

2024-2028
Financial Planning
CVRD Core Services
Water Supply

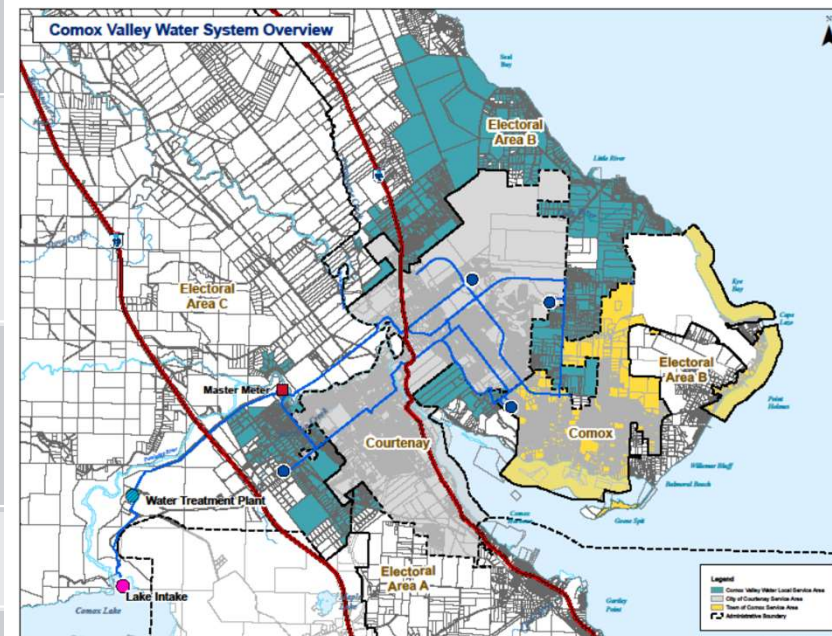
300 Comox Valley Water
Supply Service





Core Service Water Supply

Core Service	Water Supply
Service Function Name	Comox Valley Water Supply System
Service Sub-functions	301 – CV Watershed Protection Plan 302 – CV Water Treatment Plant & Raw Water Intake (new) 303 – CVRD Water Distribution Operations (new) 304 – CVRD Water Treatment Operations
Purpose	To design, construct, reconstruct, purchase, maintain & operate facilities for the supply, treatment, conveyancing, storage & distribution of water
Participants	Comox, Courtenay, Defined Areas within Electoral Areas A, B & C
2024 Proposed Changes to Service	None





300 Comox Valley Water Supply 2023 Accomplishments

- Updates to Safety Plans;
 - Confined space – Rescue Plans/training), Hazard assessments, Valve certs
 - Lock-out/tag-out – complete update & new equipment purchase
 - Safe work procedures (SWP) –isolation of reservoirs & pressure reducing valves
- Actualizing Cityworks & realizing benefits;
 - Maintenance & Repairs – pumps, valves, hydrants, reservoirs
 - Inspections – preventative, station rounds, buildings
 - Work Orders/Service Requests – repairs, service installs, customer relations
- Initiate water master planning process
- Reservoir condition assessments



