

The Corporation of the
CITY OF WHITE ROCK



Finance and Audit Committee
AGENDA

Monday, December 13, 2021, 6:00 p.m.

City Hall Council Chambers

15322 Buena Vista Avenue, White Rock, BC, V4B 1Y6

***Live Streaming/Telecast:** Please note that all Committees, Task Forces, Council Meetings, and Public Hearings held in the Council Chamber are being recorded and broadcasted as well included on the City's website at: www.whiterockcity.ca
T. Arthur, Director of Corporate Administration

	Pages
1. CALL TO ORDER Councillor Chesney, Chairperson	
2. ADOPTION OF AGENDA RECOMMENDATION THAT the Finance and Audit Committee adopt the agenda for December 13, 2021 as circulated.	
3. ADOPTION OF MINUTES RECOMMENDATION THAT the Finance and Audit Committee adopt the November 22, 2021 meeting minutes as circulated.	3
4. WATER UTILITY 2022 BUDGET AND WATER UTILITY RATES Corporate report dated December 13, 2021 from the Acting Director of Corporate Services and P. Murray, Consultant, titled "Water Utility 2022 Budget and Water Utility Rates". Note: The Water Services Bylaw is on the agenda for the December 13, 2021 Regular Council meeting for consideration of first, second and third reading. RECOMMENDATION THAT the Finance and Audit Committee recommend that Council give Water Services Bylaw, 2015, No. 2117, Amendment No. 10, 2021, No. 2405	7

first, second and third readings.

5. **CONCLUSION OF THE DECEMBER 13, 2021 FINANCE AND AUDIT
COMMITTEE MEETING**



Finance and Audit Committee

Minutes

November 22, 2021, 4:00 p.m.

City Hall Council Chambers

15322 Buena Vista Avenue, White Rock, BC, V4B 1Y6

PRESENT: Mayor Walker
Councillor Chesney
Councillor Johanson
Councillor Kristjanson
Councillor Manning
Councillor Trevelyan

ABSENT: Councillor Fathers

STAFF: Guillermo Ferrero, Chief Administrative Officer
Tracey Arthur, Director of Corporate Administration
Jim Gordon, Director of Engineering and Municipal Operations
Jacquie Johnstone, Director of Human Resources
Eric Stepura, Director of Recreation and Culture
Ed Wolfe, Fire Chief
Chris Zota, Manager of Information Technology
Greg Newman, Manager of Planning
Debbie Johnstone, Deputy Corporate Officer

1. CALL TO ORDER

Councillor Chesney, Chairperson

The meeting was called to order at 4:03 p.m.

2. **ADOPTION OF AGENDA**

Motion Number: 2021-F&A-069 It was MOVED and SECONDED

THAT the Finance and Audit Committee adopt the agenda for November 22, 2021, as circulated.

Absent (1): Councillor Fathers

Motion CARRIED (6 to 0)

3. **ADOPTION OF MINUTES**

Motion Number: 2021-F&A-070 It was MOVED and SECONDED

THAT the Finance and Audit Committee adopt the September 22, 2021, meeting minutes as circulated.

Absent (1): Councillor Fathers

Motion CARRIED (6 to 0)

4. **2022 BUDGET UPDATE - FORMAT, PROCESS AND TIMELINE**

Corporate report dated November 22, 2021, from the Acting Director of Financial Services and Paul Murray, Consultant, titled "2022 Budget Update - Format, Process and Timeline".

Paul Murray, Consultant, introduced the corporate report noting this is an initial consultation and there will be opportunities to provide feedback throughout the budget process.

The following discussion points were noted:

- Costs will be grouped with a description of each grouping to be provided
- Refinements for 2023 this will be following the budget document being submitted to the Government Finance Officers Association (GFOA). Their practice is to follow up with feedback on the initial document which will then be incorporated moving forward
- New operating budget requests as an appendix may be beneficial

Motion Number: 2021-F&A-071 It was MOVED and SECONDED

THAT the Finance and Audit Committee endorses the 2022 budget format for use as the basis for preparation of the full 2022 budget document and presentations, as illustrated in the Fire Rescue draft budget pages presented November 22, 2021.

Absent (1): Councillor Fathers

Motion CARRIED (6 to 0)

Motion Number: 2021-F&A-072 It was MOVED and SECONDED

THAT the Finance and Audit Committee approves a “Lets Talk” 2022 budget survey component for release in January 2022 as part of the 2022 budget process.

Absent (1): Councillor Fathers

Motion CARRIED (6 to 0)

5. 2022 FEES AND CHARGES BYLAW, 2021, NO. 2401

Corporate report dated November 22, 2021, from the Acting Director of Financial Services titled "2022 Fees and Charges Bylaw, 2021, No. 2401".

Staff provided an overview of the corporate report.

The following discussion points were noted:

- The CAO noted direction is being followed where the budget for 2022 includes parking fees being collected for the hospital area (January 1 - hospital fees \$3 per hours). Staff will report back if this is enough to cover the City costs.
- The resident parking passes - What are they currently? Staff noted they have been raised by \$1 per permit - currently a review of the City's parking strategy is underway and will be coming to Council in the New Year

Motion Number: 2021-F&A-073 It was MOVED and SECONDED

THAT the Finance and Audit Committee endorse the proposed “2022 Fees and Charges Bylaw, 2021, No. 2401”.

Voted in the Negative (1): Councillor Manning

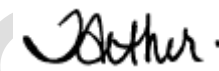
Absent (1): Councillor Fathers

Motion CARRIED (5 to 1)

6. **CONCLUSION OF THE NOVEMBER 22, 2021 FINANCE AND AUDIT COMMITTEE MEETING**

The meeting was concluded at 4:44 p.m.

Councillor Chesney, Chairperson



Tracey Arthur, Director of Corporate Administration

THE CORPORATION OF THE
CITY OF WHITE ROCK
CORPORATE REPORT



DATE: December 13, 2021

TO: Finance and Audit Committee

FROM: Shannon Johnstone, Acting Director, Finance
Paul Murray, Consultant

SUBJECT: Water Utility 2022 Budget and Water Utility Rates

RECOMMENDATIONS

THAT the Finance and Audit Committee recommend that Council give Water Services Bylaw, 2015, No. 2117, Amendment No. 10, 2021, No. 2405 first, second and third readings.

EXECUTIVE SUMMARY

The City's water user fee rates are established each year through bylaw. The rates are based on the City's Five-Year Financial Plan for the water system which includes forecasted revenues and expenses, asset improvement capital requirements, reserves and debt financing.

The attached Water Utility Budget document is newly formatted to match the presentation of the consolidated budget when it is presented in spring 2022.

A new water user fee rate structure is planned for phase in over the next four years to align water consumption with water utility costs and promote water conservation. Once phasing is complete in year four, the City will be charging a smaller fixed fee related to the size of the meter and all water consumed will be charged at the same rate.

