

Cedar Lane Water Service

2025 Annual Report



INTRODUCTION

This report provides a summary of the Cedar Lane Water Service for 2025. It includes a description of the service, summary of the water supply, demand, and production, drinking water quality, operations highlights, capital project updates and financial report.

SERVICE DESCRIPTION

The Cedar Lane Water Utility is a rural residential community located on Salt Spring Island. The service was created in 1970 and became a CRD service in 2007. The Cedar Lane Water Utility (Figure 1) is comprised of 37 parcels of land connected to the system with 39 single-family equivalents (SFE) as the use on some parcels represents more than one dwelling.

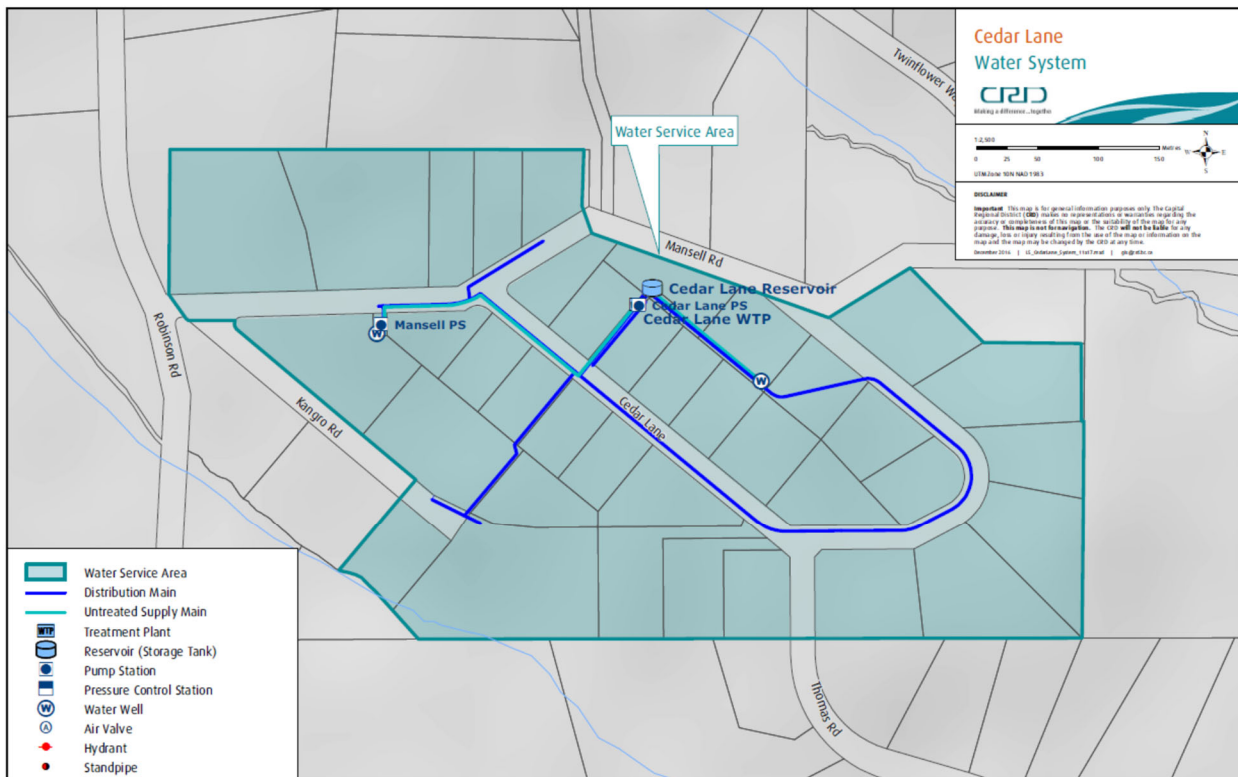


Figure 1: Cedar Lane Water Service

The Cedar Lane water system is primarily comprised of:

- two ground water source wells (#1 and #5)
- a water treatment plant (WTP) that provides primary disinfection with ultraviolet (UV) radiation and residual disinfection using sodium hypochlorite
- 1 water reservoir – 136 m³ (30,000 lg)
- 1,260 metres of water distribution pipe

- fire hydrant, standpipes, and gate valves
- water service connections complete with water meters

WATER PRODUCTION AND DEMAND

Referring to Figure 2, 3,612 cubic meters (m³) of water was extracted (water production) from two groundwater wells in 2025; a 7% decrease from the previous year and a 4% increase in the five-year rolling average. Water demand (customer water billing) for the service totaled 3,500 m³ of water; a 1% decrease from the previous year and a 5% increase in the five-year rolling average.

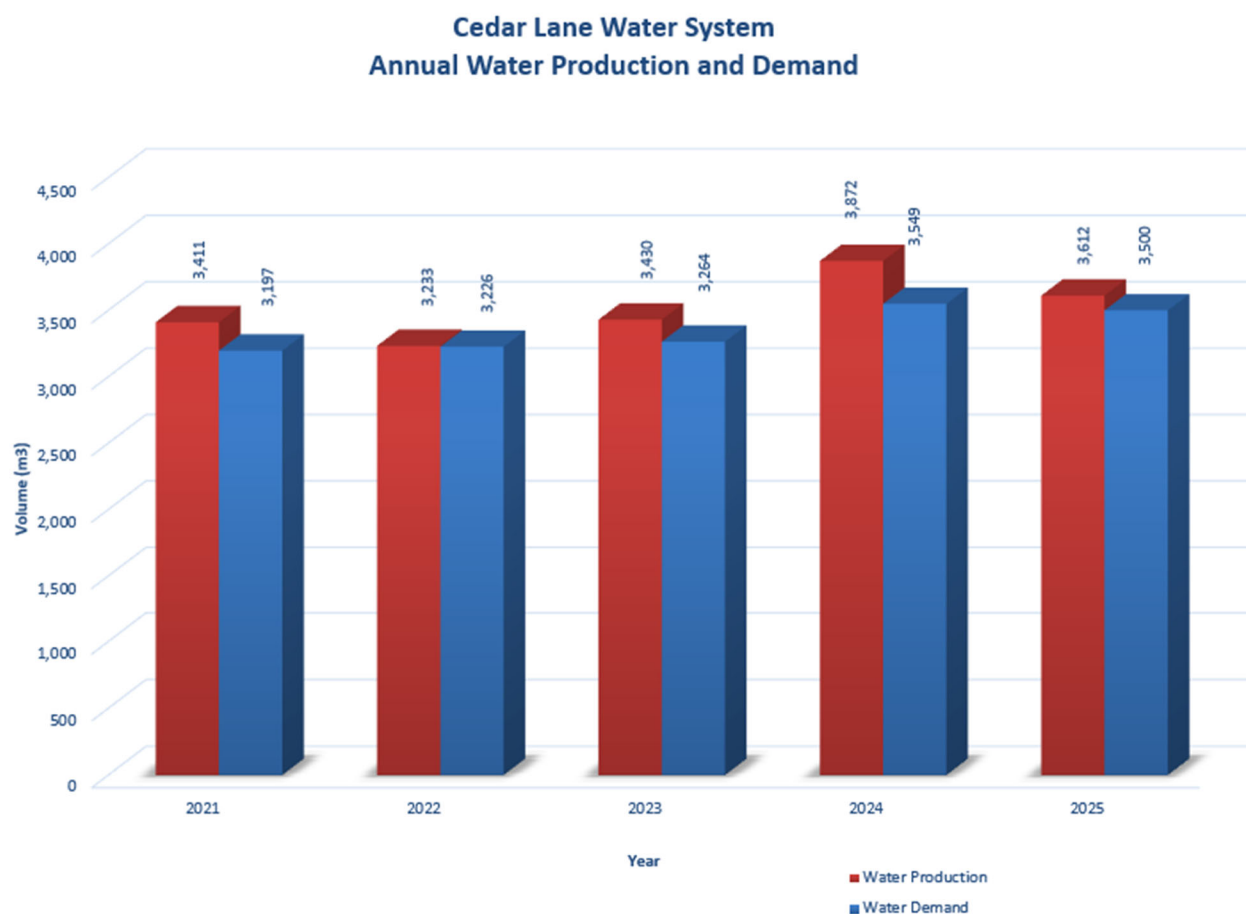


Figure 2: Cedar Lane Water Service Annual Water Production and Demand

