

2020-2024 Water and Sewer Financial Plan Highlights



PRESENTED BY
CITY OF COURTENAY STAFF

December 11, 2019

Water and Sewer Financial Plan Overview

Water and Sewer services are self funded utilities and are not assisted with funding from general taxation.

Two major sources of revenue:

1. **Utility fees:** to cover operational expenses

Such as bulk water purchase, sewer requisition, electrical power, chemicals, flushing, monitoring, labor expenses and general maintenance

2. **Frontage taxes:** to cover capital expenses

Such as asset renewal or expansion, depreciation, repairs that extend the life of an asset and contribution to reserves

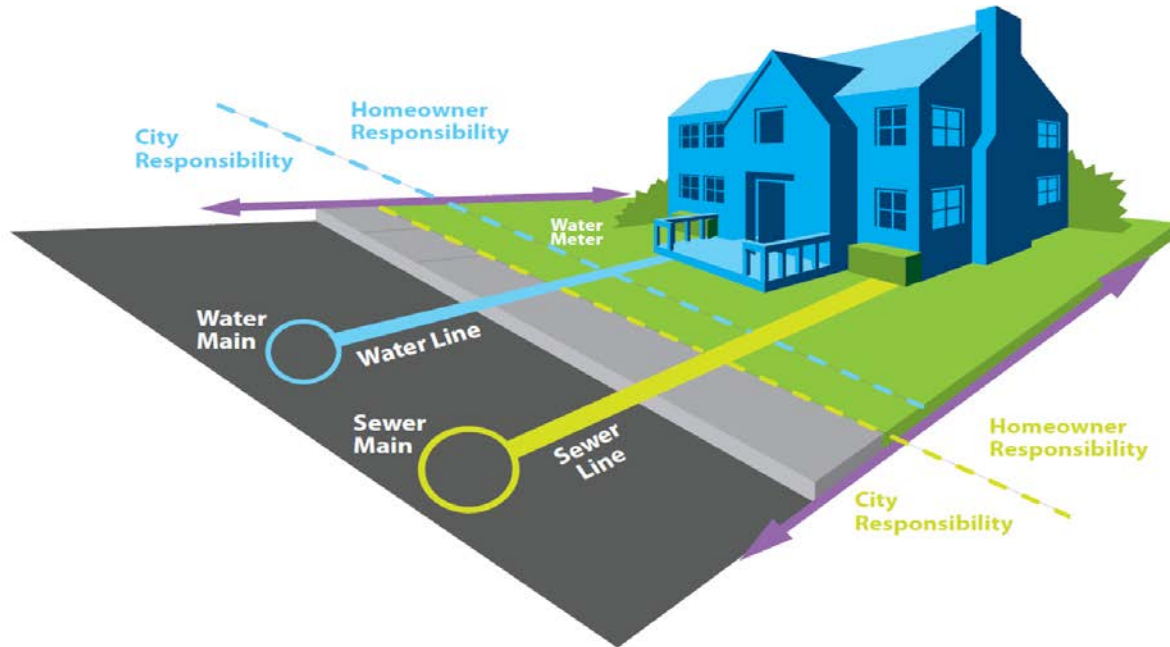
Water and Sewer Financial Plan Overview

- ❖ Regional long-term capital impacts on City utility fees
 - Increase in CVRD bulk water rate & sewer requisition
- ❖ Increased permit and regulatory requirements in City operations
- ❖ Focus on Asset Management for sustainable service delivery
 - Emphasis on preventative maintenance to extend the life of the City's assets
 - As per Council's Asset Management Bylaw No. 2981, 2019

