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DISTRICT OF WEST VANCOUVER
750 17TH STREET, WEST VANCOUVER BC V7V 3T3

COUNCIL REPORT

Date:	November 4, 2019
From:	Andy Kwan, Manager, Utilities
Subject:	Proposed "Sewer and Drainage Utility Fee Bylaw No. 4538, 2007, Amendment Bylaw No. 5038, 2019"
File:	1765-01

RECOMMENDATION

THAT

1. Sewer and Drainage Utility fees be increased for 2020 to the amounts set out in Schedules A and B of the proposed "Sewer and Drainage Utility Fee Bylaw No. 4538, 2007, Amendment Bylaw No. 5038, 2019," as attached; and
2. Proposed "Sewer and Drainage Utility Fee Bylaw No. 4538, 2007, Amendment Bylaw No. 5038, 2019," be read a first time, second, and third time.

1.0 Purpose

This report recommends the adoption of Sewer and Drainage Utility fees for 2020. The present needs of the utility result in a median bill impact of a \$67 increase to \$1,150 annually for 2020 sewer bills. This reflects a 6.2% increase in the sewer utility's revenue requirement and includes the regional sewer levy expenditure.

2.0 Legislation/Bylaw/Policy

Sewer and Drainage Utility Fee Bylaw No. 4538, 2007, Amendment Bylaw No. 4998, 2018. Effective date: January 1, 2019.

3.0 Official Community Plan

Section 2.5 Municipal Operations and Infrastructure of the 2018 Official Community Plan (OCP) outlines a number of key policies related to sewage and drainage systems:

2.5.13 Pursue bylaw and policy changes and enhancements with the community to enable and support protection of watershed health, sustainable redevelopment, and public safety.

2.5.14 Consider 200-year storm events in the design of major drainage facilities and flood control works.

2.5.15 Employ low-impact storm and rain water management techniques such as infiltration, absorbent landscaping and natural environment

conservation to mimic natural conditions and preserve pre-development conditions.

2.5.16 Reduce inflow and infiltration by rehabilitating and replacing older piping where appropriate and employ trenchless technologies where viable.

2.5.17 Employ green infrastructure or naturalized engineering strategies where possible to help manage anticipated increases in frequent storm events and associated flood risks.

4.0 Financial Implications

A 6.2% increase in the Sewer and Drainage Utilities rate is required.

If an alternative option is preferred in order to smooth out the increases for the future regional sewer levy and other operational expenses, an overall utility fund revenue increase of 9% would be required.

5.0 Background

5.1 Previous Decisions

At the November 5, 2019 Finance Committee meeting, Committee members passed the following motion (*pending approval*):

THAT the following recommendations be forwarded to Council with the Finance Committee's recommendation for approval:

- 1. THAT Sewer Utility fees be increased for 2020 to the amounts set out in Schedules A and B of the proposed "Sewer and Drainage Utility Fee Bylaw No. 4538, 2007, Amendment Bylaw No. 5038, 2019";*
- 2. Proposed "Sewer and Drainage Utility Fee Bylaw No. 4538, 2007, Amendment Bylaw No. 5038, 2019" be read a first time, second, and third time; and*
- 3. Staff be directed to prepare an additional option that considers smoothing out the increase for the sewer regional levy and other operational expenses.*

Council, at its October 1, 2018, regular meeting, passed the following resolution:

THAT proposed "Sewer and Drainage Utility Fee Bylaw No. 4538, 2007, Amendment Bylaw No. 4998, 2018" be adopted.

5.2 History

The District's Sewer and Drainage Utility conveys, treats and disposes of sanitary sewage effluent and storm run-off for residents and businesses within the municipality. The collected fees go directly to providing sewer and drainage services and can be broken down into five main areas:

1. Regional sewage treatment levy from Metro Vancouver (MV);
2. Operation and maintenance of the municipal Citrus Wynd Wastewater Treatment Plant;
3. Operation and maintenance of the sanitary sewer and storm drainage collection systems;
4. Renewal of the sanitary sewer and drainage systems (infrastructure management capital); and
5. Financing of vehicles and equipment associated with these functions.

The utility rate review completed in 2017 verified that while many aspects of the sewer rate model were valid, separation of the proportional regional and local revenues, expenses, and rate projections was needed. The prominent driver for this sewer rate structure change is the impending increase in the regional levy. MV is building the new North Shore Wastewater Treatment Plant (NSWWTP), the costs of which will be allocated to member municipalities.

The main benefit of this change is to increase transparency in customer bills and to better understand the financial drivers in the forecast, in light of anticipated cost increases associated with the new treatment plant.

With respect to financial viability, the Sewer and Drainage Utility has operated under a pay-as-you-go approach. All costs attributable to the collection and treatment of sewerage have been borne by the utility and are to be paid for in the year that they occur.

In 2016, a Sewer and Drainage Utility Reserve was adopted for the following reasons:

- to provide a mechanism to accumulate funds for future infrastructure investments;
- to be consistent with Divisional long term financial planning;
- to mitigate the effects of escalating regional costs by providing an alternative to unrealistic rate increases (rate stabilization); and
- to provide a funding source for operating emergencies which may occur from time to time.

Since establishment, the Sewer and Drainage Utility Reserve is operated such that the planned annual contributions to capital are treated as Reserve Fund contributions and transferred to the Reserve. Through the financial plan process, the Reserve serves as a funding source for the annual capital program with appropriations from the Reserve by a Council resolution. Unspent funds remain within the Reserve. As the utility's annual contribution to capital approaches the CPI-adjusted long-term infrastructure funding level, the Reserve holds the funds until they are needed. A Council resolution would be required for any mid-year emergency appropriations from the Reserve.

The Reserve is treated as appropriated equity and accrues interest. The earned interest becomes part of the accumulated balance of the reserve and would be subject to the reserve guidelines for use.