For 2022 (the first year of this restructure), the annual cost to a single family residential property (2238 cubic feet annually) is proposed to increase by 2%.

For an average consumption multi-family home (990 cubic feet) the annual cost is proposed to increase by 5.6% in accordance with the structure approved by Council previously.

PREVIOUS COUNCIL DIRECTION

Motion # & Meeting Date	Motion Details
2021-243 June 28, 2021	THAT Council direct staff to implement a new water use fee rate structure based on Option 2 as outlined in the June 28, 2021 corporate report titled "Water utility User Fee Rate Restructure - 2 Options" (whereby each account would be charged a fixed fee that would be related to the size of the meter. The larger the meter size, the higher the fixed fee which reflects the demands on the system. All water consumption would be charged at the same rate).

INTRODUCTION/BACKGROUND

The City owns, operates and maintains a Water Utility that was purchased in 2015. Infrastructure includes watermain, service connections, fire hydrants, reservoirs, a water treatment plant, and seven water wells. Revenues generated through water user rates fund the operation of the system and the asset improvement program.

The 2022 proposed budget balances \$6.93M of revenues with \$6.93M of costs.

Water user fee revenues are projected to continue increasing by an average of 6.5% annually over the next five years primarily to build capital reserves necessary to address future infrastructure replacement needs and funding for the Utility's asset improvement capital program. Operating costs driven by water treatment filtration expenses and paying for the purchase of the Utility through debt financing will continue to be minimized as much as possible. Billing is carried out quarterly.

Operating Revenues

Water user fee revenue is projected to be \$5.97M or an increase of 6.5% from 2021.

The 2022 revenue increase is needed for:

Water Operations (\$68,100)	1.2%
Transfer to Asset Improvement Program Reserves (\$296,300)	<u>5.3%</u>
Total	<u>6.5%</u>

A new water user fee rate structure will also be phased in over the next four years to align water consumption with water utility costs and promote water conservation. Once phasing is complete in year four, the City will be charging a smaller fixed fee related to the size of the meter and all water consumed will be charged at the same rate.

Phase one of the rate structure implementation in 2022 will reduce both the minimum charge by meter size and the consumption included in the minimum charge by 20%. Any water consumption above what is included in the minimum fee will be charged at \$6.21 per 100 cubic feet.

For 2022, the annual cost to an average consumption single family residential property (2238 cubic feet annually) is proposed to increase by 2% or from \$705 to \$719 as follows:

	<u>2021</u>	<u>2022</u>
Fixed Charge	\$576	\$460
User fee	<u>129</u>	<u>259</u>
Total	<u>\$705</u>	<u>\$719</u>

For an average consumption multi-family home (990 cubic feet) the annual cost is proposed to increase by \$14 per unit from \$247 to \$261 or 5.6% in accordance with the structure approved by Council previously. This will vary depending on actual consumption. Costs to commercial and institutional property owners will also vary by actual consumption.

Operating Reserves will be used to fund a \$471,000 contingency for bayoxide media replacement at the treatment plant which may be required in 2022.

Operating Expenses

The Water Utility's main operating expenses relate to staffing, materials and supplies, contract maintenance, interest on long-term debt and transfer to reserves for future infrastructure replacement. Increases in overall operating costs have been kept at a minimum for 2022:

- Engineering administrative costs are forecast to increase 5.7% which is from wage and benefit costs, inflation and the recent restructure.
- Corporate support costs have increased 7.4% from inflation but primarily from an increase to the corporate support fee charged to the water fund which is gradually being increased to 100% of the actual costs.
- Waterworks costs have increased for one year to provide the \$471,000 contingency for bayoxide media replacement at the Treatment Plant. This is funded from an operating reserve that is built up by \$167,000 each year to smooth that cost as the media is consumed every three years during the treatment process. Costs will revert to standard levels in 2023.

Transfer to Reserves

Transfers to asset improvement capital reserve are forecast to increase by \$296,300 to \$1,639,300, consistent with the Cities long term plan to increase funding for infrastructure replacement. This is equivalent to 5.3% of the 6.5% user fee revenue increase for 2022.

Debt and Reserves

No new debt is required, and existing debt levels of \$22.6M are projected to continue gradually reducing to \$18M in 2026 as principal payments are made.

Operating Reserves are maintained for three functions: A Working Capital Reserve which is to provide a foundation for operations, a Water Operating Reserve which provides a buffer to smooth out fluctuations in water rates from year to year, and a Water Treatment Reserve which smooths out the costs of media replacement at the treatment plant. These reserves are projected to remain consistent at approximately \$5.4M over the next five years.

Asset Improvement Program

Over the next five years, the Water Utility plans to spend \$13.7M to replace water mains, wells, valves and equipment. This is primarily funded from Water Infrastructure and Equipment Replacement Reserves. Annual spending ranges between \$1.5M and \$3.4M per year.

The capital program is guided by the 2017 Water Master Plan and provides for replacements of end of life city water mains, associated trench restoration, new additions to meet future population growth and the replacement of equipment.

The capital program is primarily funded on a pay as you go basis through reserves which are set aside each year from water sales to the community, supplemented by a small amount of developer contributions and senior government grants as they become available.

The next five years of infrastructure replacement will continue to be focused on water mains coordinated with the replacement of other road, sewer and drain projects and a well replacement. Key projects include main replacements on Johnston Road, Russell Avenue and Prospect Avenue; construction of the Oxford Well in 2022 at a cost of \$1.8M to replace Well #3 and the Overall Street Pressure Reducing Valve Station in 2024 at a cost of \$600,000.

Details are provided in the attached budget report.

FINANCIAL IMPLICATIONS

The proposed Water Utility Financial Plan will increase the cost of water for single family homeowners by \$14 or 2.0% to \$719 per year and for multi residential homeowners by \$14 or 5.6% to \$261 unit per year.

This approach continues the plan previously outlined with Council to increase transfers to reserves for infrastructure replacement by approximately \$300,000 per year and Phase I of the water user fee restructuring plan.

LEGAL IMPLICATIONS

No specific legal implications to note. Bylaw approval required to implement rate increase and authorize budget for 2022.

COMMUNICATION AND COMMUNITY ENGAGEMENT IMPLICATIONS

The proposed Financial Plan has been reformatted and is presented using the GFOA Distinguished Budget Presentation method which is being used for the overall budget in 2022. The background material is available on the municipal website and will be incorporated into the Consolidated Financial Plan document when it presented in spring 2022.

INTERDEPARTMENTAL INVOLVEMENT/IMPLICATIONS

No specific interdepartmental capacity or other implications from the proposed 2022 budget. All departments have been involved in preparation of the proposed financial plan and rates.

CLIMATE CHANGE IMPLICATIONS

No specific climate implications resulting from this proposed financial plan.