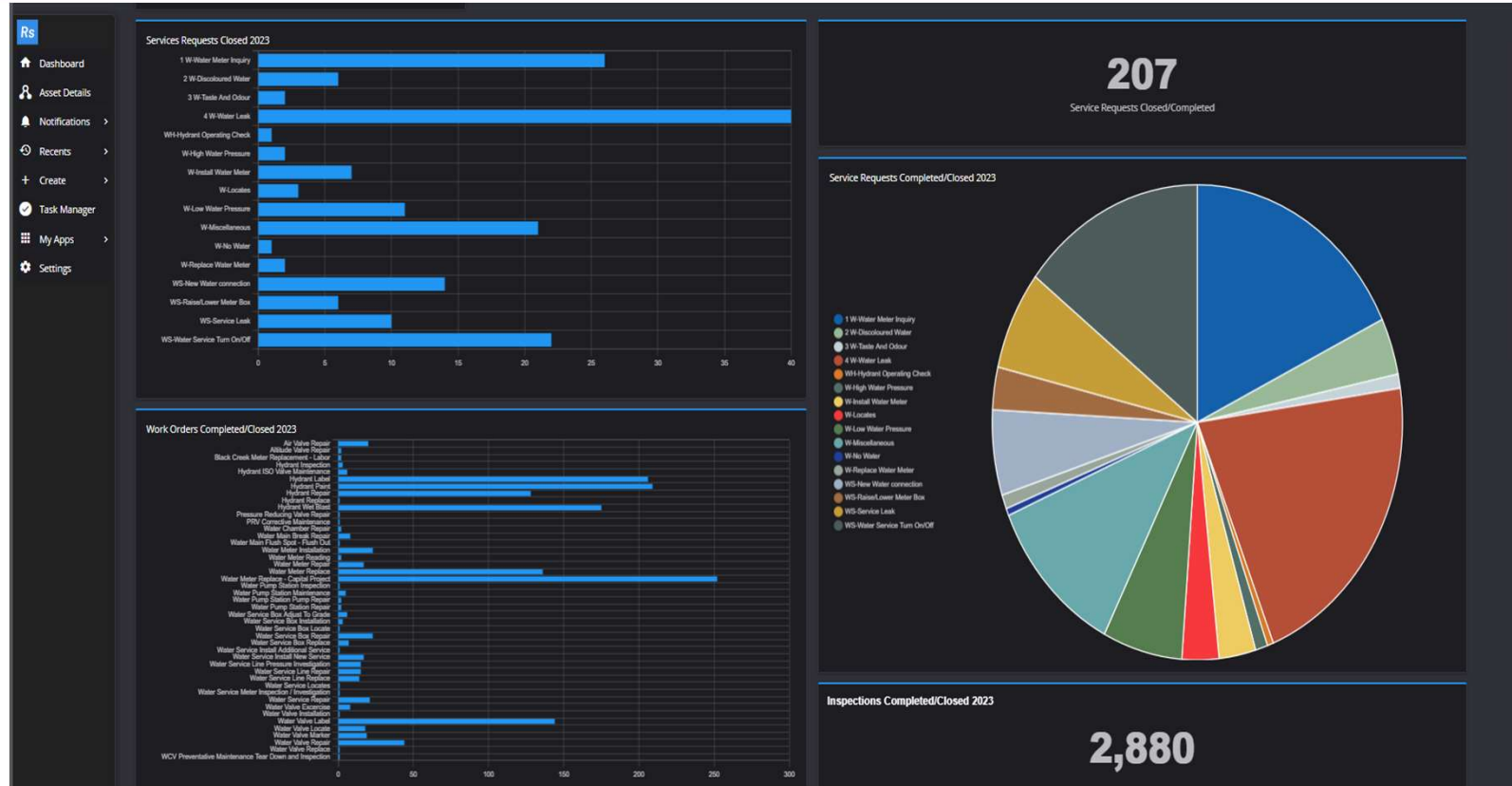
Reservoirs: safer access & clean tanks





Core Service Water Supply

Cityworks Dashboard





300 Comox Valley Water Supply 2024 Work Plan

- Further Safe Work Procedures & safety management program
- Implementation of Cityworks for vertical infrastructure
- Reservoir upgrades
- Water master planning process
- Back up Puntledge River pump station decommissioning study
- Increased water conservation communications



301 Watershed Protection Plan 2023 Accomplishments

- Updated WPP risk assessment
- Data buoy & thermistor string installed in Comox Lake
- Draft conservation plan for perseverance lands
- Water quality monitoring with assistance from K'ómoks Guardians
- Continued to develop & implement Connected by Water
- World Water Day event at the Water Treatment Plant
- Community wildfire resilience workshop
- Coordinated feedback to the watershed security strategy & fund



