

# Compliance Documentation for Connecting New Watermains to Regional Infrastructure

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In 2016, the Ministry of the Environment and Climate Change (MOECC) issued a new Watermain Disinfection Procedure. This procedure is a summary of ANSI/AWWA Standard C651, and outlines conditions applicable to commissioning new watermains.

When a connection to Regional watermains is requested, the Region requires certain compliance documentation as proof the standard is being met. **All documentation requires a minimum of two weeks to review.** Plans may be submitted and reviewed further in advance to facilitate scheduling.

The Region, as indirect provider of potable water to the development via the local municipality, has the expectation that new watermain series are functioning as designed and will not create any adverse conditions that might impair the Regional water distribution system in the event of flow reversal. This collaborative effort creates a mutual safety net for all parties.

## Reminders:

- Complete and submit all drawings at design or plan review to facilitate any necessary updates
- Complete and submit all compliance documentation with at least two weeks for review
- A York Region Operator-in-Charge (OIC) must:
  - Operate or authorize the operation of any valves on York Region infrastructure
  - Attend all tapping on Regional watermains
  - Attend removal of the cross-connection control device (BFP)
  - Be scheduled for attendance with two weeks' notice
- The Region must be notified in advance and on the day any work is conducted on or near York Region watermains to facilitate enhanced online monitoring of the distribution system
- A Certified Operator is required to perform operating functions; this includes, but is not limited to: all disinfection, live-tapping, flushing, sampling and testing of watermains
- Report all environmental incidents, such as spills or mainbreaks, to the Spills Action Centre and the York Region Control Panel

## Format:

- Point form is acceptable; all required components must be presented in logical sequence
- Email, hard copy, or facsimile are acceptable, provided the corporate identity and contact are easily identified

## Summary of Required Compliance Documentation

1. Form 1 for local municipality infrastructure (provide copy to York Region)
  - o Required at least two weeks prior to requested connection
2. Form 1 for Regional infrastructure (if installing a valve and/or valve chamber on Regional watermains)
  - o Must be approved by the Region at least two weeks prior to installation
  - o As-built drawings for any Regional Form 1 are required within three months of initial tie-in
3. Equipment and pipe network disinfection plan for tapping and/or initial connection to ensure sanitary conditions are maintained
  - o A York Region OIC must be present for all tapping events on Regional watermains
  - o All operating functions MUST be completed by a Certified Operator; the developer and the local municipality are responsible for the operation of non-Regional infrastructure
  - o Follow ANSI/AWWA Standard C651 for prescribed chlorine application methods, concentrations and contact times
4. Specifications for cross-connection control device for backflow protection (BFP device), installed and tested in accordance with CSA Standard B64.10
  - o The BFP device is required to prevent the reversal of potentially non-potable water into Regional infrastructure. Directly exposing a Regional watermain to water of unproven quality is considered a cross-connection, and will result in isolation via valve-closure until the water is proven potable.
  - o The BFP device shall be tested and certified by a licensed Cross Connection Control Specialist (CCCS) on the day of installation
  - o Provide copies of CCCS test reports to York Region upon receipt
  - o BFP device may only be removed after York Region reviews initial disinfection and sampling results and approves the ongoing flushing, sampling and maintenance plan
  - o The BFP device may only be removed under Regional OIC supervision
5. Initial sampling plan and results of disinfection residuals and microbiological (at tie-in) to ensure initial integrity of the watermains
  - o Minimum sample parameters are chlorine residual, E. coli and Total Coliforms
  - o Include schedule and location of sampling points, and sampling events
  - o Provide initial disinfection residual and microbiological sample results upon receipt

- Depending on the duration between initial tie-in and BFP removal, flushing and additional sampling may be required prior to BFP removal
6. Ongoing flushing, sampling and maintenance plan (after tie-in) to ensure ongoing integrity of the new watermains
- Provide at least two weeks prior to requested removal of BFP device
  - Notify York Region of adverse test results as soon as reasonably possible, and provide summary of compliant results to the Region within two weeks of receipt
  - Specify accredited laboratory that will analyze samples
  - Include schedule and location of sampling points and sampling events
  - Include calculated flushing volumes and estimated flushing schedule; this schedule can be updated after removal of BFP device if changes are made
  - Include pressure testing schedule
  - Sampling and maintenance in accordance with O. Reg. 170/03 to satisfy the needs of the local municipality. Summarize sampling plans for chlorine residual, E. coli and Total Coliforms, and notify the Region of all adverse test results

### Best Management Practices

In addition to compliance documentation required for watermain connections, the Region strongly recommends documenting the following. These support compliance with additional acts and regulations, and demonstrate accountability and due-diligence to environmental officers:

1. Environmental Incident Emergency Response Plan
  - To protect the natural environment, as well as protect the exposed watermains from contamination in the event of an incident
2. Proof of compliance with the York Region Sewer Use Bylaw for any dewatering activity requiring an approval from York Region
  - This supports sewer capacity and quality purposes
3. A summary of certifications for anyone working on or around the watermains, such as:
  - Certified Operators
  - Cross Connection Control Specialist for testing and certification of BFP device
  - Professional engineers/engineering firm
  - Hauled waste/vacuum truck operators (including licensed hauler number)

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## Environmental Resources and Regional Contacts

These resources may provide helpful information for preparing Compliance Documentation (verify that the most up to date version is referenced):

MOECC Watermain Disinfection Procedure <https://www.ontario.ca/page/water-main-disinfection-procedure>

AWWA Standard C651

CSA Standard B64.10 Manual for the Selection and Installation of Backflow Prevention Devices

Ontario Certification Guide for Operators and Water Quality Analysts

[O. Reg. 170/03: Drinking Water Systems](#)

MOECC Spill Reporting Information: [ontario.ca/page/report-spill](https://www.ontario.ca/page/report-spill)

### Environmental Emergency Contacts:

York Region Control Panel (emergency water operator) 1-866-888-1517

Spills Action Centre 1-800-268-6060 (toll-free), or 1-855-515-2759 (TTY)

### Regional Compliance Documentation Contacts:

Infrastructure and Asset Management (IAM)

Frank Badinski, Construction Administrator [frank.badinski@york.ca](mailto:frank.badinski@york.ca)

York Region's IAM group are the primary liaisons for compliance documentation between the developer and the Region. The Region's Development Engineering group remains the primary contact for all other communications.

The Region is subject to the requirements of the *Municipal Freedom of Information and Protection of Privacy Act*, R.S.O. 1990, c.M.56 (MFIPPA). The documentation submitted to or collected by the Region in support of a connection will be handled in accordance with the requirements of MFIPPA.

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