6.0 Analysis

6.1 Discussion

Proxy to Sewer Usage

Water consumption serves as a proxy to annual sewer usage, due to the challenges associated with accurately metering sewer flows. Currently, single family homes are billed based on their annualized winter water consumption, whereas multi-family and commercial buildings are billed for sewer and drainage, based on the amount of water consumed each particular quarter.

Five Year Financial Plan (2020-2024)

There are several short- and long-term cost drivers that have been incorporated into the Five Year Financial Plan (2020-2024) for the Sewer and Drainage Utility (**Appendix A**) as described below.

Regional Sewer Levy

MV's allocation of the regional sewer levy in 2020 is a 13.1% increase over 2019. This rate is lower than expected due to the delay in the construction of the NSWWTP. Based on the utility rate review recommendations and Council's endorsement in 2017, MV revenues and expenses were separated from municipal revenues and expenses to increase transparency. The increase to the sewer utility fund revenue required to meet West Vancouver's share of this expense, is 5% in 2020 which is lower than anticipated, not only due to the construction delay, but also to the fact that rates were raised in 2018 and 2019 to smooth the anticipated large increases resulting from the treatment plant upgrade expected in the near future.

Municipal Sewer Costs: Infrastructure Replacement

Staff continue to focus efforts on implementing an infrastructure management program for the Sewer and Drainage Utility.

The high level infrastructure management baseline studies completed in February of 2010 ("Sanitary System Asset Management Plan" and "Storm System Asset Management Plan", both available on the District's website), outline projected sustainable infrastructure replacement funding levels over the next 100 years. These formed the basis for expanding the previously existing approach to the Utility's asset management, and included the following initiatives:

- continuing condition assessment of sanitary and drainage infrastructure to better refine the District's infrastructure management needs;

- continuing to ensure that the capital plans between the Water, Sewer and Drainage, and Roads utilities are coordinated as much as possible ensuring capital renewal works are delivered in a cost-effective manner; and
- continuing to develop a Sewer Collection System Master Plan and Integrated Stormwater Management Plans to identify capacity restrictions within the systems for subsequent incorporation into asset management efforts, and in response to new development and changing demands.

The Sanitary and Storm Drainage System Asset Management Plans indicated that the annual replacement requirement over the next 100 years is approximately \$3.5 million and \$3.7 million (in 2009 dollars) for sanitary and drainage infrastructure, respectively. An annual increase of \$440,000 and \$480,000 over 2019 projected spending for sanitary and drainage capital programs is proposed for 2020. The current funding plan will result in sanitary and storm achieving the CPI adjusted long-term infrastructure levels between 2020 and 2021.

Also included in the 2020 capital program is the Five Creeks Stormwater Diversion project being undertaken in partnership with British Pacific Properties Ltd., to which the municipal funding sources were endorsed by Council in 2018. The total District contribution for this multi-year project is \$6,250,000. In 2019, \$4,000,000 and \$500,000 were funded from collected Storm Development Cost Charges and the annual capital envelope respectively. The remaining \$1,750,000 will be funded out of the annual capital envelopes: \$1,000,000 in 2020 and \$75,000 in 2021.

Municipal Sewer Costs: Operations & Maintenance

An increase of \$51,900 over the last predicted 2019 budget has been incorporated into the 2020 Operating Budget. The overall increase is due to rising costs associated with labour, materials, and equipment.

Municipal Sewer Costs: Equipment Replacement

In an effort to have the utility functions carry the full cost of their operating and capital needs, the capital replacement of vehicles and equipment primarily used within the Utilities Department is funded through the Utility Funds. Prior to 2016, these purchases had been funded through the General Fund. This change more accurately reflects the true costs of operating the Utilities. An hourly capital charge will be added to the vehicle charge out rates to recover the capital cost as it is charged to operations, capital projects and third party work. The planned 2020 capital vehicle and equipment purchases attributable to the Sewer Utility is detailed in the attached business case for a vehicle to be cost shared between the water and sewer utilities.

The increase to the local sewer rates to meet the revenue required to recover the municipal costs described above is 6% in 2020.

Summary of 2020 Sewer Utility Expenditures

Figure 1 shows the breakdown of the proposed Sewer Utility expenses for 2020.

Sewer Utility - Proposed Rate Funded Expenses
(2020)

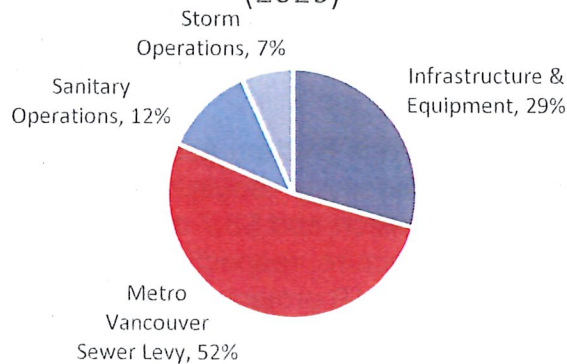


Figure 1

The combined increase from the 5% Regional Sewer Levy and the 6% municipal sewer costs results in an overall 6.2% revenue requirement increase over the 2019 sewer rates. The proposed increase for 2020 is consistent with Council's recommendation during the 2019 rate setting process.

Figure 2 shows the breakdown of the revenue requirement increase into its constituent parts.

Increase to Expenses 2019 - 2020

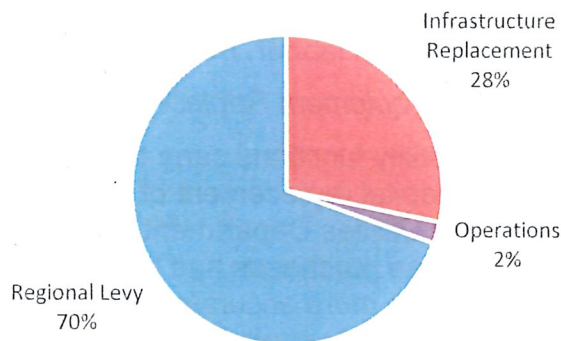


Figure 2

This overall revenue requirement will result in predicted annual charges of \$1,150 for the median single family household, (based on 2018 average winter water consumption). These charges represent an increase of \$67 over 2019.

