal residential drinking water systems. The program, incorporating a quality management system, is the first of its kind in North America. Implemented in January 2009 it builds continuous improvement into the systems' day-to-day operations. The program holds owners to a high standard of operating and managing their drinking water systems — covering everything from the water that goes into the system and how the system is run, to financial planning for the future.

I am pleased to report that 86 per cent of the 303 municipal drinking water system owners subject

to **O. Reg. 188/07** (Licensing of Municipal Drinking Water Systems) have received their draft and/or final licences under the new program. By December 31, 2010 we issued 272 final licences to 108 owners, and the remaining applications were being processed. Our goal is to have all owners subject to the requirements of the regulation licensed by September 2011.

Indeed, municipalities are already reporting benefits from the new licensing program. The program has provided them with an excellent tool for transferring knowledge and increasing communications internally. It has also helped to clearly outline roles and responsibilities, identify gaps in the system and procedures to address these gaps, reduce duplication and improve documentation.

We are proud to say that, given the success of the program, we are getting interest from other drinking water system managers in North America.

We would not have been able to see such progress without the dedication of the owners and operators of Ontario's drinking water systems. I thank all of them for working in partnership with the ministry and making the launch of this program a success.

Helping Municipal Councillors Better Protect Your Water

Ensuring the safety of Ontario's drinking water is a shared responsibility. It requires dedication and constant vigilance from many partners. More than 80 per cent of Ontario's population receives their drinking water from municipal residential drinking water systems and much of the important work of maintaining safe drinking water is done at the municipal level.

Your municipal councillors and other municipal officials oversee drinking water in your community. To help them, the Ministry of the Environment and the Walkerton Clean Water Centre worked this past year with an advisory group of municipal mayors, councillors and interested associations to develop a new guide and training course specially designed to assist municipal councillors understand their responsibilities for safeguarding drinking water. The new guide and training will roll out in 2011.

TRAINING THE PEOPLE WHO OPERATE YOUR DRINKING WATER SYSTEMS

The strength of our drinking water safety net relies on the people who operate the drinking water systems. That is why we help ensure that they are among the best trained operators in the world. It is absolutely imperative that they meet our high professional standards by completing a rigorous training program at the beginning of their careers, and complete 20 to 50 hours of training each year to maintain their certifications.

Our world-class Walkerton Clean Water Centre provides high quality training to operators and, as of December 31, 2010, has trained more than 26,400 participants. In June 2010, the centre officially opened its permanent facility, with Justice O'Connor and the Ministers of the Environment and Agriculture, Food and Rural Affairs in attendance. This state-of-the-art learning centre houses a new technology demonstration facility with a laboratory space as well as a drinking water pilot plant and distribution system. The centre also has mobile training units, which provide on-site training in northern Ontario, particularly in small, remote and First Nations communities.

In addition, the ministry, in partnership with the Walkerton Clean Water Centre, has entered into agreements with 14 community colleges to offer the ministry's entry-level course for drinking water operators to students in identified environmental diploma programs. The successful completion of the entry-level course is mandatory for all drinking water operators before obtaining Class 1 certification. By introducing this course in college curricula, interested students now have a clear career pathway to becoming a drinking water operator. As of December 31, 2010, the Walkerton



Clean Water Centre had issued 266 entry-level course completion certificates to graduates of college programs. For more information about the college partnership and list of participating colleges, please visit www.wcwc.ca/en/training/ministrysentrylevelcoursecollegeprogram.asp.

Tap into a Drinking Water Career for Operators

Consider a rewarding career as a drinking water operator! Treating and supplying your community with safe drinking water is an important and rewarding responsibility. The work of an operator is varied and challenging. Pam Osso, Drinking Water Operator, says "What I like most about being an operator is that every day is different." Jennifer Ball, Drinking Water Operator, adds that "The most enjoyable part of being an operator is just providing safe water to the public. I am proud of that."

Ontario has put in place a number of tools to help you obtain the training and knowledge required to become a certified drinking water operator. Pam Osso observes that "It's important to get training because it helps you keep up to date with new technology."

For more information visit the [operator training and certification page](#) on the Drinking Water Ontario website.

PERFORMING DRINKING WATER TESTING

Safeguarding Ontario's drinking water also involves regular inspections of the laboratories that conduct tests on the province's drinking water as required by the Safe Drinking Water Act and the Health Protection and Promotion Act. Laboratories that perform drinking water tests must be inspected annually, accredited and licensed. Out-of-province laboratories that analyze Ontario's drinking water must be on the Director's Out-of-Province Eligibility List, and in 2009-10 there was one eligible laboratory on the list.

I am pleased to report that the laboratories continue to perform very well. During 2009-10, we inspected all 52 licensed laboratories at least twice. Each of these laboratories received at least

one unannounced inspection. The ministry also completed one unannounced inspection at an eligible laboratory located outside of Ontario. For information on the inspection results, go to the Proven Performance Results section of this report — **2009-10 Laboratory Licensing & Compliance Program Results**.

We also complement our inspections program with outreach tools to help ensure laboratories have a common understanding of their legislative responsibilities. For example, we issue **Laboratory Update Bulletins** to provide information on a number of important topics, including the immediate reporting of adverse test results.



I would like to personally assure you that Ontario's drinking water is among the best protected in the world and is of the highest quality. The Ministry of the Environment and all of our partners remain dedicated to protecting your drinking water. So enjoy Ontario's finest on tap!

99.88%

of tests from municipal
residential drinking water
systems met standards

99.51%

of tests from non-
municipal year-round
residential systems met
standards

99.49%

of tests from systems
serving designated
facilities met standards



Proven Performance Results

Ontario's drinking water continues to meet our strict standards, and the performance of our drinking water systems continues to improve.

This section of the report includes an overview of the general performance of the following drinking water system categories which are referred to as facility types:

- **Municipal residential drinking water systems:** municipally owned systems that supply drinking water to more than 80 per cent of Ontario's population.
- **Non-municipal year-round residential drinking water systems:** privately owned systems that supply drinking water to residential developments and mobile home parks.
- **Drinking water systems serving designated facilities:** systems serving populations that may be more vulnerable to drinking water contamination, such as day nurseries, schools and health care centres.

Performance is assessed by evaluating both the quality of the drinking water that is produced and how well the system or laboratory does during an inspection.

Detailed data is provided on the quality of the drinking water the systems produce, including information on the microbiological, chemical and radiological test results.

In the latter part of the report you'll find information on the inspection program, which includes inspection results of the drinking water systems and the laboratories that conduct tests on the drinking water samples.

The data covers the period of April 1, 2009 to March 31, 2010.



OVERVIEW OF THE PERFORMANCE OF YOUR DRINKING WATER SYSTEMS



Regular and reliable testing of your drinking water is one of the key components of Ontario's drinking water safety net. Ontario's drinking water systems are required to submit drinking water samples to laboratories licensed or eligible to perform drinking water tests. The tests determine whether the drinking water meets Ontario's drinking water quality standards as laid out in the [Ontario Drinking Water Quality Standards Regulation](#) (O. Reg. 169/03).

Test results for 2009-10 clearly indicate that Ontario's drinking water systems continue to provide high quality drinking water to our taps.

Setting Ontario Drinking Water Quality Standards

Ontario relies on 158 health-based quality standards to set limits for contaminants in drinking water. The ministry has established standards for two microbiological parameters, 78 chemical parameters and 78 radiological parameters. The Ontario Drinking Water Quality Standards can be found in [O. Reg. 169/03](#) made under the Safe Drinking Water Act.

Microbiological: **Microbiological organisms** include **total coliforms** and *Escherichia coli* (*E. coli*) bacteria. Their presence indicates microbiological contamination and the potential for serious health problems. For this reason, the drinking water standards for microbiological parameters require that total coliforms and *E. coli* should not be detectable in drinking water. Mandatory reporting and corrective actions are undertaken if these pathogens are detected.

- **Chemical:** Ontario's drinking water quality standards protect Ontario consumers by establishing the maximum acceptable concentration for chemical parameters, such as lead and mercury, that can be present in drinking water. The frequency of testing for these chemical parameters depends on the type of chemical, the category of drinking water system, the size of the population the system serves and the type of water source.
- **Radiological:** Ontario has developed standards for various radionuclides in drinking water based on protecting the health and safety of consumers. A select number of municipal residential drinking water systems are required to sample for radiological parameters under their Certificates of Approval or municipal drinking water licences. No tests for radionuclides were conducted for non-municipal year-round residential or systems serving designated facilities in 2009-10.

The province has also adopted operational parameters for various other aspects of water quality, such as colour, odour, taste and turbidity.

In 2009-10, laboratories licensed or eligible to perform drinking water tests submitted about 645,000 test results electronically to the ministry. The results show that the regulated drinking water systems in Ontario continue to provide high quality drinking water to your taps. In 2009-10, 99.88 per cent of drinking water tests at municipal residential systems met Ontario's rigorous, health-based drinking water standards.

Table 1 summarizes the test results for the three drinking water facility types. We have seen a consistent trend of excellent test results over the past

six years. Whenever test results find concentrations that exceeded the allowable limits permitted by the Ontario Drinking Water Quality Standards, corrective action is required to be taken.

Table 2 lists the number of registered drinking water systems and the number of systems that submitted test results.

Table 3 lists the different types of designated facilities and the number of drinking water systems serving them.

Table 1: Drinking Water Test Results for Drinking Water Systems

Facility Type	Per Cent of Drinking Water Tests Meeting Standards					
	2009-10 ¹	2008-09 ²	2007-08	2006-07	2005-06	2004-05
Municipal Residential Drinking Water Systems	99.88	99.87	99.85	99.83	99.84	99.74
Non-Municipal Year-Round Residential Systems	99.51	99.40	99.40	99.40	99.45	99.41
Systems Serving Designated Facilities	99.49	99.38	99.39	99.49	99.42	99.06

¹Lead distribution results were included and lead plumbing results were reported separately.

²Lead results were not included as they were reported separately.

Table 2: Number of Drinking Water Systems Registered with the Ministry and the Number of Systems Submitting Drinking Water Test Results for 2009-10

Facility Type	Number of Systems Registered	Number of Systems Submitting Drinking Water Test Results	Explanation for Difference Between Systems Registered and Systems Submitting Results
Municipal Residential Drinking Water Systems	693	688	Supplied Water ¹ Amalgamated System ²
Non-Municipal Year-Round Residential Systems	468	425	Supplied Water ¹ or Cistern System ³ or No samples were up- loaded to the ministry and owners have been contacted to resolve the issue.
Systems Serving Designated Facilities	1,650	1,445	

¹Some systems have agreements in place to have their water supplied by another municipal residential drinking water system. These other systems performed the collection and submission of samples.

²Two systems were amalgamated. Sample collection and submission were carried out for the amalgamated system as a whole.

³Systems that received drinking water for their cistern from municipal residential drinking water systems which carried out the required sampling.

Table 3: Number of Registered Systems Serving Different Types of Designated Facilities as of March 31, 2010

Primary Function of Systems Serving Designated Facilities	Number of Systems Serving Designated Facilities	
	2009-10	2008-09
School ¹	621	638
Social Care	509	509
Health Care	112	112
Children's Camp	405	403
Other	3	1
Total	1,650	1,663

¹Includes public schools, private schools, universities and college facilities. In some cases, the drinking water system served both a school and health care facility or social care facility.

MUNICIPAL RESIDENTIAL DRINKING WATER SYSTEMS — OVERALL TEST RESULTS

Municipal residential drinking water systems provide drinking water to more than 80 per cent of Ontario residents. These systems had 99.88 per cent of the tests meeting Ontario's drinking water standards. This is quite significant given that 524,124 microbiological, chemical and radiological tests

were conducted on drinking water samples from 688 municipal residential drinking water systems. Of these tests, 99.92 per cent of the microbiological and 99.64 per cent of the chemical test results met the provincial standards. No exceedances for radiological parameters were found.

NON-MUNICIPAL YEAR-ROUND RESIDENTIAL DRINKING WATER SYSTEMS — OVERALL TEST RESULTS

A total of 43,165 drinking water samples from 425 non-municipal year-round residential drinking water systems were tested. The results show that 99.51 per cent of all tests for these systems

met Ontario standards (up from 99.40 per cent for 2008-09). Of these tests, 99.52 per cent of the microbiological and 99.49 per cent of the chemical test results met provincial standards.



SYSTEMS SERVING DESIGNATED FACILITIES — OVERALL TEST RESULTS

A total of 78,297 tests were conducted on drinking water samples from 1,445 systems serving designated facilities. The results show that 99.49 per cent of the tests met provincial standards. Of these tests, 99.55 per cent of the microbiological and 99.36 per cent of the chemical test results met provincial standards.

Table 4 provides a summary of the test results for each facility type by parameter (microbiologi-

cal, chemical and radiological). The results for the chemical parameters include testing for lead in the distribution systems, but not for lead in plumbing systems. The results for lead testing in plumbing are summarized in **Table 5**.

The test results for 2009-10 show that Ontario's drinking water systems continue to deliver high quality water to our taps. You should be confident in the quality of your drinking water.

Table 4: Summary of Drinking Water Test Results for All Facility Types from April 1, 2009 to March 31, 2010

Facility Type	Parameter	# of Systems Submitting Results	# of Systems with Exceedances	# of Results	# of Exceedances	% Exceedance	2009-10 % Meeting Standards
Municipal Residential Drinking Water Systems	<i>E. coli</i>	681	20	229,467	25	0.01	99.99
	Total Coliform	681	173	229,521	348	0.15	99.85
	Total Microbiological	681	173	458,988	373	0.08	99.92
	Chemical ¹	684	89	65,126	234	0.36	99.64
	Radiological	3	0	10	0	0.00	100.00
	TOTAL	688	239	524,124	607	0.12	99.88
Non-Municipal Year-Round Residential Systems	<i>E. coli</i>	425	7	15,653	13	0.08	99.92
	Total Coliform	425	74	15,646	138	0.88	99.12
	Total Microbiological	425	74	31,299	151	0.48	99.52
	Chemical ¹	356	23	11,866	60	0.51	99.49
	Radiological	0	0	0	0	Not applicable	Not applicable
	TOTAL	425	93	43,165	211	0.49	99.51
Systems Serving Designated Facilities	<i>E. coli</i>	1,425	12	26,088	15	0.06	99.94
	Total Coliform	1,425	142	26,090	220	0.84	99.16
	Total Microbiological	1,425	142	52,178	235	0.45	99.55
	Chemical	1,226	44	26,119	166	0.64	99.36
	Radiological	0	0	0	0	Not applicable	Not applicable
	TOTAL	1,445	182	78,297	401	0.51	99.49

¹Lead plumbing results were not included in the chemical analysis for 2009-10. Lead distribution results were included.

Table 5: Summary of Drinking Water Test Results for Lead in Plumbing for Municipal Residential Drinking Water Systems and Non-Municipal Year-Round Residential Systems from April 1, 2009 to March 31, 2010

Facility Type	Parameter	# of Systems Submitting Results	# of Systems with Exceedances	# of Results	# of Exceedances	% Exceedance	2009-10 % Meeting Standards	2008-09 % Meeting Standards	
								Jun 08-Oct 08	Dec 08-Apr 09
Municipal Residential Drinking Water Systems	Lead in plumbing ¹	398	129	31,636	1,134	3.58	96.42	96.8	97.8
Non-Municipal Year-Round Residential Systems	Lead in plumbing ¹	171	19	2,650	40	1.51	98.49	98.0	98.8
Total		569	148	34,286	1,174	3.42	96.58	96.9	97.9

¹Samples taken after flushing of system occurred.

CORROSION CONTROL FOR MUNICIPAL RESIDENTIAL DRINKING WATER SYSTEMS

Corrosion in a pipe occurs when its inner surface is worn away; if the pipe's inner surface contains lead, corrosion can cause lead to enter the drinking water system. Corrosion control planning may be required for municipal residential systems that provide drinking water to residential developments with more than 100 private residences. Under O. Reg. 170/03, these systems must submit a corrosion control plan to the ministry if:

- more than 10 per cent of all plumbing locations reported lead amounts greater than 10 micrograms/L in two out of three sampling rounds, and
- in those two rounds, at least two samples exceeded the standard for lead of 10 micrograms/L.



Corrosion control plans must include an analysis of the potential for lead leaching, due to corrosion in the system or in plumbing connected to the system, and the measures the drinking water system owners will take to reduce this potential. The plans must be submitted to the ministry within a year of the end of the sampling period in which the drinking water system has met the above criteria for entering into a corrosion control program.

Since 2007, a total of 19 Ontario communities were required to prepare corrosion control plans. Eighteen of these communities were included in the 2008-2009 Chief Drinking Water Inspector's report, of which seven have submitted corrosion control plans. Also, seven received regulatory relief as they are pursuing infrastructure improvements. The ministry continues to work with the remaining communities on the submission of their plans.

2009-10 DRINKING WATER QUALITY TEST RESULTS

MICROBIOLOGICAL TEST RESULTS

Microbiological tests of drinking water samples can detect the presence of total coliforms and *E. coli* bacteria. Total coliforms are a group of waterborne bacteria that are used as an indicator of water quality. Their presence in treated water could indicate inadequate treatment. *E. coli* are common bacteria found in human and animal intestines and occur naturally in the environment. Some strains of these **organisms** can cause serious health problems.

Corrective action is required immediately whenever microbiological exceedances are detected in drinking water. These actions continue to be taken until the issue is resolved. It is the ministry's experience that improper

sampling methods and sampling locations can result in an adverse microbiological result. Flushing the system and resampling, to ensure that **disinfection** levels are adequate, typically resolves these issues.