ALIGNMENT WITH STRATEGIC PRIORITIES

The proposed budget is aligned with Council priorities. Specifically: “Implement new billing structure for Water by 31st Dec 2024.”

OPTIONS / RISKS / ALTERNATIVES

The following alternate options are available for Council’s consideration:

1. Decline to endorse the proposed Water Services Bylaw, 2015, No. 2117, Amendment No. 10, Bylaw, 2021, No. 2405. This would defer and delay implementation of the Council approved water user fee restructuring plan and not provide additional funds for asset improvement, or
2. Endorse Water Services Bylaw, 2015, No. 2117, Amendment No. 10, Bylaw, 2021, No. 2405, with a reduced water revenue increase that would result in a 0% increase for the average single family residence and 3.5% increase for multi-family homes. This would require a reduction in the transfer to reserves for asset improvements of \$133,000 per year beginning in 2022 and the deferral of some capital projects.

Staff note that moving away from the planned program of increased infrastructure funding (6.5% increase per year) will increase the risk of insufficient funding being available to draw upon in future for necessary maintenance or unexpected expenses. At a minimum, the cumulative

reduction in available funds by the end of 2026 would be \$656,000 plus any foregone planned increases. The infrastructure deficit would increase.

CONCLUSION


The City's Water Utility rates are established annually through bylaw prior to January 1 of the upcoming year. The rates are determined through the development of the City's Five-Year Financial Plan, which considers the Utility's projected revenues and expenses, capital requirements, reserves and long-term debt load. For 2022, a water user fee revenue increase of 6.5%, along with the first phase of the water user fee restructuring, will, for the average customer, result in a 2% increase for single family residential homes and 5.6% for multi-family homes.

Operating costs have been minimized for 2022 and most of the proposed increase is to continue the strategy to raise asset improvement funding to gradually reach sustainable levels by approximately \$300,000 per year over time.

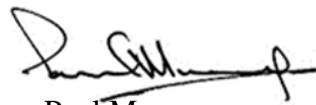
Maintaining a gradual increase in asset improvement funding is critically important as the City continues to build funding for infrastructure replacement and develop long term Asset Management Plans.

To implement this proposed budget for 2022, it is recommended that Water Services Bylaw, 2015, No. 2117, Amendment No. 10, Bylaw, 2021, No. 2405 be given first, second and third readings.

Respectfully submitted,



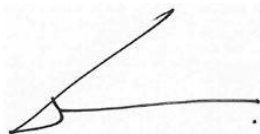
Shannon Johnston
Acting Director of Finance
Brief Summary



Paul Murray
Consultant

Comments from the Chief Administrative Officer

I concur with the recommendations of this corporate report.



Guillermo Ferrero
Chief Administrative Officer

Appendix A: Water Services Bylaw, 2015 No. 2117, Amendment No. 10, 2021, No. 2405
Appendix B: City of White Rock Water Utility Budget

The CITY COUNCIL of the Corporation of the City of White Rock, in an open meeting assembled, ENACTS as follows:

1. Replace SCHEDULE A, Section 1 titled “Water Service User Fees” of Water Services Bylaw, 2015, No. 2117 with a new SCHEDULE A.
2. This Bylaw may be cited for all purposes as the “*Water Services Bylaw, 2015, No. 2117, Amendment No. 10, Bylaw, 2021, No. 2405*”.

RECEIVED FIRST READING on the _____ day of _____, 2021

RECEIVED SECOND READING on the _____ day of _____, 2021

RECEIVED THIRD READING on the _____ day of _____, 2021

ADOPTED on the _____ day of _____, 2021

DIRECTOR, CORPORATE ADMINISTRATION

SCHEDULE A WATER SERVICE FEES

1. Water Service User Fees

Single Family (including duplex, triplex or fourplex dwellings, and bulk water supply)

Single Family Minimum by meter size	Includes consumption up to	Effective Jan 1, 2022 Per Quarter
5/8" meter	1,200 cubic feet	\$ 115.10
1" meter	3,120 cubic feet	231.30
1 1/2" meter	6,000 cubic feet	462.60
2" meter	9,600 cubic feet	740.30
3" meter	18,000 cubic feet	1,388.10
4" meter	30,000 cubic feet	2,313.50
6" meter	60,000 cubic feet	4,571.60

* Except for the triplex located at 14968, 14972 & 14976 Beachview Ave. This water service account will be charged the equivalent of three (3) Single Family 5/8" meter rates.

Multi Family

Multi Family Minimum	Includes consumption up to	Effective Jan 1, 2022 Per Quarter
Per unit	600 cubic feet per unit	\$ 41.00

Non Residential Fees (all other account types)

Non Residential Minimum by meter size	Includes consumption up to	Effective Jan 1, 2022 Per Quarter
5/8" meter	1,200 cubic feet	\$ 92.60
1" meter	3,120 cubic feet	231.30
1 1/2" meter	6,000 cubic feet	462.60
2" meter	9,600 cubic feet	740.30
3" meter	18,000 cubic feet	1,388.10
4" meter	30,000 cubic feet	2,313.50
6" meter	60,000 cubic feet	4,571.60

Excess Consumption Charges (all account types)

Excess consumption above consumption included in minimum, per 100 cubic feet:	\$ 6.21
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Single Family
(including duplex, triplex or fourplex dwellings, and bulk water supply)

Single Family Minimum by meter size	Includes consumption up to	Effective Jan 1, 2021 Per Quarter
5/8" meter	1,500 cubic feet	\$ 143.90
1" meter	3,900 cubic feet	289.10
1 1/2" meter	7,500 cubic feet	578.30
2" meter *	12,000 cubic feet	925.40
3" meter)	22,500 cubic feet	1,735.10
4" meter	37,500 cubic feet	2,891.90
6" meter	75,000 cubic feet	5,714.50

* Except for the triplex located at 14968, 14972 & 14976 Beachview Ave. This water service account will be charged the equivalent of three (3) Single Family 5/8" meter rates.

Multi Family

Multi Family Minimum	Includes consumption up to	Effective Jan 1, 2021 Per Quarter
Per unit	750 cubic feet per unit	\$ 51.30

Non Residential Fees (all other account types)

Non Residential Minimum by meter size	Includes consumption up to	Effective Jan 1, 2021 Per Quarter
5/8" meter	1,500 cubic feet	\$ 115.70
1" meter	3,900 cubic feet	289.10
1 1/2" meter	7,500 cubic feet	578.30
2" meter	12,000 cubic feet	925.40
3" meter	22,500 cubic feet	1,735.10
4" meter	37,500 cubic feet	2,891.90
6" meter	75,000 cubic feet	5,714.50

Excess Consumption Charges (all account types)

Excess consumption above consumption included in minimum, per 100 cubic feet:	\$ 4.37
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Pro-rating of Fees

The City reads meters and bills on a quarterly basis. The minimum charges and reading consumption charges will be pro-rated based on the number of days the water service is connected during the billing cycle.