Core Service Water Supply



January 10, 2024
10:07 AM

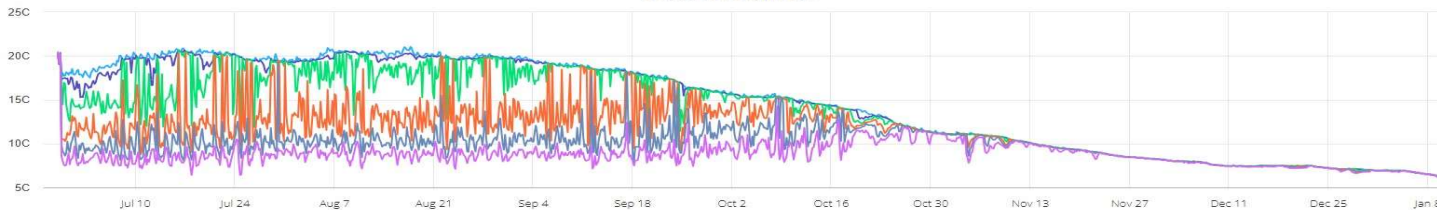
Comox Lake East Thermistor Template First Site June 29, 2023 - January 10, 2024

Comox Lake East Thermistor	X2-CB-I-QK-20323	19HVS/24HVS	Altitude (m)	1143	19.01	224.13	153.78	153.60	6.96
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Separate

Data Plot

Selected Parameters



- Comox Lake East Thermistor: 1m (C)
- Comox Lake East Thermistor: 5m (C)
- Comox Lake East Thermistor: 10m (C)
- Comox Lake East Thermistor: 15m (C)
- Comox Lake East Thermistor: 20m (C)
- Comox Lake East Thermistor: 25m (C)
- Comox Lake East Thermistor: Latitude (Deg)
- Comox Lake East Thermistor: Longitude (Deg)
- Comox Lake East Thermistor: Altitude (m)

CONSERVATION PLAN

for Lands at Comox Lake and Perseverance Creek








301 Watershed Protection Plan 2024 Work Plan Highlights

- Perseverance lands Conservation Plan implementation & development of restrictive covenant
- Develop proposal for Comox Lake Watershed Ambassador program
- Install additional thermistor string in Comox Lake
- Develop emergency management plan for the watershed
- Proper functioning condition assessment of Black Lake
- Continue monthly water quality monitoring
- Continue Connected by Water outreach
- Incorporate indigenous historical context into the WPP

