



Cowichan Valley Regional District

Saltair Water System



Acknowledgement

We would like to recognize that the we are on the unceded territories of the Quw'utsun, Snuneymuxw, Ts'uubaa-asatx, Halalt, Penelakut, Stz'uminus, and Lyackson Nations, whose people have walked gently here for thousands of years.



Distribution Upgrades

- Approximately \$350* from each property tax in the Saltair Water System service area goes to fund the distribution upgrades
- Community Works Funds (Gas Tax) has also been allocated towards distribution upgrades by your Area Directors
- Operating surplus from the budget has also been used (when available)

* The community approved the increase starting 2013 for the distribution upgrade program. The program expires in 2027. The exact amount per property fluctuates as new properties are added to the service area.

Distribution Upgrades 2013-2018

Year	Parcel Tax Collected (\$358/property)	Community Works Funds Allocated (Gas Tax)	Amount Spent on Upgrades
2013	\$300,000		
2014	\$300,000		\$241,800
2015	\$300,000		\$211,367
2016	\$300,000		\$223,397
2017	\$300,000	\$258,364	\$475,297
2018	\$300,000		\$394,297

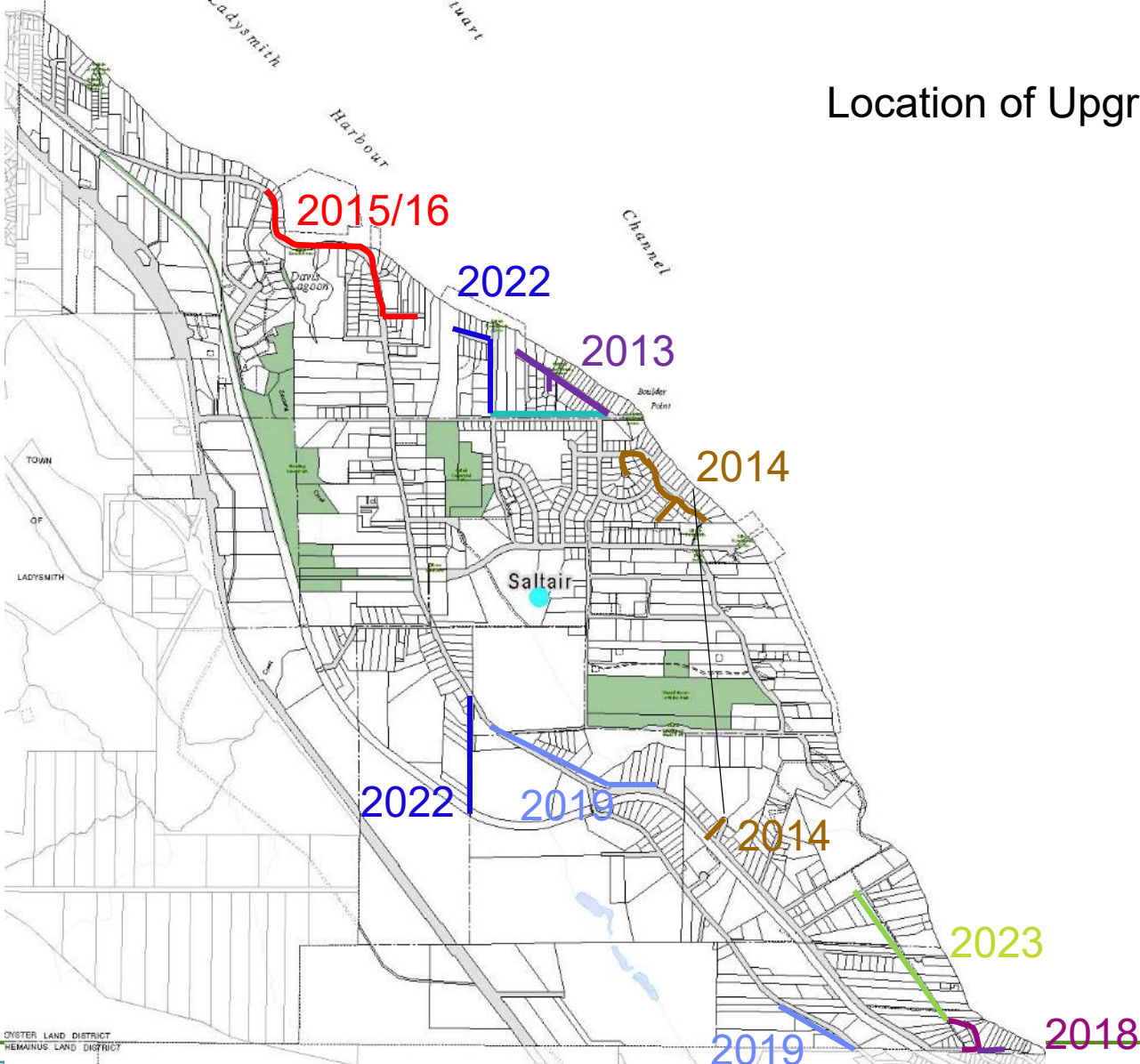
Distribution Upgrades 2019-2022

Year	Parcel Tax Collected (\$358/property)	Community Works Funds Allocated (Gas Tax)	Amount Spent on Upgrades
2019	\$300,000		\$587,444
2020-2021	Construction Permits not Issued by Island Health due to non-compliance with Operating Permit		
2022	\$300,000		\$842,933
Total 2013- 2022	\$3,000,000	\$258,364	\$3,464,966

