

# South Hazelton Annual Water Report

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Water Report - 2014 Summary



Regional District of  
**Kitimat-Stikine**

# South Hazelton Annual Water Quality Report 2014

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# Regional District of Kitimat-Stikine - South Hazelton Water Quality Report 2013

## **1.0 Introduction**

As per the British Columbia Drinking Water Protection Act – the Regional District of Kitimat-Stikine (RDKS) is to provide an Annual Report for the South Hazelton Water System. The information within the report is to help you have a better understanding of your drinking water.

This report will identify where the water comes from, how it is distributed throughout the community and what is done to ensure that it is safe to drink.

Some of the information in this report is technical in nature.

## **2.0 Background**

The District of New Hazelton and RDKS staff operate and maintain the South Hazelton public water distribution system in accordance with regulations set out in the Drinking Water Protection Act along with strict adherence to the Guidelines for Canadian Drinking Water Quality.

### \*Regulations passed by the province in 2003

*\*Under this regulation, the province has the authority to increase basic expectations with regards to assessing water systems, maintaining certified operators, suppliers and monitoring/reporting on water quality data. This legislation allows provincial drinking water officers to protect our water resources from contamination under drinking water health hazards standards. Additionally, drinking water officers will oversee a source-to-tap assessment of every drinking water system in the province to address all potential risks associated to human health.*

The District of South Hazelton's Water Treatment Plant is continually being optimized to meet all regulations and ensure consistent safe drinking water is available for the growing population of South Hazelton.

### 3.0 Water System Overview

The water supplied to South Hazelton residents and businesses comes from one source – The Chicago Creek Watershed. The water is gravity fed into a wet well and distributed to a catchment pond/(Infiltration Gallery). It is at this catchment pond (Infiltration Gallery) that the 1<sup>st</sup> stage of filtration begins – the water runs through a sand filtration bed into the treatment building to the 2<sup>nd</sup> stage of treatment which is (Ultraviolet UV light - intensity of 40mj/cm2). There are (3) Ultraviolet lights that work at varying times depending on the required output to treat the water. The variation or demand for multiple lights working simultaneously is dependent upon the demand for increased water supply and to maintain capacity within the reservoirs. Having multiple UV lights also facilitates maintenance of others when one goes off line for cleaning or bulb replacement. The 3<sup>rd</sup> and final stage of the treatment is chlorine injection treatment whereby water is injected with chlorine to add additional treatment and to maintain a residual throughout the distribution system. The treatment plant has two Chlorine injection pumps available however only one operates at a time. The treated water is stored in one of two reservoirs; the first reservoir located just outside of the treatment plant and the second located in South Hazelton at the Fire Hall. When the treated water leaves the plant has a target of .5 - .7 ppm residual to ensure that a residual minimum of 0.2ppm can be maintained at the farthest end of the distribution system. These residuals are monitored and recorded at the plant daily).

#### **South Hazelton Treatment plant – (type of treatment):**

1. (Sand Filtration Beds)
2. (Ultraviolet (UV) Disinfection)
3. (Chlorine Disinfection)

#### **Facts**

Population Served - less than 500

Type of Water Source – Surface Water

Number of Connections – 168

#### **4.0 Systems Control - SCADA (Supervisory Control and Data Acquisition)**

The SCADA system is a wireless link control monitoring system that maintains reservoir levels, operate pumps, control flow and monitor controlling equipment and maintaining a database by use of a comprehensive software program – as well the SCADA system monitors operating pressure at all the reservoirs and pumping stations. The data interpreted within the software program can automatically start up or shut down pumps to allow for system flow operation of the water distribution system and water treatment plant. Some key water quality parameters include Residuals, PH, Turbidity, UV Intensity, bulb life and free/Total Chlorine. If an alarm is activated the SCADA System will dial out and notify an operator to respond to as required.

#### **5.0 Storage Tanks**

The South Water System has two storage tanks (Reservoirs) that can store on average up to a total of seven days of supply water. Both tanks are similar in capacity and together can store up to 148,000 US Gallons. As part of the maintenance requirements the tanks are drained and cleaned as required.

Flushing of the distribution system is performed once annually, typically in the spring (April/May).

#### **6.0 Table of Sampling**

Sampling Sites within the distribution system – 2

Samples taken yearly – (24)

Samples taken in 2013 – (24)

Number of Samples showing the presence of Total Coliform or E. coli – None

A total of (4 samples/year) will be taken (1/season) to accurately reflect variability in the system.

**\*Note:** for a complete list of Water Quality Data – refer to [www.healthspace.ca/nha](http://www.healthspace.ca/nha)

#### **7.0 Future Improvements**

Engineering has been completed for the development of a Wet Well (surface/groundwater) intake located 50m upstream of the infiltration gallery. Work is scheduled to be completed fall of 2015 to Spring of 2016.

South Hazelton Water System has received a grant to provide:

- A GIS based water system inventory to support water system modelling, project mapping and prepare a water system model.
- Water System Assessment to evaluate fire flow capacity upgrade areas (for looping and pipe replenishment)
  - Identify future growth areas and incorporate into model

- Review system storage capacity against flow records, existing flow records and future growth
- A summary report, including asset renewal planning.

## **8.0 Contact Information**

District of New Hazelton at (250) 842-6571

Regional District of Kitimat-Stikine at (250) 615-6100/Toll free @1-800-663-3208

Website: [info@rdks.bc.ca](mailto:info@rdks.bc.ca)

## **9.0 Conclusion**

In summary the South Hazelton Water Distribution System has met current supply demands for the residents of South Hazelton and remains within the Water Quality Guidelines and goals.