Future Years Beyond 2020

Regional sewer revenue requirements anticipated for the 2021 - 2024 budget years are estimated to be 12.2%, 18.2, 13.1% and 14.1% due to delayed completion of the NSWWTP. These estimates are subject to change once the final construction costs are known, as well as fluctuations in the cost of sewage treatment operations by MV.

Additional local sewer revenue requirements anticipated for the 2021 - 2024 budget years are projected to be 6.0%, 5.0%, 3.0%, and 3.0%. These estimates are subject to change with continuing efforts related to development of the asset management program.

6.2 Sustainability

The District's universal metering program provides the ability for residents to monitor and control their water usage which helps to foster conservation. As the sanitary sewage use is closely related to the quantity of water used, conservation also results in savings for residents on their Sewer and Drainage Utility bills.

Natural Capital

The District has recently completed an inventory of its natural capital assets, placing a value of nearly \$574M on the eco-system services contributed by its abundant water assets, which include natural assets such as streams, which are an integral part of the stormwater management system. Maintenance and enhancement of these assets will now form a key part of the asset management plans of the utility. Regulation of creek flows, particularly during severe weather events, is best managed by integrating natural systems with constructed infrastructure; and District staff will continue to seek additional ways to move this integration forward.

6.3 Public Engagement and Outreach

Staff apply the District's Community Outreach and Engagement Policy when communicating and engaging with residents on issues pertaining to the Sewer Utility.

6.4 Other Communication, Consultation, and Research

This report and the rate setting exercise for the Sewer Utility Fund is a collaborative effort with the Finance Department. This report and the rate increase in Sewer Utility will be reviewed by the Finance Committee as part of the communications related to the overall District Budget process.

7.0 Options

7.1 Recommended Option

Staff recommend that a utility fund revenue increase of 6.0% for the local levy and 5.0% for the regional levy (combined overall 6.2%) be approved

for 2020. This increase results in a quarterly charge for single family, multi-family and commercial class users, as specified in Schedules A and B of the proposed Bylaw (**Appendix C**). This results in a \$67 increase to the median single family sewer bill to \$1,150 for 2020.

7.2 Considered Options

At the direction of the Finance Committee, staff developed an option that considers smoothing out the increase for the future regional sewer levy, given that the regional revenue requirement is expected to spike in 2022. By spreading out the impact over several years, beginning in 2020, **Appendix D** shows an alternative Five Year Financial Plan (2020 - 2024) that proposes a combined overall 9.0% increase to the revenue requirement in 2020, 8% in 2021 and 2022, and 7.5% in 2023 and 2024. Such an increase would result in a median single family sewer bill to \$1,180 for 2020, a further \$30 on top of the \$67 increase in the recommended option. Should the alternative option be adopted, the accompanying Bylaw Schedules are attached as **Appendix E**.

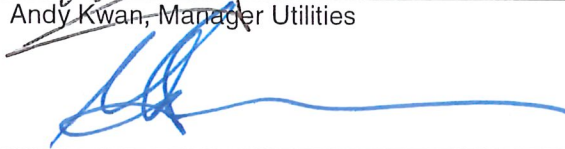
8.0 Conclusion

This report recommends the adoption of Sewer and Drainage fees for 2020. Staff recommend that a utility fund revenue increase of 6.0% for the local levy and 5.0% for the regional levy (combined overall 6.2%) be approved for 2020. This increase results in a quarterly charge for single family, multi-family and commercial class users, as specified in Schedules A and B of the proposed Sewer and Drainage Utility Fee Bylaw. This results in a \$67 increase to the median single family sewer bill to \$1,150 for 2020.

Author:


Andy Kwan, Manager Utilities

Concurrence


Isabel Gordon, Director, Financial Services

Appendices:

- Appendix A - Five Year Financial Plan (2020-2024) for the Sewer and Drainage Utility
- Appendix B - Business Case - Combination Hydro-Excavator & Flusher Truck
- Appendix C - Sewer and Drainage Utility Fee Bylaw No. 4538, 2007, Amendment Bylaw No. 5038, 2019
- Appendix D - Five Year Financial Plan (2020-2024) for the Sewer and Drainage Utility Alternative
- Appendix E - Sewer and Drainage Utility Fee Bylaw No. 4538, 2007, Amendment Bylaw No. 5038, 2019 Alternative

District of West Vancouver
Sewer Utility - 5 Year Financial Plan
Summary

APPENDIX A

LOCAL Revenue Requirements	2019 FORECASTED	2020 Projection	2021 Projection	2022 Projection	2023 Projection	2024 Projection
Revenues						
Utility Fee Revenue	\$ 12,178,900	\$ 12,178,900	\$ 12,973,000	\$ 13,668,200	\$ 14,353,400	\$ 14,809,900
Utility Fee Early Pay Discount	\$ (1,217,890)	\$ (1,217,900)	\$ (1,297,300)	\$ (1,366,800)	\$ (1,435,300)	\$ (1,481,000)
Transfer from Development Cost Charges	\$ 4,000,000	\$ -	\$ -	\$ -	\$ -	\$ -
Internal / Equipment Recoveries	\$ 136,500	\$ 136,500	\$ 136,500	\$ 136,500	\$ 136,500	\$ 136,500
Transfer from Reserves	\$ 126,000	\$ 168,500	\$ -	\$ -	\$ -	\$ -
Interest Earnings	\$ 44,100	\$ 48,700	\$ 54,800	\$ 55,500	\$ 63,700	\$ 74,900
Total Revenues	\$ 15,267,610	\$ 11,314,700	\$ 11,867,000	\$ 12,493,400	\$ 13,118,300	\$ 13,540,300
Expenses						
Operating Expenses	\$ 2,966,800	\$ 3,018,700	\$ 3,071,800	\$ 3,125,800	\$ 3,180,900	\$ 3,237,100
Infrastructure Replacement	\$ 11,822,500	\$ 8,785,000	\$ 9,455,000	\$ 9,643,000	\$ 9,835,000	\$ 10,031,000
Contribution to Reserve Funds	\$ -	\$ 305,100	\$ 35,400	\$ 409,800	\$ 558,900	\$ 717,400
Total Expenses	\$ 14,789,300	\$ 12,108,800	\$ 12,562,200	\$ 13,178,600	\$ 13,574,800	\$ 13,985,500
Net Revenue Required from Rate Increases	\$ 478,310	\$ (794,100)	\$ (695,200)	\$ (685,200)	\$ (456,500)	\$ (445,200)
Annual Local Rate Revenue Requirement Increase		6.0%	6.0%	5.0%	3.0%	3.0%
Cumulative Local Rate Adjustment	0.0%	6.0%	12.4%	18.0%	21.5%	25.2%

