

Special City Council Meeting Agenda



Monday, January 14, 2019 – 12:30 p.m.
Council Chambers, Guelph City Hall, 1 Carden Street

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Open Meeting – 12:30 p.m.

Disclosure of Pecuniary Interest and General Nature Thereof

Special Council – Water Services: Standard of Care Understanding Your Role in Providing Safe Drinking Water

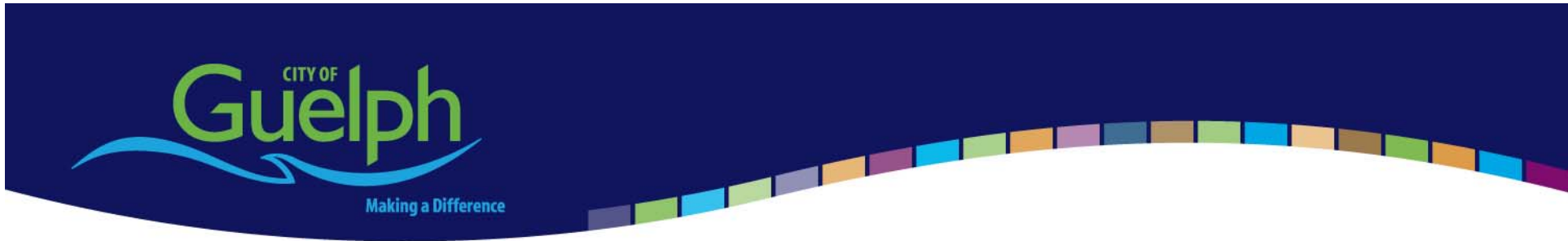
Presentation:

Amy Martin, Quality Assurance Coordinator, Water Services
John-Paul Palmer, Compliance Coordinator, Water Services
Emily Stahl, Manager of Technical Services, Water Services
Wayne Galliher, Divisional Manager, Water Services

Presentation Agenda:

1. Standard of Care
2. Safe Drinking Water Act, 2002
3. Water Services Quality Policy
4. Protecting Drinking Water
5. Effective Water Management
6. Drinking Water Treatment and Distribution
7. Effective Monitoring and Reporting
8. Municipal Drinking Water Licence
9. Financial and Infrastructure Planning
10. Managing the Risks to Drinking Water
11. Annual and Summary Reports

Adjournment



Water Services: Standard of Care

Understanding your role in providing safe drinking water



Agenda

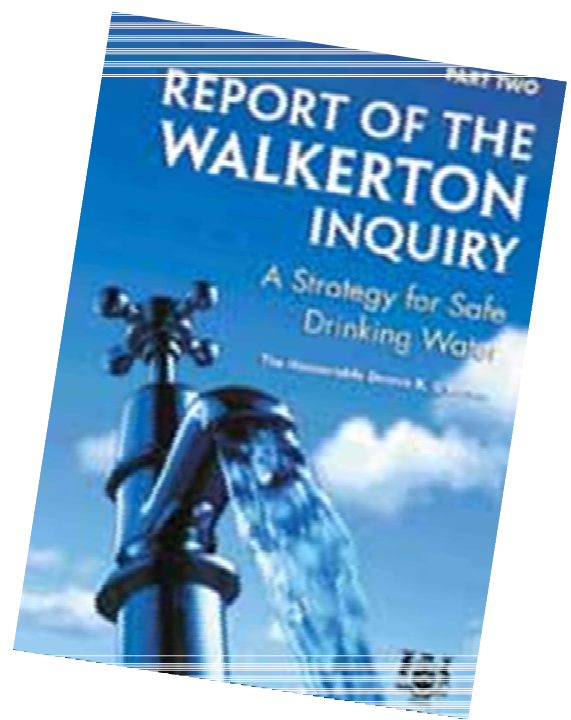
1. Standard of Care
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Standard of Care

Report of the Walkerton Inquiry, 2002

“Given that the safety of drinking water is essential for public health, those who discharge the oversight responsibilities of the municipality should be held to a statutory standard of care.”



- Justice Dennis O'Connor



Standard of Care

What is it?

- Under the *Safe Drinking Water Act (2002)*, as a municipal official, you must practice due diligence to protect public health when making decisions that could affect the drinking water.
- Severe penalties are possible for municipal officials who fail to act in good faith and do not exercise honesty, competence and integrity to ensure the protection and safety of the users of municipal drinking water systems.