During all adverse incidents, ministry staff continue to work and communicate with system owners and the local public health unit to ensure corrective actions are taken. If the issue is ongoing, ministry staff in collaboration with local public health units and the system owners will continue to monitor the incident to ensure it is resolved. All corrective actions have to be identified in a final report and submitted to the ministry once the issue has been resolved.





The number of regulated systems with *E. coli* test results in 2009-10 (see **Charts 4, 5 and 6**) can be summarized as follows:

- Three per cent of municipal residential drinking water systems that submitted samples reported the presence of *E. coli*, and of these, four systems reported more than one *E. coli* exceedance.
- Two per cent of non-municipal year-round residential drinking water systems that submitted samples reported the presence of *E. coli*, and of these, two systems reported more than one *E. coli* exceedance.
- One per cent of systems serving designated facilities that submitted samples reported the presence of *E. coli*, and of these, two systems reported more than one *E. coli* exceedance.

Chart 4: Test Results for *E. coli* from Municipal Residential Drinking Water Systems

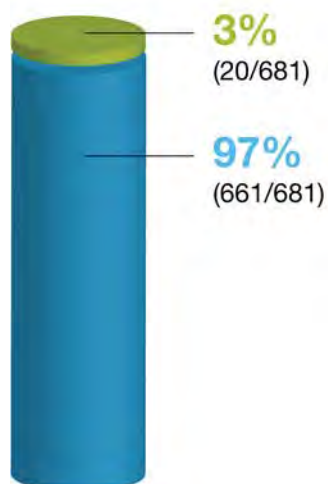


Chart 5: Test Results for *E. coli* from Non-Municipal Year-Round Residential Drinking Water Systems

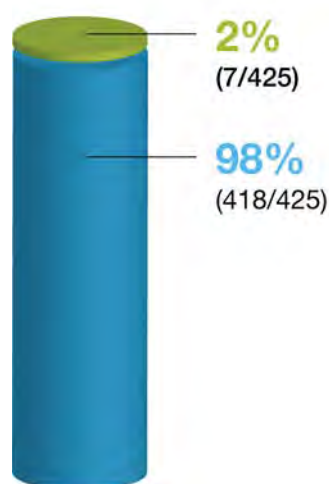
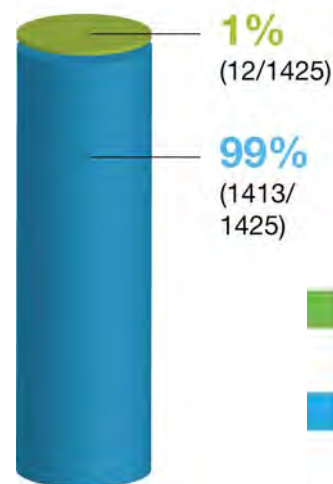


Chart 6: Test Results for *E. coli* from Drinking Water Systems Serving Designated Facilities



■ Drinking water systems with *E. coli* standard exceedances in 2009-10
 ■ Drinking water systems that met *E. coli* standards in 2009-10

CHEMICAL TEST RESULTS

Chemical test results for 2009-10 (see **Charts 7, 8 and 9**) can be summarized as follows:

- 13 per cent of municipal residential drinking water systems that submitted samples reported chemical exceedances, and of these, 46 systems reported more than one exceedance.
- Six per cent of non-municipal year-round residential drinking water systems that submitted samples reported chemical exceedances, and of these, 13 systems reported more than one exceedance.
- Four per cent of systems serving designated facilities that submitted samples reported chemical exceedances, and of these, 34 systems reported more than one exceedance.

Some adverse incidents are caused when chemicals occur naturally in the source water. In such cases, it can take longer to address the issue. The ministry stresses vigilance and monitors the incident.

None of the municipal residential drinking water systems reported exceedances relating to radiological tests.

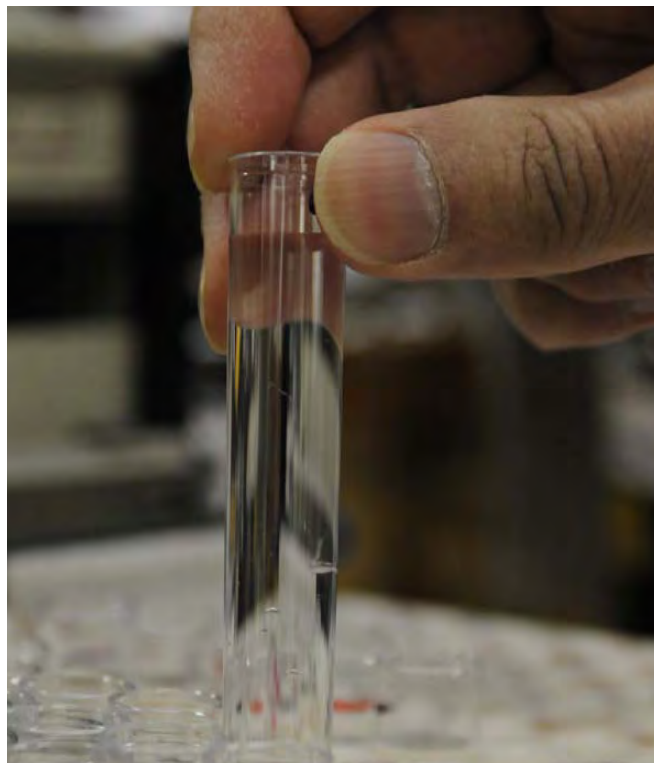


Chart 7: Test Results for Chemical Parameters from Municipal Residential Drinking Water Systems

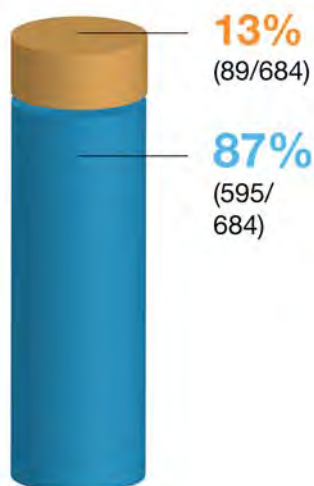


Chart 8: Test Results for Chemical Parameters from Non-Municipal Year-Round Residential Drinking Water Systems

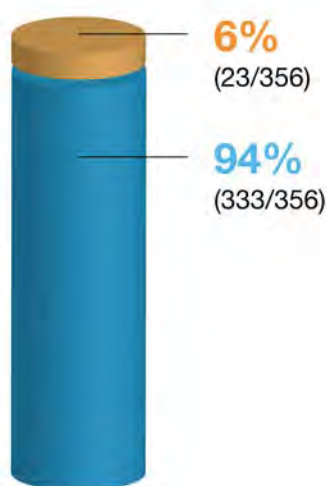


Chart 9: Test Results for Chemical Parameters from Drinking Water Systems Serving Designated Facilities

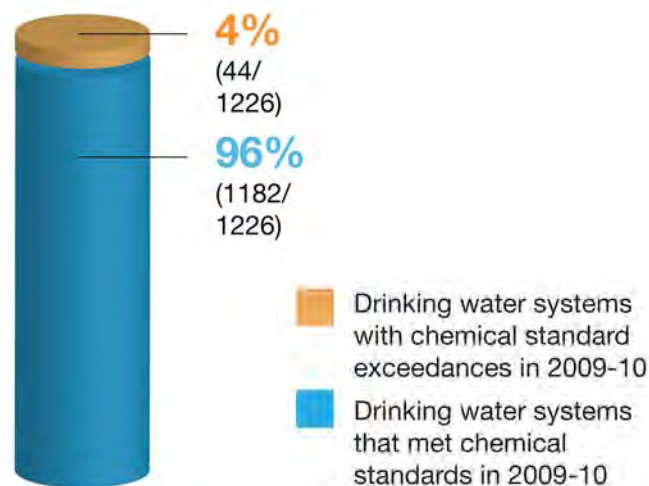


Table 6 lists the various chemical parameters that drinking water tests measure and the number of

chemical exceedances that were reported during 2009-10 by the three facility types.

Table 6: Number of Chemical Standard Exceedances by Facility Type for 2009-10

Parameter	Number of Exceedances		
	Municipal Residential Drinking Water Systems	Non-Municipal Year-Round Residential Systems	Systems Serving Designated Facilities
Barium ¹	4	2	0
Benzo[a]pyrene	1	0	0
Fluoride ¹	74	6	48
Lead ²	68	14	8
Nitrate (as Nitrogen)	3	12	53
Nitrite (as Nitrogen)	0	1	1
Nitrogen (Nitrate + Nitrite)	3	12	54
Selenium ¹	10	2	2
Trihalomethanes	69	5	0
Uranium ¹	2	6	0
Chemical Total	234	60	166

¹In some parts of the province, there are naturally occurring deposits of barium, fluoride, selenium and uranium.

²Chemical totals did not include lead sampled in plumbing for municipal residential and non-municipal year-round residential systems. Lead sampled in the distribution system was included.

LEAD TESTING RESULTS FOR SCHOOLS AND DAY NURSERIES FOR 2009-10

Under O. Reg. 243/07, schools and day nurseries are required to take two types of drinking water samples when testing for lead:

- **Standing** – after the plumbing has not been used for at least six hours.
- **Flushed** – after the water has been running or flushing for five minutes, followed by a 30 to 35 minute waiting period.

Facility Results: for facilities that submitted results, 90.29 per cent reported standing results that met the drinking water standard for lead, and 96.91 per cent reported flushed results that met the standard.

Sample Results: 88.54 per cent of standing samples met the standard and 95.79 per cent of flushed samples met the Ontario standard for lead.



Tests for lead in drinking water continue to demonstrate that flushing has proven to be an effective way to help ensure the lead standard is met.

Table 7 provides a summary of the 2009-10 lead testing results for schools and day nurseries.

Table 7: Summary of Schools and Day Nurseries Submitting Lead Results under O. Reg. 243/07 for 2009-10

Parameter	2009-10 Facility Results				2009-10 Sample Results			
	# of Facilities Submitting Results	# of Facilities with Exceedances	% Facilities with Exceedances	% Facilities with Results Meeting Standards	# of Results	# of Exceedances	% Exceedance	2009-10 % Samples Meeting Standards
Lead - Standing	7,685	746	9.71	90.29	8,951	1,026	11.46	88.54
Lead - Flushed	7,696	238	3.09	96.91	9,087	383	4.21	95.79

REPORT ON ADVERSE WATER QUALITY INCIDENTS

Swift, strong action on adverse water quality incidents (AWQIs) is a critical component of Ontario's drinking water safety net. Under O. Reg. 170/03, AWQIs include:

- Any exceedance of a prescribed Ontario Drinking Water Quality Standard.
- The presence of other specified microbiological organisms that are not listed in the Ontario Drinking Water Quality Standards.
- Exceedances of health-related parameters that are specified in a Certificate of Approval, municipal drinking water licence or order, or operational parameters such as high turbidity (cloudiness).

An AWQI indicates that a drinking water standard has been exceeded or a problem has arisen within a drinking water system. The report of an adverse event does not indicate that drinking water is unsafe; it indicates that an incident has occurred and corrective action must be taken.

If the adverse result is identified at a laboratory, the laboratory must immediately notify the owner

and/or operating authority of the system, the Ministry of the Environment's Spills Action Centre and the local Medical Officer of Health. When a drinking water system owner or operator is made aware of an adverse test result, they must also immediately notify the Ministry of the Environment's Spills Action Centre and the local Medical Officer of Health so that appropriate action can be taken.

O. Reg. 170/03 provides specific corrective actions depending on the adverse event. Corrective action may include re-sampling, adjusting the system or treatment processes, or notifying system users. The owner must also take any additional measures as directed by the local Medical Officer of Health, which could include issuing a Boil Water Notice or Advisory or a Drinking Water Notice or Advisory.

The ministry then works with the Medical Officer of Health to confirm that the owner of the system is rectifying the situation. The ministry monitors the event to ensure all appropriate corrective actions are completed to resolve the issue and to safeguard the drinking water supply for the system users.

In most situations, system owners are able to quickly address and resolve the issue that led to a report of an AWQI. In some instances it may take a longer period of time as changes may be needed to a system's treatment, process and/or operations.

Summary of Adverse Water Quality Incidents by Drinking Water Facility Type for 2009-10

It is worth noting that a single AWQI may have multiple results, for example if more than one standard is exceeded.

Municipal residential drinking water systems:

A total of 412 municipal residential drinking water systems reported 1,585 AWQIs, based on 1,706 adverse test results. Microbiological exceedances accounted for 23.1 per cent of these, while 17.7 per cent were chemical test results, and 59.2 per cent were for other parameters. The 'other' category includes high sodium, turbidity, low chlorine, low pressure, low ultraviolet voltage dosage, water main breaks and equipment failure.

Non-municipal year-round residential drinking water systems: A total of 197 non-municipal year-round residential drinking water systems reported 397 AWQIs, resulting from 470 adverse test results. Systems in this facility type reported that 33.7 per cent of their results within AWQIs were related to microbiological test results, while 23.2 per cent were chemical test results, and 42.1 per cent were for other parameters.

Systems serving designated facilities: A total of 351 drinking water systems serving designated facilities reported 606 AWQIs based on 728 adverse results — 38.6 per cent of which were microbiological, 26.1 per cent of which were chemical, and 34.9 per cent of which were other parameters.

When needed, the ministry will initiate a priority field response to conduct a site inspection, and where necessary collect audit drinking water samples. The ministry also manages all resolution reports from drinking water system owners to ensure the AWQIs have been appropriately resolved.

Systems serving schools and day nurseries:

A total of 853 schools and day nurseries reported 1,160 AWQIs containing 1,475 results within AWQIs. Of the 1,475 results, 389 were from flushed samples and 1,086 were from standing samples.

Overall, the response provided by regulated systems to adverse water quality incidents during 2009-10 demonstrates that Ontario's drinking water safety net is effective in protecting public health.



DRINKING WATER FACTS



Know the Different Types of Water Advisories

Boil water advisories and drinking water advisories are issued by the local Medical Officer of Health if there is a concern that drinking water may not be safe for public consumption. Advisories may be issued due to a known contaminant, or as a precaution due to potential or suspected contamination.

A boil water advisory instructs users to boil any water that may be used for purposes such as drinking or cooking. This type of advisory would be used when microbial contamination has been detected, e.g. an adverse water quality incident, or as a proactive measure where it is suspected. A drinking water advisory is issued when boiling water is ineffective at removing or reducing the risk of a contaminant, such as sodium or lead.

If bacteria, such as *E. coli*, may have entered the water supply, communities will be advised to boil their water before consuming it. However, if chemical contaminants may be present in the drinking water supply and cannot be removed by boiling or disinfecting the water, a drinking water advisory will be issued. Consumers are advised to use an alternate water supply until further notice. The local Medical Officer of Health will issue advisories to the public through the media, by door-to-door notification or public posting of notices.

Drinking water advisory notices are tools used to protect consumers when the safety of the drinking water may be in question, and as a precautionary measure during times of system maintenance such as watermain repairs. They are issued using a risk-based approach, and remain in place until corrective actions have been taken and the health unit is satisfied that the water does not pose a health risk. In most situations, system owners are able to

quickly fix the issue, and the advisory is lifted within one to two weeks. In some cases, actions such as designing and installing new treatment are required to resolve the issue and the advisory may remain in effect for longer periods of time.

Any water advisory that remains in place for longer than 12 months is considered a long-term boil water or drinking water advisory. Long-term advisories typically require significant corrective actions, such as the installation or upgrading of the water treatment plant to resolve the issue. A Medical Officer of Health will only lift the advisory if they are satisfied that all corrective actions have been taken and that the situation has been remedied.

As of March 31, 2010, a total of five municipal residential drinking water systems had a long-term boil water advisory or drinking water advisory. Four of those systems were included in the 2008-2009 Chief Drinking Water Inspector's report, and three of them have since had their boil water advisory lifted. The ministry continues to work with the two remaining drinking water system owners to ensure that they take appropriate corrective actions. This may include additional upgrades to an existing plant or the installation of a new treatment system.



2009-10 REPORT ON THE DRINKING WATER SYSTEMS INSPECTION PROGRAM

This section provides inspection results (covering the period April 1, 2009 to March 31, 2010) for drinking water systems and licensed or eligible laboratories, as well as data on operator certification and a summary of convictions by facility type.

The annual inspections of municipal residential drinking water systems help the ministry determine how well the systems are operating when compared to regulatory requirements. If ministry inspectors find non-compliance issues, they use a range of tools to help municipal system owners and operators effectively address them.



INSPECTION RESULTS FOR MUNICIPAL RESIDENTIAL DRINKING WATER SYSTEMS



Over the past five years, inspection results for municipal residential drinking water systems have shown continuous improvement, with very good overall performance ratings as shown in [Chart 10](#). In 2009-10, all 693 municipal residential drinking water systems were inspected. Of these ratings:

- 59 per cent of inspection ratings achieved 100 per cent, which means inspectors found no areas of non-compliance. This result is a 10 per cent improvement from the 2008-09 rating of 49 per cent.
- 84 per cent of inspection ratings were greater than 95 per cent — the same as 2008-09.
- 95 per cent of inspection ratings were higher than 90 per cent.