Operating Expenses	2019	2020	2021	2022	2023	2024
Administration Fee	\$ 370,000	\$ 370,000	\$ 370,000	\$ 370,000	\$ 370,000	\$ 370,000
Sanitary Operating & Maintenance	\$ 1,711,416	\$ 1,745,600	\$ 1,780,600	\$ 1,816,200	\$ 1,852,500	\$ 1,889,500
Storm Operating & Maintenance	\$ 885,403	\$ 903,100	\$ 921,200	\$ 939,600	\$ 958,400	\$ 977,600
Total	\$ 2,966,819	\$ 3,018,700	\$ 3,071,800	\$ 3,125,800	\$ 3,180,900	\$ 3,237,100

Infrastructure Management	2019	2020	2021	2022	2023	2024
Long Term - Infrastructure Management						
Storm Infrastructure Management Program	\$ 3,840,000	\$ 4,320,000	\$ 4,800,000	\$ 4,896,000	\$ 4,994,000	\$ 5,094,000
Sanitary Infrastructure Management Program	\$ 3,720,000	\$ 4,160,000	\$ 4,600,000	\$ 4,692,000	\$ 4,786,000	\$ 4,882,000
Development Cost Charges	\$ 4,000,000	\$ -	\$ -	\$ -	\$ -	\$ -
Infrastructure Management Carried over from 2018 Equipment Replacement	\$ 262,500	\$ 305,000	\$ 55,000	\$ 55,000	\$ 55,000	\$ 55,000
Total	\$ 11,822,500	\$ 8,785,000	\$ 9,455,000	\$ 9,643,000	\$ 9,835,000	\$ 10,031,000
Funding Sources						
Infrastructure Replacement Funding	\$ 7,560,000	\$ 8,480,000	\$ 9,400,000	\$ 9,588,000	\$ 9,780,000	\$ 9,976,000
Internal Equipment Recoveries	\$ 136,500	\$ 136,500	\$ 136,500	\$ 136,500	\$ 136,500	\$ 136,500
DCC Revenues - Storm	\$ 4,000,000	\$ -	\$ -	\$ -	\$ -	\$ -
Use of Capital Reserves	\$ 126,000	\$ 168,500	\$ (81,500)	\$ (81,500)	\$ (81,500)	\$ (81,500)
Total	\$ 11,822,500	\$ 8,785,000	\$ 9,455,000	\$ 9,643,000	\$ 9,835,000	\$ 10,031,000

Equipment Renewal	2019	2020	2021	2022	2023	2024
Acquisitions	\$ 262,500	\$ 305,000	\$ 55,000	\$ 55,000	\$ 55,000	\$ 55,000
Recoveries	\$ (136,500)	\$ (136,500)	\$ (136,500)	\$ (136,500)	\$ (136,500)	\$ (136,500)
Total Expense	\$ 126,000	\$ 168,500	\$ (81,500)	\$ (81,500)	\$ (81,500)	\$ (81,500)

Fund Balances	2019	2020	2021	2022	2023	2024
Operating Fund (Rate Stabilization)	\$ 2,436,154	\$ 2,741,284	\$ 2,776,662	\$ 3,186,503	\$ 3,745,371	\$ 4,386,140
Equipment Renewal Fund	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Fund	\$ 6,724,469	\$ 6,690,458	\$ 6,905,767	\$ 7,125,383	\$ 7,349,390	\$ 7,654,524
Total - Reserves	\$ 9,160,623	\$ 9,431,743	\$ 9,682,430	\$ 10,311,885	\$ 11,094,762	\$ 12,040,664

REGIONAL Revenue Requirements	2019 FORECASTED	2020 Projection	2021 Projection	2022 Projection	2023 Projection	2024 Projection
Regional Levy Revenue	\$ 7,755,241	\$ 8,123,400	\$ 8,530,800	\$ 9,571,600	\$ 11,313,600	\$ 12,795,700
Current Metro Vancouver Levy	\$ 6,913,100	\$ 8,530,800	\$ 9,571,600	\$ 11,313,600	\$ 12,795,700	\$ 14,599,900
Transfer to/(from) Reserves	\$ 842,141	\$ -	\$ -	\$ -	\$ -	\$ -
Net Revenue Required from Rate Increases	\$ -	\$ (407,400)	\$ (1,040,800)	\$ (1,742,000)	\$ (1,482,100)	\$ (1,804,200)
Annual Regional Rate Revenue Requirement Increase		5.0%	12.2%	18.2%	13.1%	14.1%
Cumulative Regional Rate Adjustment	0.0%	5.0%	17.2%	35.4%	48.5%	62.6%

TOTAL Revenue Requirements	2019 FORECASTED	2020 Projection	2021 Projection	2022 Projection	2023 Projection	2024 Projection
Total Revenue before Required Increase	\$ 23,022,851	\$ 19,438,100	\$ 20,397,800	\$ 22,065,000	\$ 24,431,900	\$ 26,336,000
Total Expenditures	\$ 22,544,541	\$ 20,639,600	\$ 22,133,800	\$ 24,492,200	\$ 26,370,500	\$ 28,585,400
Net Revenue from Required Increases	\$ (478,310)	\$ 1,201,500	\$ 1,736,000	\$ 2,427,200	\$ 1,938,600	\$ 2,249,400
Annual Composite Rate Revenue Requirement Increase		6.2%	8.5%	11.0%	7.9%	8.5%
Cumulative Composite Rate Adjustment	0.0%	6.2%	14.7%	25.7%	33.6%	42.2%

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PROJECT REQUEST BUSINESS CASE

2020–Combination Hydro-Excavator & Flusher Truck

1. HOW TO USE

Document Guidelines

The following Business Case template intent is to ensure consistency across DWV Project Request Submissions. This document includes instructions to the author, with text fields designed to be replaced with the values specific to the project.