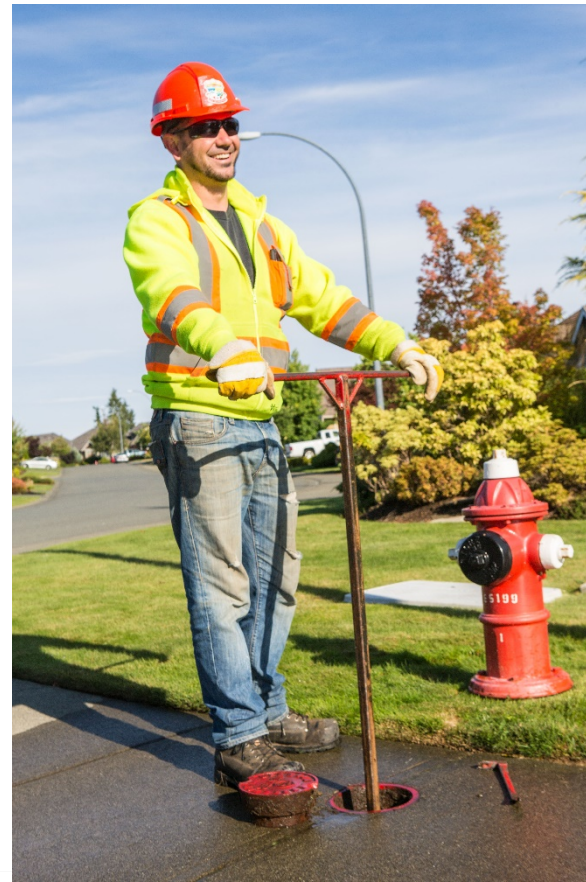
Water and Sewer Financial Plan Overview

- ❖ Water and Sewer Financial Plan is a collaborative effort involving:
Public Works – Engineering – Finance
- ❖ The *Community Charter* requires a municipality to have a five year financial plan adopted annually before May 15th
- ❖ Now seeking approval of proposed financial plans and to implement proposed utility fees to cover the anticipated costs of the services
- ❖ Next steps:
 - Incorporate into consolidated financial plan for the City
 - No amendment to bylaw required with proposed rate increase for 2020

Utility Services to a Single Family Home



2020 Water Budget Highlights



Water Fund Overview

- ❖ Regional and municipal components each play a vital role in providing water services to City of Courtenay residents
- ❖ Comox Valley regional planned capital upgrades and expansion of water infrastructure, including a new water treatment facility resulting in increased bulk water rates
- ❖ City operates and maintains a Class IV water distribution system and must comply with Health Authority permit requirements and the statutory Drinking Water Protection Act.

2020 Water Operating Budget Overview

- ❖ Overall Operating Expenses increasing by 10%
 - 4% is for the development of a Leak Detection and Repair Program
 - ❖ Main cost driver is the CVRD bulk water purchases
 - Represents 58% of Water Operating Expenses
 - CVRD bulk water rates going up 3.7% in 2020
- | | | |
|------|---------------------------|-------|
| 2018 | - \$0.75 / m ³ | |
| 2019 | - \$0.80 / m ³ | +6.7% |
| 2020 | - \$0.83 / m ³ | +3.7% |
| 2021 | - \$0.85 / m ³ | |

2020 Water Operating Budget Overview

Transfers, Contribution & Surplus / Deficit	2020 Budget	2019 Budget
Transfer of revenue to fund Water capital projects	\$195,000	\$1,099,500
Contribution to Asset Management Water Reserve	\$300,000	\$200,000
Contributions to other Water Reserves	\$93,100	\$76,000
Surplus / Deficit	Surplus \$181,700 (used in proposed 2021 budget)	Deficit (\$221,900)

2020 Water Fund Operating Expenses

Activity	2019 BUDGET	Unaudited 2019 Actual Year-to date Nov28.19	2020 BUDGET	Variance 2020 Budget 2019 Budget
CVRD Water Purchase	4,275,800	3,090,031	4,436,400	160,600
Water Administration	313,900	241,783	385,900	72,000
Water Training	36,700	32,093	36,900	200
Water Engineering Services	53,500	31,034	78,000	24,500
Water Condition Assessments	25,500	22,400	200,000	174,500
Water Transmission and Distribution	709,600	846,268	845,600	136,000
Water Booster Stations	17,800	16,867	68,300	50,500
Water Hydrant Maintenance	197,200	89,299	191,900	(5,300)
Water Meter Replacement	106,100	91,235	103,900	(2,200)
Water Meter Reading	10,800	16,154	11,000	200
Water Conservation Programs	25,000	21,932	60,000	35,000
Water Water Enforcement	26,000	17,458	26,600	600
Water Fleet	(27,700)	(40,560)	(52,700)	(25,000)
Water Work in Progress	100,400	147,871	100,000	(400)
Interfund Allocation	1,069,600	836,403	1,132,900	63,300
Grand Total	6,940,200	5,460,267	7,624,700	684,500