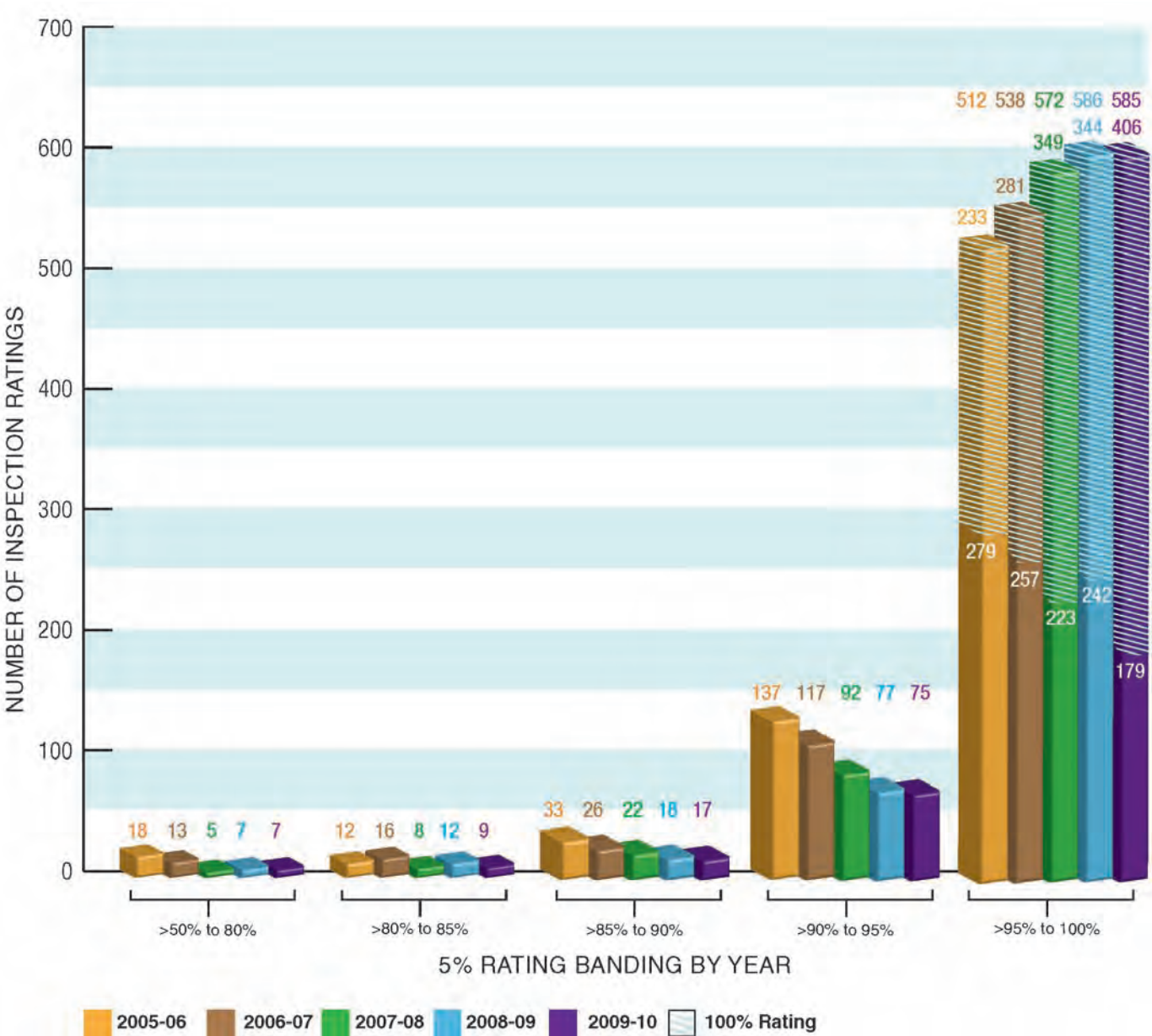
When comparing the 2009-10 and 2008-09 inspection rating results, 38 per cent of the ratings im-

proved, 36 per cent of the ratings remained the same, and 26 per cent received lower ratings.

Whenever ministry inspectors find non-compliance issues, they use a range of compliance tools to help municipal owners and operators resolve the issues effectively.

Visit the [Drinking Water Quality](#) page of the Drinking Water Ontario website for the list of municipal residential drinking water systems in Ontario, their locations, 2009-10 inspection ratings and the percentage of their drinking water quality tests that met the provincial standards.

CHART 10: Distribution of Municipal Residential Drinking Water System Inspection Ratings in 2005-06, 2006-07, 2007-08, 2008-09 and 2009-10



TOP AREAS FOR IMPROVEMENT — MUNICIPAL RESIDENTIAL DRINKING WATER SYSTEMS



The ministry analyses the inspection program results to identify trends in non-compliance and any issues that require special attention. During 2009-10, the following were identified as areas in which the systems could make improvements:

- Operating treatment equipment
- Having up-to-date operation and maintenance manuals
- Operating chlorination equipment, and
- Following proper procedures with regards to verbal notifications of adverse water quality incidents

The ministry continues to work with drinking water systems to ensure a better understanding of their responsibilities in these four areas. Drinking water training and outreach programs are also adjusted to help address non-compliance issues.

DEFICIENCIES, ORDERS AND ORDER RESOLUTIONS — MUNICIPAL RESIDENTIAL DRINKING WATER SYSTEMS

Deficiencies

A deficiency is defined as a violation of specified provisions of the Safe Drinking Water Act or its regulations, if the violation is deemed to pose a drinking water health hazard. The ministry is required to take mandatory action within 14 days of discovering a deficiency at a municipal residential drinking water system. One example of a deficiency would be water treatment equipment that is not operating according to provincial standards.

One system was found to have deficiencies in 2009-10 related to monitoring, reporting and disinfection.

Orders and Order Resolution

Orders are one of the compliance tools inspectors may use to resolve non-compliance issues. The 693 inspections conducted in 2009-10 led to six **contravention orders** being issued to six municipal residential drinking water systems, or 0.9 per cent of the total, as shown in **Table 8**. In addition, two non-inspection **preventative orders** were issued to two municipal residential systems based on events or issues that occurred at these systems.

Details of the eight **orders** issued are published separately and are available on the Drinking Water Ontario website.

Out of the eight orders issued in 2009-10, five systems have complied with the order requirements. The other three systems continue to work towards complying with the provincial regulations.

For orders issued in 2008-09, one system continues to work towards compliance.

Table 8: Municipal Residential Drinking Water Systems that Received Orders in 2009-10, 2008-09, 2007-08, 2006-07, 2005-06 and 2004-05

	2009-10	2008-09	2007-08	2006-07	2005-06	2004-05
Systems with Inspection-Related Orders						
Total Number of Municipal Residential Drinking Water Systems with Inspection-Related Orders	6	18 ¹	11	20 ²	43 ³	77
Total Number of Inspections of Municipal Residential Drinking Water Systems	693	700	699	712	709	729
Percentage of Municipal Residential Drinking Water Systems that were Inspected and Received Orders	0.9%	2.6%	1.6%	2.8%	6.1%	10.6%
Systems with Non-Inspection-Related Orders⁴	2	4	3	-	-	-
Total Number of Orders Issued to Municipal Residential Drinking Water Systems (Inspection and Non-Inspection)	8	25	14	23	39⁵	77

¹Three municipal residential drinking water systems were issued preventative orders during an inspection.

²Four municipal residential drinking water systems were issued preventative orders.

³12 municipal residential drinking water systems were issued preventative orders.

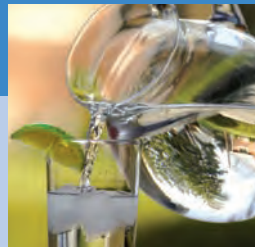
⁴ Non-inspection-related orders were issued as a result of an event or issue at a drinking water system that occurred outside of the inspection timeframe.

⁵Two orders were issued to more than one system.



DRINKING WATER FACTS

Ensuring Accountability — Meeting the Requirements of the Compliance and Enforcement Regulation



During 2009-10, the Ministry of the Environment fulfilled its responsibilities under the Compliance and Enforcement Regulation (O. Reg. 242/05 under the Safe Drinking Water Act) with respect to inspecting municipal residential drinking water systems and laboratories licensed or eligible to perform drinking water testing.

Municipal Residential Drinking Water Systems

Ministry actions included:

- Inspecting all 693 municipal residential drinking water systems in the province.
- Ensuring that at least one out of every three inspections of a municipal residential drinking water system was unannounced (in 2009-10, 236 of the 693 inspections were unannounced).
- Sending inspection reports to appropriate authorities within 45 days of completing the inspection.
- Responding as required to adverse water quality test reports or other reported problems.
- Taking mandatory action within 14 days of finding a deficiency at a municipal residential drinking water system (or taking immediate action in cases where a drinking water health hazard is present).

Laboratories Licensed or Eligible to Perform Drinking Water Testing

Ministry actions included:

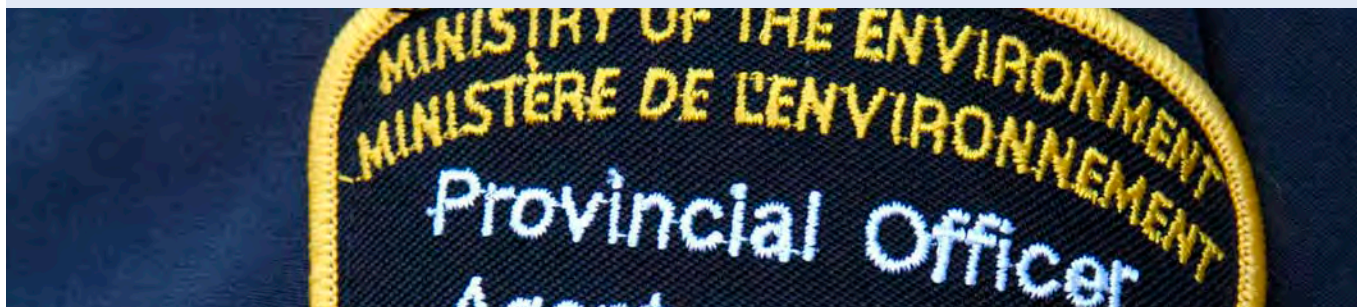
- Inspecting all 52 licensed laboratories.
- Completing 104 inspections at licensed laboratories, including 52 unannounced laboratory inspections and 52 announced inspections (regulations require that laboratories are inspected at least twice annually with at least one inspection being unannounced). The ministry also completed one unannounced inspection at an eligible laboratory and two announced pre-licensing inspections.

Providing all laboratories with an inspection report within 45 days of the completion of the inspection.

- Taking mandatory action within 14 days of finding an infraction at a licensed and eligible laboratory (or taking immediate action in cases where a drinking water health hazard is present).

Request for Drinking Water Investigation

The Compliance and Enforcement Regulation enables any member of the public to request an investigation if they have reason to believe that the act, its regulations or instruments are being violated. There were no such requests from the public in 2009-10.



INSPECTION PROGRAM RESULTS FOR LOCAL SERVICES BOARDS

Some northern Ontario communities are managed by local services boards. The drinking water systems operated by the boards fall under the category of non-municipal year-round residential drinking water systems because they are not owned and operated by a municipality.

During 2009-10, the ministry inspected eight drinking water systems operated by local services boards. No orders were issued with respect to these systems.

One local services board owner who received orders in 2005-06 and 2006-07 continues to work with the ministry to provide safe drinking water for its residents. This local services board received funding under the Building Canada Fund in February 2009 and is currently in the process of constructing and installing a treatment system designed to meet disinfection requirements.



INSPECTION RESULTS FOR NON-MUNICIPAL YEAR-ROUND RESIDENTIAL DRINKING WATER SYSTEMS AND SYSTEMS SERVING DESIGNATED FACILITIES

The ministry conducts proactive, risk-based inspections of non-municipal year-round residential drinking water systems and systems serving designated facilities. When determining which systems to inspect, the ministry considers several factors such as the history of compliance and adverse water quality incidents, and referrals from local public health units.

The ministry works with the owners and operators of the drinking water systems throughout the year to help them achieve and maintain compliance. Ongoing collaborative work between the ministry

and our drinking water partners is an important component of Ontario's drinking water safety net.

In 2009-10, the ministry conducted 483 proactive inspections of these systems, up from 259 in 2008-09.

For 2009-10, a total of 59 orders were issued to 57 systems: 38 orders were issued to 36 non-municipal year-round residential drinking water systems and 21 orders were issued to 21 systems serving designated facilities.



INSPECTION PROGRAM RESULTS FOR SCHOOLS AND DAY NURSERIES

In 2009-10, the ministry inspected 1,387 of the 11,024 (12.6 per cent) schools and day nurseries under O. Reg. 243/07 (Schools, Private Schools and Day Nurseries). During the 2009-10 inspections, two orders were issued, representing 0.14 per cent of inspected schools and day nurseries. One of these facilities has complied with the order requirements, and the other one has ceased operations.

In 2008-09, five orders were issued and three were complied with. Of the two remaining orders, one facility has since complied with the order requirements, and the other one has ceased operations.

Table 9 provides a summary of the inspections and orders issued for 2009-10 and 2008-09.

Table 9: Number of O. Reg. 243/07 Schools and Day Nurseries Receiving Inspection-Related Orders in 2009-10 and 2008-09

	2009-10	2008-09
Total Number of Schools and Day Nurseries that Received Orders	2	5
Total Number of Inspections of Schools and Day Nurseries	1,387	1,009
Percentage of Schools and Day Nurseries that were Inspected and Received Orders	0.14%	0.50%

2009-10 SMALL DRINKING WATER SYSTEMS PROGRAM RESULTS

RISK ASSESSMENT PROGRESS

Oversight for small drinking water systems was transferred to the Ministry of Health and Long-Term Care from the Ministry of the Environment effective December 1, 2008. Public health inspectors from the local public health units are responsible for conducting individual site-specific risk assessments of the approximately 18,000 small drinking water systems in the province.

The site-specific risk assessment process involves visiting the small drinking water system location to assess the source of drinking water, identifying risks that may affect the quality of the water and developing strategies to monitor and maintain safe drinking water. The inspector completes the risk assessment by using an electronic risk categorization tool, conducting visual inspections of the water source, system equipment and components, reviewing documentation relating to system water testing and reviewing historical sampling results.

At the end of the process, the inspector is able to determine a risk category of high, moderate or low for the small drinking water system and develop specific legal requirements that must be

implemented by the owner and/or operator to manage the water supply safely. The requirements are provided to the owner and/or operator through a legally binding directive that applies to the small drinking water system. Requirements that may be included in the directive are: the frequency and sampling locations for water sampling by the owner and/or operator, water treatment requirements, operational checks, and owner and/or operator training.

During the reporting period from April 1, 2009 to March 31, 2010, progress on the small drinking water system program implementation was as follows:

- 2,074 site-specific risk assessments were completed
- 896 site-specific risk assessments were in progress

Building on these 2,970 assessments, the inspectors continue to perform risk assessments and are on track to have 100 per cent either finalized or in progress by December 31, 2011.



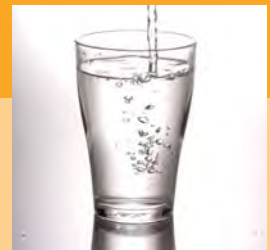
REPORTING OF ADVERSE WATER QUALITY INCIDENTS

An adverse water quality incident generally occurs when a test result of a drinking water sample exceeds the maximum allowable concentration set out in the Ontario Drinking Water Standards Regulation. Small drinking water systems are required to sample their supplies for the presence of indicator bacteria (total coliform and *E. coli*) at a frequency outlined in the directive. When the incidents are identified, system owners and/or operators work closely with public health inspectors to identify and resolve the causes to protect drinking water users from potential illness.

As site-specific risk assessments and testing activities increased, the number of adverse water quality incidents also increased. In the reporting period of April 1, 2009 to March 31, 2010, a total of 1,202 adverse water quality incidents were reported to the Ministry of Health and Long-Term Care and to the local boards of health under O. Reg. 318/08 and O. Reg. 319/08, under the Health Protection and Promotion Act.

RECOGNIZING EXCELLENCE

Sharing Successes: Renfrew County & District Health Unit's Small Drinking Water Systems Program Implementation



When it came time to implement the Ministry of Health and Long-Term Care's O. Reg. 319/08 (Small Drinking Water Systems) under the Health Protection and Promotion Act, Renfrew County & District Health Unit — one of the largest organized counties in the province — took a different approach.

Given the vast scope and geographic area that encompasses the region, Bob Schreader, Acting Manager of Environmental Health, and Mike Grace, Coordinator of Environmental Health, decided that all of their inspectors would be trained in conducting the small drinking water systems risk assessments, as opposed to training one or two representatives, a common approach in other jurisdictions. Bob explains, "We wanted to ensure that each inspector was trained and confident in performing a risk assessment on a water system. Mike then accompanied each inspector on their first risk assessment to ensure proper procedures were executed."

The county also held a series of information sessions in the region to explain the new legislation, cover off

what was required of the operator and explain what the health unit staff would be doing over the coming months with each system. As Mike puts it, "These meetings were a great chance for us to dispel many of the myths and misinformation around Regulation 319/08."

Bob is quick to point out that their Small Drinking Water Systems Program is ongoing. "While the initial implementation is complete", he notes, "we are still carrying out some risk assessments and, in future, will need to follow-up with individuals to ensure that any directives given out to operators are acted upon in a timely manner."

Education, thorough communication and consistent action by staff are all key factors in the successful implementation of the Small Drinking Water Systems Program in Renfrew County.

2009-10 LABORATORY LICENSING & COMPLIANCE PROGRAM RESULTS

All laboratories that are licensed or eligible to test drinking water must be inspected to ensure they are operating in compliance with provincial regulations. The ministry's Laboratory Licensing & Compliance Program encompasses both announced and unannounced inspections. Laboratories are inspected twice annually with at least one of the inspections being unannounced.

Inspections may include an assessment of several areas such as: sample handling, testing methods, reporting of adverse water quality incidents, accreditation requirements, management practices and facilities and resources.