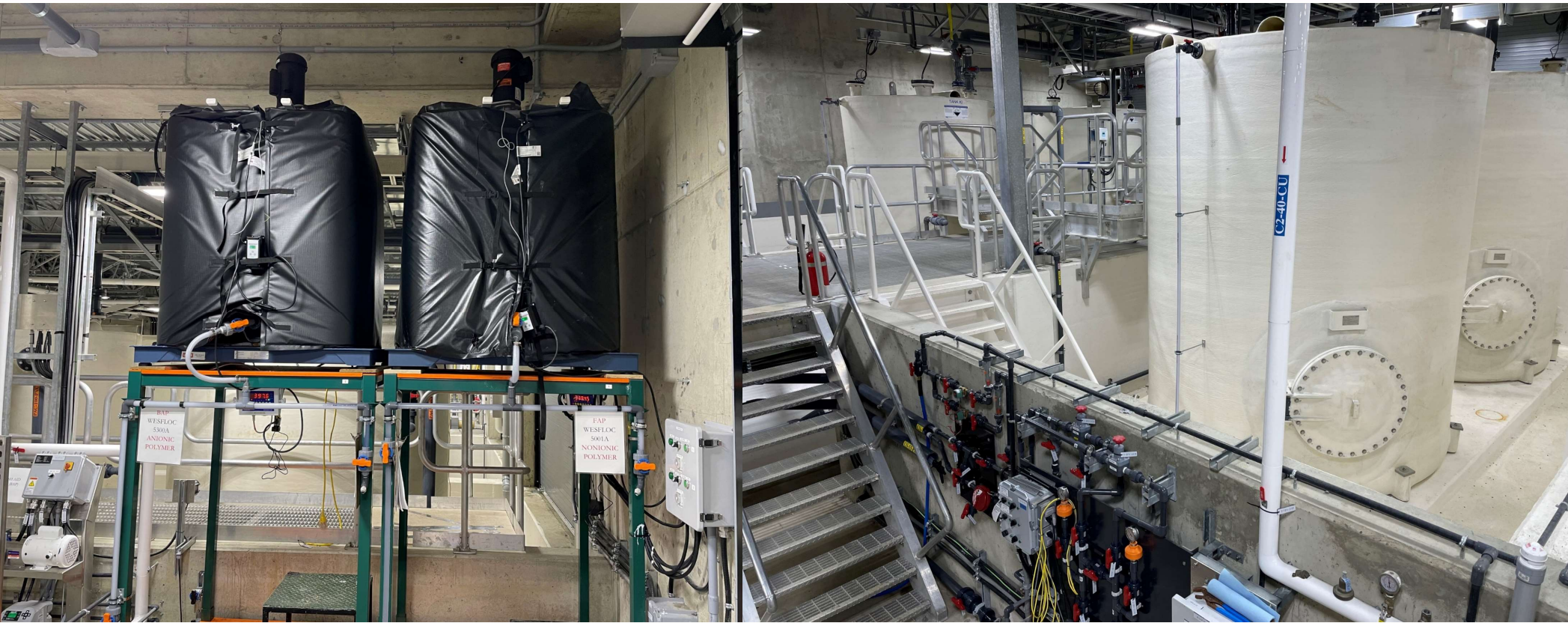


302 Water Treatment Plant 2023 Accomplishments

- CVWTP – second year of operation
 - Working through warranty items
 - Development of 100 Safe Work Procedures (SWP) & Standard Operating Procedures (SOP)
 - Various operational improvements & process optimizations (Hypo tank change/Polymer addition)



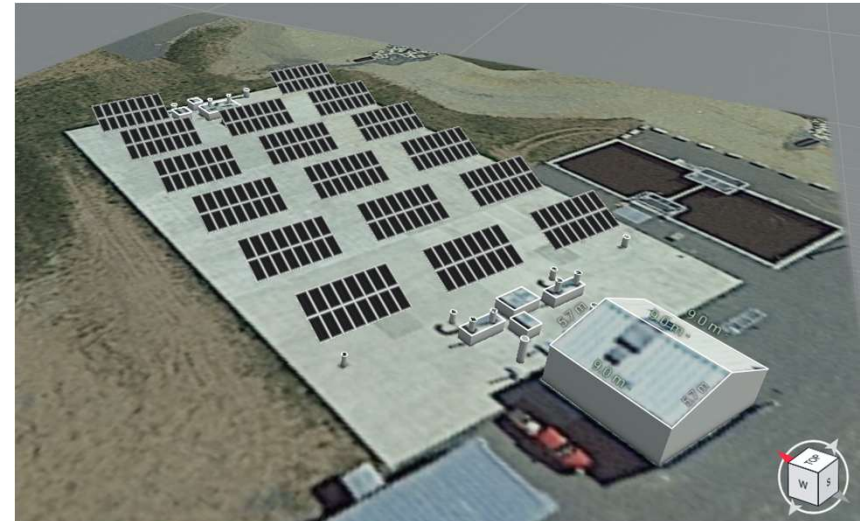
Core Service Water Supply





302 Water Treatment Plant 2024 Work Plan

- Complete the Filter Aid Polymer & Backwash Aid Polymer upgrades
- Get all vertical assets into City Works
- Develop preventative maintenance plans
- Continue with development of SOPs and SWPs





New sub-functions 303 & 304

- 303 captures all shared water distribution costs
- 304 captures all shared water treatment costs
- Triggered by completion of new ops center & WTP
- Facilitates planning & allocation of costs between CVRD managed water services
- Allocated using three year rolling average of actual time spent between water services



Trends, Challenges & Opportunities

- Supply chain issues mostly due to staff shortages
- Costs increasing for everything, everyone, & anything
- BUT, that can be the biggest opportunity as well....