2020 Water Operations

- ❖ In BC, drinking water quality is controlled through provincial and federal regulations administered by the Local Health Authority

Under these regulations, we are required to provide potable water considered to be safe from disease causing micro-organisms

- ❖ The City owns and operates a Class IV water distribution system
- ❖ The City's permit to operate has a number of mandated programs requiring additional resources:
 - Uni-Directional Flushing
 - Leak Detection
 - Cross-Connection Control
 - Industrial, Commercial and Institutional Metering (ICI) programs

City of Courtenay Water System Assets 2019

- ❖ 187 km of water main (9km new for 2019)
- ❖ 11,800 water service connections (400 new for 2019)
- ❖ 1220 ICI water service connections (20 new for 2019)
- ❖ 750 ICI water service connections meters
- ❖ 740 Fire Hydrants (45 new for 2019)
- ❖ 2250 water main valves
- ❖ 90 Air valves
- ❖ 3 Pressure reducing stations
- ❖ 1 Booster station

Asset Management's role in Operations

- ❖ Inventory and condition assessments completed in 2018-2019
- ❖ Risk analysis completed in 2018-2019 resulting in identification of areas of concern (either pipe material or flow concerns)
- ❖ Water Master Plan to be completed in early 2020 (field verification of data)
 - Will result in a 20 year capital plan
- ❖ Preventative Maintenance Plan (PMP) in place
 - Extend the asset life by 10-15%, saving significant capital expenditures in future years
 - Annual PMP will be completed by the end of 2019

Water Smart Action Plan

- ❖ Provides framework and guidance in developing capital and operational projects
- ❖ Presented to Council on October 28, 2019
- ❖ Goal is to create an efficient and sustainable water distribution system
- ❖ Recommended projects incorporated in 2020-2024 Financial Plan:
 - 2020, prioritize zone meter location
 - 2020, undertake utility rate review
 - 2020-2022, leak detection and repair
 - 2020 & 2021, install distribution zone meter at CVWS Transmission connections

2020 Water Capital Projects

Category	Project description	2020 Proposed Budget	2020 Water Revenues	2020 Reserve for Future Expenditures	2020 Water Reserves
New	City Watermain on private property	70,000	70,000		
	Water - South Courtenay Secondary Transmission	83,600		83,600	
	Water - City Cross Connection Control Program - Transmission/Distribution Metering	250,000			250,000
	Water - Sandwick Area Fireflow Analysis	25,000	25,000		
New Total		428,600	95,000	83,600	250,000
Renewal	Braidwood Road - Road & Utility - Water Component	31,000		31,000	
	Water - Highway 19A Loop - Christie Parkway	100,000	100,000		
Renewal Total		131,000	100,000	31,000	
Grand Total		559,600	195,000	114,600	250,000

2020 Water Revenue Requirements

- ❖ Recommend 1.63 % increase to 2019 User Fees
- ❖ Remaining total revenue requirements from realized and anticipated increased growth
- ❖ No increase to frontage fee recommended for 2020
- ❖ Impact for a Single Family Home since 2017:

Annual	Water User Fee			Water Frontage Fee		
	One-time	Change	Change %	per meter	Change	Change %
2017	\$425.03	\$55.44	15.00%	\$4.68	\$0.94	25.1%
2018	\$467.53	\$42.50	10.00%	\$5.84	\$1.16	24.8%
2019	\$497.92	\$30.39	6.50%	\$5.84	\$0.00	0.0%
2020	\$506.05	\$8.13	1.63%	\$5.84	\$0.00	0.0%

- ❖ Water Master Plan and Water Rate Review to be completed in 2020 will inform the water revenue requirements for future years