The ministry is required to provide the laboratory with a report within 45 days of completion of the inspection. The report identifies problem areas and non-compliance issues, and provides guidance on how to address these areas and issues. Laboratories must take action within 14 days of receiving their reports if the inspector identified a regulatory infraction. If the infraction represents a drinking water-related health hazard, mandatory action must be taken immediately.

INSPECTIONS AND ORDERS

In 2009-10, all 52 licensed laboratories were inspected twice, for a total of 104 inspections. Of the 104 inspections, 52 were announced and 52 were unannounced. In addition, one unannounced inspection of an eligible laboratory located outside of Ontario was conducted, and two pre-licensing

inspections of two non-licensed laboratories were conducted.

Table 10 provides a summary of the laboratory inspections completed over the past six years, broken down by the type of inspection.

Table 10: Summary of Laboratory Inspections in 2009-10, 2008-09, 2007-08, 2006-07, 2005-06 and 2004-05

Inspection Type	Licensed and Eligible Laboratory Inspections Completed					
	2009-10	2008-09	2007-08	2006-07	2005-06	2004-05
Announced	52	52	56	59	1	57
Unannounced	53 ²	52	53 ¹	57	113	60
Other	2 ³					
Total	107	104	109	116	114	117
Number of Laboratories (Licensed and Eligible)	53	52	56	57	57	58 ³

¹During 2007-08, three laboratories voluntarily withdrew from the licensing program between their announced and unannounced inspections.

²During 2009-10, one laboratory voluntarily withdrew and two laboratories joined the laboratory licensing program. This included one laboratory which appears on the Director's Eligibility List for Out-of-Province Laboratories.

³Other inspections included laboratory pre-licensing or relocation inspections.

In 2009-10, three orders were issued to three laboratories licensed to perform drinking water testing, representing 2.9 per cent of licensed laboratories, as shown in **Table 11**. One order was issued to a

non-licensed laboratory. Details of **orders** issued to laboratories are published separately and are available on the Drinking Water Ontario website.

Table 11: Licensed and Unlicensed Laboratories that Received Inspection- and Non-Inspection- Related Orders in 2009-10 and 2008-09

	2009-10	2008-09
Licensed Laboratories with Inspection-Related Orders		
Number of Licensed Laboratories that Received Orders	3	2
Number of Planned Inspections of Licensed Laboratories	104	104
Percentage of Licensed Laboratories that were Inspected and Received Orders	2.9%	1.9%
Unlicensed Laboratories with Non-Inspection-Related Orders		
	1	1
Total Number of Orders Issued to Licensed and Unlicensed Laboratories (Inspection and Non-Inspection)	4	3

TOP AREAS FOR IMPROVEMENT — LICENSED AND ELIGIBLE LABORATORIES

The ministry's inspection program of licensed and eligible laboratories for 2009-10 identified three common areas for improvement:

- Having a policy to ensure that all documentation and records relating to drinking water testing are kept for five years.
- Retaining records for calculations of drinking water tests.

- Having procedures in place to ensure drinking water results reported to the ministry and the client are the same.

The ministry continues to work with licensed and eligible laboratory owners to ensure a better understanding of their responsibilities in these three areas.



Operator Certification and Training

Ontario's certification and training requirements for operators are among the most stringent in North America. As of March 31, 2010, there were 6,213 certified drinking water operators in Ontario holding 8,502 certificates.

A large number of operators will be eligible to retire over the next five to 10 years. With this in mind, the ministry is working with its partners to help promote careers in the water and wastewater industry



2009-10 Convictions

Inspectors report potentially serious violations of Ontario's environmental protection laws, including the Safe Drinking Water Act, to the ministry's Investigations and Enforcement Branch. When necessary, the branch conducts investigations and recommends whether or not to lay charges. If laying charges is recommended, a Crown Attorney reviews the evidence, assesses the benefits to the public of pursuing a conviction, evaluates the likelihood of securing a conviction and decides if charges will be laid.

During 2009-10, there were eight cases involving convictions related to ten drinking water systems and licensed laboratories. The cases with convictions resulted in fines totalling \$46,750, as shown in **Table 12**. Details of **convictions** issued to systems and licensed laboratories are published separately and are available on the Drinking Water Ontario website.

Table 12: Summary of 2009-10 Convictions for Drinking Water Prosecutions by Facility Type

Facility Type	2009-10 Total Cases with Convictions	Number of Systems or Laboratories	2009-10 Fines
Municipal Residential Drinking Water Systems ¹	3	3	\$3,750
Non-Municipal Year-Round Residential Systems ²	1	1	\$1,000
Systems Serving Designated Facilities	2	3	\$22,000
Schools and Day Nurseries	1	1	\$2,500
Licensed Laboratories	1	2	\$17,500
Total	8	10	\$46,750

¹In 2009-10, three individuals and one corporation were convicted and fined \$3,750 for charges related to drinking water offences at three municipal drinking water systems.

²In 2009-10, one individual was convicted and fined \$1,000 for charges related to drinking water offences at a non-municipal year-round drinking water system.

Closing Statement

Each year we continue to move forward on implementing key drinking water initiatives. This coming year will bring further advancements in the area of new clean water technologies with the recent passing of the Water Opportunities and Water Conservation Act. The act supports the growth and expansion of Ontario's clean water technology sector.

This year, source protection committees will continue to work on drafting source protection plans. All remaining municipalities will become fully licensed, making Ontario the first jurisdiction in North America to have mandatory quality management systems for all regulated drinking water systems.

We look forward to working in partnership with these groups and many others to further strengthen our drinking water safety net, and continuing to help ensure that Ontarians enjoy safe, clean drinking water.

Please let us know what you think of this report as well as any ideas you might have for future editions. You can reach my office by email at drinking.water@ontario.ca.



Glossary

B	
Backwash Wastewater System:	a system that treats the concentrated solution of suspended matter produced when a filter is subject to flow reversal. The treatment consists primarily of solids separation and disposal.
C	
Clearwell:	the final tank or chamber in a water treatment plant; the chamber through which water flows over a controlled period of time with exposure to controlled levels of chemical disinfectant prior to being pumped into the distribution system.
Contravention Order:	the purpose of a Contravention Provincial Officers Order is to address a contravention of an Act, Regulation, order, notice, direction, requirement or report or a term or condition of an approval/permit. Contravention orders can be issued to persons who are either currently contravening or have in the past contravened an Act, Regulation, order, notice, direction, requirement or report or a term or condition of an approval/permit. A contravention order may require the ordered party to comply with any directions set out in the order within the time specified.
Contaminant:	any solid, liquid, gas, odour, heat, sound, vibration, radiation or combination of any of them resulting directly or indirectly from human activities that causes or may cause an adverse effect.
Corrective Action:	steps that must be taken following an adverse water quality incident as specified by O. Reg. 170/03, Schedules 17 & 18, directed by the local medical officer of health or drinking water inspector, that are necessary to protect human health.
D	
Disinfection:	the destruction or inactivation of pathogenic and other kinds of microorganisms by physical or chemical means.
Drinking Water Systems Serving Designated Facilities:	drinking water systems serving, for example, children's camps, daycare centres, schools or health care facilities. These systems fall under the five categories of non-residential and seasonal residential systems defined in O. Reg. 170/03. They are large municipal non-residential, small municipal non-residential, large non-municipal non-residential, small non-municipal non-residential and non-municipal seasonal residential categories of drinking water systems.
E	
<i>E. coli (Escherichia coli):</i>	a species of bacteria naturally present in the intestines of humans and animals. If animal or human waste containing <i>E. coli</i> contaminates drinking water it may cause gastrointestinal disease in humans. Most types of <i>E. coli</i> are harmless, but some active strains, especially O157:H7, produce harmful toxins and can cause severe illness.
Eligible Laboratory:	a laboratory located outside Ontario that is eligible to conduct analysis on drinking water samples from Ontario for specific tests and which appears on the Director's Eligibility List for Out-of-Province Laboratories.
F	
Filtration:	the separation of suspended solid particles from a fluid stream by passage of the fluid through a granular or membrane filter medium that retains most of the solids on or within itself.
H	
High Lift Pump:	pumping equipment that draws from the clearwell and discharges to the distribution system.

L	
Low Lift Pump:	pumping equipment that draws from the plant intake and discharges to the first stages of treatment.
M	
Microbiological Organism:	an organism so small that it cannot be seen without a microscope, including bacteria, protozoa, fungi, viruses and algae.
Membrane Microfiltration:	a pressure driven process in which water is filtered through a microfilter (e.g. membrane), an engineered material that acts as a barrier with a nominal pore size on the order of 1/10th a micrometer to several micrometers.
Membrane Train:	a group of membranes which at any one time are performing the same function (e.g. filtering, backwashing, testing or cleaning).
Municipal residential drinking water systems:	drinking water systems or part of a drinking water system that serve six or more private residences that meet the definition of municipal drinking water system. Includes the categories of large municipal residential and small municipal residential drinking water systems under O. Reg. 170/03.
N	
Non-municipal year-round residential drinking water systems:	a non-municipal drinking water system (other than a seasonal residential system) that serves a major residential development (six or more private residences) or a trailer park or campground with more than five service connections. These systems are a single category defined in O. Reg. 170/03.
O	
Organism:	an individual form of life that includes bacteria, protozoa, fungi, viruses and algae.
P	
Preventative Order:	an order issued by a Provincial Officer where considered necessary for the purposes of the Safe Drinking Water Act (which include protecting human health and preventing drinking water health hazards), even where no contravention has occurred yet. A Preventative Measures Order is used to prevent possible future adverse effects.
S	
Source Water:	untreated water in streams, rivers, lakes or underground aquifers which is used for the supply of raw water for drinking water systems.
T	
Total Coliform Bacteria:	a group of waterborne bacteria consisting of three main groups with common characteristics that is used as an indicator of water quality. The presence of total coliform bacteria in water leaving a treatment plant or in any treated water immediately after treatment could indicate inadequate treatment and possible water contamination.
Turbidity:	a visible haze or cloudiness in water caused by the presence of suspended matter, resulting in the scattering and absorption of light. The cloudier the water, the greater the turbidity.
W	
Watershed:	a region or area bounded peripherally by a divide and draining ultimately to a particular watercourse or body of water.

List of Figures, Charts and Tables

FIGURES

FIGURE 1: The Drinking Water Safety Net 5

CHARTS

CHART 1: Municipal Residential Drinking Water Systems’ Drinking Water Quality Tests Meeting Ontario’s Drinking Water Quality Standards for All Parameters and *E. coli* Over Six Years 11

CHART 2: Municipal Residential Drinking Water Systems’ Drinking Water Quality Tests Meeting Ontario’s Drinking Water Quality Standards by System Over Six Years 12

CHART 3: Municipal Residential Drinking Water Systems’ Inspection Rating Trends 15

CHART 4: Test Results for *E. coli* from Municipal Residential Drinking Water Systems 28

CHART 5: Test Results for *E. coli* from Non-Municipal Year-Round Residential Drinking Water Systems 28

CHART 6: Test Results for *E. coli* from Drinking Water Systems Serving Designated Facilities 28

CHART 7: Test Results for Chemical Parameters from Municipal Residential Drinking Water Systems 29

CHART 8: Test Results for Chemical Parameters from Non-Municipal Year-Round Residential Drinking Water Systems 29

CHART 9: Test Results for Chemical Parameters from Drinking Water Systems Serving Designated Facilities 29

CHART 10: Distribution of Municipal Residential Drinking Water System Inspection Ratings in 2005-06, 2006-07, 2007-08, 2008-09 and 2009-10 35

TABLES

TABLE 1:	Drinking Water Test Results for Drinking Water Systems	23
TABLE 2:	Number of Drinking Water Systems Registered with the Ministry and the Number of Systems Submitting Drinking Water Test Results for 2009-10	23
TABLE 3:	Number of Registered Systems Serving Different Types of Designated Facilities as of March 31, 2010	24
TABLE 4:	Summary of Drinking Water Test Results for All Facility Types from April 1, 2009 to March 31, 2010	25
TABLE 5:	Summary of Drinking Water Test Results for Lead in Plumbing for Municipal Residential Drinking Water Systems and Non-Municipal Year-Round Residential Systems from April 1, 2009 to March 31, 2010	26
TABLE 6:	Number of Chemical Standard Exceedances by Facility Type for 2009-10	30
TABLE 7:	Summary of Schools and Day Nurseries Submitting Lead Results under O. Reg. 243/07 for 2009-10	31
TABLE 8:	Municipal Residential Drinking Water Systems that Received Orders in 2009-10, 2008-09, 2007-08, 2006-07, 2005-06 and 2004-05	37
TABLE 9:	Number of O. Reg. 243/07 Schools and Day Nurseries Receiving Inspection-Related Orders in 2009-10 and 2008-09	40
TABLE 10:	Summary of Laboratory Inspections in 2009-10, 2008-09, 2007-08, 2006-07, 2005-06 and 2004-05	43
TABLE 11:	Licensed and Unlicensed Laboratories that Received Inspection- and Non-Inspection- Related Orders in 2009-10 and 2008-09	44
TABLE 12:	Summary of 2009-10 Convictions for Drinking Water Prosecutions by Facility Type	45

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Chief Drinking Water Inspector

Appendices

1:	Municipal Residential Drinking Water Systems' 2009-10 Inspection Ratings and Drinking Water Quality Results (Percentage of Tests Meeting Standards)	2
2:	2009-10 Orders	22
2-A:	Summary of Municipal Residential Drinking Water Systems Receiving Contravention Orders in 2009-10 as a Result of an Inspection	22
2-B:	Summary of Municipal Residential Drinking Water Systems Receiving Preventative Orders in 2009-10	23
2-C-1:	Summary of Laboratories Licensed to Perform Drinking Water Testing Receiving Contravention Orders in 2009-10	23
2-C-2:	Summary of Laboratories Not Licensed to Perform Drinking Water Testing Receiving Contravention Orders in 2009-10	24
3:	2009-10 Convictions	24
3-A:	Summary of Municipal Residential Drinking Water System Convictions — April 1, 2009 to March 31, 2010	24
3-B:	Summary of Convictions for Laboratory Licensed to Perform Drinking Water Testing — April 1, 2009 to March 31, 2010	24

APPENDIX 1: Municipal Residential Drinking Water Systems' 2009-10 Inspection Ratings and Drinking Water Quality Results (Percentage of Tests Meeting Standards)

Pursuant to **O. Reg. 188/07** (Licensing of Municipal Drinking Water Systems), many of the ministry's municipal drinking water system owners have requested that the ministry adopt a consistent naming convention with the suggestion that their system name changes be identified on their new municipal licences/permits.

The change to the system licence/permit name will better reflect the legislative definition of "drinking water system" and will provide clarity with respect to public reporting. As a result of this request and the issuance of municipal licences/permits to system owners, the names of systems will be changed starting with this report. This list reflects naming as of March 31, 2010.

Municipal Location (Municipality Where the Drinking Water System is Located)	Drinking Water System Name	2009-10 Inspection Rating	2009-10 Drinking Water Quality (% Tests Meeting Standards)
Adjala-Tosorontio, Township of	Colgan Well Supply	92.43%	99.37%
Adjala-Tosorontio, Township of	Everett Well Supply	94.95%	100.00%
Adjala-Tosorontio, Township of	Hockley Well Supply	97.31%	100.00%
Adjala-Tosorontio, Township of	Lisle Well Supply	97.44%	100.00%
Adjala-Tosorontio, Township of	Loretto Heights Well Supply	91.96%	100.00%
Adjala-Tosorontio, Township of	Rosemont Well Supply	94.88%	100.00%
Adjala-Tosorontio, Township of	Weca Well Supply	97.33%	99.02%
Ajax, Town of	Oshawa-Whitby-Ajax Drinking Water System-Ajax	100.00%	99.89%
Alfred and Plantagenet, Township of	Lefavre Water Treatment Plant	100.00%	99.76%
Alfred and Plantagenet, Township of	Wendover Water Treatment Plant	100.00%	99.80%
Alnwick/Haldimand, Township of	Grafton Well Supply	96.51%	100.00%
Amaranth, Township of	Waldemar Well Supply	100.00%	100.00%
Amherstburg, Town of	Amherstburg Drinking Water System	90.61%	100.00%
Armstrong, Township of	Earlton Well Supply	100.00%	100.00%
Arnprior, Town of	Arnprior Water Treatment Plant	95.06%	99.66%
Arran-Elderslie, Municipality of	Arran-Elderslie Well Supply	100.00%	100.00%
Arran-Elderslie, Municipality of	Tara Well Supply	100.00%	100.00%
Ashfield-Colborne-Wawanosh, Township of	Benmiller Inn Well Supply	100.00%	98.68%
Ashfield-Colborne-Wawanosh, Township of	Century Heights Subdivision Well Supply	100.00%	99.53%
Ashfield-Colborne-Wawanosh, Township of	Courtney Subdivision Distribution System	100.00%	99.74%
Ashfield-Colborne-Wawanosh, Township of	Dungannon Well Supply	100.00%	99.71%
Ashfield-Colborne-Wawanosh, Township of	Huron Sands Well Supply	100.00%	100.00%
Ashfield-Colborne-Wawanosh, Township of	South Lucknow Distribution System	95.29%	99.73%
Asphodel-Norwood, Township of	Norwood Well Supply	100.00%	100.00%
Asphodel-Norwood, Township of	Trentview Estates Development Distribution System	95.56%	100.00%
Assiginack, Township of	Assiginack Water Treatment Plant	95.68%	100.00%
Assiginack, Township of	Sunsite Estates Subdivision Water Treatment Plant	95.02%	100.00%

APPENDIX 1: Municipal Residential Drinking Water Systems' 2009-10 Inspection Ratings and Drinking Water Quality Results (Percentage of Tests Meeting Standards)