Innovative Ideas...to Cost Saving Results

- PRV cost saving upgrades led to BCMSA 'Innovation of the Year' Safety award
- In-house Fire Hydrant Rehabilitation/Painting
- Self Rescue planning & training for Confined Space Entry
- Constructed lock block bunkers for material storage



Strategic Priorities & Initiatives

Type	Initiative	Comment
Board	Water South Extension	Continued progression on partnerships & agreements
Board	Water Master Planning	Work began in 2023 to be complete end of 2024, early 2025
Board	CEEP	Feasibility studies of initiatives identified in the 2023 energy audit



Human Resources

	2024	2025
Opening FTE Balance	14.23	15.79
Addition Request		
Full time	.75	0.56
Part Time		
Temporary /Casual		
Adjustments	0.81	
Total Change	1.56	0.56
Ending FTE Balance	15.79	16.35

- 11.16 FTE sub-function 300 (water supply system)
- 0.68 FTE sub-function 301 (watershed protection)
- 3.20 FTE sub-function 302 (water treatment plant)
- Plan in place to help reduce 302 overtime
- 2024 proposed position Engineering Analyst
- 2025 proposed position Cyber Security and Branch Assistant



Expenses

Year over Year Change

Key Notes

Expense Category	2023 Approved Budget	2024 Proposed Budget	Increase (Decrease)	
			(\$)	(%)
Support Services	\$1,085,523	\$986,907	(\$98,616)	(9.1%)
Personnel Costs	1,867,745	1,974,644	106,899	5.7%
Materials, Supplies, Utilities	1,096,272	1,215,002	118,730	10.8%
Contract & General Services	1,226,863	1,420,869	214,006	17.7%
Debt Charges	2,525,860	2,534,656	8,796	0.3%
Transfer to Reserves	1,339,688	578,369	(781,319)	(57.5%)
Transfer to Other Services	15,301	121,812	106,511	696.1%
Minor Capital	125,000	150,000	25,000	20.0%
Total Expenses	9,282,252	8,982,259	(299,933)	(3.2%)

- Increases in bulk water purchases (+35K), small tools (+20K), landscaping (+18K), training (+11K)
- Increases in professional fees (+160K) machinery contracts (+80K)
- Contribution to CVRD IT fibre project



Revenue

Year over Year Change

Key Notes

	2023 Budget	2024 Proposed Budget	Increase (Decrease)	
			(\$)	(%)
Sale of Services	\$8,305,565	\$8,722,292	\$416,727	5.0%
Other Revenue	50,000	110,000	60,000	120%
Recoveries from Other Functions	49,718	49,967	249	0.5%
Transfers From Reserve	-	100,000	100,000	100%
Prior Year Surplus	876,969	-	(876,969)	(100%)
Total Revenue	9,282,252	8,982,259	299,933	(3.2%)

- Most revenue is derived from the sale of bulk water
- Bulk water sales is projecting a 0.8% increase in volume to 8,721,542 cubic meters at \$1.00 per cubic meter.
- Additional cell tower revenue
- The increase in bulk water sales revenue helps the service to present a sustainable balanced budget without relying on one time revenue such as prior year's surplus



Funding Sources

Year	2023-2027 Financial Plan		2024-2028 Proposed Financial Plan	
	Bulk Water Rate (\$/m3)	Revenue	Bulk Water Rate (\$/m3)	Revenue
2023	\$0.96	\$8.3M		
2024	\$1.00	\$8.7M	\$1.00	\$8.7M
2025	\$1.00	\$8.8M	\$1.00	\$8.8M
2026	\$1.00	\$8.9M	\$1.00	\$8.9M
2027	\$1.00	\$9.0M	\$1.00	\$9.0M
2028			\$1.00	\$9.1M