Water production by month for the past five years is shown in Figure 3. Water consumption, for most water systems, is greatest during the summer months. Water usage for Cedar Lane is fairly consistent throughout the year likely the result of conservative indoor and outdoor water use.

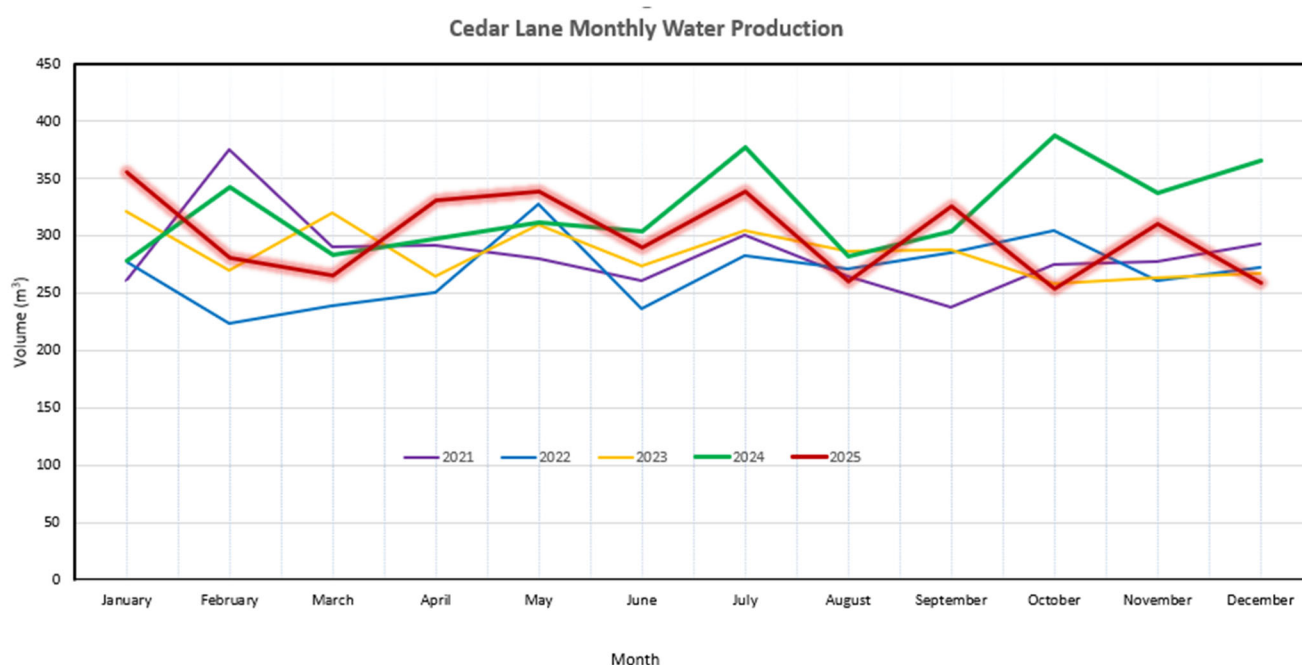


Figure 3: Cedar Lane Water Service Monthly Water Production

The Cedar Lane Water System is fully metered, and water meters are read quarterly. Water meter information enables water production and consumption to be compared in order to estimate leakage losses in the distribution system. The difference between water produced and water demand (total metered consumption) is called non-revenue water and includes distribution leaks, meter error, and unmetered uses such as fire hydrant usage, distribution system maintenance and process water for the treatment plant. Non-revenue water for 2025 was 3.2% which is a 65% decrease from 2024. This difference can be directly attributed to specific events that have since been resolved.