Municipal Location (Municipality Where the Drinking Water System is Located)	Drinking Water System Name	2009-10 Inspection Rating	2009-10 Drinking Water Quality (% Tests Meeting Standards)
Atikokan, Township of	Atikokan Water Treatment Plant	79.37%	100.00%
Aurora, Town of	Aurora Distribution System	100.00%	99.72%
Aurora, Town of	York Drinking Water System-Aurora	100.00%	100.00%
Aylmer, Town of	Aylmer (Elgin Area Water Supply) Distribution System	100.00%	99.82%
Aylmer, Town of	Aylmer Secondary Distribution System	100.00%	100.00%
Bancroft, Town of	Bancroft Water Treatment Plant	93.57%	99.78%
Barrie, City of	Barrie Drinking Water System	96.14%	99.93%
Bayham, Municipality of	Municipality of Bayham Distribution System	100.00%	100.00%
Belleville, City of	Belleville Water Treatment Plant	100.00%	99.84%
Belleville, City of	Point Anne Hamlet Water Treatment Plant	99.06%	98.51%
Billings, Township of	Kagawong Water Treatment Plant	91.09%	100.00%
Black River-Matheson, Township of	Holtyre Well Supply	95.97%	100.00%
Black River-Matheson, Township of	Matheson Well Supply	98.52%	100.00%
Black River-Matheson, Township of	Ramore (Playfair) Well Supply	88.68%	100.00%
Black River-Matheson, Township of	Val Gagne Well Supply	100.00%	100.00%
Blandford-Blenheim, Township of	Bright Well Supply	100.00%	100.00%
Blandford-Blenheim, Township of	Drumbo Well Supply	97.54%	100.00%
Blandford-Blenheim, Township of	Plattsville Well Supply	100.00%	100.00%
Blandford-Blenheim, Township of	Princeton Countryside Manor Cistern System	100.00%	100.00%
Blind River, Town of	Blind River Well Supply	87.51%	99.63%
Bluewater, Municipality of	Bluewater Distribution System	95.20%	100.00%
Bluewater, Municipality of	Carriage Lane Well Supply	86.55%	100.00%
Bluewater, Municipality of	Harbour Lights Development Well Supply	94.12%	100.00%
Bluewater, Municipality of	Hensall Well Supply	89.46%	100.00%
Bluewater, Municipality of	Zurich Well Supply	96.61%	100.00%
Bonnechere Valley, Township of	Eganville Water Treatment Plant	100.00%	99.81%
Bracebridge, Town of	Bracebridge (Kirby Beach) Water Treatment Plant	97.58%	100.00%
Bradford West Gwillimbury, Town of	Bradford/Bondhead Well Supply	100.00%	100.00%
Brant, County of	Airport Drinking Water System	100.00%	100.00%
Brant, County of	Cainsville-King George Road Distribution System-Cainsville DS ¹	100.00%	100.00%
Brant, County of	Cainsville-King George Road Distribution System-King George Road DS ¹	100.00%	98.33%
Brant, County of	Mt. Pleasant Drinking Water System	100.00%	100.00%
Brant, County of	Paris Drinking Water System	100.00%	100.00%
Brant, County of	St. George Drinking Water System	100.00%	100.00%
Brantford, City of	City of Brantford Drinking Water System	92.85%	99.74%
Brighton, Municipality of	Brighton Well Supply	100.00%	99.89%

¹DS means distribution system.

APPENDIX 1: Municipal Residential Drinking Water Systems' 2009-10 Inspection Ratings and Drinking Water Quality Results (Percentage of Tests Meeting Standards)

Municipal Location (Municipality Where the Drinking Water System is Located)	Drinking Water System Name	2009-10 Inspection Rating	2009-10 Drinking Water Quality (% Tests Meeting Standards)
Brock, Township of	Beaverton Drinking Water System	100.00%	100.00%
Brock, Township of	Cannington Drinking Water System	98.66%	99.94%
Brock, Township of	Sunderland Drinking Water System	100.00%	100.00%
Brockton, Municipality of	Hanover Water Treatment Plant	92.32%	100.00%
Brockton, Municipality of	Lake Rosalind Well Supply	100.00%	100.00%
Brockton, Municipality of	Powers Subdivision Well Supply	100.00%	100.00%
Brockton, Municipality of	Walkerton Well Supply	99.01%	98.50%
Brockville, City of	Brockville Water Treatment Plant	100.00%	99.80%
Brooke-Alvinston, Municipality of	Alvinston Distribution System	100.00%	100.00%
Bruce Mines, Town of	Bruce Mines Water Treatment Plant	97.71%	100.00%
Burk's Falls, Village of	Burk's Falls Well Supply	98.96%	100.00%
Burlington, City of	South Halton Drinking Water System-Bridgeview Community DS ¹	100.00%	100.00%
Burlington, City of	South Halton Drinking Water System-Burlington	99.53%	100.00%
Burlington, City of	South Halton Drinking Water System-North Aldershot DS ¹	98.78%	100.00%
Burlington, City of	South Halton Drinking Water System-Snake Road DS ¹	98.98%	100.00%
Caledon, Town of	Caledon East Well Supply	97.67%	100.00%
Caledon, Town of	Caledon Village Well Supply	100.00%	100.00%
Caledon, Town of	Cheltenham Drinking Water System	97.08%	100.00%
Caledon, Town of	Inglewood Drinking Water System	100.00%	100.00%
Caledon, Town of	Palgrave Drinking Water System	97.54%	100.00%
Callander, Municipality of	Callander Water Treatment Plant	97.59%	99.81%
Cambridge, City of	Cambridge Distribution System	100.00%	99.88%
Cambridge, City of	Cambridge Well Supply	100.00%	100.00%
Carleton Place, Town of	Carleton Place Water Treatment Plant	96.87%	99.89%
Casselman, Village of	Casselman Water Treatment Plant	99.04%	100.00%
Cavan-Monaghan, Township of	Millbrook Well Supply	100.00%	100.00%
Central Elgin, Municipality of	Belmont Drinking Water System	100.00%	100.00%
Central Elgin, Municipality of	Central Elgin (Elgin Area Water Supply) Distribution System	100.00%	100.00%
Central Elgin, Municipality of	Elgin Primary Area Water Supply	79.71%	99.90%
Central Huron, Municipality of	Auburn Well Supply	97.86%	100.00%
Central Huron, Municipality of	Clinton Well Supply	94.57%	100.00%
Central Huron, Municipality of	Kelly Well Supply	94.80%	100.00%
Central Huron, Municipality of	McClinchey Well Supply	98.46%	100.00%
Central Huron, Municipality of	S.A.M. Well Supply	98.46%	100.00%
Central Huron, Municipality of	Vandewatering Subdivision Well Supply	100.00%	100.00%

¹DS means distribution system.

APPENDIX 1: Municipal Residential Drinking Water Systems' 2009-10 Inspection Ratings and Drinking Water Quality Results (Percentage of Tests Meeting Standards)

Municipal Location (Municipality Where the Drinking Water System is Located)	Drinking Water System Name	2009-10 Inspection Rating	2009-10 Drinking Water Quality (% Tests Meeting Standards)
Central Manitoulin, Municipality of	Mindemoya Water Treatment Plant	100.00%	100.00%
Centre Wellington, Township of	Township of Centre Wellington Well Supply	96.14%	99.83%
Champlain, Township of	Laurentian Park Distribution System	100.00%	100.00%
Champlain, Township of	L'Orignal Distribution System	100.00%	99.39%
Champlain, Township of	Vankleek Hill Distribution System	100.00%	100.00%
Chapleau, Township of	Chapleau Water Treatment Plant	98.59%	100.00%
Chapple, Township of	Barwick Well Supply	100.00%	100.00%
Charlton and Dack, Municipality of	Bradley Subdivision Distribution System	100.00%	98.28%
Charlton and Dack, Municipality of	Charlton Water Treatment Plant	100.00%	99.70%
Chatham-Kent, Municipality of	Bothwell (West Elgin Area Water Supply) Distribution System	100.00%	100.00%
Chatham-Kent, Municipality of	Chatham Water Treatment Plant	100.00%	99.94%
Chatham-Kent, Municipality of	Highgate Pure Water Well Supply	92.42%	99.31%
Chatham-Kent, Municipality of	North Wallaceburg Distribution System	100.00%	100.00%
Chatham-Kent, Municipality of	Ridgetown Well Supply	98.27%	99.70%
Chatham-Kent, Municipality of	South Chatham-Kent Water Treatment Plant	96.95%	100.00%
Chatham-Kent, Municipality of	Wallaceburg Water Treatment Plant	100.00%	100.00%
Chatham-Kent, Municipality of	Wheatley Water Treatment Plant	97.64%	100.00%
Chatsworth, Township of	Chatsworth Well Supply	96.73%	99.79%
Chatsworth, Township of	Walter's Falls Well Supply	100.00%	100.00%
Clarence-Rockland, City of	Rockland Water Treatment Plant	100.00%	99.72%
Clarington, Municipality of	Bowmanville Drinking Water System	97.63%	99.89%
Clarington, Municipality of	Newcastle Drinking Water System	100.00%	99.92%
Clarington, Municipality of	Orono Drinking Water System	100.00%	100.00%
Clearview, Township of	Buckingham Woods Well Supply	100.00%	100.00%
Clearview, Township of	Colling-Woodlands Well Supply	100.00%	100.00%
Clearview, Township of	Creemore Well Supply	100.00%	100.00%
Clearview, Township of	McKean Subdivision Well Supply	100.00%	100.00%
Clearview, Township of	New Lowell Well Supply	100.00%	99.38%
Clearview, Township of	Stayner Well Supply	100.00%	100.00%
Cobalt, Town of	Cobalt Water Treatment Plant	89.80%	99.79%
Cobourg, Town of	Cobourg Water Treatment Plant	100.00%	99.79%
Cochrane, Town of	Cochrane Well Supply	95.89%	99.86%
Coleman, Township of	Coleman Distribution System	94.81%	99.79%
Collingwood, Town of	Collingwood (Raymond A. Barker Ultrafiltration Plant) Water Treatment Plant	95.47%	99.78%
Cornwall, City of	Cornwall Water Treatment Plant	100.00%	99.79%
Cramahe, Township of	Colborne Well Supply	100.00%	100.00%
Dawn-Euphemia, Township of	Dawn-Euphemia Water Distribution System	81.41%	100.00%
Deep River, Town of	Deep River Water Treatment Plant	91.92%	100.00%

APPENDIX 1: Municipal Residential Drinking Water Systems' 2009-10 Inspection Ratings and Drinking Water Quality Results (Percentage of Tests Meeting Standards)

Municipal Location (Municipality Where the Drinking Water System is Located)	Drinking Water System Name	2009-10 Inspection Rating	2009-10 Drinking Water Quality (% Tests Meeting Standards)
Deseronto, Town of	Deseronto Water Treatment Plant	100.00%	100.00%
Dryden, City of	Dryden Water Treatment Plant	94.02%	100.00%
Dubreuilville, Township of	Dubreuilville Well Supply	100.00%	100.00%
Dutton/Dunwich, Municipality of	Dutton-Dunwich (West Elgin Area Water Supply) Distribution System	97.79%	100.00%
Ear Falls, Township of	Ear Falls Water Treatment Plant	100.00%	99.79%
East Garafraxa, Township of	Marsville Subdivision Well Supply	97.32%	100.00%
East Gwillimbury, Town of	Holland-Queensville-Sharon Distribution System	100.00%	100.00%
East Gwillimbury, Town of	Mount Albert Distribution System	100.00%	100.00%
East Gwillimbury, Town of	Mount Albert Drinking Water System	100.00%	100.00%
East Gwillimbury, Town of	Yonge/Green Lane Distribution System	100.00%	100.00%
East Gwillimbury, Town of	York Drinking Water System-Holland Landing	100.00%	100.00%
East Gwillimbury, Town of	York Drinking Water System-Queensville	100.00%	100.00%
East Luther Grand Valley, Township of	East Luther Grand Valley Well Supply	100.00%	100.00%
East Zorra-Tavistock, Township of	Hickson-King Subdivision Well Supply	99.48%	100.00%
East Zorra-Tavistock, Township of	Innerkip Well Supply	100.00%	100.00%
East Zorra-Tavistock, Township of	Tavistock Well Supply	97.25%	100.00%
Edwardsburgh/Cardinal, Township of	Bennett Street Well Supply	96.51%	100.00%
Edwardsburgh/Cardinal, Township of	Cardinal Water Treatment Plant	99.02%	100.00%
Edwardsburgh/Cardinal, Township of	Edwardsburgh Industrial Park Distribution System	100.00%	100.00%
Elizabethtown-Kitley, Township of	Elizabethtown-Kitley Distribution System	100.00%	100.00%
Elliot Lake, City of	Elliot Lake Water Treatment Plant	99.54%	99.90%
Emo, Township of	Emo Water Treatment Plant	100.00%	100.00%
Englehart, Town of	Englehart Well Supply	100.00%	100.00%
Enniskillen, Township of	Enniskillen Township Distribution System	80.24%	100.00%
Erin, Town of	Erin Well Supply	95.11%	100.00%
Erin, Town of	Hillsburgh Well Supply	90.43%	99.65%
Espanola, Town of	Espanola Water Treatment Plant	88.71%	99.64%
Essa, Township of	Angus Well Supply	100.00%	100.00%
Essa, Township of	Baxter Distribution System	100.00%	100.00%
Essa, Township of	Glen Ave (Thornton) Well Supply	100.00%	100.00%
Essex, Town of	Essex (Union Water Treatment Plant) Distribution System	100.00%	100.00%
Essex, Town of	Harrow-Colchester South Water Treatment Plant	100.00%	100.00%
Fauquier-Strickland, Township of	Fauquier Water Treatment Plant	97.31%	100.00%
Fort Erie, Town of	Fort Erie Distribution System	100.00%	99.82%
Fort Erie, Town of	Rosehill Drinking Water System	100.00%	99.89%
Fort Frances, Town of	Fort Frances Water Treatment Plant	100.00%	100.00%
Front of Yonge, Township of	Miller Manor Apartments Well Supply	89.86%	100.00%

APPENDIX 1: Municipal Residential Drinking Water Systems' 2009-10 Inspection Ratings and Drinking Water Quality Results (Percentage of Tests Meeting Standards)

Municipal Location (Municipality Where the Drinking Water System is Located)	Drinking Water System Name	2009-10 Inspection Rating	2009-10 Drinking Water Quality (% Tests Meeting Standards)
Galway-Cavendish and Harvey, Township of	Alpine/Pirates Glen Well Supply	100.00%	100.00%
Galway-Cavendish and Harvey, Township of	Buckhorn Lake Estates Well Supply	92.63%	100.00%
Gananoque, Town of	James W. King Water Treatment Plant	96.17%	100.00%
Georgian Bay, Township of	Mactier (Beech Avenue) Water Treatment Plant	100.00%	99.03%
Georgian Bay, Township of	Port Severn Water Treatment Plant	100.00%	100.00%
Georgian Bluffs, Township of	East Linton and Area Water Treatment Plant	98.48%	100.00%
Georgian Bluffs, Township of	Oxenden Distribution System	100.00%	100.00%
Georgian Bluffs, Township of	Pottawatomi Village Well Supply	97.01%	100.00%
Georgian Bluffs, Township of	Presquile Water Treatment Plant	97.63%	100.00%
Georgian Bluffs, Township of	Shallow Lake Well Supply	100.00%	98.49%
Georgina, Town of	Georgina Drinking Water System-Georgina	100.00%	100.00%
Georgina, Town of	Keswick Water Treatment Plant	100.00%	100.00%
Georgina, Town of	Keswick-Sutton Distribution System	100.00%	99.95%
Goderich, Town of	Goderich Water Treatment Plant	100.00%	100.00%
Gore Bay, Town of	Gore Bay Water Treatment Plant	97.44%	99.57%
Gravenhurst, Town of	Gravenhurst Water Treatment Plant	99.08%	100.00%
Greater Napanee, Town of	A.L. Dafoe Water Treatment Plant	100.00%	100.00%
Greater Napanee, Town of	Sandhurst Shores Water Treatment Plant	100.00%	100.00%
Greater Sudbury, City of	Bleazard Valley-Capreol Well Supply	100.00%	99.96%
Greater Sudbury, City of	Capreol Well Supply	100.00%	100.00%
Greater Sudbury, City of	Dowling Well Supply	100.00%	100.00%
Greater Sudbury, City of	Falconbridge (Sudbury) Distribution System	100.00%	99.71%
Greater Sudbury, City of	Falconbridge Well Supply	100.00%	100.00%
Greater Sudbury, City of	Garson Well Supply	96.17%	100.00%
Greater Sudbury, City of	Levack (Sudbury) Distribution System	100.00%	100.00%
Greater Sudbury, City of	Levack Well Supply	100.00%	100.00%
Greater Sudbury, City of	Onaping (Sudbury) Distribution System	100.00%	99.73%
Greater Sudbury, City of	Onaping-Levack Well Supply	94.33%	99.67%
Greater Sudbury, City of	Sudbury (David St) Water Treatment Plant	96.47%	99.85%
Greater Sudbury, City of	Sudbury (Wahnapitei) Water Treatment Plant	100.00%	100.00%
Greater Sudbury, City of	Vermillion (Inco) Water Treatment Plant	100.00%	100.00%
Greater Sudbury, City of	Vermillion Distribution System	100.00%	100.00%
Greenstone, Municipality of	Beardmore Water Treatment Plant	100.00%	100.00%
Greenstone, Municipality of	Caramat Water Treatment Plant	65.08%	98.41%
Greenstone, Municipality of	Geraldton Water Treatment Plant	93.76%	100.00%
Greenstone, Municipality of	Longlac Water Treatment Plant	96.17%	100.00%
Greenstone, Municipality of	Nakina Well Supply	98.17%	100.00%
Grey Highlands, Municipality of	Kimberley-Amik-Talisman Well Supply	100.00%	100.00%