Water Fund Surplus and Reserves

WATER	Estimated	Budget	Proposed Budget			
Surplus, Reserves and DCC Summary	Actual					
Estimated Closing Balances	2019	2020	2021	2022	2023	2024
Water Fund Surplus						
Prior Year Surplus (unallocated)	1,525,200	1,706,900	1,374,200	1,363,600	1,065,100	1,049,200
Surplus Reserve for Future Expenditures (Unspent Capital 2019)	114,600	-	-	-	-	-
	1,639,800	1,706,900	1,374,200	1,363,600	1,065,100	1,049,200
Water Capital Reserves						
Water Reserve	1,660,400	1,441,300	1,373,000	1,405,200	1,438,200	1,472,300
Asset Management Reserve	358,100	658,100	458,100	758,100	808,100	858,100
Water Machinery and Equipment	186,100	216,100	246,100	276,100	306,100	336,100
	2,204,600	2,315,500	2,077,200	2,439,400	2,552,400	2,666,500
Total Water Surplus and Reserves	3,844,400	4,022,400	3,451,400	3,803,000	3,617,500	3,715,700
Total Water DCC Bylaw #2426/2755	375,900	375,900	375,900	375,900	375,900	375,900

Questions?

2020 Sewer Budget Highlights



Sewer Fund Overview

- ❖ Regional and municipal components each play a vital role in providing sewer services to City of Courtenay residents
- ❖ Regional sewer service infrastructure includes:
Pumping stations, sewer force mains, wastewater treatment plant with outfall treated effluent
- ❖ City of Courtenay sewer collection infrastructure includes:
Lift stations, sewer trunk mains, collection system and connections within our boundaries
- ❖ City owns and operates a Class 3 sewer collection system

2020 Sewer Operating Budget Overview

- ❖ Overall Operating Expenses increasing by 8.1%
- ❖ Main cost driver is the CVRD regional sewer service requisition:
 - Represents 70% of Sewer Operating Expenses

Comox Valley Sewer Service Requisition Courtenay share	\$	% increase
2018 Actual	3,890,928	6.0%
2019 Actual	4,145,491	6.5%
2020 Estimation	4,494,200	8.4%
2021 Proposed budget	4,494,200	0.0%
2022 Proposed budget	4,949,300	10.1%
2023 Proposed budget	4,949,300	0.0%
2024 Proposed budget	4,949,300	0.0%

2020 Sewer Operating Budget Overview

Transfers, Contributions & Surplus	2020 Budget	2019 Budget
Transfer of revenue to fund Sewer capital projects	\$350,000	\$613,700
Contribution to Asset Management Sewer Reserve	\$300,000	\$300,000
Contributions to other Sewer Reserves	\$81,000	\$81,100
Surplus	\$206,900	\$12,800

2020 Sewer Fund Operating Expenses

Activity	2019 BUDGET	Unaudited 2019 Actual Year-to-date Nov28.19	2020 BUDGET	Variance 2020 Budget 2019 Budget
CVRD Sewer Requisition	4,124,400	4,145,491	4,494,200	369,800
Sewer Administration	268,600	191,072	315,500	46,900
Sewer Engineering Servic	48,500	8,501	73,000	24,500
Sewer Training	11,000	15,659	11,000	-
Sewer Operations	372,400	328,971	352,100	(20,300)
Sewer Lift Station Mainten	210,300	194,696	217,200	6,900
Sewer Inflow & Infiltration	46,500	49,513	46,500	-
Sewer Fleet	9,900	(28,147)	41,700	31,800
Sewer Work in Progress	47,800	38,997	40,000	(7,800)
Interfund Allocation	827,000	626,277	856,200	29,200
Grand Total	5,966,400	5,571,031	6,447,400	481,000

2020 Sewer Operations

- ❖ The City owns and operates a Class 3 sewer collection system
- ❖ SCADA system is fully operational
 - 6 additional SCADA sites commissioned in 2019
- ❖ Operational activities mandated by combination of industry best practises, engineering standards and Ministry of Health
- ❖ Flushing Program completed for 2019
- ❖ Grease and Root Removal Program completed for 2019
- ❖ Smoke Testing Program (I and I) completed for 2019

Sewer System Assets 2019

- ❖ 168 km of sewer main (8km new for 2019)
- ❖ 7 km of sewer force main
- ❖ 2100 manholes (+150 new for 2019)
- ❖ 11 lift stations
- ❖ 2 flow meter chambers