WATER QUALITY

The analytical results for biological, chemical, and physical parameters from the 2025 Cedar Lane Water System sampling program indicate that the water was biologically safe to drink. Naturally elevated manganese concentrations in the well water remain insufficiently treated and routinely exceeded the aesthetic objective in most areas of the system, and in certain locations frequently exceeded the health-based maximum acceptable concentration (MAC) established in the Guidelines for Canadian Drinking Water Quality (GCDWQ). Areas immediately downstream of the treatment plant are particularly vulnerable to manganese concentrations above the health limit. Iron and manganese precipitates continue to cause significant nuisance issues in parts of the system, including noticeable water discolouration. To meet the health-based limit for manganese in drinking water, the existing treatment system will require an upgrade, or an alternative water source must be secured. A public advisory for manganese exceedances in the drinking water has been in place since July 2021.

Both wells experienced low water levels during the dry summer months. The drought-related impacts on raw water quality were less pronounced than in 2024 but still noticeable, particularly in the form of elevated turbidity. Well #1 showed increased turbidity from June through August. During January, both wells exhibited elevated turbidity associated with heavy rainfall events and rapid aquifer recharge.

Typical Cedar Lane Water System drinking water quality characteristics for 2025 are summarized as follows:

- Source water from both wells was free of *E. coli* and total coliform bacteria.
- Well #1 exhibited elevated turbidity from June to August due to drought-related low well levels. The highest raw water turbidity level was recorded in June (9.6 NTU). Well #1 and Well #5 both recorded slightly elevated turbidity levels during January (2.1 and 1.8 NTU respectively) as a result of rain-induced rapid aquifer recharge.
- Source water is characterized as hard (138 mg/L CaCO₃).
- Both wells exhibited elevated iron and especially high manganese concentrations throughout the year.
- Treated water was bacteriologically safe to drink. No sample tested positive for *E.coli* or total coliform bacteria.
- Several distribution system samples collected throughout the year showed elevated turbidity. These occurrences were associated with particle accumulation at system extremities, such as the ends of Mansell Road and Kangro Road. Regular flushing at strategic locations is recommended to prevent recurrence.
- Free chlorine residual concentrations were acceptable and within the desired range (i.e., 0.20 – 1.51 mg/L)
- Disinfection by-products: The annual average trihalomethane (THM) concentration was 27.0 µg/L, well below the GCDWQ limit of 100 µg/L. Haloacetic acids (HAA) were not analyzed in 2025; however, when THM levels are low, HAA concentrations are typically low as well.
- Metals were typically below all limits except for elevated manganese concentrations. The median annual manganese concentration of 66.8 µg/L in the treated water indicates consistent exceedance of the aesthetic objective in the GCDWQ (20 µg/L) and also frequent exceedances of the health limit 120 µg/L. The health concerning exceedances occurred mostly in parts of the system that are immediately downstream of the treatment plant. A public health advisory has been in place since July 2021. CRD staff are working on mitigation strategies for this issue.
- Between May and September, the water temperature was in exceedance of the aesthetic objective (15°C) in the distribution system.

Table 1 and 2 below provide a summary of the 2025 raw and treated water test results.

Water Quality data collected from this drinking water system can be reviewed on the CRD website: <https://www.crd.bc.ca/about/data/drinking-water-quality-reports>

OPERATIONAL HIGHLIGHTS

The following is a summary of the major operational issues that were addressed during the 2024 operating period:

- 160 Cedar Lane service water leak
- 112 Cedar Lane service water leak
- 122 Cedar Lane low pressure complaint. Excavated connection to main and replaced a plugged main stop valve.