APPENDIX 1: Municipal Residential Drinking Water Systems' 2009-10 Inspection Ratings and Drinking Water Quality Results (Percentage of Tests Meeting Standards)

Municipal Location (Municipality Where the Drinking Water System is Located)	Drinking Water System Name	2009-10 Inspection Rating	2009-10 Drinking Water Quality (% Tests Meeting Standards)
Grey Highlands, Municipality of	Markdale Well Supply	100.00%	100.00%
Grimsby, Town of	Grimsby Distribution System	96.33%	100.00%
Grimsby, Town of	Grimsby Drinking Water System	100.00%	100.00%
Guelph, City of	Guelph Drinking Water System	93.74%	100.00%
Guelph/Eramosa, Township of	Gazer Mooney Subdivision Distribution System	100.00%	100.00%
Guelph/Eramosa, Township of	Hamilton Drive Well Supply	98.22%	100.00%
Guelph/Eramosa, Township of	Rockwood Well Supply	99.57%	100.00%
Haldimand County	Caledonia/Cayuga (Hamilton Water Treatment Plant) Distribution System	94.35%	99.86%
Haldimand County	Dunnville Water Treatment Plant	96.98%	99.81%
Haldimand County	Nanticoke and Trunk Main Water Treatment Plant	100.00%	99.74%
Halton Hills, Town of	Acton Drinking Water System	100.00%	99.94%
Halton Hills, Town of	Georgetown Drinking Water System	100.00%	100.00%
Hamilton, City of	Carlisle Drinking Water System	100.00%	99.92%
Hamilton, City of	Freelton Drinking Water System	100.00%	99.86%
Hamilton, City of	Greenville Drinking Water System	100.00%	100.00%
Hamilton, City of	Hamilton Drinking Water System-Fifty Road DS ¹	100.00%	100.00%
Hamilton, City of	Hamilton Drinking Water System-Hamilton	91.50%	99.93%
Hamilton, City of	Lynden Drinking Water System	100.00%	99.36%
Hamilton, Township of	Camborne Well Supply	92.71%	100.00%
Hamilton, Township of	Creighton Heights Well Supply	92.52%	100.00%
Hamilton, Township of	Hamilton Township Water Agreement Distribution System	100.00%	99.79%
Havelock-Belmont-Methuen, Township of	Havelock Well Supply	97.55%	99.85%
Hawkesbury, Town of	Hawkesbury Water Treatment Plant	100.00%	100.00%
Hearst, Town of	Hearst Water Treatment Plant	98.53%	99.84%
Highlands East, Municipality of	Cardiff Well Supply	97.04%	100.00%
Highlands East, Municipality of	Dyno Estates Well Supply	100.00%	100.00%
Hilton Beach, Village of	Hilton Beach Well Supply	100.00%	100.00%
Hornepayne, Township of	Hornepayne Well Supply	99.08%	97.83%
Huntsville, Town of	Fairyview Water Treatment Plant	100.00%	99.78%
Huntsville, Town of	Port Sydney Well Supply	100.00%	100.00%
Huron East, Municipality of	Brucefield Well Supply	100.00%	100.00%
Huron East, Municipality of	Brussels Well Supply	96.30%	100.00%
Huron East, Municipality of	Seaforth Well Supply	95.75%	99.70%
Huron East, Municipality of	Vanastra Distribution System	100.00%	100.00%
Huron-Kinloss, Township of	Huronville Subdivision Distribution System	100.00%	100.00%
Huron-Kinloss, Township of	Lakeshore Well Supply	93.24%	99.74%

¹DS means distribution system.

APPENDIX 1: Municipal Residential Drinking Water Systems' 2009-10 Inspection Ratings and Drinking Water Quality Results (Percentage of Tests Meeting Standards)

Municipal Location (Municipality Where the Drinking Water System is Located)	Drinking Water System Name	2009-10 Inspection Rating	2009-10 Drinking Water Quality (% Tests Meeting Standards)
Huron-Kinloss, Township of	Lucknow Well Supply	89.63%	99.73%
Huron-Kinloss, Township of	Ripley Well Supply	95.53%	99.75%
Huron-Kinloss, Township of	Whitechurch Well Supply	93.88%	97.30%
Ignace, Township of	Ignace Water Treatment Plant	91.11%	99.74%
Ignace, Township of	Ignace Well Supply	84.46%	98.99%
Ingersoll, Town of	Ingersoll Well Supply	95.34%	99.48%
Innisfil, Town of	Alcona Water Treatment Plant	100.00%	99.91%
Innisfil, Town of	Churchill Well Supply	100.00%	99.29%
Innisfil, Town of	Cookstown Well Supply	100.00%	100.00%
Innisfil, Town of	Goldcrest Well Supply	100.00%	99.66%
Innisfil, Town of	Golf Haven Well Supply	100.00%	99.32%
Innisfil, Town of	Innisfil Heights Well Supply	100.00%	100.00%
Innisfil, Town of	Stroud Well Supply	100.00%	99.64%
Iroquois Falls, Town of	Iroquois Falls Well Supply	96.46%	100.00%
Iroquois Falls, Town of	Monteith Correctional Centre Well Supply	90.57%	100.00%
Iroquois Falls, Town of	Monteith Distribution System	97.01%	100.00%
Iroquois Falls, Town of	Porquis Junction Well Supply	96.61%	100.00%
James, Township of	Elk Lake Well Supply	100.00%	100.00%
Johnson, Township of	Desbarats Water Treatment Plant	100.00%	100.00%
Kapuskasing, Town of	Kapuskasing Well Supply	88.50%	99.36%
Kawartha Lakes, City of	Birchpoint Estates Well Supply	98.27%	99.40%
Kawartha Lakes, City of	Bobcaygeon Water Treatment Plant	100.00%	99.63%
Kawartha Lakes, City of	Canadiana Shores Well Supply	84.10%	100.00%
Kawartha Lakes, City of	Fenelon Falls Water Treatment Plant	97.40%	99.69%
Kawartha Lakes, City of	Janetville Well Supply	100.00%	100.00%
Kawartha Lakes, City of	King's Bay Well Supply	93.83%	100.00%
Kawartha Lakes, City of	Kinmount Water Treatment Plant	100.00%	100.00%
Kawartha Lakes, City of	Lindsay Water Treatment Plant	98.48%	99.87%
Kawartha Lakes, City of	Manilla Well Supply	96.93%	100.00%
Kawartha Lakes, City of	Manorview Well Supply	92.54%	100.00%
Kawartha Lakes, City of	Mariposa Estates Well Supply	100.00%	100.00%
Kawartha Lakes, City of	Norland Water Treatment Plant	96.15%	100.00%
Kawartha Lakes, City of	Omeme Well Supply	97.14%	100.00%
Kawartha Lakes, City of	Pinewood Well Supply	93.55%	100.00%
Kawartha Lakes, City of	Pleasant Point Well Supply	96.31%	100.00%
Kawartha Lakes, City of	Sonya Village Subdivision Well Supply	98.25%	100.00%
Kawartha Lakes, City of	Southview Estates Water Treatment Plant	91.48%	99.78%
Kawartha Lakes, City of	Victoria Place Well Supply	90.00%	100.00%
Kawartha Lakes, City of	Western Trent/Palmina Well Supply	100.00%	100.00%

APPENDIX 1: Municipal Residential Drinking Water Systems' 2009-10 Inspection Ratings and Drinking Water Quality Results (Percentage of Tests Meeting Standards)

Municipal Location (Municipality Where the Drinking Water System is Located)	Drinking Water System Name	2009-10 Inspection Rating	2009-10 Drinking Water Quality (% Tests Meeting Standards)
Kawartha Lakes, City of	Woodfield Well Supply	100.00%	100.00%
Kawartha Lakes, City of	Woodville Well Supply	98.43%	100.00%
Kenora, City of	Kenora Area Water Treatment Plant	98.34%	100.00%
Killaloe, Hagarty and Richards, Township of	Killaloe Well Supply	100.00%	99.51%
Killarney, Municipality of	Killarney Water Treatment Plant	100.00%	100.00%
Kincardine, Municipality of	Armow Well Supply	100.00%	97.10%
Kincardine, Municipality of	Kincardine Water Treatment Plant	98.52%	99.86%
Kincardine, Municipality of	Scott's Point Well Supply	100.00%	96.88%
Kincardine, Municipality of	Tiverton Well Supply	100.00%	98.13%
Kincardine, Municipality of	Underwood Well Supply	100.00%	96.77%
King, Township of	Ansnorveldt Distribution System	100.00%	100.00%
King, Township of	Ansnorveldt Drinking Water System	100.00%	100.00%
King, Township of	King City Distribution System	94.44%	100.00%
King, Township of	King City Drinking Water System	100.00%	100.00%
King, Township of	Nobleton Distribution System	100.00%	99.69%
King, Township of	Nobleton Drinking Water System	100.00%	100.00%
King, Township of	Schomberg Distribution System	100.00%	100.00%
King, Township of	Schomberg Drinking Water System	100.00%	100.00%
Kingston, City of	Cana Drinking Water System	95.49%	100.00%
Kingston, City of	Kingston Drinking Water System-King Street	100.00%	99.94%
Kingston, City of	Kingston Drinking Water System-Point Pleasant	100.00%	100.00%
Kingsville, Town of	Kingsville Distribution System	100.00%	100.00%
Kingsville, Town of	Union Area Water Supply System	100.00%	100.00%
Kirkland Lake, Town of	L.J. Sherratt Water Treatment Plant	100.00%	99.88%
Kitchener, City of	Kitchener Distribution System	100.00%	99.94%
Kitchener, City of	Kitchener Well Supply	100.00%	100.00%
Kitchener, City of	Mannheim Water Supply System	100.00%	100.00%
Lake of Bays, Township of	Baysville Birch Glen Water Treatment Plant	95.80%	100.00%
Lakeshore, Town of	Belle River Water Treatment Plant	93.88%	99.83%
Lakeshore, Town of	Lakeshore (Tecumseh Water Service Area) Distribution System	94.74%	100.00%
Lakeshore, Town of	Lakeshore (Union Water Treatment Plant) Distribution System	100.00%	100.00%
Lakeshore, Town of	Lighthouse Cove Distribution System	100.00%	100.00%
Lakeshore, Town of	Stoney Point Water Treatment Plant	96.37%	99.88%
Lambton Shores, Municipality of	East Lambton Shores Water Distribution System	97.73%	99.88%
Lambton Shores, Municipality of	West Lambton Shores Water Distribution System	97.18%	100.00%
Larder Lake, Township of	Larder Lake Well Supply	98.55%	100.00%
LaSalle, Town of	Town of LaSalle (Windsor) Distribution System	100.00%	99.90%

APPENDIX 1: Municipal Residential Drinking Water Systems' 2009-10 Inspection Ratings and Drinking Water Quality Results (Percentage of Tests Meeting Standards)

Municipal Location (Municipality Where the Drinking Water System is Located)	Drinking Water System Name	2009-10 Inspection Rating	2009-10 Drinking Water Quality (% Tests Meeting Standards)
Latchford, Town of	Latchford Water Treatment Plant	95.64%	100.00%
Laurentian Hills, Town of	Chalk River Water Treatment Plant	92.14%	100.00%
Laurentian Valley, Township of	Laurentian Valley Distribution System	83.87%	100.00%
Leamington, Municipality of	Leamington Distribution System-Union DS ¹	100.00%	100.00%
Leamington, Municipality of	Leamington Distribution System-Wheatley DS ¹	100.00%	100.00%
Leeds and the Thousand Islands, Township of	Lansdowne Well Supply	100.00%	99.80%
Lincoln, Town of	Beamsville Distribution System	91.67%	99.72%
Lincoln, Town of	Jordan-Vineland Distribution System	78.99%	99.79%
London, City of	City of London Distribution System	100.00%	100.00%
Loyalist, Township of	Bath Water Treatment Plant	100.00%	99.67%
Loyalist, Township of	Fairfield Water Treatment Plant	100.00%	99.92%
Lucan Biddulph, Township of	Lucan Biddulph (Lake Huron Area Water Supply) Distribution System	96.01%	100.00%
Macdonald, Meredith and Aberdeen Additional, Township of	Echo Bay Water Treatment Plant	100.00%	100.00%
Machin, Township of	Vermilion Bay Water Treatment Plant	93.92%	100.00%
Madawaska Valley, Township of	Barry's Bay Water Treatment Plant	100.00%	100.00%
Madoc, Township of	Madoc Well Supply	95.73%	100.00%
Malahide, Township of	Malahide (Elgin Area Water Supply) Distribution System	100.00%	100.00%
Malahide, Township of	Port Burwell Secondary Distribution System	93.42%	100.00%
Manitouwadge, Township of	Manitouwadge Well Supply	100.00%	99.84%
Mapleton, Township of	Drayton Well Supply	94.81%	100.00%
Mapleton, Township of	Moorefield Well Supply	95.32%	100.00%
Marathon, Town of	Marathon Well Supply	100.00%	100.00%
Markham, Town of	Markham Distribution System	100.00%	99.83%
Markstay-Warren, Municipality of	Markstay Distribution System	94.72%	100.00%
Markstay-Warren, Municipality of	Warren Well Supply	100.00%	100.00%
Marmora and Lake, Municipality of	Deloro Well Supply	100.00%	100.00%
Marmora and Lake, Municipality of	Marmora Water Treatment Plant	100.00%	100.00%
Matachewan, Township of	Matachewan Well Supply	100.00%	100.00%
Mattawa, Town of	Mattawa Well Supply	98.48%	100.00%
Mattice-Val Côté, Township of	Mattice Water Treatment Plant	97.14%	100.00%
McDougall, Township of	McDougall Nobel Distribution System	98.31%	99.11%
McGarry, Township of	Virginiatown-Kearns Well Supply	97.48%	100.00%
Meaford, Municipality of	Leith Distribution System	100.00%	100.00%
Meaford, Municipality of	Meaford Public Utilities Commission Water Treatment Plant	100.00%	100.00%

¹DS means distribution system.

APPENDIX 1: Municipal Residential Drinking Water Systems' 2009-10 Inspection Ratings and Drinking Water Quality Results (Percentage of Tests Meeting Standards)

Municipal Location (Municipality Where the Drinking Water System is Located)	Drinking Water System Name	2009-10 Inspection Rating	2009-10 Drinking Water Quality (% Tests Meeting Standards)
Merrickville-Wolford, Village of	Merrickville Well Supply	90.96%	99.71%
Middlesex Centre, Municipality of	Birr Well Supply	100.00%	100.00%
Middlesex Centre, Municipality of	Delaware Distribution System	97.93%	100.00%
Middlesex Centre, Municipality of	Kilworth Heights Subdivision Well Supply	89.51%	99.82%
Middlesex Centre, Municipality of	Melrose Well Supply	100.00%	100.00%
Middlesex Centre, Municipality of	Middlesex Centre Distribution System	100.00%	100.00%
Midland, Town of	Midland Well Supply	100.00%	100.00%
Milton, Town of	Campbellville Drinking Water System	100.00%	99.60%
Milton, Town of	South Halton Drinking Water System-Milton	99.54%	100.00%
Minden Hills, Township of	Lutterworth Pines Trailer Park Well Supply	81.49%	98.97%
Minden Hills, Township of	Minden Well Supply	100.00%	100.00%
Minto, Town of	Clifford Well Supply	95.76%	100.00%
Minto, Town of	Harriston Well Supply	95.77%	100.00%
Minto, Town of	Minto Pines Subdivision Well Supply	91.25%	100.00%
Minto, Town of	Palmerston Well Supply	93.00%	100.00%
Mississauga, City of	South Peel Drinking Water System-Lakeview	92.99%	99.93%
Mississauga, City of	South Peel Drinking Water System-Lorne Park	94.23%	99.76%
Mississippi Mills, Town of	Mississippi Mills Well Supply	97.07%	99.91%
Mono, Town of	Cardinal Woods Subdivision Well Supply	97.55%	100.00%
Mono, Town of	Island Lake Well Supply	97.42%	100.00%
Montague, Township of	Montague Distribution System	93.05%	99.53%
Moonbeam, Township of	Moonbeam Well Supply	93.42%	100.00%
Moosonee, Town of	Moosonee Water Treatment Plant	100.00%	99.60%
Morris-Turnberry, Municipality of	Belgrave Well Supply	92.47%	100.00%
Mulmur, Township of	Mansfield Well Supply	100.00%	100.00%
Muskoka Lakes, Township of	Bala Water Treatment Plant	100.00%	100.00%
Muskoka Lakes, Township of	Port Carling (Ferndale Road) Water Treatment Plant	100.00%	100.00%
Nairn and Hyman, Township of	Nairn Centre Water Treatment Plant	100.00%	100.00%
New Tecumseth, Town of	Alliston Well Supply	93.96%	100.00%
New Tecumseth, Town of	Tottenham Well Supply	92.88%	99.28%
Newbury, Village of	Newbury (West Elgin Area Water Supply) Distribution System	100.00%	100.00%
Newmarket, Town of	Newmarket Distribution System	85.68%	99.80%
Newmarket, Town of	York Drinking Water System-Newmarket	95.66%	99.93%
Niagara Falls, City of	City of Niagara Falls Distribution System	100.00%	99.85%
Niagara Falls, City of	Decew Falls-Niagara Falls Drinking Water System-Niagara Falls	100.00%	99.73%
Niagara-on-the-Lake, Town of	Bevan Heights Distribution System	100.00%	100.00%
Niagara-on-the-Lake, Town of	Niagara-on-the-Lake Distribution System	96.98%	99.70%
Nipigon, Township of	Nipigon Water Treatment Plant	83.31%	100.00%