Standard of Care

Things to remember: It's Your Duty

- It is your duty to ensure safe drinking water.
- It applies to those with decision-making responsibility for municipal drinking water systems or oversee the operating authority of the system.
- There are legal consequences for failing to carry out the duty, including possible fines or imprisonment.



Standard of Care

Things to remember: Be Informed

- You don't have to be an expert, but you need to be informed.
- You should be asking questions and getting answers.
- Seek advice from those with expertise and act prudently on their advice.

You can rely on Water Services' expertise.



Standard of Care

Things to remember: Be Vigilant



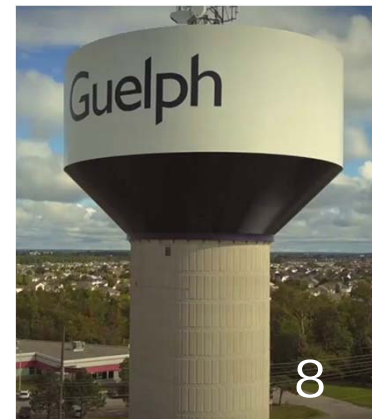
- Complacency can pose one of the greatest risks to drinking water systems.
- Never simply assume that all is well with the drinking water systems under your care.
- The health of your community depends on diligent and prudent oversight.



Safe Drinking Water Act, 2002

Section 11: Duties of Owners and Operating Authorities

- Provide water that meets all prescribed drinking water quality standards.
- Operate in accordance with the act and its regulations, and are kept in a fit state of repair.
- Ensure that drinking water system are appropriately resourced.
- Comply with all sampling, testing and monitoring requirements.
- Meet all reporting requirements, including annual reporting to the public.



Safe Drinking Water Act, 2002

Section 11: Actions required of owners and operating authorities

- Sampling and testing of drinking water
- Using an accredited laboratory
- Reporting of adverse test results that exceed any standards in the Ontario Drinking Water Quality Standards Regulation
- Obtaining a drinking water licence, including a financial plan
- Ensuring the drinking water system is operated by an accredited operating authority
- Ensure management structures to maintain certified operators to operate the system



Safe Drinking Water Act, 2002

Section 19: Your Duty and Liability

- Extends legal responsibility to people with decision-making authority over municipal drinking water systems and those that oversee the accredited operating authority for the system.
- You must exercise the level of care, diligence and skill with regard to a municipal drinking water system that a *reasonably prudent person* would be expected to exercise in a similar situation.
- You must act honestly, competently and with integrity.