- Several operational responses for leaks on private side. Crews isolated line.
- Programmable Logic Control (PLC) card failure and replacement

CAPITAL IMPROVEMENTS

The following are capital projects in progress or completed in 2025:

20-02 Back-up Power Design

This project for back-up power options and design was closed following direction from the Commission. Funds were returned to Capital Reserve.

21-06 Manganese Treatment System

This project has provided the detail design and cost estimate for the addition of manganese treatment to the Water Treatment Plant (WTP). Construction will follow the conclusion of the loan authorization process.

24-04 Petition, Referendum or AAP for Manganese Treatment Project

This project supports the loan authorization process towards the construction of the manganese treatment project.

The Capital Projects Financial Summary for 2025 can be found in Appendix A.

2025 FINANCIAL REPORT

Please refer to the attached 2025 Statement of Operations and Reserve Balances.

Revenue includes parcel taxes (Transfers from Government), fixed user fees (User Charges), water sales (Sale-Water), interest on savings (Interest earnings), transfers from the Operating Reserve Fund, and miscellaneous revenue such as late payment charges (Other revenue).

Expenses include all costs of providing the service. General Government Services includes budget preparation, financial management, utility billing and risk management services. CRD Labour and Operating Costs include CRD staff time as well as the costs of equipment, tools, and vehicles. Debt servicing costs are interest and principal payments on long-term debt. Other Expenses include all other costs to administer and operate the water system, including insurance, water testing, and electricity.

The difference between Revenue and Expenses is reported as Net revenue (expenses). Any transfers to or from capital or reserve funds for the service (Transfers to own funds) are deducted from this amount and it is then added to any surplus or deficit carry forward from the prior year, yielding an Accumulated Surplus (or deficit). In alignment with Local Government Act Section 374 (11), any deficit must be carried forward and included in next year's financial plan.

WATER SYSTEM PROBLEMS - WHO TO CALL:

To report any event or to leave a message regarding the Cedar Lane water system, call either:

CRD water system emergency call centre: **1-855-822-4426 (toll free)**

1-250-474-9630 (toll)

CRD water system general enquiries (toll free): **1-800-663-4425**

When phoning with respect to an emergency, please specify to the operator, the service area in which the emergency has occurred.

Submitted by:	Dan Ovington, BBA , Senior Manager, Salt Spring Island Electoral Area
Concurrence:	Jason Dales, B.Sc, WD IV, Senior Manager, Infrastructure Operations
Concurrence:	Glenn Harris, Ph.D., R.P.Bio., Senior Manager, Environmental Protection
Concurrence:	Varinia Somosan, CPA, CGA, Sr. Mgr., Financial Services / Deputy CFO
Concurrence:	Stephen Henderson, MBA, P.G.Dip.Eng, BSc, General Manager, Electoral Area Services
Concurrence:	Ted Robbins, B. Sc., C. Tech., Chief Administrative Officer

Appendix A: [2025 Capital Projects List – Financial Summary](#)

Appendix B: [2025 Statement of Operations and Reserve Balances](#)