APPENDIX 1: Municipal Residential Drinking Water Systems' 2009-10 Inspection Ratings and Drinking Water Quality Results (Percentage of Tests Meeting Standards)

Municipal Location (Municipality Where the Drinking Water System is Located)	Drinking Water System Name	2009-10 Inspection Rating	2009-10 Drinking Water Quality (% Tests Meeting Standards)
Norfolk County	Delhi Drinking Water System	100.00%	99.90%
Norfolk County	Port Dover Drinking Water System	100.00%	100.00%
Norfolk County	Port Rowan Drinking Water System	100.00%	100.00%
Norfolk County	Simcoe Drinking Water System	100.00%	99.92%
Norfolk County	Waterford Drinking Water System	98.46%	100.00%
North Bay, City of	North Bay Water Treatment Plant	100.00%	99.79%
North Dumfries, Township of	Ayr Well Supply	96.17%	99.71%
North Dumfries, Township of	Branchton Well Supply	97.48%	98.14%
North Dumfries, Township of	Lloyd Brown Distribution System	100.00%	100.00%
North Dumfries, Township of	Roseville Well Supply	100.00%	100.00%
North Dundas, Township of	Chesterville Well Supply	100.00%	99.55%
North Dundas, Township of	Winchester Well Supply	100.00%	100.00%
North Glengarry, Township of	Alexandria Water Treatment Plant	91.67%	99.81%
North Glengarry, Township of	Glen Robertson Well Supply	86.17%	99.69%
North Grenville, Municipality of	Kemptville Well Supply	65.00%	99.42%
North Huron, Township of	Blyth Well Supply	100.00%	100.00%
North Huron, Township of	Humphrey Subdivision (Belgrave) Distribution System	91.94%	100.00%
North Huron, Township of	Wingham Well Supply	100.00%	99.84%
North Middlesex, Municipality of	North Middlesex Distribution System	89.92%	100.00%
North Perth, Municipality of	Atwood Well Supply	100.00%	100.00%
North Perth, Municipality of	Gowanstown Subdivision Well Supply	100.00%	100.00%
North Perth, Municipality of	Listowel Well Supply	100.00%	100.00%
North Perth, Municipality of	Molesworth Well Supply	95.97%	100.00%
North Stormont, Township of	Crysler Well Supply	100.00%	100.00%
North Stormont, Township of	Finch Well Supply	100.00%	99.70%
North Stormont, Township of	Moose Creek Well Supply	100.00%	99.70%
Northeastern Manitoulin and The Islands, Town of	Little Current Water Treatment Plant	100.00%	100.00%
Northeastern Manitoulin and The Islands, Town of	Sheguiandah Water Treatment Plant	100.00%	100.00%
Northern Bruce Peninsula, Municipality of	Lion's Head Water Treatment Plant	95.82%	99.75%
Norwich, Township of	Norwich Well Supply	95.87%	100.00%
Norwich, Township of	Otterville-Springford Well Supply	100.00%	99.82%
Oakville, Town of	South Halton Drinking Water System-Oakville	99.01%	100.00%
Oakville, Town of	South Halton Drinking Water System-South Halton DS ¹	98.10%	99.93%
Oil Springs, Village of	Oil Springs Water Distribution System	86.01%	100.00%

¹DS means distribution system.

APPENDIX 1: Municipal Residential Drinking Water Systems' 2009-10 Inspection Ratings and Drinking Water Quality Results (Percentage of Tests Meeting Standards)

Municipal Location (Municipality Where the Drinking Water System is Located)	Drinking Water System Name	2009-10 Inspection Rating	2009-10 Drinking Water Quality (% Tests Meeting Standards)
Oliver Paipoonge, Municipality of	Rosslyn Village Subdivision Well Supply	100.00%	100.00%
Opasatika, Township of	Opasatika Well Supply	97.42%	99.09%
Orangeville, Town of	Orangeville Well Supply	97.74%	100.00%
Orillia, City of	Orillia Water Supply System	96.95%	99.85%
Oro-Medonte, Township of	Canterbury Subdivision Well Supply	100.00%	100.00%
Oro-Medonte, Township of	Cedar Brook Subdivision Well Supply	100.00%	100.00%
Oro-Medonte, Township of	Craighurst Well Supply	100.00%	100.00%
Oro-Medonte, Township of	Harbourwood Well Supply	100.00%	100.00%
Oro-Medonte, Township of	Horseshoe Highlands Well Supply	100.00%	100.00%
Oro-Medonte, Township of	Maplewood Estates Well Supply	100.00%	100.00%
Oro-Medonte, Township of	Medonte Hills Well Supply	100.00%	100.00%
Oro-Medonte, Township of	Robin Crest Well Supply	100.00%	100.00%
Oro-Medonte, Township of	Shanty Bay Well Supply	100.00%	100.00%
Oro-Medonte, Township of	Sugar Bush Well Supply	100.00%	99.83%
Oro-Medonte, Township of	Warminster Well Supply	100.00%	99.28%
Oshawa, City of	Oshawa-Whitby-Ajax Drinking Water System- Oshawa	100.00%	99.88%
Otonabee-South Monaghan, Township of	Elgeti and Crystal Springs Subdivisions Well Supply	100.00%	100.00%
Otonabee-South Monaghan, Township of	Keene Heights Subdivision Well Supply	100.00%	100.00%
Ottawa, City of	Carp Drinking Water System	100.00%	99.87%
Ottawa, City of	Central Drinking Water System-Britannia	100.00%	99.97%
Ottawa, City of	Central Drinking Water System-Lemieux Island	100.00%	100.00%
Ottawa, City of	Kings Park Drinking Water System	100.00%	100.00%
Ottawa, City of	Munster Hamlet Drinking Water System	100.00%	100.00%
Ottawa, City of	Shadow Ridge Drinking Water System	100.00%	100.00%
Ottawa, City of	Vars Drinking Water System	100.00%	100.00%
Owen Sound, City of	Owen Sound (Richard H. Neath) Water Treatment Plant	96.55%	100.00%
Parry Sound, Town of	Tony Agnello Water Treatment Plant	99.06%	100.00%
Pelham, Town of	Pelham Distribution System	100.00%	100.00%
Pembroke, City of	Pembroke Water Treatment Plant	93.46%	99.58%
Penetanguishene, Town of	Lepage Subdivision (Penetanguishene) Well Supply	100.00%	100.00%
Penetanguishene, Town of	Payette (Penetanguishene) Well Supply	100.00%	100.00%
Perth East, Township of	Milverton Well Supply	100.00%	100.00%
Perth East, Township of	Shakespeare (Miller Ave.) Well Supply	100.00%	100.00%
Perth South, Township of	Sebringville (Black Creek Estates) Well Supply	100.00%	100.00%
Perth South, Township of	St. Pauls Well Supply	100.00%	100.00%
Perth, Town of	Perth Water Treatment Plant	93.23%	100.00%

APPENDIX 1: Municipal Residential Drinking Water Systems' 2009-10 Inspection Ratings and Drinking Water Quality Results (Percentage of Tests Meeting Standards)

Municipal Location (Municipality Where the Drinking Water System is Located)	Drinking Water System Name	2009-10 Inspection Rating	2009-10 Drinking Water Quality (% Tests Meeting Standards)
Petawawa, Town of	Petawawa Water Treatment Plant	92.70%	99.88%
Peterborough, City of	Peterborough Water Treatment Plant	100.00%	100.00%
Petrolia, Town of	Town of Petrolia Bright's Grove Water Treatment Plant	91.04%	100.00%
Pickle Lake, Township of	Pickle Lake Well Supply	73.38%	99.72%
Plympton-Wyoming, Town of	Plympton-Wyoming Distribution System	100.00%	100.00%
Point Edward, Village of	Point Edward (Lambton Area Water Supply) Distribution System	100.00%	100.00%
Port Colborne, City of	Port Colborne Distribution System	100.00%	100.00%
Port Colborne, City of	Port Colborne Water Treatment Plant	100.00%	99.84%
Port Hope, Municipality of	Port Hope (New) Water Treatment Plant	100.00%	100.00%
Powassan, Municipality of	Powassan Well Supply	97.83%	99.49%
Prescott, Town of	Prescott Drinking Water System	100.00%	99.67%
Prince Edward County, City of	Ameliasburgh Hamlet Water Treatment Plant	100.00%	100.00%
Prince Edward County, City of	Consecon/Carrying Place Distribution System	100.00%	99.22%
Prince Edward County, City of	Fenwood Gardens/Rossmore Distribution System	100.00%	100.00%
Prince Edward County, City of	Peats Point Subdivision Well Supply	100.00%	100.00%
Prince Edward County, City of	Picton Water Treatment Plant	99.14%	99.64%
Prince Edward County, City of	Wellington Water Treatment Plant	100.00%	100.00%
Quinte West, City of	Batawa Water Treatment Plant	58.78%	100.00%
Quinte West, City of	Bayside Water Treatment Plant	93.44%	100.00%
Quinte West, City of	Frankford Water Treatment Plant	93.62%	100.00%
Quinte West, City of	Trenton Water Treatment Plant	93.72%	99.81%
Rainy River, Town of	Rainy River Water Treatment Plant	92.42%	99.26%
Ramara, Township of	Bayshore Village Subdivision Well Supply	100.00%	100.00%
Ramara, Township of	Brechin & Lagoon City Water Treatment Plant	100.00%	100.00%
Ramara, Township of	Davy Drive Subdivision Well Supply	100.00%	100.00%
Ramara, Township of	Park Lane Subdivision Well Supply	100.00%	100.00%
Ramara, Township of	Somerset/ Knob Hill Water Distribution System	100.00%	98.61%
Ramara, Township of	South Ramara Water Treatment Plant	100.00%	100.00%
Ramara, Township of	Val Harbour Subdivision Well Supply	100.00%	100.00%
Red Lake, Municipality of	Golden Ward Water Treatment Plant	100.00%	99.86%
Red Lake, Municipality of	Madsen Water Treatment Plant	100.00%	100.00%
Red Lake, Municipality of	Red Lake Water Treatment Plant	97.86%	100.00%
Red Rock, Township of	Red Rock Water Treatment Plant	100.00%	100.00%
Renfrew, Town of	Renfrew Water Treatment Plant	96.97%	99.69%
Richmond Hill, Town of	Richmond Hill Distribution System	100.00%	99.81%
Russell, Township of	Marionville Well Supply	100.00%	100.00%
Sables-Spanish Rivers, Township of	Massey Water Treatment Plant	100.00%	99.84%
Sarnia, City of	Lambton Area Water Supply System	100.00%	100.00%

APPENDIX 1: Municipal Residential Drinking Water Systems' 2009-10 Inspection Ratings and Drinking Water Quality Results (Percentage of Tests Meeting Standards)

Municipal Location (Municipality Where the Drinking Water System is Located)	Drinking Water System Name	2009-10 Inspection Rating	2009-10 Drinking Water Quality (% Tests Meeting Standards)
Sarnia, City of	Sarnia Distribution System	100.00%	100.00%
Saugeen Shores, Town of	Southampton Water Treatment Plant	95.66%	99.76%
Sault Ste. Marie, City of	Sault Ste Marie Water Supply System	100.00%	99.97%
Schreiber, Township of	Schreiber Water Treatment Plant	97.69%	100.00%
Scugog, Township of	Blackstock Drinking Water System	100.00%	100.00%
Scugog, Township of	Greenbank Drinking Water System	100.00%	99.81%
Scugog, Township of	Port Perry Drinking Water System	100.00%	99.91%
Severn, Township of	Bass Lake Woodlands Well Supply	97.42%	99.76%
Severn, Township of	Coldwater Well Supply	100.00%	100.00%
Severn, Township of	Sandcastle Estates Water Treatment Plant	100.00%	100.00%
Severn, Township of	Severn Estates Well Supply	100.00%	100.00%
Severn, Township of	Washago Water Treatment Plant	100.00%	99.75%
Severn, Township of	West Shore Water Treatment Plant	100.00%	100.00%
Shelburne, Town of	Shelburne Well Supply	96.37%	100.00%
Sioux Lookout, Municipality of	Hudson Water Treatment Plant	93.59%	100.00%
Sioux Lookout, Municipality of	Sioux Lookout Urban Water Treatment Plant	90.99%	99.84%
Smith-Ennismore-Lakefield, Township of	Lakefield Water Treatment Plant	97.48%	99.86%
Smith-Ennismore-Lakefield, Township of	Woodland Acres Subdivision Distribution System	100.00%	100.00%
Smiths Falls, Town of	Smiths Falls Water Treatment Plant	96.18%	100.00%
Smooth Rock Falls, Town of	Smooth Rock Falls Water Treatment Plant	94.58%	100.00%
South Bruce Peninsula, Town of	Amabel-Sauble Drinking Water System	97.14%	100.00%
South Bruce Peninsula, Town of	Forbes Subdivision Well Supply	97.10%	Not available ²
South Bruce Peninsula, Town of	Foreman Drinking Water System	97.70%	100.00%
South Bruce Peninsula, Town of	Gremik Subdivision Well Supply	98.16%	Not available ²
South Bruce Peninsula, Town of	Huron Woods Drinking Water System	95.95%	100.00%
South Bruce Peninsula, Town of	Oliphant Drinking Water System	98.04%	99.18%
South Bruce Peninsula, Town of	Robins Well Supply	96.77%	Not available ²
South Bruce Peninsula, Town of	Thomson Subdivision Well Supply	96.77%	Not available ²
South Bruce Peninsula, Town of	Trask Well Supply	100.00%	Not available ²
South Bruce Peninsula, Town of	Warton Drinking Water System	100.00%	100.00%
South Bruce, Municipality of	Mildmay Drinking Water System	99.49%	100.00%
South Bruce, Municipality of	Teeswater Drinking Water System	97.67%	100.00%
South Dundas, Township of	South Dundas Regional Water Treatment Plant	95.10%	99.81%
South Frontenac, Township of	Sydenham Water Treatment Plant	100.00%	99.06%
South Glengarry, Township of	Glen Walter Water Treatment Plant	100.00%	99.80%

² Drinking water quality data not available for individual systems as they have been amalgamated into the Amabel-Sauble Drinking Water System. Drinking water quality data is represented by the Amabel-Sauble Drinking Water System in the Town of South Bruce Peninsula.

APPENDIX 1: Municipal Residential Drinking Water Systems' 2009-10 Inspection Ratings and Drinking Water Quality Results (Percentage of Tests Meeting Standards)

Municipal Location (Municipality Where the Drinking Water System is Located)	Drinking Water System Name	2009-10 Inspection Rating	2009-10 Drinking Water Quality (% Tests Meeting Standards)
South Glengarry, Township of	Lancaster Water Treatment Plant	100.00%	99.80%
South Glengarry, Township of	Redwood Estates Well Supply	100.00%	100.00%
South Huron, Municipality of	Huron Park Distribution System	100.00%	100.00%
South Huron, Municipality of	Lake Huron Primary Area Water Supply System	82.90%	99.91%
South Huron, Municipality of	South Huron (Lake Huron Area Water Supply) Distribution System	100.00%	99.22%
South Huron, Municipality of	South Huron Water Distribution System	100.00%	100.00%
South River, Village of	South River Water Treatment Plant	97.02%	100.00%
South Stormont, Township of	Long Sault/Ingleside Regional Water Treatment Plant	97.46%	99.81%
South Stormont, Township of	Newington Well Supply	99.53%	99.74%
South Stormont, Township of	St. Andrews/Rosedale Terrace Distribution System	100.00%	100.00%
Southgate, Township of	Dundalk Well Supply	100.00%	100.00%
Southwest Middlesex, Municipality of	Southwest Middlesex Distribution System	100.00%	100.00%
South-West Oxford, Township of	Beachville-Loweville Subdivision Well Supply	100.00%	100.00%
South-West Oxford, Township of	Brownsville Well Supply	100.00%	99.50%
South-West Oxford, Township of	Dereham Centre Well Supply	100.00%	100.00%
South-West Oxford, Township of	Mount Elgin Well Supply	92.96%	99.78%
Southwold, Township of	Southwold (Elgin Area Water Supply) Distribution System	93.59%	100.00%
Spanish, Town of	Spanish Well Supply	98.63%	99.80%
Springwater, Township of	Anten Mills Well Supply	100.00%	99.70%
Springwater, Township of	Del Trend Subdivision Well Supply	100.00%	100.00%
Springwater, Township of	Elmvale Well Supply	100.00%	100.00%
Springwater, Township of	Hillsdale Well Supply	100.00%	99.78%
Springwater, Township of	Midhurst Well Supply	100.00%	99.84%
Springwater, Township of	Minesing Well Supply	100.00%	99.72%
Springwater, Township of	Phelpston Well Supply	100.00%	99.18%
Springwater, Township of	Snow Valley Highlands Well Supply	100.00%	99.80%
Springwater, Township of	Vespra Downs Subdivision Well Supply	100.00%	100.00%
St. Catharines, City of	Decew Falls-Niagara Falls Drinking Water System- Decew Falls	100.00%	100.00%
St. Catharines, City of	St. Catharines Distribution System	100.00%	99.94%
St. Clair, Township of	St. Clair Township (Lambton Area Water Supply) Distribution System	93.97%	100.00%
St. Joseph, Township of	Richards Landing Well Supply	100.00%	100.00%
St. Marys, Town of	St. Marys Drinking Water System	94.33%	99.79%
St. Thomas, City of	St. Thomas (Elgin Area Water Supply) Distribution System	95.37%	99.55%
St. Thomas, City of	St. Thomas Secondary Area Water Supply	100.00%	100.00%
Stirling-Rawdon, Township of	Stirling Well Supply	97.40%	99.80%

