



*Transmission Main Break  
Pipeline Road East  
March 2016*

## *2016 Annual Water Report*



## ***2016 Saint John Water - Annual Water Report***

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## 1. INTRODUCTION

Saint John Water, a department of the City of Saint John, is responsible for the delivery of three public facing services; *Drinking Water*, *Industrial Water* and *Wastewater*. The following annual report covers the Drinking Water and the Industrial Water services.

The goal of the *Drinking Water* service is to reliably supply safe, clean potable water to all users. Currently, drinking water simply receives limited treatment; coarse screening, and disinfection (chlorine gas at Latimer Lake and sodium hypochlorite at Spruce Lake). The service is regulated under the Clean Environment Act – Water Quality Regulation and Clean Water Act - Potable Water Regulation and delivered under *Approval to Operate W-1332: Drinking Water Treatment and Distribution Facilities*. This *Approval to Operate* (a copy is enclosed in Appendix E) was issued by the New Brunswick Minister of the Environment effective April 1, 2016. The City's current certificate is valid for a 5-year period from April 1, 2016 to March 31, 2021. The certificate represents formal authorization to the City of Saint John (Approval Holder) by the Minister to operate drinking water facilities.

The Industrial Water service provides some industries in Saint John (namely Irving Pulp & Paper, Coleson Cove and Irving Paper) with raw industrial water to support and carry out their processes.

All municipal drinking water systems in New Brunswick are required to abide by the various conditions set out in *Approvals to Operate* drinking water treatment and distribution facilities. These regulatory tools set standards for water treatment facilities, distribution facilities, system operators and overall operation of facilities that strive to ensure safe and reliable drinking water for all users. Saint John Water fully endorses these standards and the philosophy behind the need for strict regulation of systems supplying such a vital service to the public.

### 1.1. Protective Barriers

People must have water to live; good health depends on consuming adequate quantities of safe, clean drinking water. That water must be delivered, at the best cost possible, to Saint John homes, institutions and businesses in a state that is clear, colourless, odourless and free of disease-causing micro-organisms (pathogens) or harmful chemicals.

The *Drinking Water Service* is a public service that provides drinking water to the community and is vital to the economic vitality of the region. This service includes the supply of water, treatment, testing, transmission and distribution, administration of the service, and billing and collections.



Saint John Water manages its drinking water service based on the Multi-Barrier Approach from the water source to the user's tap. Drinking water quality must be assured through a series of protective barriers:

1. Source (Watershed) Protection
2. Drinking Water Treatment
3. Operations and Maintenance (including staff training, development and staff levels)
4. Monitoring and Alarms (Sampling Plan, SCADA system, and record keeping)
5. Distribution System (residual chlorine maintenance, total coliform sampling , E. coli sampling, water quality flushing, storage reservoirs, backflow prevention and cross connection control)
6. Emergency Response (contingency plans, boil order responses, safety training, etc.)

## 1.2. Annual Report

Condition 24 of the certificate requires submission of an *Annual Report* to the New Brunswick Department of Environment and Local Government. The report provides pertinent technical and operating information to the regulator on the City's water systems including:

- Monitoring results (daily/weekly/monthly data such as free chlorine residual, turbidity, pH, temperature, iron, manganese, etc.)
- Monthly water production
- Operational highlights (significant incidents and system improvements, changes, or additions);
- Alarm log (major alarms – the balance to be discussed during formal Compliance Evaluations)
- Summary of backflow prevention and cross-connection activities;
- Summary of flushing activities;
- Operator information (training, certifications, and staffing changes);
- Public relations (notifications & public education)
- List of major new extensions and/or renewals complete with analytical results (microbiological, organic& inorganic) and the balance to be discussed during formal Compliance Evaluations
- Additional comments