For questions related to this Annual Report please email saltspring@crd.bc.ca

Table 1: 2025 Summary of Raw Water Test Results, Cedar Lane Water System										
PARAMETER		2025 ANALYTICAL RESULTS				CANADIAN GUIDELINES	2015 - 2024 ANALYTICAL RESULTS			
Parameter	Units of Measure	Annual Median	Samples Analyzed	Range		≤ = Less than or equal to	Median	Samples Analyzed	Range	
Name	Measure	Median	Analyzed	Minimum	Maximum				Minimum	Maximum
ND means Not Detected by analytical method used										
Physical Parameters/Biological										
Colour, True	TCU	Last analyzed in 2013				≤ 15 AO	Last analyzed in 2013			
Hardness as CaCO ₃	mg/L	138	8	105	180	No Guideline Required	128	80	98.1	188
Conductivity @ 25C	uS/cm	476	4	466	478		471	6	462	570
pH	pH Units	Last analyzed in 2023				7.0-10.5 AO	7.385	50	6.1	8
Total Organic Carbon	mg/L	1	8	0.92	1.3	Guideline Archived	1.1	64	< 0.5	2.35
Turbidity	NTU	0.6	23	0.1	9.6	1.0 NTU	0.59	189	0.05	23
Water Temperature	Degrees C	13	33	10.5	15	≤ 15 AO	12.5	367	6	17
Microbial Parameters										
Indicator Bacteria										
Coliform, Total	CFU/100 mL	< 1	24	< 1	< 1	0 MAC	< 1	238	0	291
<i>E. coli</i>	CFU/100 mL	< 1	24	< 1	< 1	0 MAC	< 1	237	0	19
Hetero. Plate Count, 35C (2 day)	CFU/1 mL	Last tested in 2014					Last tested in 2014			
Parasites										
<i>Cryptosporidium</i> , Total oocysts	oocysts/100 L	Last tested in 2014				Zero detection desirable	Last tested in 2014			
<i>Giardia</i> , Total cysts	cysts/100 L	Last tested in 2014				Zero detection desirable	Last tested in 2014			
Metals										
Aluminum	ug/L as Al	< 3	8	< 3	< 3	2900 MAC / 100 OG	< 3	80	< 3	14
Antimony	ug/L as Sb	< 0.5	8	< 0.5	< 0.5	6 MAC	< 0.5	80	< 0.5	< 0.5
Arsenic	ug/L as As	0.33	8	0.16	0.42	10 MAC	0.325	80	0.14	1.64
Barium	ug/L as Ba	7.95	8	4.5	11.8	1000 MAC	8.2	80	4.4	13.3
Beryllium	ug/L as Be	< 0.1	8	< 0.1	< 0.1		< 0.1	80	< 0.1	< 0.1
Bismuth	ug/L as Bi	< 1	8	< 1	< 1		< 1	80	< 1	< 1
Boron	ug/L as B	53	8	< 50	69	5000 MAC	56	80	< 50	113
Cadmium	ug/L as Cd	< 0.01	8	< 0.01	< 0.01	7 MAC	< 0.01	80	< 0.01	0.013
Calcium	mg/L as Ca	41.9	8	32.2	54.5	No Guideline Required	39.25	80	29.1	58.3
Chromium	ug/L as Cr	< 1	8	< 1	< 1	50 MAC	< 1	80	< 1	1.5
Cobalt	ug/L as Co	< 0.2	8	< 0.2	< 0.2		< 0.2	80	< 0.2	< 0.5
Copper	ug/L as Cu	3.675	8	1.79	7.82	2000 MAC / ≤ 1000 AO	2.09	80	0.46	21.5
Iron	ug/L as Fe	120.5	8	29.4	482	≤ 100 AO	120.5	80	11.4	4170
Lead	ug/L as Pb	0.395	8	< 0.2	2.07	5 MAC	0.47	80</		