Depending on the size and complexity of the project, not all sections of the Business Case may need to be complete. Sections not applicable should be marked with N/A, yet remain in the document as a placeholder.

Business Case Prepared by:

Name	Title	Date (mm/dd/yyyy)
Peter Coles	Equipment Superintendent	09/20/2019

2. EXECUTIVE SUMMARY

Executive Summary

Describe concisely the project background, problem/issues, resolution, strategic alignment and key benefits. This summary should go over the main points in the entire document.

The Engineering Utilities Section is seeking \$610,000 to acquire a combination hydro-excavator/flusher truck. A combination hydro-excavator/flusher truck would allow District staff to perform hydro-excavating on capital and 3rd party work projects. Hydro-excavating is a safe and efficient way to work around other utility, gas and electrical services. In emergency conditions, this unit could be counted upon to respond to flooding and sanitary problems that may occur. The flusher component would be utilized by staff to flush and unclog sanitary, storm and water pipes. In addition, this unit would also be utilized for catch basin cleaning as part of the flood control preventative maintenance program. Currently the District is relying on contractors to provide these services. This has led to delays in emergency situations, increased travel costs and high hourly charge out rates.

3. PROJECT FEASIBILITY & RISK PROFILE

Budget Forecast

Describe how the project budget was developed – who prepared the estimate, who reviewed the estimate (Manager or Director). What makes the estimate reliable? Which incremental costs drivers were taken into account (e.g. construction cost increases)? If there is contingent funding (e.g. grants)? What is the strategy to obtain incremental funds in case contingent funding is denied?

Project budget cost is based on an estimate supplied by a locally based vendor. Staffing levels would require the increase of one FTE, who would be the principle operator of this piece of equipment. Additional staff would be trained to operate it, to maximize utilization. Training costs would be included in the purchase price as part of the public tender process. This project and subsequent justification has been reviewed by the Utilities Manager and the Engineering Services Business Manager. Funding would be provided through the Utilities Water and Sewer reserves. Risk assessment of this project would be categorized as low.

PROJECT REQUEST BUSINESS CASE

2020–Combination Hydro-Excavator & Flusher Truck



Resource Availability

Describe how the project is going to be resourced – who has analyzed and reviewed the availability of internal and external resources that will be required to deliver the project on time (Manager or Director). Which limited resources are on the critical path for this project? What is the contingency plan to address potential shortage of resources? Address known dependencies with other DWV projects or external factors.

The cost of owning and operating the District's own equipment is significantly less than hiring equipment. Costs to hire rental equipment are typically 20-35% higher than District owned equipment.

Other Risk Factors

Describe known risks to project implementation – e.g. potential environmental impact or stakeholder risk. What is the mitigation strategy? How are risks factors incorporated into the project budget and execution plan? Which alternative strategies can be implemented in case the initial approach is no longer feasible

N/A

Overall Risk Profile

Base on the considerations addressed above, what is your assessment of the overall risk profile for the project

A. Budget Overruns:

- No Risk - Low Risk (no cost overruns expected):
- Medium Risk (cost overrun may be up to 15%):
- High Risk (cost variance may exceed 15%):

B. Resource Constraints:

- No Risk - Low Risk (no cost overruns expected):
- Medium Risk (cost overrun may be up to 15%):
- High Risk (cost variance may exceed 15%):

C. Other Risks

- No Noticeable Risks:
- Isolated Risks – No Significant Impact:
- Major Risks That May Potentially Derail the Project

Overall Risk

- Low:
(no high risk factors)
- Medium:
(1 high risk factor offset by reliable mitigation strategy)
- High:
(more than 1 high risk factor)

4. PROJECT SCOPE

PROJECT REQUEST BUSINESS CASE

2020–Combination Hydro-Excavator & Flusher Truck



Scope

Project description. Describe what is included and what is not so expectations are set and the project stays on course

The scope consists of the acquisition of a combination hydro-excavator and flusher truck for the Engineering Utilities section.

5. PROJECT MILESTONES

Milestone Description (nature of the milestone)	Estimated Timeline (anticipated completion time)	Identifiable Deliverable (if any) (milestones deliverable)
Acquisition of combination hydro-excavator & flusher truck	Purchase in 2020	Delivery in 2020

6. FINANCIAL SUMMARY

Project One-Time Costs					
<i>Include any temporary FTE costs to support this project.</i>					
Major Project Component Costs	2020	2021	2022	2023	2024
Acquisition of combination hydro-excavator & flusher truck.	\$610,000				
Project Cost Total					
Outline the Project Phasing – What Will Be Done Each Year?					
2020-Acquisition of hydro-excavator/flusher truck.					
Ongoing Operating Impact Resulting from the Completed Project					

PROJECT REQUEST BUSINESS CASE

2020–Combination Hydro-Excavator & Flusher Truck



Are there ongoing operating / maintenance costs necessary to service the project?

Description Of Operating Costs

Annual maintenance and repair costs. Cost of repairs would be significantly less during the warranty period, which is typically 2 years. Additional operating costs would include insurance, fuel, maintenance and repairs.