Multi Family consumption per unit

Per unit consumption is calculated by taking the total consumption divided by the number of units.

2. Service Fees for Specified Services Description of Work or Service Amount

Fee	Effective Jan 1, 2020	Effective Jan 1, 2022
Application to Confirm Serviceability – Single Family and Duplex	\$ 371	\$ 386
Application to Confirm Serviceability – Multi-Family and Non-Residential	3,290	3,420
Application to Confirm Serviceability – Subdivision Development	At Cost	At Cost
5/8” to 1” meter Connection Fee		6,500
All other meter size Connection Fee		At Cost
Application for Temporary Water Service	80	83
Damage Deposit for Hydrant use	714	743
Temporary Water Connection to Hydrant or Standpipe per day	53	55
Unauthorized Use of a Fire Hydrant and/or Standpipe	106	110
Removal of Unauthorized Water Meter	106	110
Back-flow Prevention Test Report Filing Fee	35	36
Testing of Back-flow Prevention Device per device	265	276
Non-Compliance Backflow Prevention Device	106	110
Water Meter Testing Fee	154	160
Special Meter Readings (readings outside of regular quarterly readings)	58	60
Disconnection	73	76
Reconnection after disconnection	73	76
One Day Water On/Off Fee	53	55
Water Restriction Exemption Permit	53	55
Restriction of Water Use - Violation	53	55

3. Fees for Other Work and Services

The City will charge the Customer a fee for any work or service provided, for which a fee is not specifically prescribed, at the City's costs of providing such work or service. Such costs will include repayment of all moneys expended by the City for gross wages and salaries, administrative costs, employee fringe benefits, and materials, as calculated by the City. The costs will also include any expenditure for equipment rentals at rates paid by the City or set by the City for its own equipment, as well as any other costs that may reasonably arise in providing the service. Labour fees for service call outs after regular working hours will be at the City's overtime fees. Temporary water supply will be charged fees on the basis of meter size in accordance with section 1 of this Schedule.

4. Fees for Undetected Leaks

Where an underground leak is discovered in a Customer's waterworks system (and not the City's Waterworks System), and where the Customer could not reasonably have been expected to be aware of such leak, provided that repairs of the Customer's waterworks system have been carried out to the City's satisfaction within seventy-two (72) hours of discovery of the leak, the City will adjust the Customer's Water Bill so that the Customer would be responsible for paying an amount equal to the Customer's average quarterly bill plus 30% of the "leaked water consumption" up to a maximum of three (3) times the Customer's average quarterly bill. The adjustment would be calculated as follows:

- (a) The "average quarterly bill" is calculated as the average of the Customer's last four (4) quarterly bills before the leak occurred.
- (b) The Customer's "average quarterly water consumption" is calculated by taking the average consumption over the previous twelve (12) months before the leak occurred.
- (c) The "leaked water consumption" is calculated as total consumption recorded by the meter during the quarterly billing period less the Customer's "average quarterly water consumption".
- (d) The Customer's bill would be calculated based on the "average quarterly consumption" plus 30% of the "leaked water consumption" up to a maximum of three (3) times the Customer's "average quarterly bill".

If repairs of the Customer's waterworks system have not been carried out to the City's satisfaction within seventy-two (72) hours of discovery of the leak, the City shall be entitled to charge for such water as per the Water Service User Fees described in Section 1 of this Schedule.



WATER UTILITY

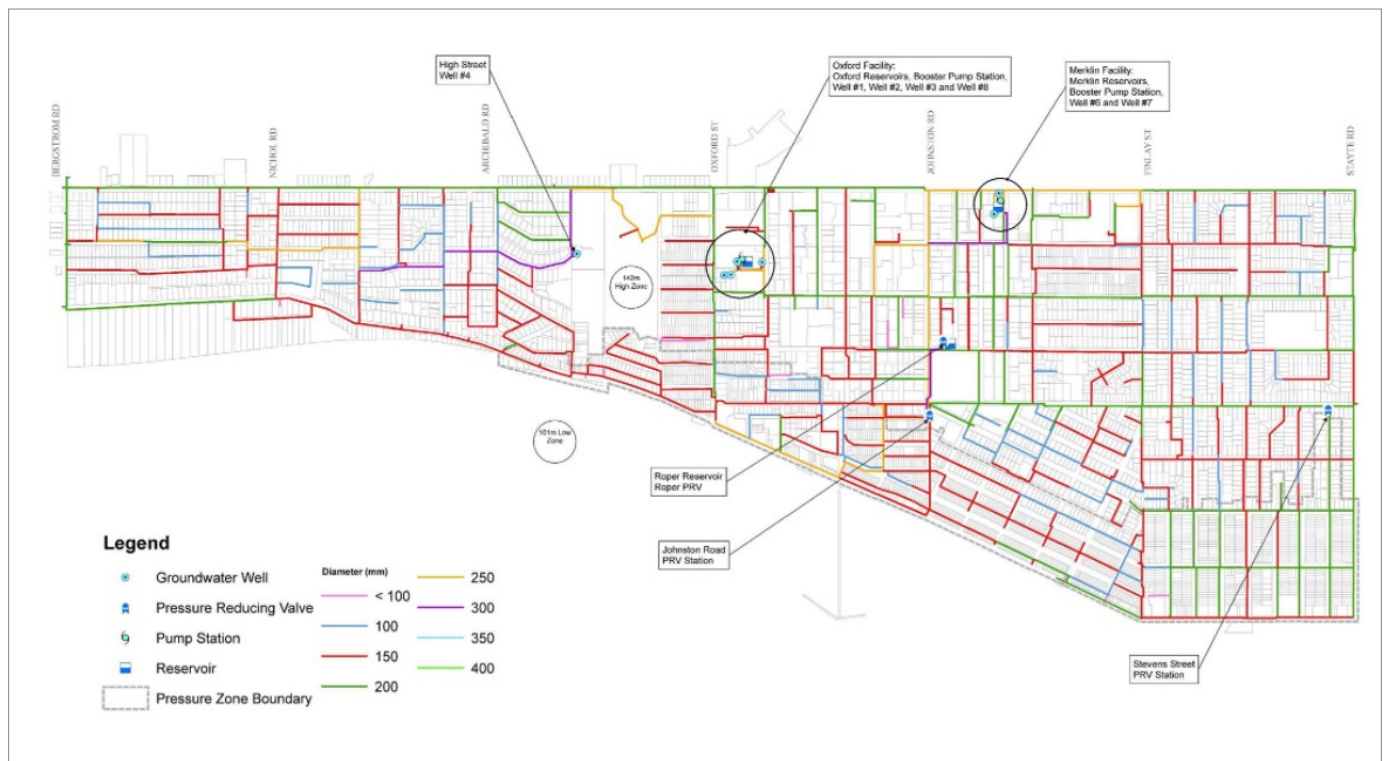
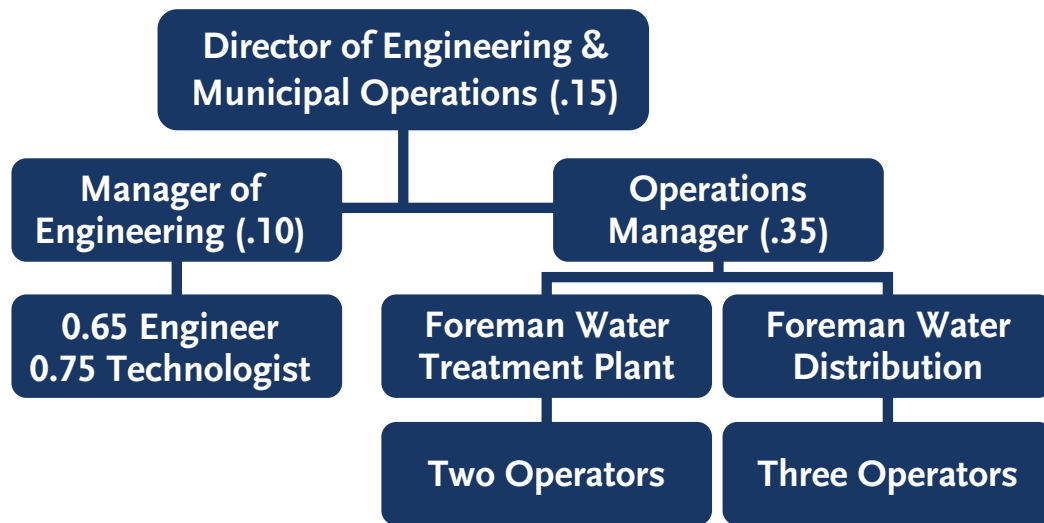
The White Rock Water Utility System has been owned and operated by the City since its purchase from private interests in 2015. Drinking water is obtained from the Sunnyside Uplands Aquifer and distributed from seven groundwater wells located at three different sites throughout the City.

