



Settle down.

THE CITY OF GRAND FORKS

2013 DOMESTIC WATER SYSTEM ANNUAL REPORT

FACILITY #0210688

CLASS III SYSTEM

OPERATING PERMIT CONDITIONS

1. Implementation of a source protection plan;
2. Provision of operators that are EOCP certified to the classification level of the water supply system;
3. Operate according to our Water Quality Monitoring Program;
4. Operate according to our Cross Connection Control Program;
5. Provide continuous on-line monitoring of the Water Disinfection Process;
6. Provide long term plans for source, treatment and distribution system improvements taking into account the goal of 43210 treatment;
7. Review and Update the Emergency Response Plan Annually;
8. Monthly & annual water system reports;

SOURCE PROTECTION

The City of Grand Forks engaged Remi Allard of Piteau Associates to undertake an assessment of our wells to determine well yields, impact of mutual well draw down interference on total water delivery capacity, asset valuation, evaluation of physical attributes for each well, water quality vulnerability and identification of priorities, as well as, development of a management plan based on the identified priority action items. From this analysis the City feels that Modules 1 and 2 of the Source to Tap Assessment Guidelines (S2TAG) have been completed. This includes the engagement of an assessment team, including Mr. Allard, Sasha Bird and Doug Allin from the City of Grand Forks and representation from IHA, which for the moment includes Ms. Juliana Gola and Mr. Wayne Radomske. The City has completed Modules 7 and 8 of the S2T AG and has completed a Well and Aquifer Protection Plan. The report will be submitted to Interior Health for information.

EOCP CERTIFICATION

J. Dean Chapman
EOCP Operator #1720, Level III
Water Distribution

Len V. Federico
EOCP Operator #6276, Level II
Water Distribution

Benjack T. Sorensen-Lawrence
EOCP Operator #8223, Level I
Water Distribution

WATER QUALITY MONITORING PROGRAM

In accordance with our Operating Permit, the City of Grand Forks is required to submit monthly reports to the Interior Health Authority (IHA). These reports contain information on the weekly testing results for coliforms, and chlorine residuals. Any adverse conditions or events can be described at this time as well. Results must comply with: Canadian Drinking Water Quality Guidelines; the BC Drinking Water Protection Act regulations; and Ministry of Environment Standards.

Testing consists of the following:

- Daily flow rates; total flow; free chlorine and chlorine pump setting;
- Daily testing of chlorine residuals on line @ all wells; total flow; free chlorine; well levels;
- Daily online monitoring through SCADA of chlorine residuals;
- Weekly sample testing at various locations throughout the water system including at the source: chlorine residual and coliforms

Drinking Water Officer for the City of Grand Forks

Monthly water sample reports are sent to Juliana Gola, who acts as the Drinking Water Officer.

CROSS CONNECTION CONTROL PROGRAM

The City of Grand Forks has developed a Cross Connection Control Program in compliance with the Interior Health Authority's Permit to Operate a Water System (Drinking Water Protection Act, Part 2, Section 8). The purpose of this Program is to protect the public health, by ensuring that the safe clean water provided by the City of Grand Forks is not contaminated due to backflow after it is introduced into the water distribution system.

Dean Chapman, Utilities Coordinator is currently our certified Cross Connection Control Administrator. Len Federico is certified as a Backflow Assembly Tester and John Feenstra will be undergoing similar training. Annual testing of backflow prevention devices occurs, in coordination with MTS from Vernon.

ONLINE MONITORING PROGRAM

The City of Grand Forks currently utilizes a Supervisory Control and Data Acquisition System (SCADA) to monitor the domestic water system online. Operators can access the system from home, which provides the potential to check the system 24/7. Adjustments can be made through the SCADA software, which can alter system settings, without having to physically attend the pump stations or reservoirs.

Readings are collected by the system, in order to monitor: chlorine, flow, reservoir levels, valve position, source control, telemetry status, pump run times, alarms, pump information/run times, aquifer levels and overall system functions. Data collected is analyzed, recorded and reported, as necessary, to the IHA on a monthly basis. Trend reports can be generated or date specific information can be extrapolated. The SCADA system can even call out to advise of system alarms and faults.

Minimum Daily Demand: 1,288 cubic meters on April 20, 2013

Maximum Daily Demand: 12,658 cubic meters on July 3, 2013

GOALS FOR THE WATER SYSTEM

The City of Grand Forks has invested close to \$200,000 in asset management planning and as part of the City's Asset Management Plan, the City plans for annual water infrastructure improvements in conjunction with available funding opportunities.

Over the next five years, the City will:

- Implement recommendations from the Management of Community Water Wells report;
- Implement recommendations from the Well and Aquifer Protection Plan report;
- Implement recommendations from the Water Supply Strategy Plan report.

ANNUAL UPDATE OF EMERGENCY RESPONSE PLAN

The annual update of the Emergency Response Plan is currently under in-house review and will be updated, circulated and re-submitted to IHA and other necessary officials by the end of March 2014.