	2020	2021	2022	2023	2024
FTE Request Count	One	One	One	One	one
Costs (Dollars)	\$87,000	\$87,000	\$87,000	\$87,000	\$87,000
Other Operating Costs	\$12,900	\$13,300	\$14,500	\$16,900	\$17,400
Total Operating Costs	\$99,900	\$100,300	\$101,500	\$103,900	\$104,400

Are there ongoing operating / maintenance savings due to the project?

Description Of Operating and Maintenance Savings

The cost of owning and operating the District's own equipment is significantly less than hiring equipment. Costs to hire rental equipment are typically 20-35% higher than District owned equipment. The average spent on hired equipment of this type from 2015-2018 was \$440,000 per year. Owning this truck will significantly reduce the amount paid to external contractors, though it will not completely reduce the need to hire an additional truck from time to time.

	2020	2021	2022	2023	2024
Total Estimated Operating And Maintenance Savings	\$375,000	\$375,000	\$375,000	\$375,000	\$375,000

7. SITUATIONAL ANALYSIS AND ANALYSIS OF ALTERNATIVES

Issues, Challenges and / or opportunities of Current State

Describe the problem(s) and/or opportunities that will be addressed by this project and the historical context of the drivers that are contributing to the problem(s) or opportunities

District staff are currently dependent on the availability of contractor's equipment being made available. If the District were to purchase this piece of equipment, response times would be significantly improved. During emergency events, such as flooding and sanitary back-ups, District staff would be able to respond quicker to these emergencies, potentially saving damage to personal and public property. Service levels to residents would be increased.

Goals and Objectives

PROJECT REQUEST BUSINESS CASE

2020–Combination Hydro-Excavator & Flusher Truck



Goals and Objectives

The goal of this project is to provide quicker, more dependable service to District residents and prevent damage to District infrastructure. Increased compliance with regulatory requirements would also be an objective for this project as well as operational cost savings.

Assumptions

What are the underlying assumptions inherent in the description and analysis of the project? (e.g., public use of a proposed facility will increase by a certain % along with the additional services offered.)
What is the basis of the cost estimate – is it preliminary? – is it based on District contracts or quotes?

The cost estimate is based on a quote from a local vendor in 2020 Canadian dollars.

Alternative Solutions

Briefly describe the alternatives examined and give a description of each. There should be a few alternatives, one of which is likely the status quo. Also address whether the project can be incorporated into another project/shared use facility.

The alternative is to not purchase this piece of equipment and force Utilities staff to rely on the availability of outside contractors. There is no other piece of equipment residing in the current vehicle fleet that would be able to perform the required functions.

Recommended Alternative

Indicate the proposed solution and summary statement.

PROJECT REQUEST BUSINESS CASE

2020—Combination Hydro-Excavator & Flusher Truck

Recommended Alternative

The recommendation is to purchase a combination hydro-excavator/flusher truck to provide a higher level of customer service to District residents in a more cost effective manner and better protect Municipal infrastructure.

Qualitative Analysis (Non-Financial Benefits and Costs)

Qualitative benefits may include: Increased customer satisfaction or staff morale

Qualitative costs may include: Adverse public reaction due to a deteriorating facility, reduced use of recreation programs if equipment required for a new project is not approved.

Acquisition of this apparatus would ensure increased customer service to District residents. Staff would be better equipped and would be able to respond quicker to emergency events such as floods, oil and hazardous material spills.

8. STAKEHOLDERS

Interested Parties

List all interested parties that may be impacted (positively or negatively) by the project. Categorize the parties between internal / external and primary (directly) / secondary (impacted but not directly involved in the project). For each party include an overview of their requirements of the project.

Internal parties-District staff have repeatedly expressed an interest in purchasing this equipment to allow them to provide the service in a more efficient and cost effective manner.

External parties-District residents would benefit from improved customer service.

PROJECT REQUEST BUSINESS CASE

2020–Combination Hydro-Excavator & Flusher Truck



9. COMMUNICATION PLANS

Draft Public Consultation Plan

Describe any draft public consultation plan for this project.

N/A

Anticipated Public Response

Describe any anticipated public response to this project.

N/A

10. RELATED COUNCIL REPORTS, FEASIBILITY STUDIES, OTHER RESEARCH & ADDITIONAL COMMENTS

Feasibility Studies and Other Research

Provide an outline of any studies or other research (i.e. transportation, geotechnical, environmental)

Review and report of costs over the last three years that the District has spent with contractors to provide the service that could be done more expeditiously in-house.

The average cost to external contractors to provide this service per year is \$440,000 from 2015-2018.

Additional Comments

Provide any addition comments.

PROJECT REQUEST BUSINESS CASE
2020–Combination Hydro-Excavator & Flusher
Truck



Additional Comments

11. EXECUTIVE SIGN-OFF

Executive Sign-off		
<i>PRIOR to submission please ensure to engage and attain executive sign-off from all affected department(s) or group(s).</i>		
Select Executive	Signature	Date (mm/dd/yyyy)
Raymond Fung, Director of Engineering and Transportation		11/04/2019
Please select Executive		
Please select Executive		



District of West Vancouver

**Sewer and Drainage Utility Fee
Bylaw No. 4538, 2007,
Amendment Bylaw No. 5038, 2019**

Effective Date:

District of West Vancouver

**Sewer and Drainage Utility Fee
Bylaw No. 4538, 2007,
Amendment Bylaw No. 5038, 2019**

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District of West Vancouver

Sewer and Drainage Utility Fee Bylaw No. 4538, 2007, Amendment Bylaw No. 5038, 2019

A bylaw to amend the fees related to the use of the Municipal Sewerage and Drainage System

Previous amendments: Amendment Bylaws 4585, 4588, 4623, 4665, 4705, 4742, 4773, 4820, 4822, 4860, 4924, 4956 and 4998.