The utility provides safe drinking water to 20,000 people in White Rock, portions of Surrey, and the Semiahmoo First Nation for domestic, commercial and emergency use, meeting firefighting standards, health standards, and the Drinking Water Protection Act.

System infrastructure includes:

- 7 groundwater wells
- 4 reservoirs (Roper, Oxford, and two at Merklin)
- 1 water treatment plant
- 77 km water main network
- 2 Merklin and Oxford booster stations
- 3 Pressure reducing valve stations (Roper, Johnstone and Stevens)
- Over 4500 metered properties
- 179 hydrants for firefighting.

The White Rock Water Utility System is led by the senior staff of the Engineering Department, operated by Foremen for both the operations and treatment, as well as five additional operators who oversee the system on a 24/7 basis. Engineering support is provided by a .65fte Project Engineer, and a .75fte Engineering Technologist. Finance support is provided by a Water Utility Billing Clerk with Corporate support provided by Finance, Human Resources, and Information Technology.



2021 KEY INDICATORS

- White Rock Water Utility delivered a projected 2,000,000 cm of portable water
- Both wells and the reservoir were inspected, maintained, and the treatment plant continued to operate within Public health Standards
- 77 kilometers of water mains were flushed during the year and 11 breaks repaired
- No significant noncompliance events were reported
- Hydrant, valve maintenance, and exercising programs continued
- Meter reading was completed on time
- Treatment plant produced high quality drinking water

Maintenance projections for 2022 are consistent with previous years, resulting in no significant changes expected as a result.

Water Utility						
Key Activity Levels		2018 Actual	2019 Actual	2020 Actual	2021 Projected	2022 Forecast
Operations Employees		5	6	6	7	7
Storage Capacity	Litres	6,019,901	6,019,901	6,019,901	6,019,901	6,019,901
Water delivered	Cubic Meters	1,672,060	1,724,618	1,917,055	2,000,000	2,000,000
Wells	Inspected & Maintained	Monthly	Monthly	Monthly	Monthly	Monthly
Reservoir	Inspected & Maintained	Monthly	Monthly	Monthly	Monthly	Monthly
Treatment Plant	Inspected & Maintained	Daily	Daily	Daily	Daily	Daily
Water Mains	Kilometers Flushed	77	77	77	77	77
Water Mains	Breaks Repaired	6	9	10	11	10
Pump Stations (2 Stations)	Cleaned & Inspected	Daily	Daily	Daily	Daily	Daily
PRV	Maintained	4	4	4	4	4
Water Services	New Installations	73	41	36	40	40
Meter	Replaced	99	92	127	123	120
Meter	Read	4534	4534	4536	4537	4537
Hydrants	Installed	4	4	4	4	4
Hydrants	Class A & B Serviced	348	350	177	179	179

Water Utility						
Service Plan		2018 Actual	2019 Actual	2020 Actual	2021 Projected	2022 Forecast
Water Quality Non-Compliance Events	Events Days	1 Metals	2 Micro	3 Micro	1 Micro	1 Micro
Low Water Pressure Complaints	Complaints Days	24	34	18	12	12
Meter reading on time	3 Per Year	100%	100%	100%	100%	100%
Value Exercising	Annual	100%	100%	100%	100%	100%
Hydrant Exercising	Annual	100%	100%	100%	100%	100%
Service connection breaks	Per year	5	3	6	5	5

2021 HIGHLIGHTS AND ACCOMPLISHMENTS

Water Main Capital Works:

Replaced undersized cast iron (CI) pipe at locations subject to premature corrosion and leaks. Additional fire hydrants were installed to meet current standards:

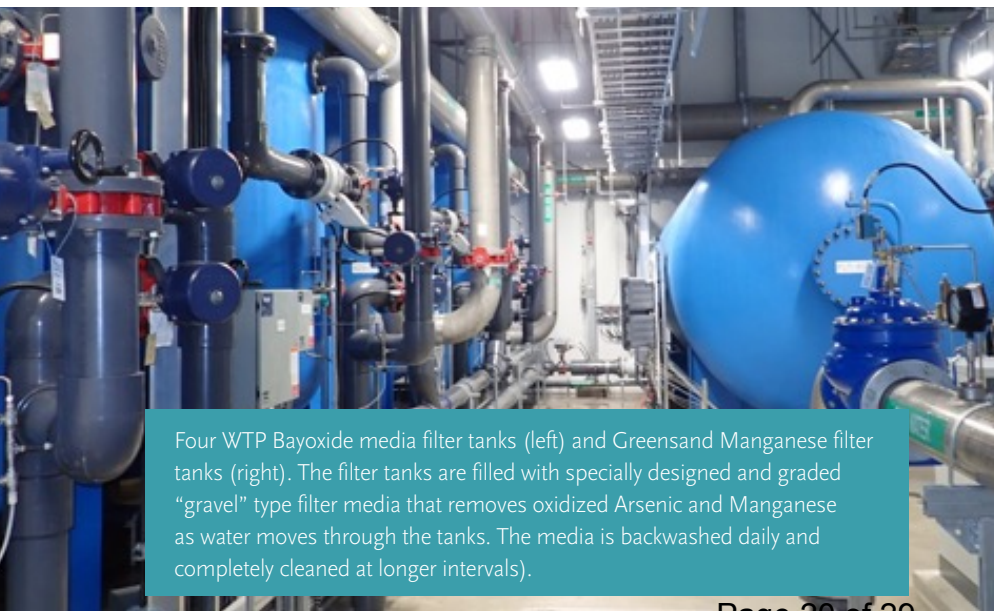
- 1500 block of Chestnut Street replaced 135m of 100mm CI pipe with 150mm Ductile Iron (DI). Installed radio read water meters (image below).
- 1500 block of Stevens Street replaced 195m of 100mm CI pipe with 150mm DI installed radio-read water meters.