APPENDIX 1: Municipal Residential Drinking Water Systems' 2009-10 Inspection Ratings and Drinking Water Quality Results (Percentage of Tests Meeting Standards)

Municipal Location (Municipality Where the Drinking Water System is Located)	Drinking Water System Name	2009-10 Inspection Rating	2009-10 Drinking Water Quality (% Tests Meeting Standards)
Stratford, City of	Stratford Well Supply	97.12%	98.93%
Strathroy-Caradoc, Township of	Mount Brydges Well Supply	100.00%	99.31%
Strathroy-Caradoc, Township of	Strathroy Distribution System	94.01%	100.00%
Tay, Township of	Rope Subdivision Water Treatment Plant	97.86%	99.74%
Tay, Township of	Victoria Harbour Water Treatment Plant	100.00%	100.00%
Tecumseh, Town of	Tecumseh Distribution System	97.47%	100.00%
Tehkummah, Township of	South Baymouth Water Treatment Plant	100.00%	100.00%
Temagami, Municipality of	Temagami North Water Treatment Plant	90.65%	100.00%
Temagami, Municipality of	Temagami South Water Treatment Plant	100.00%	100.00%
Temiskaming Shores, City of	Dymond Well Supply	100.00%	100.00%
Temiskaming Shores, City of	Haileybury (Lake Timiskaming) Water Treatment Plant	100.00%	99.77%
Temiskaming Shores, City of	New Liskeard Well Supply	98.35%	100.00%
Terrace Bay, Township of	Terrace Bay Water Treatment Plant	86.00%	99.78%
Thames Centre, Municipality of	Dorchester Well Supply	97.22%	100.00%
Thames Centre, Municipality of	Thorndale Well Supply	97.54%	99.71%
The Blue Mountains, Town of	Thornbury Water Treatment Plant	100.00%	99.86%
The Nation, Municipality of	Limoges Well Supply	100.00%	99.54%
The Nation, Municipality of	St. Isidore Distribution System	96.81%	100.00%
The North Shore, Township of	Pronto East Subdivision Water Treatment Plant	99.31%	100.00%
The North Shore, Township of	Serpent River (The North Shore Township) Water Treatment Plant	88.02%	96.95%
Thessalon, Town of	Thessalon Water Treatment Plant	100.00%	100.00%
Thorold, City of	Thorold (Port Robinson Area) Distribution System	100.00%	99.70%
Thorold, City of	Thorold Distribution System	98.91%	99.60%
Thunder Bay, City of	Bare Point Road Drinking Water System	100.00%	99.85%
Tillsonburg, Town of	Tillsonburg Well Supply	100.00%	100.00%
Timmins, City of	Timmins (Mattagami) Water Treatment Plant	93.74%	100.00%
Tiny, Township of	Bluewater Well Supply	100.00%	99.82%
Tiny, Township of	Cook's Lake Well Supply	98.41%	100.00%
Tiny, Township of	Georgian Bay Estates Well Supply	100.00%	100.00%
Tiny, Township of	Georgian Highlands Well Supply	100.00%	100.00%
Tiny, Township of	Georgian Sands Well Supply	100.00%	100.00%
Tiny, Township of	Lafontaine Well Supply	100.00%	100.00%
Tiny, Township of	Lefaive Well Supply	100.00%	99.46%
Tiny, Township of	Pennorth Well Supply	98.57%	100.00%
Tiny, Township of	Perkinsfield Well Supply	100.00%	99.82%
Tiny, Township of	Rayko Water System Well Supply	100.00%	100.00%
Tiny, Township of	Sand Castle Well Supply	98.40%	100.00%
Tiny, Township of	Sawlog Bay Well Supply	100.00%	100.00%

APPENDIX 1: Municipal Residential Drinking Water Systems' 2009-10 Inspection Ratings and Drinking Water Quality Results (Percentage of Tests Meeting Standards)

Municipal Location (Municipality Where the Drinking Water System is Located)	Drinking Water System Name	2009-10 Inspection Rating	2009-10 Drinking Water Quality (% Tests Meeting Standards)
Tiny, Township of	Tee Pee Point Well Supply	100.00%	100.00%
Tiny, Township of	Thunder Bay Well Supply	100.00%	100.00%
Tiny, Township of	Vanier Woods Well Supply	100.00%	100.00%
Tiny, Township of	Whip-Poor-Will II Well Supply	100.00%	99.45%
Tiny, Township of	Woodland Beach Well Supply	100.00%	100.00%
Tiny, Township of	Wyevale Well Supply	100.00%	100.00%
Toronto, City of	City of Toronto Drinking Water System-F.J. Horgan	100.00%	99.97%
Toronto, City of	City of Toronto Drinking Water System-R.C. Harris	100.00%	99.98%
Toronto, City of	City of Toronto Drinking Water System-R.L. Clark	100.00%	100.00%
Toronto, City of	City of Toronto Drinking Water System-Toronto DS ¹	100.00%	99.63%
Toronto, City of	City of Toronto Drinking Water System-Toronto Island	100.00%	99.96%
Trent Hills, Municipality of	Campbellford Water Treatment Plant	100.00%	100.00%
Trent Hills, Municipality of	Hastings Water Treatment Plant	100.00%	100.00%
Trent Hills, Municipality of	Warkworth Water Treatment Plant	100.00%	100.00%
Tweed, Municipality of	Tweed Well Supply	99.51%	100.00%
Uxbridge, Township of	Uxbridge Drinking Water System	100.00%	99.91%
Val Rita-Harty, Township of	Val Rita Well Supply	97.25%	99.70%
Vaughan, City of	Kleinburg Distribution System	100.00%	99.83%
Vaughan, City of	Kleinburg Drinking Water System	100.00%	100.00%
Vaughan, City of	Vaughan Distribution System	100.00%	99.83%
Vaughan, City of	York Drinking Water System-York DS ¹	100.00%	99.95%
Warwick, Township of	Township of Warwick Distribution System	100.00%	100.00%
Wasaga Beach, Town of	Wasaga Beach Well Supply	100.00%	99.91%
Waterloo, City of	Waterloo Distribution System	100.00%	99.82%
Waterloo, City of	Waterloo Well Supply	98.35%	100.00%
Wawa, Municipality of	Wawa Water Treatment Plant	100.00%	99.86%
Welland, City of	Welland Distribution System	98.46%	99.91%
Welland, City of	Welland Drinking Water System	100.00%	100.00%
Wellesley, Township of	Linwood Well Supply	100.00%	100.00%
Wellesley, Township of	St. Clements Well Supply	100.00%	100.00%
Wellesley, Township of	Wellesley Well Supply	100.00%	100.00%
Wellington North, Township of	Arthur Well Supply	100.00%	99.84%
Wellington North, Township of	Mount Forest Well Supply	100.00%	100.00%
West Elgin, Municipality of	West Elgin Water Treatment Plant	84.45%	100.00%
West Grey, Municipality of	Durham Drinking Water System	97.32%	100.00%
West Grey, Municipality of	Neustadt Drinking Water System	95.81%	100.00%

¹DS means distribution system.

APPENDIX 1: Municipal Residential Drinking Water Systems' 2009-10 Inspection Ratings and Drinking Water Quality Results (Percentage of Tests Meeting Standards)

Municipal Location (Municipality Where the Drinking Water System is Located)	Drinking Water System Name	2009-10 Inspection Rating	2009-10 Drinking Water Quality (% Tests Meeting Standards)
West Lincoln, Township of	Smithville (Grimsby Water Treatment Plant) Distribution System	100.00%	99.54%
West Nipissing, Municipality of	Sturgeon Falls Water Treatment Plant	92.59%	99.86%
West Nipissing, Municipality of	Verner Water Treatment Plant	97.50%	100.00%
West Perth, Municipality of	Mitchell Well Supply	96.28%	100.00%
Westport, Village of	Westport Well Supply	92.19%	99.70%
Whitby, Town of	Oshawa-Whitby-Ajax Drinking Water System-Whitby	100.00%	100.00%
Whitchurch-Stouffville, Town of	Ballantrae-Musselman Lake Distribution System	100.00%	99.85%
Whitchurch-Stouffville, Town of	Ballantrae-Musselman's Drinking Water System	100.00%	100.00%
Whitchurch-Stouffville, Town of	Stouffville Distribution System	100.00%	99.80%
Whitchurch-Stouffville, Town of	York Drinking Water System-Stouffville	100.00%	100.00%
White River, Township of	White River Water Supply System	100.00%	100.00%
Whitewater Region, Township of	Beachburg Well Supply	97.57%	99.70%
Whitewater Region, Township of	Cobden Water Treatment Plant	98.42%	99.77%
Whitewater Region, Township of	Haley Well Supply	97.15%	100.00%
Wilmot, Township of	Foxboro Well Supply	100.00%	100.00%
Wilmot, Township of	Mannheim Village Well Supply	100.00%	100.00%
Wilmot, Township of	New Dundee Distribution System	100.00%	100.00%
Wilmot, Township of	New Dundee Well Supply	100.00%	100.00%
Wilmot, Township of	Amalgamated New Hamburg-Baden Distribution System	100.00%	100.00%
Wilmot, Township of	New Hamburg-Baden Well Supply	100.00%	100.00%
Wilmot, Township of	Shingletown Well Supply	100.00%	100.00%
Wilmot, Township of	St. Agatha Distribution System	100.00%	98.33%
Wilmot, Township of	St. Agatha Well Supply	100.00%	100.00%
Wilmot, Township of	St. Agatha-Sararas Distribution System	100.00%	100.00%
Wilmot, Township of	St. Agatha/Sararas Well Supply	100.00%	100.00%
Wilmot, Township of	St. Agatha-Swartzentruber Distribution System	100.00%	100.00%
Wilmot, Township of	St. Agatha/Swartzentruber Well Supply	100.00%	100.00%
Windsor, City of	City of Windsor Drinking Water System	97.69%	99.99%
Woodstock, City of	Woodstock Well Supply	96.97%	99.89%
Woolwich, Township of	Breslau (Elroy Acres) Distribution System	91.05%	100.00%
Woolwich, Township of	Conestogo Golf Distribution System	97.47%	100.00%
Woolwich, Township of	Conestogo Golf Well Supply	100.00%	100.00%
Woolwich, Township of	Conestoga Plains Distribution System	97.90%	100.00%
Woolwich, Township of	Conestoga Plains Well Supply	100.00%	100.00%
Woolwich, Township of	Heidelberg (Woolwich Township) Distribution System	100.00%	100.00%
Woolwich, Township of	Heidelberg Well Supply	100.00%	100.00%
Woolwich, Township of	Maryhill Distribution System	100.00%	99.55%

APPENDIX 1: Municipal Residential Drinking Water Systems' 2009-10 Inspection Ratings and Drinking Water Quality Results (Percentage of Tests Meeting Standards)

Municipal Location (Municipality Where the Drinking Water System is Located)	Drinking Water System Name	2009-10 Inspection Rating	2009-10 Drinking Water Quality (% Tests Meeting Standards)
Woolwich, Township of	Maryhill Well Supply	100.00%	100.00%
Woolwich, Township of	Maryhill Village Heights Distribution System	100.00%	100.00%
Woolwich, Township of	Maryhill Village Heights Well Supply	100.00%	100.00%
Woolwich, Township of	St. Jacobs/Elmira Distribution System	100.00%	99.21%
Woolwich, Township of	West Montrose Distribution System	100.00%	98.39%
Woolwich, Township of	West Montrose Well Supply	96.56%	100.00%
Zorra, Township of	Embro Well Supply	100.00%	100.00%
Zorra, Township of	Lakeside Well Supply	100.00%	99.23%
Zorra, Township of	Thamesford Well Supply	96.40%	100.00%

APPENDIX 2-A: Summary of Municipal Residential Drinking Water Systems Receiving Contravention Orders in 2009-10 as a Result of an Inspection

Drinking Water System Owner	Drinking Water System Name	Date Order Issued	Order Synopsis
Atikokan, The Corporation of the Township of	Atikokan Water Treatment Plant	July 22, 2010	• Ensure that training is provided to all operator and supervisory staff in the areas of: record keeping; sample collection; lab submission; and procedures for disinfection and maintenance/repairs. • Revise the 2009 summary report. • Provide a copy of log sheets/records related to secondary disinfection. • Ensure that changes to the system are provided to the ministry.
Blind River, The Corporation of the Town of	Blind River Well Supply	July 13, 2009	• Provide a report on the condition of all monitoring wells located in the vicinity of the production well field.
Greenstone, The Corporation of the Municipality of	Caramat Water Treatment Plant	June 28, 2010	• Provide a report on what actions will be taken to meet the Ontario Drinking Water Standards for trihalomethanes. • Provide a report as to how the water treatment plant will be operated in order to meet the requirements of Ontario Regulation 170/03. • Ensure that the minimum alarm is set to ensure primary disinfection. • Apply for a re-determination of the type and class of the subsystem. • Provide written confirmation that treated water samples are being collected as required. • Ensure that reporting requirements are being met. • Ensure that information is provided to a Provincial Officer, as required.
Mapleton, The Corporation of the Township of	Moorefield Well Supply	March 17, 2010	• Develop a written inspection schedule for all wells associated with the water treatment system. • Develop and implement an action plan to ensure that the information from the continuous monitoring equipment is not lost or destroyed and is backed up and reviewed as required.
Nipigon, The Corporation of the Township of	Nipigon Water Treatment Plant	March 18, 2010	• Ensure that an up-to-date process and instrumentation diagram is available at the water treatment plant. • Ensure the proper operation of the chlorine analyzers and turbidity meters on a continual basis. • Provide a report on the flow rate and daily volume of water conveyed from the treatment system to the distribution system.
North Middlesex, The Municipality of	North Middlesex (Lake Huron Area Water Supply) Distribution System	July 16, 2010	• Provide a comprehensive operations manual and make it available to operators of the distribution system.

APPENDIX 2-B: Summary of Municipal Residential Drinking Water Systems Receiving Preventative Orders in 2009-10

Drinking Water System Owner	Drinking Water System Name	Date Order Issued	Order Synopsis
Kingston, Corporation of the City of	King Street Water Treatment Plant	April 3, 2010	Granting temporary regulatory relief from compliance with monitoring and recording requirements for the duration of site construction.
Smiths Falls, The Corporation of the Separated Town	Smiths Falls Water Treatment Plant	May 4, 2010	Granting temporary regulatory relief from compliance with monitoring and recording requirements until a sampler or probe and analyzer are installed and operational.

APPENDIX 2-C-1: Summary of Laboratories Licensed to Perform Drinking Water Testing Receiving Contravention Orders in 2009-10

Municipal Location	Laboratory Name	Date Order Issued	Order Synopsis
Kingston, City of	Caduceon Enterprises Inc.	April 16, 2009	- Cease providing drinking water testing services without a licence. - Provide written notification to all clients that the aforementioned Caduceon Enterprises Inc. laboratories shall not analyze drinking water samples. - Provide a copy of the notification and list of the drinking water clients. - Provide a list of all parameters currently tested in drinking water and water matrices at each location. - Provide a copy of the policy/procedure identifying that all drinking water samples received will be analyzed in accordance with applicable regulatory requirements, identifying that drinking water samples submitted to one Caduceon laboratory are not transferred for analyses to another Caduceon laboratory, identifying the steps for subcontracting drinking water samples to another laboratory. - Ensure Caduceon Enterprises Inc. laboratories only test for parameters and test methods that are specified in the most recent version of their Drinking Water Testing Licence. - Identify whether tests performed on water samples submitted to the laboratory are drinking water tests regulated under the Safe Drinking Water Act. - Amend all drinking water chain of custody forms. - Prepare a chain of custody form for samples relating to non-drinking water.

APPENDIX 2-C-1 (Continued): Summary of Laboratories Licensed to Perform Drinking Water Testing Receiving Contravention Orders in 2009-10

Municipal Location	Laboratory Name	Date Order Issued	Order Synopsis
Ottawa, City of	Paracel Laboratories Ltd.	September 21, 2009	• Cease providing drinking water testing services without a licence.
Waterloo, City of	ALS Canada Ltd.	March 2, 2010	• Ensure all adverse test results are reported as per the legislation. • Provide confirmation that all staff have been trained on the policies and procedures. • Upload all approved drinking water results for nitrite analysis, nitrate analysis and nitrate plus nitrite calculations. • Conduct a root cause analysis to ascertain why only the nitrate plus nitrite data were submitted to the Ministry of the Environment's Drinking Water Information System and not the nitrate results and the nitrite results.

APPENDIX 2-C-2: Summary of Laboratories Not Licensed to Perform Drinking Water Testing Receiving Contravention Orders in 2009-10

Municipal Location	Laboratory Name	Date Order Issued	Order Synopsis
Guelph, City of	Cowan Agronomic Services Inc.	June 18, 2009	• Cease providing drinking water testing services without a licence.

APPENDIX 3-A: Summary of Municipal Residential Drinking Water System Convictions — April 1, 2009 to March 31, 2010

In 2009-10, three individuals and one corporation were convicted and fined \$3,750 for charges related to drinking water offences at three municipal residential drinking water systems. The three municipal residential drinking water systems were not charged or convicted in these cases.

APPENDIX 3-B: Summary of Convictions for Laboratory Licensed to Perform Drinking Water Testing — April 1, 2009 to March 31, 2010

Facility Owner	Synopsis	Sworn Date	Conviction Date	Fine
Caduceon Enterprises Inc.	Using unlicensed methods for drinking water analysis.	November 18, 2009	February 4, 2010	\$17,500