WHEREAS the Council of The Corporation of the District of West Vancouver deems it expedient to amend the Sewer and Drainage Utility Fee Bylaw No. 4538, 2007;

NOW THEREFORE, the Council of The Corporation of the District of West Vancouver enacts as follows:

Part 1 Citation

- 1.1 This bylaw may be cited as Sewer and Drainage Utility Fee Bylaw No. 4538, 2007, Amendment Bylaw No. 5038, 2019.

Part 2 Severability

- 2.1 If a portion of this bylaw is held invalid by a Court of competent jurisdiction, then the invalid portion must be severed and the remainder of this bylaw is deemed to have been adopted without the severed section, subsection, paragraph, subparagraph, clause or phrase.

Part 3 Amendment

- 3.1 Sewer and Drainage Utility Fee Bylaw No. 4538, 2007 is amended as follows:

Deleting Schedules "A" and "B" and replacing with new Schedules A and B, as attached hereto.

Part 4 Effective Date

4.1 Sewer and Drainage Utility Fee Bylaw No. 4538, 2007, Amendment Bylaw
No. 5038, 2019 will be effective on January 1, 2020.

Schedules

Schedule A – Sewer Meter Base Rates
Schedule B – Sewer Meter Volume Rates

READ A FIRST TIME on XXXXXXXX

READ A SECOND TIME on XXXXXXXX

READ A THIRD TIME on XXXXXXXX

ADOPTED by the Council on XXXXXXXX

Mayor

Corporate Officer

Schedule A – Sewer Meter Base Rates

1. Sewer Base Charge Per Unit (Quarterly)

Customer Class	Sanitary Local Levy	Sanitary Regional Levy	Drainage Levy	Quarterly Fixed Charge: Total
Single Family Residential	\$17.56	\$25.07	\$124.17	\$166.80
Multi-Family Residential	\$17.56	\$25.07	\$124.17	\$166.80
Commercial	\$17.56	\$25.07	\$124.17	\$166.80
No Water Sewer*				\$287.50

*No Water Sewer: customers, who are not charged metered water, pay a flat rate based on the median SFR quarterly bill.

Schedule B – Sewer Meter Volume Rates

1. Metered Sewer Volume Rates Based on Quarterly Consumption

Customer Class	Volume Charge Per Cubic Metre (m ³) Local	Volume Charge Per Cubic Metre (m ³) Regional
Single Family Residential*	\$1.18	\$1.56
Multi-Family Residential**	\$1.18	\$1.56
Commercial**	\$1.18	\$1.56

*Single Family Residential Volume Rate applied quarterly to average winter period usage.

**All other class rates applied to total water usage.

For discharge of contaminated groundwater to the sewer system the fee is \$1.50 per cubic meter for groundwater discharged.

Per section 5.2.1 of "Sewer and Drainage Utility Fee Bylaw No. 4538, 2007" the rates shown in Schedule "A" and Schedule "B" shall be subject to a discount of ten (10) per cent, provided full payment for the current billing is made on or before the close of business on the due date set out on the billing form.

District of West Vancouver
Sewer Utility - 5 Year Financial Plan Alternative
Summary

APPENDIX D

LOCAL Revenue Requirements	2019 FORECASTED	2020 Projection	2021 Projection	2022 Projection	2023 Projection	2024 Projection
Revenues						
Utility Fee Revenue	\$ 12,178,900	\$ 12,178,900	\$ 12,973,000	\$ 13,668,200	\$ 14,353,400	\$ 14,809,900
Utility Fee Early Pay Discount	\$ (1,217,890)	\$ (1,217,900)	\$ (1,297,300)	\$ (1,366,800)	\$ (1,435,300)	\$ (1,481,000)
Transfer from Development Cost Charges	\$ 4,000,000	\$ -	\$ -	\$ -	\$ -	\$ -
Internal / Equipment Recoveries	\$ 136,500	\$ 136,500	\$ 136,500	\$ 136,500	\$ 136,500	\$ 136,500
Transfer from Reserves	\$ 126,000	\$ 168,500	\$ -	\$ -	\$ -	\$ -
Interest Earnings	\$ 44,100	\$ 48,700	\$ 54,800	\$ 55,500	\$ 63,700	\$ 74,900
Total Revenues	\$ 15,267,610	\$ 11,314,700	\$ 11,867,000	\$ 12,493,400	\$ 13,118,300	\$ 13,540,300
Expenses						
Operating Expenses	\$ 2,966,800	\$ 3,018,700	\$ 3,071,800	\$ 3,125,800	\$ 3,180,900	\$ 3,237,100
Infrastructure Replacement	\$ 11,822,500	\$ 8,785,000	\$ 9,455,000	\$ 9,643,000	\$ 9,835,000	\$ 10,031,000
Contribution to Reserve Funds	\$ -	\$ 305,100	\$ 35,400	\$ 409,800	\$ 558,900	\$ 717,400
Total Expenses	\$ 14,789,300	\$ 12,108,800	\$ 12,562,200	\$ 13,178,600	\$ 13,574,800	\$ 13,985,500
Net Revenue Required from Rate Increases	\$ 478,310	\$ (794,100)	\$ (695,200)	\$ (685,200)	\$ (456,500)	\$ (445,200)
Annual Local Rate Revenue Requirement Increase		6.0%	6.0%	5.0%	3.0%	3.0%
Cumulative Local Rate Adjustment	0.0%	6.0%	12.0%	17.0%	20.0%	23.0%

Operating Expenses	2019	2020	2021	2022	2023	2024
Administration Fee	\$ 370,000	\$ 370,000	\$ 370,000	\$ 370,000	\$ 370,000	\$ 370,000
Sanitary Operating & Maintenance	\$ 1,711,416	\$ 1,745,600	\$ 1,780,600	\$ 1,816,200	\$ 1,852,500	\$ 1,889,500
Storm Operating & Maintenance	\$ 885,403	\$ 903,100	\$ 921,200	\$ 939,600	\$ 958,400	\$ 977,600
Total	\$ 2,966,819	\$ 3,018,700	\$ 3,071,800	\$ 3,125,800	\$ 3,180,900	\$ 3,237,100