Operating Budget: 2025-2028 Projections

Category	2025	2026	2027	2028
Water Sales	\$8,802,757	\$8,884,495	\$8,978,829	\$9,074,264
Other Permit Fees	750	750	750	750
Other Revenue	\$110,000	\$110,000	\$110,000	\$110,000
Recoveries from Other Functions	50,217	50,468	50,720	50,923
Total Revenue	8,963,724	9,045,713	9,140,299	9,235,937
Support Services	986,907	986,907	986,907	986,907
Personnel Costs	2,080,608	2,140,414	2,201,695	2,264,822
Materials, Supplies, Utilities	1,242,719	1,274,205	1,306,507	1,339,063
Contract & General Service	1,302,495	1,167,065	1,185,844	1,205,141
Debt Charges	2,340,645	2,123,832	1,740,543	1,740,543
Transfer to Reserve	926,495	1,267,307	1,596,422	1,611,646
Transfer to Other Services	22,855	23,957	59,305	23,663
Minor Capital	61,000	62,026	63,076	64,152
Total Expenses	8,963,724	9,045,713	9,140,299	9,235,937



2024-2028 Debt by MFA Issue

	2024	2025	2026	2027	2028
MFA Issue 95 (Expires 2024)	\$167,805	--	--	--	--
MFA Issue 99 (Expires 2025)	656,050	334,457	--	--	--
MFA Issue 156 (Expires 2041)	17,536,878	16,678,616	15,801,043	14,903,728	13,986,221
1MFA Issue 160 (Expires 2043)	4,826,798	4,647,188	4,460,932	4,267,784	4,067,490
Interim Financing (>5 Year)	-	-	-	-	-
Total	\$23,187,531	\$21,660,261	\$20,261,975	\$19,171,512	\$18,053,711



2024-2028 Debt Servicing

	2024	2025	2026	2027	2028
Long Term Debt – Principal	\$1,303,292	\$1,234,339	\$1,134,790	\$976,043	\$976,043
Long Term Debt – Interest	1,231,364	1,106,306	989,042	764,500	764,500
Interim Financing – Principal	--	--	--	--	--
Interim Financing – Interest	--	--	--	--	--
Total	\$2,534,656	\$2,340,645	\$2,123,832	\$1,740,543	\$1,740,543

300 Comox Valley Water Supply

2024-2033 Capital Planning





Asset Management Update

- Asset inventory/replacement schedule
- Risk/criticality assessment
- Integration to GIS
- Implement CMMS

- Review of DSS software options
- Development of condition assessment program





2024-2028 Capital Plan

	2024	2025	2026	2027	2028
1023 - Annual Capital Equipment	\$36,000	\$20,000	\$20,000	\$20,000	\$20,000
1033 - Vehicle Purchase	285,000	190,000	160,000	160,000	80,000
1035 - Water Treatment Plant	417,000	-	-	-	-
1063 - Annual Capital Projects	395,000	260,000	60,000	510,000	60,000
1141 - Water South Extension	400,000	1,200,000	11,792,177	6,289,523	-
Total	1,533,000	1,670,000	12,032,177	6,979,523	160,000