Asset Management's role in Operations

- ❖ CCTV Camera Program
 - System condition assessments completed in 2019
- ❖ Risk analysis completed in 2018 resulting in identification of areas of concern (either pipe material or flow concerns)
- ❖ Sewer Master Plan to be completed in early 2020 (field verified data)
 - Will result in a 20 year capital plan
- ❖ Preventative Maintenance Plan (PMP) in place
 - Extends the life of assets by 10-15%, saving significant capital expenditures in future years
 - Annual PMP will be completed for 2019

2020 Sewer Capital Projects

Category	Project description	2020 Proposed Budget	2020 Sewer Revenues	2020 Sewer Reserves	2020 Reserve for Future Expenditures	2020 DCC Reserve	2020 Debt
<input checked="" type="checkbox"/> New	Sewer - Greenwood Trunk Construction	4,100,000	50,000	600,000		450,000	3,000,000
	Sewer System Options Analysis	200,000	200,000				
New Total		4,300,000	250,000	600,000		450,000	3,000,000
<input checked="" type="checkbox"/> Renewal	Comox Road, Lewis Park, River Crossing Sanitary Main Replacement	194,900			194,900		
	Sewer - 1st Street Lift Station Replacement	341,100			341,100		
	Braidwood Road - Road & Utility - Sewer Component	31,500			31,500		
	Sewer - Mansfield Drive Forcemain	50,000	50,000				
	Veterans Memorial Parkway Sewer Sleeve	50,000	50,000				
Renewal Total		667,500	100,000		567,500		
Grand Total		4,967,500	350,000	600,000	567,500	450,000	3,000,000

2020 Sewer Capital – Long Term Borrowing

- ❖ Long Term Borrowing is a lengthy statutory process
 - Can take up to 8 months
- ❖ Process underway for:
 - Greenwood Trunk Connection: \$3M borrow in 2020
- ❖ Recommended to start the borrowing process shortly after final adoption of the Financial Plan for:
 - 1st Street Lift Station Replacement: \$2M in 2021

2020 Sewer Revenue Requirements

- ❖ Recommended 1.27% increase to User Fees
- ❖ Remaining total revenue requirements from realized and anticipated increased growth
- ❖ No increase to frontage fee recommended for 2020
- ❖ Impact for a Single Family Home since 2017:

Annual	Sewer User Fee			Sewer Frontage Fee	
	One-time	Change	Change %	per meter	Change
2017	\$294.70	\$26.79	10.00%	\$10.24	\$ -
2018	\$324.17	\$29.47	10.00%	\$10.24	\$ -
2019	\$340.38	\$16.21	5.00%	\$10.24	\$ -
2020	\$344.71	\$4.33	1.27%	\$10.24	\$ -

- ❖ Sewer Master Plan and Sewer Rate Review to be completed in 2020 will inform the sewer revenue requirements for future years

Sewer Fund Surplus and Reserves

SEWER	Estimated	Budget	Proposed Budget			
Surplus, Reserves and DCC Summary	Actual					
Estimated Closing Balance	2019	2020	2021	2022	2023	2024
Sewer Fund Surplus						
Prior Year Surplus (unallocated)	1,273,500	1,480,400	1,185,400	925,000	757,000	404,000
Surplus Reserve For Future Expenditure (Unspent Capital 2019)	567,500	-	-	-	-	-
	1,841,000	1,480,400	1,185,400	925,000	757,000	404,000
Sewer Capital Reserves						
Sewer Reserve	514,000	514,000	514,000	514,000	514,000	514,000
Asset Management Reserve	1,920,200	1,620,200	370,200	420,200	720,200	770,200
Sewer Machinery and Equipment	486,800	561,800	636,800	711,800	786,800	861,800
	2,921,000	2,696,000	1,521,000	1,646,000	2,021,000	2,146,000
Total Sewer Surplus and Reserves	4,762,000	4,176,400	2,706,400	2,571,000	2,778,000	2,550,000
Sewer Development Cost Charges (DCC)						
Sewer DCC Bylaw #1638/2755	34,300	34,300	34,300	34,300	34,300	34,300
Sewer DCC Bylaw #2426/2755	876,900	426,900	426,900	426,900	426,900	426,900
Total Sewer DCC	911,200	461,200	461,200	461,200	461,200	461,200



Questions?