Location of Upgrades

Year	Section
2013	Gardner Road East, part of South Oyster School Road, loop of Hilsea, Punnett Close
2014	Seaview Cres, Stuart Road, Shannon Road, Maytree Road
2015	Chemainus Road (Branksome to Linton Circle)
2016	Chemainus Road (Linton Circle to Rumble) and remaining portion of 2015 work
2017	South Oyster School Road (Seaview to Bazan)
2018	Chemoy / Dogwood Roads
2019	Chemainus Road (Olsen to Reed Road) and Old Victoria Road
2020-2021	No Distribution Upgrades completed
2022	Rumble Road, Gardner Road West and Bazan Road
2023	Easement off Chemainus Road, between Chemoy and Seacloud
2024?	Porter and Valdon Roads (pending archeology permit)

Location of Upgrades



Annual Water Testing

Weekly/monthly Bacteriological testing

- Weekly - two samples taken from two different locations in the distribution system
- Monthly – one source water sample
- Samples are tested by Island Health Authority and results are available on the Island Health website

Quarterly (Feb, May, Aug, Nov)

Testing for Chlorine Disinfection By-products

- Samples taken from within the distribution system
- Contact CVRD Utilities for most recent results

Annual

Full Spectrum analysis based on the Canadian Drinking Water Guidelines

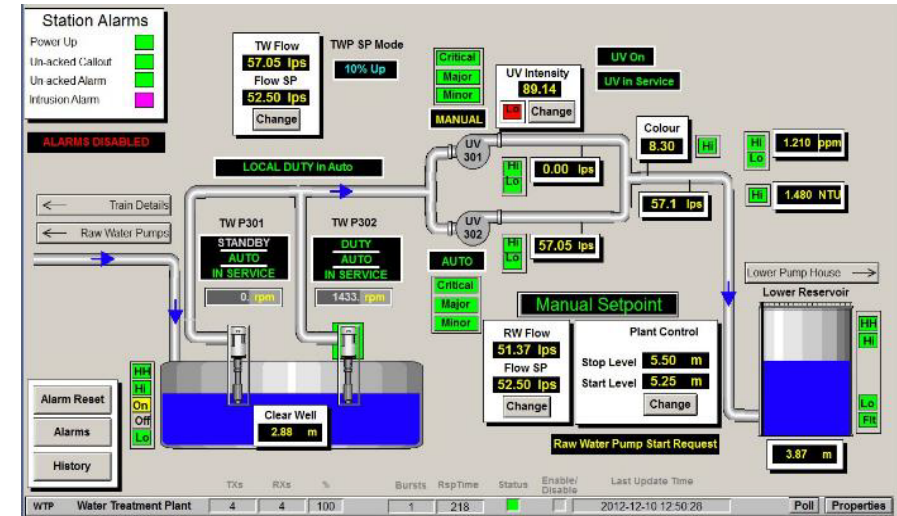
- Sampling of the source and distribution is alternated each year

Parasite sampling (Giardia and Crypto) on the source water

Contact CVRD Utilities for most recent results

Monitoring

- SCADA (supervisory control and data acquisition) for 24-hour monitoring of critical equipment (high/low chlorine, high turbidity, high/low reservoir level)
- On-call CVRD Utilities Operator available 24/7 to respond to emergency alarms.





CVRD

Stocking Lake Dam

Originally constructed in 1902 by the Wellington Colliery Company. Built for the supply of water to a coal washer and the newly located town site of Ladysmith

Co-owned by the CVRD and Town of Ladysmith. All costs for the dam are shared 50/50 as per a Joint Works Agreement.





Stocking Lake Dam

In 2018 the CVRD engaged Ecora Engineering & Resource Group Ltd. to undertake a comprehensive Dam Safety Review and risk assessment of all of its dams as a regional study supported through funding by the National Disaster Mitigation Program



Stocking Lake Dam Concerns

- The Dam is at the end of its lifecycle and does not meet today's current standards
- Active seepage through the spillway outlet channel coupled with the fact that the dam is homogeneous earth filled in composition puts the dam at an elevated risk of failure
- A consequence of failure assessment rated the dam as 'high' due to the downstream effects of dam failure





Stocking Lake Dam Remediation
Preliminary Design

Presented To:



Dated:

March 2022

Ecora File No.:

201830

What is the Solution?

Complete replacement of the dam

- 5.2M total cost for dam replacement (2022 cost estimate)
- CVRD's portion (split with Ladysmith) \$2.6 M
- 2019 and 2022 grant funding applications have been unsuccessful
- Funding for CVRD's portion may be possible through the Growing Community Funds (requires CVRD Board approval)



Short-term fixes to the Stocking Lake Dam since 2018



2020 – Repair to main isolation valve.



2023- Repair of a leak, and further strengthening of the dam.

Treatment Plant Upgrade Project

Year	
2020	ICIP Grant Application submission (\$5,356,000 Class C cost estimate)
2021	Grant award (73% Federal and Provincial funding)
Spring 2022	Contract award (cost increase from 2020 estimate and hydro upgrade required)
2022	Design phase
Late 2022	Technical feasibility issues discovered with proposed treatment technology, proposed large capital and annual operational cost increases
Early 2023	Design put on hold
Spring 2023	Project with originally proposed treatment technology cancelled, a more cost-effective and sustainable project to be identified for the community.
2023/2024	Proceeding with a complete technical and financial review and analysis of potential solutions.
2024	Detailed options will be brought forward to the community.

Treatment Plant Upgrade Project

- Priority to minimize maintenance, operation and replacement costs
- Filtration can change water quality parameters, including pH and Langelier Index (corrosivity)
- Filters require frequent backwashing and chemical cleaning, creating waste or process water
- Two groundwater well licenses pending approval. Yield 30% of max day demand. Blending with treated surface water can help to achieve quality parameters.





Thank You!



Contact Us

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