



# Community Water System

## 2023 Annual Report

The population served is 480 with approximately 300 water service connections. The water source is from two deep water wells with screens on the well pumps and intakes, and no treatment is done to the water before it is distributed.

In 2020 a new water reservoir for the District was constructed and it is now fully finished, commissioned, and operational. This reservoir gives water storage, which results in our well pumps not having to operate constantly, supplies a more consistent water pressure, and enables the District to flush our water mains to help clear these water lines and make the turbidity (clarity) level better, and to assist the fire department in case of fires.

The District currently has two certified water and wastewater operators, Derek Retza who is an EOCP (Environmental Operators Certification Program) Small Water and Small Wastewater operator, who has been working for the District since 2009, and Kelly Larsen who is an EOCP Level 1 operator in Water Treatment, Wastewater Treatment, Wastewater Collection, and also Level 2 in Water Distribution, and has been working for the District since 2020.

### Water Quality Testing

The District takes the effort to ensure that the drinking water supplied to the public achieves the quality standards of the Provincial Drinking Water Protection Regulation and Health Canada's Guidelines for Drinking Water Quality. The District has a drinking water monitoring program for water quality testing to help ensure its residents and businesses receive safe drinking water. Bacteriological water samples from three different locations used by the population are taken every week and shipped to Northern Health Lab for analyzing. The District of Stewart receives these results every week. Every week in 2023 the results have shown that the water distributed by the district was in full compliance with the Provincial standards for E. Coli bacteria, and Total Coliforms. Also, once a year chemical/metal testing on our source water (wells) is conducted.

All of this water testing is done in order to satisfy the District of Stewart's permit to operate the small water and wastewater system.

**E.Coli:** E.Coli (Escherichia Coli) is bacterial contamination from human or animal waste (feces).

**Total Coliforms:** Total Coliforms are organisms that are found all around us in the environment (ie. on plants, animals and humans). They may or may not be harmful. If total coliforms are found in the water other organisms may also be present.

Chemical/Metal tests are performed once per year, and they were within Health Canada's Guidelines for Drinking Water Quality.

Any water quality complaints received were mostly from brown colored water due to well pump failures which caused inconsistent pressure, the District responded by flushing hydrants in order to clear water lines from any mineral deposits or sediment that may build up in the lines, over time.

Operational problems included loss of power, water equipment and pump failures, and collapsed fence around Well 4, all of which have been solved.

### Water Distribution System Cleaning

To ensure the highest water quality in the distribution system, District Public Works employees carry out a fire hydrant flushing program once or twice per year, takes water samples at various locations that best demonstrate usage and records lab results of these samples, monitors water usage, monitors water pressure records, maintains the reservoir, and exercises water valves.

The District of Stewart continues to distribute safe and excellent quality drinking water to its residents. It meets Provincial regulatory requirements and Federal guidelines through a diligent monitoring program and maintenance of its water distribution system.