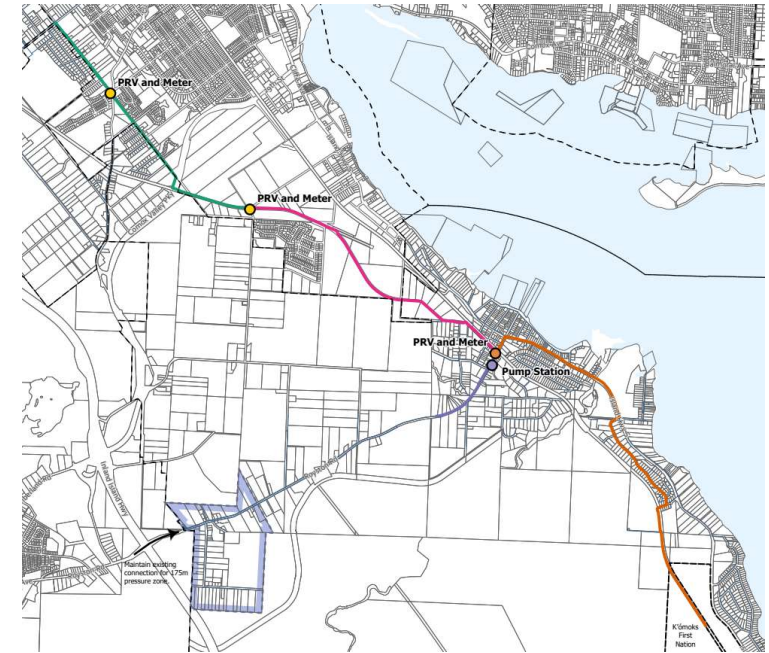
2029-2033 Long Term Capital Plan

	2029	2030	2031	2032	2033
1023 - Annual Capital Equipment	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
1033 - Vehicle Purchase	150,000	150,000	100,000	100,000	100,000
1035 - Water Treatment Facility	-	-	-	-	-
1063 - Annual Capital Projects	60,000	60,000	60,000	60,000	60,000
1141 - Water South Extension	-	-	-	-	-
Total	\$230,000	\$230,000	\$180,000	\$180,000	\$180,000



Water South Extension Project

Description	Current Cost Estimate (HDPE)
Construction Costs	\$11.6M
Escalation to Midpoint of Construction	\$2.0M
Engineering Costs	\$1.7M
L&/Legal/Other	\$1.2M
Contingency	\$3.5M
Total Project Costs	\$20.0M
Grant Funding (ICIP – Green Infra. EQ program)	-\$7.4M
Total Cost After Grant	\$12.6M
K'ómoks Apportionment	\$7.4M
Royston Apportionment	\$1.7M
City of Courtenay Apportionment	\$3.5M





Reserves

Reserve	2023 Ending Balance
300 – Future Expenditure Reserve	\$404,369
838 – Capital Works Reserve	4,562,879
894 – DCC Reserve	4,013,514
Total	\$8,980,762



Future Expenditure Reserve (300)

	2024	2025	2026	2027	2028
Opening Balance	\$404,369	\$337,814	\$463,201	\$532,516	\$650,540
Contributions to Reserve	33,445	125,387	69,315	118,024	120,000
Transfers to Capital/Operating	100,000	-	-	-	-
Ending Balance	337,814	463,201	532,516	650,540	770,540



Capital Works Reserve (838)

	2024	2025	2026	2027	2028
Opening Balance	\$4,562,879	\$3,974,803	\$4,305,911	\$5,263,903	6,052,301
Contributions to Reserve	544,924	801,108	1,197,992	1,478,398	1,492,646
Transfers to Capital	1,133,000	470,000	240,000	690,000	160,000
Ending Balance	3,974,803	4,305,911	5,263,903	6,052,301	7,384,947



DCC Reserve (894)

	2024	2025	2026	2027	2028
Opening Balance	\$4,013,514	\$5,047,093	\$6,101,342	\$7,176,677	\$8,273,519
Contributions to Reserve*	1,033,578	1,054,250	1,075,335	1,096,842	1,118,779
Transfers to Capital/Operating	-	-	-	-	-
Ending Balance	5,047,093	6,101,342	7,176,677	8,273,519	9,392,298

* Reserve contributions for DCC reserve are included using average annual contributions received



Summary

<p>Fiscal Responsibility</p> 	<p>Climate Crisis & Environmental Stewardship & Protection</p> 	<p>Community Partnerships</p> 	<p>Indigenous Relations</p> 	<p>Accessibility, Diversity, Equity & Inclusion</p> 
<p>Bulk water rate increasing to fund future infrastructure liabilities</p>	<p>Implementation of WPP</p> <p>Courtenay & Comox commercial & some residential properties metered</p> <p>CEEP implementation</p>	<p>WPP guided by WAG</p> <p>Service is a partnership between Courtenay, Comox & Electoral Areas</p>	<p>MBA signed in 2018</p> <p>Working together for servicing K'ómoks development I&S</p>	<p>Consideration for extending regional water services to the south</p> <p>Assess other requests to extend water services</p>



Options & Recommendations



- That the proposed 2024-2028 financial plan for the function 300, Comox Valley Water Supply Service, be approved.



Questions?