Water Quality Policy

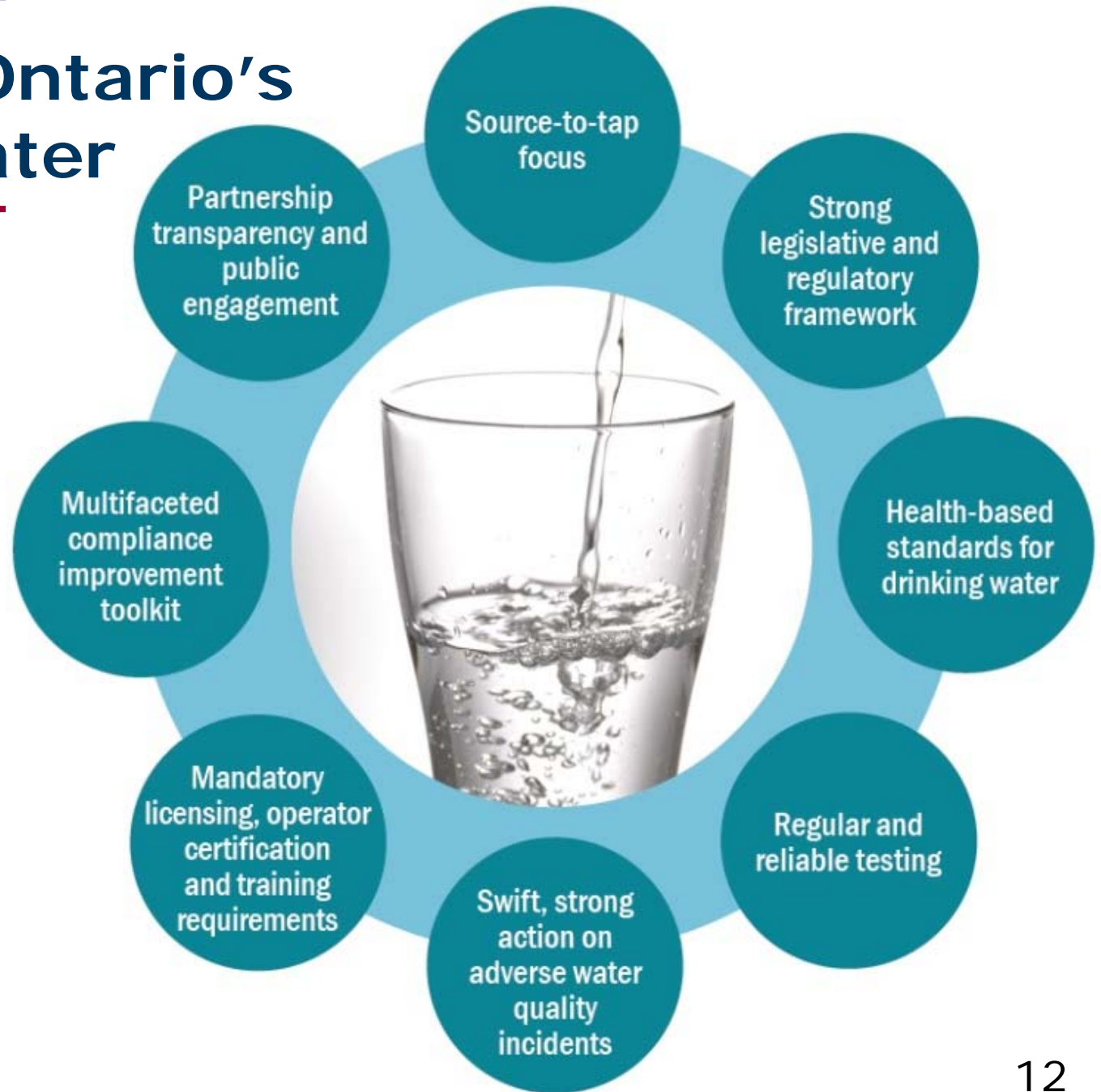
Water Services at the City of Guelph is committed to providing consumers with a safe, consistent supply of high quality drinking water while meeting or exceeding, and continually improving on legal, operational and quality management system requirements.

Delivering your water with dedication, professionalism and care.



