



The SCRD is committed to providing drinking water which exceeds regulatory requirements. We take pride in serving the needs of our community while meeting the challenges of water supply and protection, community outreach and education, water conservation, and new regulations.

Sunshine Coast Regional District

2021 Utility Services Annual Report



The following 2021 Utility Services Annual Report covers the period between January 1, 2021 and December 31, 2021.

Sunshine Coast Water Systems

Water Supply

The Sunshine Coast Regional District (SCRD) supplies water to approximately 23,000 residents from Langdale to Earls Cove, which are located within the traditional territories of the *shíshálh* and Skwxwu7mesh First Nations. Water is supplied for drinking, fire protection, recreation (pools and ice rinks), industry, and irrigation. This involves the operation and maintenance of the Langdale, Soames, Grantham's Landing, Eastbourne (Keats Island), Chapman Creek, South Pender Harbour, Cove Cay, Egmont and North Pender Harbour Water Systems.

Combined, the SCRD Water Systems consist of over 379 km of watermains, 16 storage reservoirs, 15 pump stations, 29 pressure reducing valve stations, 1145+ fire hydrants, 10 chlorination stations and approximately 11,555 water connections.

Regional Water

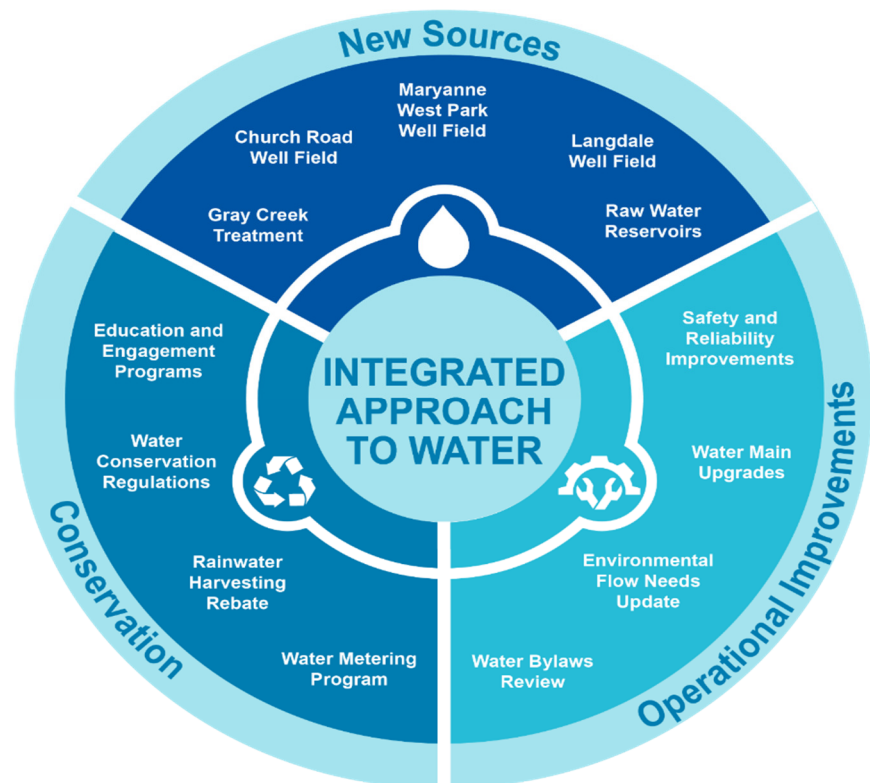
- Supplies over 90% of Sunshine Coast's water users within the regional water service area
- Systems within the regional water service area include Langdale, Granthams, Soames Point, Cove Cay, Egmont, and Chapman
- Sources include Chapman Lake, Edwards Lake and Gray Creek for the Chapman system, Waugh Lake for Egmont, Ruby Lake for Cove Cay with Langdale, Granthams, and Soames Point supplied by their own wells

North Pender Harbour Water

- Independent system, operated and maintained by the SCRD since 2007
- Source for this system is Garden Bay Lake
- Secondary source for this system is Hotel Lake, for emergency use only

South Pender Harbour Water

- Independent system, operated and maintained by the SCRD since 2008
- Source for this system is McNeill Lake which is supplied water from Harris Lake



Health and Safety



Emergency Operations Centre – Summer 2021

2021 had a record breaking 93 days with little to no rainfall. Late June saw the highest daily water use seen by the Chapman system in seven years due to an extreme heat wave. In early August the SCRD declared Stage 4 (severe) water conservation regulations for water users on the Chapman system.