Oxford/Prospect Water Tie-ins:

The 100mm cast iron pipe on Prospect Avenue and McDonald Avenue was tied-in to the 200mm pipe on Oxford to improve area fire flow.

Water Treatment Plant:

Regeneration of the filter media was completed to extend the filter life beyond forecast 2022 replacement to defer the media replacement and save funds.



Four WTP Bayoxide media filter tanks (left) and Greensand Manganese filter tanks (right). The filter tanks are filled with specially designed and graded “gravel” type filter media that removes oxidized Arsenic and Manganese as water moves through the tanks. The media is backwashed daily and completely cleaned at longer intervals).



PLANS FOR 2022

1. **New Well:** A New well #5 is proposed to replace the decommissioned well #5. During summer heat spells the well demand approaches current capacity. The scope of the work includes; well-siting study, drilling, supportive infrastructure installation, and SCADA controls.
2. **North Bluff Road:** Oxford to Overall New Pipe: This pipe segment provides main distribution to the west side of White Rock. The City of Surrey is also proposing to realign the intersection at 16th Ave and Oxford. Work would be coordinated between the two cities in order to replace the 200mm Cast Iron water main with a 250mm ductile iron pipe.
3. **Water Master Plan Update:** The 2017 Water Master Plan will be updated by consultants who will review upgrades made over the past five years.
4. **Well Controller Upgrades:** Controller upgrade adjusts to the pressure change when the treatment plant stops pumping to Merklin reservoir, thereby reducing motor wear and tear while extending service life.
5. **Well Upgrades:** Refresh one well system as part of an ongoing 5-year refresh and capacity management program.

LOOKING AHEAD: 2023 TO 2026

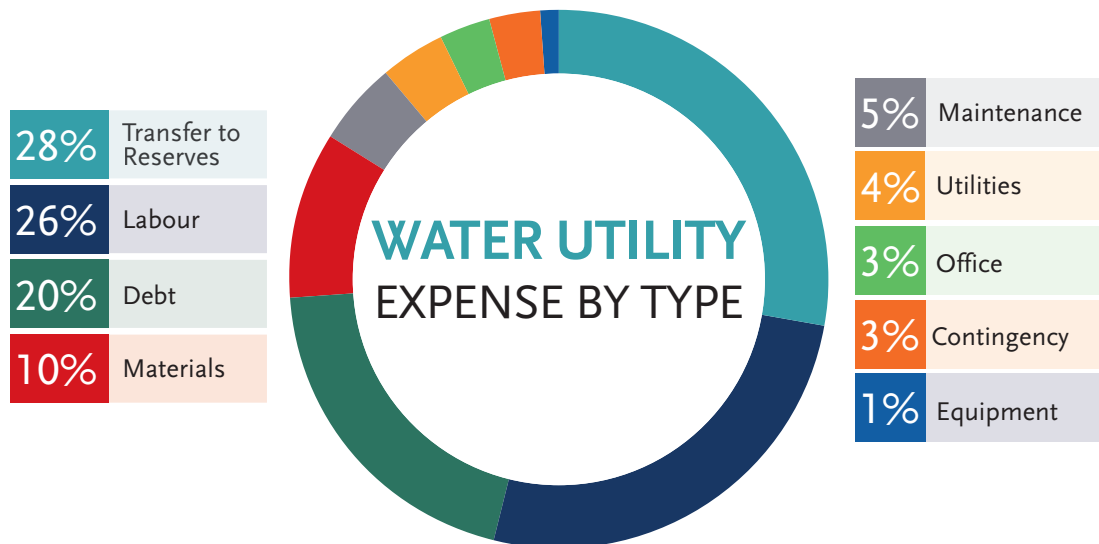
We will strive to maintain focus on the supply-side upgrades in order to ensure reliable provision of drinking water. We will continue the long-range program to replace aged cast iron pipe ahead of large-scale pipe failures.

Replacement of the Bayoxide filter media at the Treatment Plant may be deferred beyond 2022 as a result of the refresh cycle that was recently completed. Manganese filter media is planned for replacement in 2029.

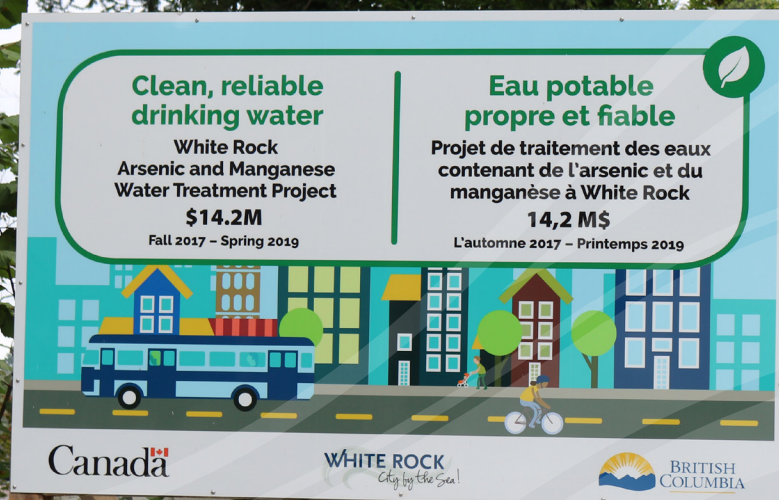


BUDGET SUMMARY

Each year, water rates are established by the City through bylaw, and based on the City's Five-Year Financial Plan for the water system. This includes: forecasted revenues and expenses capital requirements, as well as reserves and debt financing.



Water user fee revenues are projected to increase by an average of 6.5% annually over the next five years, primarily to build capital reserves necessary to address future infrastructure replacement needs. They also fund operating costs driven by water treatment filtration expenses and purchase of the Utility through debt financing.