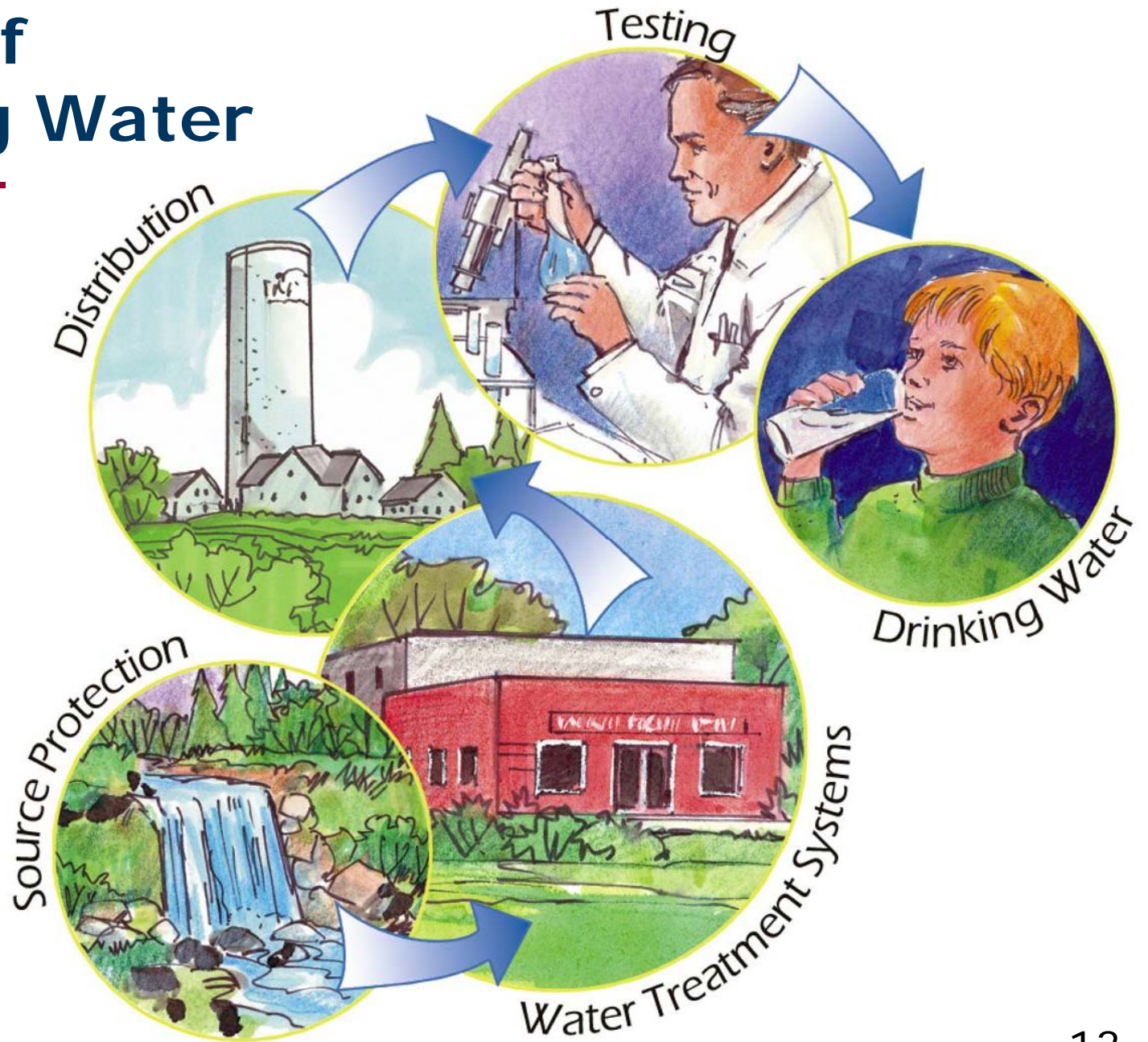
Protecting Ontario's Drinking Water

Drinking water protection safety net



Safety of Drinking Water

The multi-barrier approach



Drinking Water Source Protection

Your statutory standard of care responsibilities

- Municipalities are required to implement policies to protect the source water for their drinking water systems.
- O. Reg. 205/18 has been established under the *Safe Drinking Water Act, 2002* to ensure that source protection planning is in place.
- Municipal drinking water system owners (City Council) are now responsible for ensuring that vulnerable areas are delineated and vulnerability scores are identified before they apply for a drinking water works permit.

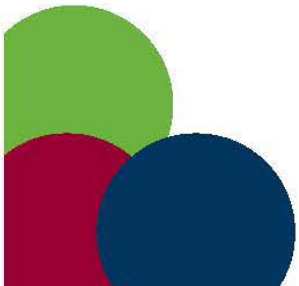


SOURCE WATER PROTECTION PROGRAM

Ours to
Protect

WHY DO WE NEED TO PROTECT OUR SOURCE WATER?

Making sure we protect the source of the water we drink and cook with from contamination or overuse ensures we'll continue to have a reliable and safe water supply, right from the tap, today and tomorrow.



Drinking Water Source Water Protection

Be informed

- Find out how source water protection benefits Guelph water.
- Review the Assessment Report and Source Protection Plan to understand and find out what policies are to be implemented.
- Understand how the Source Protection Plan policies can impact building requirements and the need for risk management plans to protect our precious water resources today and in the future.

Guelph.ca/sourcewater



Effective Water Management

Water Conservation

- **Affordability**
 - Most cost effective source of new water capacity, limits operational and maintenance costs
- **Source Sustainability**
 - Sustainability of water supplies, limits impacts of growth
- **Source Optimization**
 - Reduce operation and environmental impacts during peak demands



GUELPH WATER
OURS TO CONSERVE

Effective Water Management

Water Conservation



- **Compliance**
 - Maintain compliance with our permits to take water and Water Opportunities Act
- **Community Awareness**
 - Foster community awareness regarding water use and stewardship
- **Emergency Preparedness**
 - Short-term management of water demand and public engagement in emergency scenarios
- **Future Water Demand Management**
 - Limiting water demand while experiencing growth