Table 2: 2025 Summary of Treated Water Test Results, Cedar Lane Water System											
PARAMETER		2025 ANALYTICAL RESULTS				CANADIAN GUIDELINES	2015 - 2024 ANALYTICAL RESULTS				
Parameter Name	Units of Measure	Annual Median	Samples Analyzed	Range Minimum Maximum		≤ = Less than or equal to	Median	Samples Analyzed	Range Minimum Maximum		
ND means Not Detected by analytical method used											
Physical Parameters											
Alkalinity, Total	mg/L		Last analyzed in 2012				211	1	211	211	
Carbon, Total Organic Colour, True	mg/L as C TCU	1.05	4	0.87	1.1		1.1	32	0.66	2.52	
Conductivity @ 25C	uS/cm		Last analyzed in 2009			≤ 15 AO	Last analyzed in 2009				
Hardness as CaCO ₃	mg/L	137	16	125	149	No Guideline Required	142	99	62.9	161	
pH	pH units		Not tested in 2025			7.0-10.5 AO	7.62	33	6.4	8.1	
Turbidity	NTU	0.45	23	0.1	3.6	1 MAC and ≤ 5 AO	0.41	135	0.1	110	
Water Temperature	Degress C	12	67	7	20	≤ 15 AO	12	2343	4	23	
Microbial Parameters											
Indicator Bacteria											
Coliform, Total	CFU/100 mL	< 1	48	< 1	< 1	0 MAC	< 1	349	<1	120	
<i>E. coli</i>	CFU/100 mL	< 1	48	< 1	< 1	0 MAC	< 1	350	<1	< 1	
Hetero. Plate Count 7 day	CFU/1 mL	Not tested in 2025				No Guideline Required	< 10	44	< 10	2600	
Disinfectants											
Disinfectants											
Chlorine, Free Residual	mg/L as Cl2	0.78	105	0.2	1.51	No Guideline Required	0.64	2364	0.18	2.2	
Chlorine, Total Residual	mg/L as Cl ₂	0.8	6	0.68	1.19	No Guideline Required	0.75	1905	0.22	2.2	
Disinfection By-Products											
Trihalomethanes (THMs)											
Bromodichloromethane	ug/L	9.6	4	7.5	12		10.45	4	8.3	11	

2.628 Cedar Lane Water

Capital Projects - Financial Summary

Updated @ 31/12/2025

Year	Project#	Capital Plan#	Status	Capital Project Description	Total Project Budget	Spending		Funding Sources		Total Funding in Place
						Expenditure Actuals	Remaining Spending	CRF	CWF	
2020	CE.735.4503	20-02	Closed	Power Generation Equipment-Study	5,000	-	5,000	5,000		5,000
2021	CE.780.4501	21-06	Open	Manganese Removal	156,500	87,897	68,603	61,500	95,000	156,500
2022	CE.780.4503	24-04	Open	Petition, Referendum or AAP	20,000	7,723	12,277	20,000		20,000
				Totals	181,500	95,620	85,880	86,500	95,000	181,500

CAPITAL REGIONAL DISTRICT

CEDAR LANE WATER

Statement of Operations (Unaudited)

For the Year Ended December 31, 2025

	2025	2024
Revenue		
Transfers from government	19,117	17,820
User Charges	65,263	60,832
Sale - Water	11,569	16,607
Other revenue from own sources:		
Interest earnings	460	218
Transfer from Operating Reserve	-	5,000
Other revenue	838	2,090
Total Revenue	97,247	102,567
Expenses		
General government services	3,383	2,760
CRD Labour and Operating costs	40,780	45,908
Debt Servicing Costs	-	7,344
Supplies	2,545	6,380
Other expenses	11,657	15,033
Total Expenses	58,365	77,425
Net revenue (expenses)	38,882	25,142
Transfers to own funds:		
Capital Reserve Fund	23,770	18,023
Operating Reserve Fund	15,112	7,119
Annual surplus/(deficit)	-	-
Accumulated surplus/(deficit), beginning of year	-	-
Accumulated surplus/(deficit), end of year	\$ -	-

CAPITAL REGIONAL DISTRICT

CEDAR LANE WATER

Statement of Reserve Balances (Unaudited)

For the Year Ended December 31, 2025

	Capital Reserve	
	2025	2024
Beginning Balance	45,564	26,267
Transfer from Operating Budget	23,770	18,023
Transfer from Completed Capital Projects	5,000	-
Transfer to Capital Project	(10,000)	-
Interest Income	1,960	1,274
Ending Balance	66,294	45,564

	Operating Reserve	
	2025	2024
Beginning Balance	12,385	9,815
Transfer from Operating Budget	15,112	7,119
Transfer to Operating Budget	-	(5,000)
Interest Income	580	451
Ending Balance	28,077	12,385