The 2022 revenue increase is projected to be 6.5% and is needed for:

Water Operations (\$68,100)	1.2%
Transfer to Capital Reserves for Asset Improvement Program (\$296,300)	5.3%
Total	6.5%

A new water user fee rate structure will be phased in over the next four years to align water consumption with water utility costs, and promote water conservation. Once complete (year four), the City will charge a smaller fixed fee related to the size of the meter, with water consumption billed at the same rate. For the first year of this restructured process the annual cost to a single-family residential property (2238 cubic feet) is proposed to increase by 2% or from \$705 to \$719 as follows:

	2021	2022
Fixed Charge	\$576	\$460
User fee	129	259
Total	\$705	\$719

For a multi-family home (990 cubic feet) the proposed increased annual cost would be 5.6% (\$247 - \$261—up by \$14). This will vary depending on actual consumption.

City of White Rock - Water Operating Budget							
Funding	2019 Actuals	2020 Actuals	2021 Projected	2021 Budget	2022 Budget	Change \$	Change %
Water User Fees	\$ 4,945,865	\$ 5,323,314	\$ 5,780,500	\$ 5,605,500	5,969,900	\$ 364,400	6.5% *1
Connection Fees	\$ 228,955	\$ 182,572	\$ 290,000	\$ 300,000	300,000	-	0.0%
Other	129,393	140,620	184,100	166,900	180,800	13,900	8.3% *2
Operating Reserves	552,200	413,464	141,300	141,300	481,500	340,200	240.8% *3
Total Funding	\$ 5,856,413	\$6,059,970	\$6,395,900	\$ 6,213,700	\$6,932,200	\$ 718,500	11.6%
Operating Expenses							
Engineering Administration	\$ 459,331	\$ 409,786	\$ 378,700	\$ 362,600	\$ 383,100	\$ 20,500	5.7% *4
Corporate Support	\$ 490,103	\$ 608,344	\$ 645,478	\$ 663,600	\$ 713,000	\$ 49,400	7.4% *5
Waterworks	1,362,754	1,246,851	1,517,250	1,576,900	1,922,700	345,800	21.9% *6
Facilities	285,230	344,704	335,500	333,800	336,000	2,200	0.7%
Contingency	-	-	-	244,400	225,900	(18,500)	-7.6%
Debt Charges	1,347,395	1,368,858	1,391,100	1,391,100	1,414,000	22,900	1.6%
Transfer to Operating Reserve	399,516	511,707	398,300	298,300	298,200	(100)	0.0%
Transfer to Capital Reserves	1,512,084	1,569,720	1,729,572	1,343,000	1,639,300	296,300	22.1% *7
Total Operating Expenses	\$ 5,856,413	\$6,059,970	\$6,395,900	\$ 6,213,700	\$6,932,200	\$ 718,500	11.6%
Net	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	

The 2022 proposed budget balances \$6.9 million of revenues with \$6.9 million of costs.

Operating Revenues:

1. Water user fee revenues of 5.97 million is based a water user fee rate increase, reductions in the minimum charge and consumption by meter size using consumption experienced in 2020. This will generate an extra \$364,400 or 6.5% in water user fee revenues.
2. Other income includes actuarial gains on debt, water user-fee penalties, and service charges.
3. Operating Reserves will be used to fund a \$471,000 contingency for the Bayoxide media replacement at the treatment plant which may be required by 2022.

Operating Expenses:

The Water Utility's main operating expenses relate to staffing, materials and supplies, contract maintenance, long-term debt interest, and transfers to reserves for future infrastructure replacement. Increases in overall operating cost have been kept at a minimum for 2022.

4. Engineering Administrative costs are forecast to increase by 5.7% from wage and benefits, inflation, and the recent restructure.
5. Corporate Support costs have increased by 7.4% from inflation, but primarily from an increase to the corporate support fee charged to the water fund which is gradually being increased to 100% of actual costs.
6. Waterworks costs have increased for one year to provide the \$471,000 contingency for Bayoxide media replacement at the Treatment Plant, funded by the operations reserve that is built up by \$167,000 annually to account for media consumption every 3 years during the treatment process. Cost will return to standard levels in 2023.
7. Transfer to Capital Reserves are forecast to increase by \$296,300, consistent with the long-term plan to increase funding for infrastructure replacement. This is equivalent to 5.3% of the user fee increase for 2022.
8. At this time, there are no additional operational budget requests, projects or initiatives requiring funding.



Debt:

Debt financing costs to fund the purchase of the utility vary slightly from year to year from actuarial adjustments. 2021 saw no additional borrowing and repayments will continue to reduce the principal to \$18.0M by 2026.

Reserves:

Operating Reserves have been established for three functions:

- Working Capital Reserve - providing a foundation for operations
- Water Operating Reserve - providing a buffer for year-over-year water rate fluctuations.
- Water Treatment Reserve - smooths out the costs of media replacement at the treatment plant

Capital Reserves are established for the replacement of infrastructure with the goal of maintaining balances equivalent to between 5% and 10% of the water assets replacement value. The current asset replacement value is estimated to be \$138 million, which would require a reserve balance of between \$6.9 and \$13.8 million to be maintained. Reserves are projected to remain between \$3.1 million (2.3%) and \$2.2 million (1.6%). This is well below optimum levels forecast to cover the next five years, and why water rate increases for future infrastructure replacement are required.

2021 to 2025 Reserves Scorecard								
	Balance 2021	Balance 2022	Balance 2023	Balance 2024	Balance 2025	Balance 2026	Status 2021	Status 2026
WORKING CAPITAL								
Operating (Accumulated) Surplus	993,200	993,200	993,200	993,200	993,200	993,200	Good	Good
OPERATIONS (Reserve Accounts)								
Water Operating Reserve	419,100	458,600	508,600	558,600	608,600	658,600	Low	Low
Water Treatment Reserve	399,500	100,500	291,500	482,500	175,500	366,500	Good	Good
CAPITAL and DEBT (Statutory Reserves)								
Vehicles and Equipment Replacement	154,800	112,300	152,600	193,700	235,600	278,300	Good	Good
Water Infrastructure	2,991,200	1,779,500	2,339,100	1,474,500	1,121,400	1,969,600	Low	Low
Development Cost Charges	1,370,500	1,462,800	1,567,100	1,673,500	1,771,900	1,788,400	Good	Good
Debt Retirement	24,100	24,100	24,100	24,100	24,100	24,100	Good	Good
OVERALL RESERVES	5,359,200	3,937,800	4,883,000	4,406,900	3,937,100	5,085,500		
Capital Reserves Target (5% to 10%)	2.3%	1.4%	1.8%	1.2%	1.0%	1.6%		

ASSET IMPROVEMENT PROGRAM – WATER UTILITY

Over the next five years, the Water Utility plans to spend \$13.7 million to replace water mains, wells, valves, and equipment. This is primarily funded from Water Infrastructure and Equipment Replacement Reserves. Annual spending ranges between \$1.5 million and \$3.4 million per year.