Drinking Water Treatment

Ensuring effective treatment



- Two sources of drinking water in Guelph
 - True groundwater
 - groundwater under the direct influence of surface water with effective in-situ filtration
- Water quality monitoring
- Redundant equipment for major processes
- Provincially certified operators
- Proactive monitoring and treatment, where necessary



Drinking Water Distribution

Ensuring water quality to every customer

- **Effective design and build of water infrastructure**
 - Proper sizing of watermains to meet community needs
 - Planning for the future (water towers, new subdivisions)
 - Redundancy in the distribution system
- **Effective operation**
 - Monitoring and maintaining pressure
 - Monitoring water quality
 - Watermain cleaning program
 - Leak detection and condition assessments
- **Effective maintenance**
 - Timely response to breakdowns (leaks, mainbreaks, customer concerns)



Effective Monitoring & Reporting

Adverse Water Quality Incident (AWQI) response

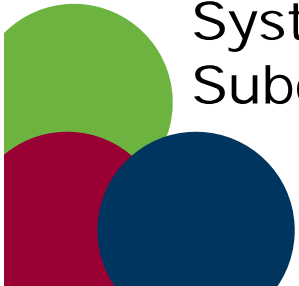
- Immediate notifications when there is an adverse sample is required under the *Safe Drinking Water Act (2002)*:
 - Ontario Ministry of the Environment, Conservation and Parks (MECP) Spills Action Centre
 - Wellington-Dufferin Guelph Public Health (WDGPH)
 - Owner (members of council)
- In 2017, there were 5 adverse water quality incidents.
 - More information can be found in the Annual & Summary Report: Guelph.ca/water under the water quality tab.



Compliance with Regulations

MECP inspection results

- Our water system is inspected once per year.
- We work with the Ministry to improve our processes in order to ensure that we are delivering high quality drinking water.
- We are currently undergoing our 2018 inspection.
- In 2017, we achieved a 100% score for the Guelph Drinking Water System and the Gazer Mooney Subdivision Distribution System.



Municipal Drinking Water Licence

Approval to operate the Guelph Drinking Water System

The Municipal Drinking Water Licence requires these 5 components to be in place:

1. Drinking Water Works Permit
2. Permits to Take Water
3. Operational Plan
4. Accredited Operating Authority
5. Financial Plan



Municipal Drinking Water Licence

1. Drinking Water Works Permit (DWWP)

- A permit describing current water system infrastructure and future alterations or upgrades to the water system.

2. Permit to Take Water (PTTW)

- A permit to take 50,000L or more of source water today.
- Guelph has 18 permits to take water.



Ministry of the Environment and Climate Change
Ministère de l'Environnement et de l'Action en
matière de changement climatique

PERMIT TO TAKE WATER

Ground Water

NUMBER 2725-ADYL2Q

Pursuant to Section 34.1 of the Ontario Water Resources Act, R.S.O. 1990 this Permit To Take Water is hereby issued to:

The Corporation of the City of Guelph
1 Carden St
Guelph, Ontario
N1H 3A1



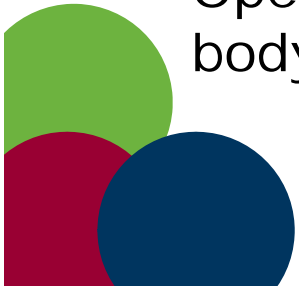
Municipal Drinking Water Licence

3. Operational Plan

- A plan prepared in accordance with the Drinking Water Quality Management Standard (DWQMS) required under the Safe Drinking Water Act, 2002 that documents Water Services' Quality Management System.
- Endorsed by Council (owner of the system).

4. Accredited Operating Authority

- Water Services must be accredited to the DWQMS.
- This is done by a comprehensive audit and review of the Operational Plan by an independent certified accreditation body appointed by the Province.



Municipal Drinking Water Licence

5. Financial Plan



- A long-term strategic plan developed to ensure the financial sustainability of the drinking water system.
- Required under O. Reg. 453/07.
- The Financial Plan is currently being updated and will be presented to Council in March.