At the end of August, due to the ongoing significant drought period in the region, the SCRD activated its Emergency Operations Centre (EOC). It ensured the readiness to call a state of emergency if needed. The EOC was in place to support staff and plan ahead in the event of needing emergency support from the Province to secure water supply.

Emergency Operations Centre – Fall 2021

In November, the SCRD once again activated its Emergency Operations Centre (EOC), to deal with a number of water/flood related issues in the Region.

Heavy rainfall and winds caused localized flooding, road wash-outs, and compromised water mains which led to the Declaration of a State of Local Emergency Order.

The State of Local Emergency was in place for a total of 18 days and was lifted in early December.



Covid-19 Continued Response

2021 continued with Covid-19 restrictions and changing public health orders. As an essential service department, we responded by:

- Staggering shift starting times for crew
- Using dedicated vehicles and equipment
- Frequent sanitization
- Working remotely, when possible
- Securing chemical supply with suppliers
- Included in provincial operator's pool to receive assistance or assist other municipalities



Water Quality Monitoring



Sampling

Bacteriological samples are taken weekly from sites throughout SCRD water systems.

Samples are analyzed for total coliforms and E.coli coliforms at a Provincial Laboratory in Vancouver with results sent to the SCRD Utility Services Division and the Vancouver Coastal Health Office.

A positive sample result of total coliforms indicates bacterial presence. A positive E.coli sample result indicates bacterial presence from

human or animal fecal matter. A sampling error can contaminate samples causing positive coliform results. In the event of a positive sample result, technicians' re-sample the site to ensure water potability. The SCRD collects semi-annual samples which are analyzed for metals, physical, chemical and organic parameters and collects quarterly samples which are analyzed for disinfection byproducts which can be created when water is chlorinated.

2021 Results

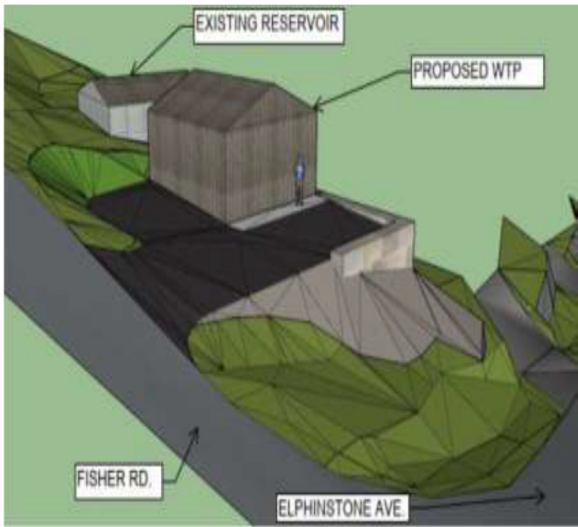
All sample results from weekly, semi-annual and quarterly sampling from all systems are compiled and compared with the Guidelines for Canadian Drinking Water Quality. More detailed results can be found on the website at www.scrd.ca/quality.

Vancouver Coastal Health (VCH) conducted annual inspections and all the SCRD water facilities passed with no violations to their operating permits.

Sample Location	Samples Collected	Coliform Positives	E.coli Positives
Cove Cay	78	0	0
Eastbourne	130	1	0
Egmont	104	0	0
Chapman	645	2	0
Grantham's Landing	48	0	0
North Pender Harbour	181	0	0
Soames	78	1	0
South Pender Harbour	180	0	0
Langdale	78	0	0
Totals	1522	4	0

A total of 1522 total coliform and E. coli samples were collected throughout the Sunshine Coast water distribution systems. The frequency of sampling met the requirements for the permit conditions and the Drinking Water Protection Regulations. Of the 1522 samples tested 4 of them tested positive for total coliforms and 0 of them tested positive for E.coli. The 4 samples that tested positive for total coliforms were re-sampled and re-analyzed resulting in no coliform presence.