Guided by the 2017 Water Master Plan, the capital program provides for replacements of end of life city water mains, associated trench restoration, and provides for additional work necessary to meet population growth as well as equipment upgrades.

The program also provides for the renewal and replacement of water wells, reservoir components, and treatment facilities, and includes provision for the assessment of the network for system optimization and prioritization of improvements.

The capital program is primarily funded through reserves set aside each year from water sales to the community, supplemented by a small amount of developer contributions.

Costs are estimated at the Class 'D' level for budget purposes, using a variety of local construction cost information, as well as experience and supplier information. As projects are designed, the cost estimates are refined and vetted through the purchasing process. Large projects valued at \$250,000 or more are confirmed with Council prior to the purchasing process.

City of White Rock	2021	2022	2023	2024	2025	2026
Water Capital Budget						
Infrastructure Renewal						
Wells	\$ 112,000	\$ 1,987,000	\$ 75,000	\$ 80,000	\$ 80,000	\$ 85,000
Reservoirs	42,000	30,000	33,000	33,000	36,000	36,000
Treatment Plant	22,000	-	-	-	-	-
Mains	1,807,000	286,000	847,000	2,020,000	2,669,000	1,812,000
Pumps and Valves	35,000	75,000	-	600,000	-	-
Meters	65,000	64,000	64,000	64,000	64,000	64,000
Hydrants	53,000	53,000	55,000	55,000	55,000	55,000
Vehicles and Equipment	36,000	112,000	-	-	-	-
Technology and Other	42,000	86,000	16,000	16,000	26,000	20,000
Contingency	335,000	350,000	400,000	400,000	450,000	450,000
	\$ 2,549,000	\$ 3,043,000	\$ 1,490,000	\$ 3,268,000	\$ 3,380,000	\$ 2,522,000
Funding Source						
Reserve Funds	\$ 2,414,200	\$ 2,933,000	\$ 1,390,000	\$ 3,168,000	\$ 3,270,000	\$ 2,229,000
Debt	4,900	-	-	-	-	-
Grants	-	-	-	-	-	-
DCCs	20,000	10,000	-	-	10,000	93,000
Contributions	109,900	100,000	100,000	100,000	100,000	200,000
	\$ 2,549,000	\$ 3,043,000	\$ 1,490,000	\$ 3,268,000	\$ 3,380,000	\$ 2,522,000

Over the next five years of infrastructure replacement, focus will continue to be on water mains, coordinated with the replacement of other road, sewer, and drainage projects alongside a well replacement.

Key projects include:

- Main replacements on Johnston Road, Russell Avenue, and Prospect Avenue.
- Construction to replace the Oxford Well in 2022 at a cost of \$1.8 million dollars.
- Construction of the Everall Street Pressure Reducing Valve Station in 2024 at a cost of \$600,000.
- Maintenance of an annual program of meter and hydrant replacement (an average of 120 meters and 4 hydrants are replaced each year).
- An update to the Water Master Plan is planned for 2022 and a condition assessment of all cast iron water mains is planned for 2026.

At this time, there is no significant infrastructure work anticipated for the Reservoir or Treatment Plant over the next five years.



MAJOR PROJECT SPENDING

Well Replacement Program

The new Oxford Well has been moved forward for replacement in 2022 as a result of peak demand increases experienced during the heat dome last summer. Although water supply was steady and adequate at all times, an increase in supply is warranted through an abundance of caution, and as a hedge against heat spikes due to climate change.

A program of annual well maintenance and controller upgrades continues to be a focus as it relates to the need for reliable and adequate supply of water during demand spikes.

Wells	2021	2022	2023	2024	2025	2026
New Oxford Well #5		1,825,000				
Well Upgrades	112,000	75,000	75,000	80,000	80,000	85,000
Well Controller Upgrades		87,000				

Water Main Replacement Program

Water main replacement projects continue to be selected based on the 2017 Water Master Plan and subsequent leak history. Replacement of mains are scheduled before breaks significantly affect customer service. Wherever possible, renewals are linked to nearby redevelopment in order to leverage developer contributions and coordinate with replacement of other infrastructure like sewer and drainage systems. Key projects include replacements on Johnston Road, Russell Avenue and Prospect Avenue.

Water Mains	2021	2022	2023	2024	2025	2026
Johnston - Russell to Thrift	610,000					
Johnston - Thrift to Roper		10,000	11,000	115,000	100,000	
Blackburn Crescent - Archibald to high	65,000					
Surrey Emergency Connection	150,000					
Chestnut Blackburn to North Bluff	289,000					
1500 Blk Stevens	395,000					
1500 Habgood	161,000					
Prospect & Oxford	50,000					
Brearily Street and North Bluff	87,000					
North Bluff - Oxford to Overall		276,000				
Russell Ave - Merklin to Finlay			100,000	620,000		
Royal Easement - Cypress to Balsam			736,000			
Columbia Lane Cypress to Ash				385,000		
Buena Vista - Foster to Blackwood				300,000		
Russell Ave - Finlay to Stevens				600,000	708,000	
Coldicutt Chestnut to Lancaster					630,000	
1300 Blk Martin St					550,000	
Goggs Ave. Oxford to Overall					231,000	

Water Mains	2021	2022	2023	2024	2025	2026
Prospect Ave - Everall to Blackwood					450,000	
Martin North Bluff to Roper					650,000	
Vidal St Thrift to Vine					440,000	
Johnston Rd Beachview to Royal					184,000	
1400 Blk Martin					378,000	
Cast Iron Condition Assessment					160,000	

Pumps and Valves

A pressure reducing station is planned for installation at North Bluff Road and Everall Street in 2024 so high pressures can be maintained to the east of Everall and lower pressures to the west. This will address customer complaints of low pressures near Johnston and Merklin Streets while not raising the pressures to the west to where they could cause customer concerns.

Pumps and Valves	2021	2022	2023	2024	2025	2026
Everall Street PRV Station				600,000		
Oxford Pumphouse HVAC		75,000				
Water Pressure Monitoring Stations	15,000					
Merklin Pump House Roof Repair	20,000					

Equipment Replacement

Vehicles are replaced as part of the regular fleet management program. In 2022 a 2012 F250 Crew Cab and 2 F150 trucks (2011 and 2012) are planned for replacement, subject to fleet ordering restrictions.

Vehicles and Equipment	2021	2022	2023	2024	2025	2026
Replace Ford F150 2wd Unit #363	36,000					
Replace Ford F150 Crew Cab 4X4 Unit #362		40,000				
Replace Ford F250 Crew Cab 4X4 Unit #364		42,000				
Chemical Room Jib Crane		30,000				

Capital Contingency

A capital contingency is maintained of between \$350,00 and \$450,000 per year to provide a cost buffer for both planned projects and flexibility in the event that additional capital work becomes urgent.