Financial Planning

Ensuring financial stability

- Imperative to ensure that your community continues to enjoy clean, safe drinking water.
- You have an important role to play in ensuring that appropriate resources are made available.
- Municipal councils have ultimate responsibility for approving financial plans that are prepared for the municipality.
 - Ensuring revenue collected will meet the needs of those services
 - Life-cycle planning
 - Asset management



Infrastructure Planning

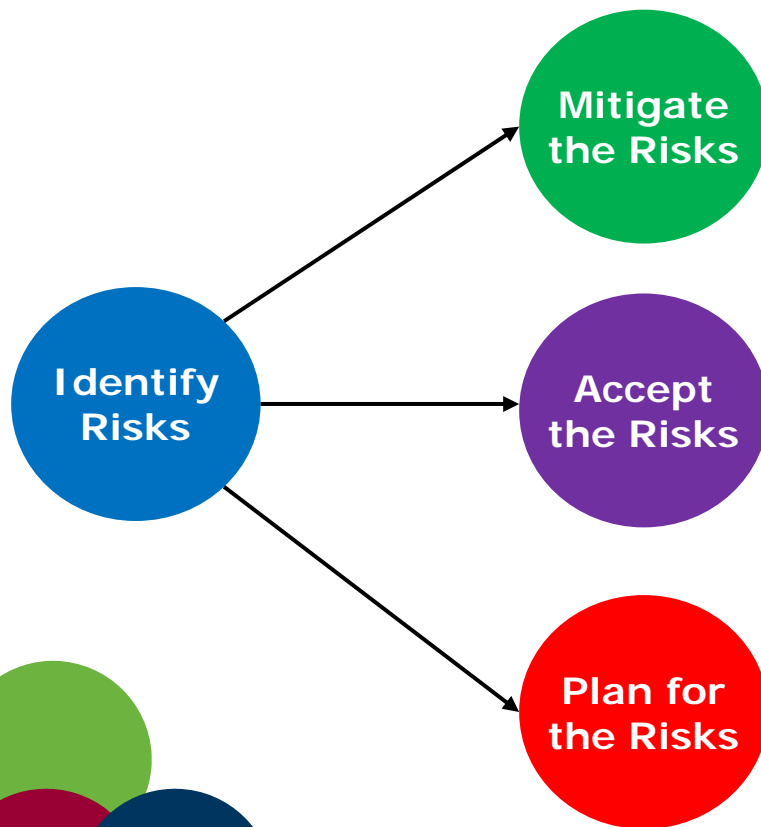
Ensuring there is sustainable drinking water infrastructure

- Machinery, equipment and structures
- The Operating Authority must:
 - Annually review the drinking water infrastructure;
 - Provide a summary of the programs in place to maintain, rehabilitate and review the infrastructure; and
 - Monitor the effectiveness of its maintenance program.
- This is normally accomplished through the budget process.



Managing the Risks to Drinking Water

Risk Assessments



- An orderly methodology of identifying hazards or hazardous events that may affect the safety of drinking water and evaluating their significance.
- Identifies potential hazardous events facing your drinking water system i.e. main breaks, spills, assesses the impact and the control measures in place.
- "Adequate municipal funding is a key component of risk management."

– Former Councillor Ken Graham, Town of Smith Falls

Managing the Risks to Drinking Water

Backflow Prevention Program

- Ensures that potable water is protected against the entry of contaminants, pollutants, infectious agents or other materials or substances.
- 6,495 backflow devices in Guelph.
- The Backflow Prevention Program:
 - Identifies any and all cross-connections where potential contamination of potable water may occur,
 - Maintains a database of qualified backflow device testers, and
 - Maintains a database of water users who have backflow prevention devices.



Managing the Risks to Drinking Water

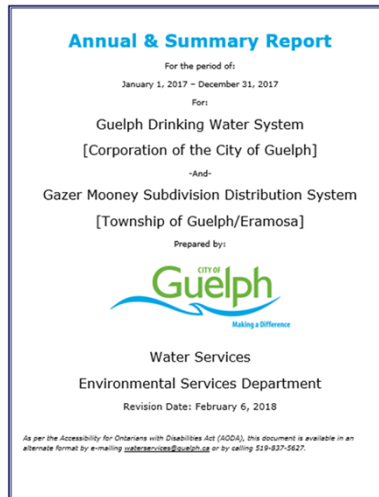
Emergency planning for drinking water

- The Water Services Emergency Response Plan outlines how Water Services will respond to a drinking water emergency and how and when you will be notified.
- Plan developed in partnership with Corporate Emergency Management and with the support of Engineering and Transportation Services.
- Member of OnWARN:
 - Ontario Water/Wastewater Agency Response Network.
 - A province-wide network of “utilities helping utilities”.
 - Promotes emergency preparedness, disaster response, mutual aid and assistance for water and wastewater utilities.