System Improvements



Water License for Church Road Well Project

After three years of ongoing work and studies, the SCRD obtained a Water License from the Province of BC for the Church Road Well Field.

This project will result in the connection of three SCRD water systems: Granthams, Soames and Chapman. It will result in a reduced risk of water supply shortages under normal and emergency circumstances by increasing water supply in the Chapman Water System by 50%.

The final phase of this project will begin in 2022 and includes the construction of the combination water treatment plant and pump station along with other connected infrastructure.

Funding Approval for Sechelt Water Meters

The SCRD received approval from electors, through an Alternate Approval Process (APP), to authorize borrowing money needed to fund water meter installation in the Sechelt area.

Water meters were identified in our Regional Water Plan as a cost-effective tool to complement supply expansion. Water meters play a key role in promoting water efficiency and conservation.



Chaster Road Watermain Installation

Chaster Road had an upgrade to vital water infrastructure with a new watermain installed. Replacement was along Chaster Road from Frank West Hall to Pratt Road and along Pratt Road up Chaster Road to Malaview Road.

The size of the ductile iron watermain was increased from 150mm to 300mm. This will help increase fire protection in the area and provide a more reliable piece of infrastructure.



Chapman Creek Water Treatment Plant Landslide

Work was done to secure two water mains feeding the Chapman Water Treatment Plant from Chapman Creek. Drilling was done to install anchors to support two beams that were placed to secure the two water mains for support.

This work was completed after a landslide occurred near the two water mains. Staff worked to remediate the area to ensure no disruption to water supply until such time as the work could be completed.

Francis Road PRV Station

The Francis Road PRV station was upgraded from a below ground chamber to an above ground kiosk. The PRV needed replacing and the decision was made to go above ground, eliminating the confined space of the below ground chamber. The project consisted of removing old infrastructure, redirecting watermain to be above ground, backfilling chamber, pouring a concrete slab, assembling components of new station and covering with the kiosk.

From This



To This



Cemetery Road Reservoir

A fence was installed around the Cemetery Road Reservoir to increase the security around the reservoir. This project also included adding a reservoir intrusion alarm on the hatch.

Let's Talk Water



Leaks

If water is leaking outside of private property or is coming out of the water service connection, contact the Emergency Water Answering Service at 1-866-291-4645. If water is leaking inside the property line it is the homeowner's responsibility to repair the leak. The SCRD does not work on private property. Any other water concerns can be reported by calling the SCRD at 604-885-6895

How is our drinking water treated?

Depending on the water system you live in, drinking water is treated either at a water treatment plant or smaller chlorination facility. In general, the three steps to treat water are:

1. The first step is Coagulation/Flocculation, the addition of a coagulant is used to bind organics together so they can be removed.
2. The second step is sedimentation/dissolved air floatation and filtration which is when the coagulated organics are physically removed from the water.
3. The third step is UV Disinfection and chlorination, pathogens such as Giardia, Cryptosporidium and viruses are destroyed to eliminate the occurrence of waterborne illness.

Why is the tap water in North Pender Harbour sometimes discoloured?

The water source for the North Pender Harbour Water System is Garden Bay Lake. When the lake turns over – a seasonal event where colder surface water mixes with warmer deeper water causing the movement of lake-bottom sediments – turbidity and colour in the water increases. Currently, the North Pender Harbour Water System does not use filtration which would mitigate turbidity and colour spikes following a lake turnover event. The SCRD is initiating a feasibility study which will look at potential improvements to the water treatment facility in North Pender Harbour to manage turbidity and associated discolouration.

Want More Information?

Visit the SCRD Public Website and browse our Water Services pages	https://www.scrd.ca/Water
Visit the SCRD Let's Talk Water page	https://letstalk.scrd.ca/water
Check out information on the Water Supply Advisory Committee	https://www.scrd.ca/wasac
Call the SCRD Water Services Division	604-885-6895