Annual & Summary Reports

What they tell you about your system

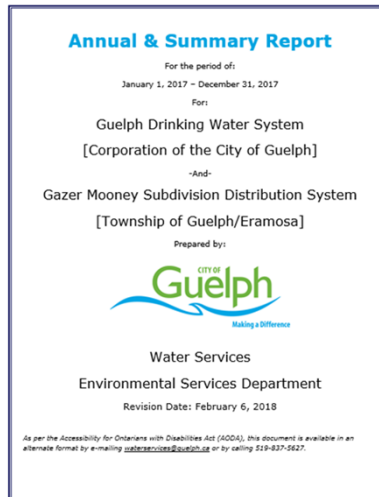


- Description of the drinking water system and chemicals used
- Summary of the results of required testing
- Summary of any adverse test results
- Description of any corrective actions
- Description of any major expenses to install, repair or replace required equipment
- Information about any requirements that were not met under the Safe Drinking Water Act
- Description of measures taken to correct failures
- Comparison of the system's flow rates from previous years to help assess existing and planned water use



Annual & Summary Reports

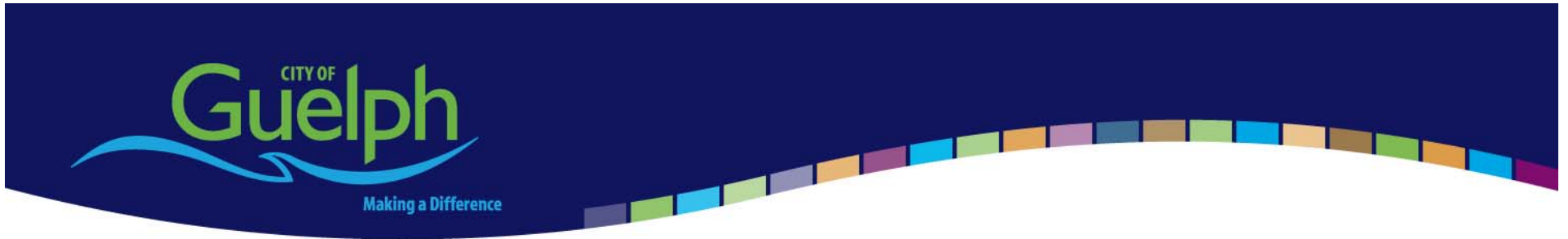
What they tell you about Water Services



- Water Conservation program
- Source Water Protection program
- Water production data
- Risk Assessment process
- Internal and External Audit results
- Emergency response testing
- Future changes that could affect the Drinking Water System and how we are preparing
- Infrastructure review
- Maintenance activities

Guelph.ca/water under the Water Quality Tab





Thank you!

Questions or Comments?

**For more information:
guelph.ca/water**



Reference Material to Accompany the Water Services: Standard of Care Presentation

(printed material)

Taking Care of Your Drinking Water: A Guide for Members of Municipal Councils

Ministry of the Environment, Conservation and Parks (November 24,
2016)

<https://www.ontario.ca/page/taking-care-your-drinking-water-guide-members-municipal-councils>

Drinking Water Source Protection Primer: For Municipal Councillors

Conservation Ontario (Oct 29 2018)

https://conservationontario.ca/resources/?tx_fefiles_files%5Bfile%5D=457&tx_fefiles_files%5Baction%5D=show&tx_fefiles_files%5Bcontroller%5D=File&cHash=012faeb8f3bebe93a22bc495ff1ae844

Ontario's Drinking Water Quality Management Standard

Ministry of the Environment, Conservation and Parks (March 2018)

<https://www.ontario.ca/page/ontarios-drinking-water-quality-management-standard-pocket-guide>

Other links provided to Council:

Safe Drinking Water Act, 2002

ontario.ca/laws/statute/02s32

Clean Water Act, 2006

ontario.ca/laws/statute/06c22

Ontario Water Resources Act, 1990

ontario.ca/laws/statute/90o40

Water Opportunities and Water Conservation Act, 2010

ontario.ca/laws/statute/S10019

Environmental Protection Act, 1990

ontario.ca/laws/statute/90e19