Infrastructure Management	2019	2020	2021	2022	2023	2024
Long Term - Infrastructure Management						
Storm Infrastructure Management Program	\$ 3,840,000	\$ 4,320,000	\$ 4,800,000	\$ 4,896,000	\$ 4,994,000	\$ 5,094,000
Sanitary Infrastructure Management Program	\$ 3,720,000	\$ 4,160,000	\$ 4,600,000	\$ 4,692,000	\$ 4,786,000	\$ 4,882,000
Development Cost Charges	\$ 4,000,000	\$ -	\$ -	\$ -	\$ -	\$ -
Infrastructure Management Carried over from 2018	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Equipment Replacement	\$ 262,500	\$ 305,000	\$ 55,000	\$ 55,000	\$ 55,000	\$ 55,000
Total	\$ 11,822,500	\$ 8,785,000	\$ 9,455,000	\$ 9,643,000	\$ 9,835,000	\$ 10,031,000
Funding Sources						
Infrastructure Replacement Funding	\$ 7,560,000	\$ 8,480,000	\$ 9,400,000	\$ 9,588,000	\$ 9,780,000	\$ 9,976,000
Internal Equipment Recoveries	\$ 136,500	\$ 136,500	\$ 136,500	\$ 136,500	\$ 136,500	\$ 136,500
DCC Revenues - Storm	\$ 4,000,000	\$ -	\$ -	\$ -	\$ -	\$ -
Use of Capital Reserves	\$ 126,000	\$ 168,500	\$ (81,500)	\$ (81,500)	\$ (81,500)	\$ (81,500)
Total	\$ 11,822,500	\$ 8,785,000	\$ 9,455,000	\$ 9,643,000	\$ 9,835,000	\$ 10,031,000

Equipment Renewal	2019	2020	2021	2022	2023	2024
Acquisitions	\$ 262,500	\$ 305,000	\$ 55,000	\$ 55,000	\$ 55,000	\$ 55,000
Recoveries	\$ (136,500)	\$ (136,500)	\$ (136,500)	\$ (136,500)	\$ (136,500)	\$ (136,500)
Total Expense	\$ 126,000	\$ 168,500	\$ (81,500)	\$ (81,500)	\$ (81,500)	\$ (81,500)

Fund Balances	2019	2020	2021	2022	2023	2024
Operating Fund (Rate Stabilization)	\$ 2,436,154	\$ 2,741,284	\$ 2,776,662	\$ 3,186,503	\$ 3,745,371	\$ 4,323,435
Equipment Renewal Fund	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Fund	\$ 6,724,469	\$ 6,690,458	\$ 6,905,767	\$ 7,125,383	\$ 7,349,390	\$ 7,717,229
Total - Reserves	\$ 9,160,623	\$ 9,431,743	\$ 9,682,430	\$ 10,311,885	\$ 11,094,762	\$ 12,040,664

REGIONAL Revenue Requirements	2019 FORECASTED	2020 Projection	2021 Projection	2022 Projection	2023 Projection	2024 Projection
Regional Levy Revenue	\$ 7,755,241	\$ 8,123,400	\$ 9,080,800	\$ 10,071,600	\$ 11,193,600	\$ 12,565,700
Current Metro Vancouver Levy	\$ 6,913,100	\$ 8,530,800	\$ 9,571,600	\$ 11,313,600	\$ 12,795,700	\$ 14,599,900
Transfer to/(from) Reserves	\$ 842,141	\$ 550,000	\$ 500,000	\$ (120,000)	\$ (230,000)	\$ (530,000)
Net Revenue Required from Rate Increases	\$ -	\$ (957,400)	\$ (990,800)	\$ (1,122,000)	\$ (1,372,100)	\$ (1,504,200)
Annual Regional Rate Revenue Requirement Increase		11.8%	10.9%	11.1%	12.3%	12.0%
Cumulative Regional Rate Adjustment	0.0%	11.8%	22.7%	33.8%	46.1%	58.1%

TOTAL Revenue Requirements	2019 FORECASTED	2020 Projection	2021 Projection	2022 Projection	2023 Projection	2024 Projection
Total Revenue before Required Increase	\$ 23,022,851	\$ 19,438,100	\$ 20,947,800	\$ 22,565,000	\$ 24,311,900	\$ 26,106,000
Total Expenditures	\$ 22,544,541	\$ 21,189,600	\$ 22,633,800	\$ 24,372,200	\$ 26,140,500	\$ 28,055,400
Net Revenue from Required Increases	\$ (478,310)	\$ 1,751,500	\$ 1,686,000	\$ 1,807,200	\$ 1,828,600	\$ 1,949,400
Annual Composite Rate Revenue Requirement Increase		9.0%	8.0%	8.0%	7.5%	7.5%
Cumulative Composite Rate Adjustment	0.0%	9.0%	17.1%	25.1%	32.6%	40.1%

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District of West Vancouver

**Sewer and Drainage Utility Fee
Bylaw No. 4538, 2007,
Amendment Bylaw No. 5038, 2019**

Effective Date:

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Mayor

Corporate Officer

Schedule A – Sewer Meter Base Rates

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Customer Class	Sanitary Local Levy	Sanitary Regional Levy	Drainage Levy	Quarterly Fixed Charge: Total
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Multi-Family Residential	\$17.56	\$26.98	\$124.17	\$168.71
Commercial	\$17.56	\$26.98	\$124.17	\$168.71
No Water Sewer*				\$295.00

*No Water Sewer: customers, who are not charged metered water, pay a flat rate based on the median SFR quarterly bill.

Schedule B – Sewer Meter Volume Rates

1. Metered Sewer Volume Rates Based on Quarterly Consumption

Customer Class	Volume Charge Per Cubic Metre (m ³) Local	Volume Charge Per Cubic Metre (m ³) Regional
Single Family Residential*	\$1.18	\$1.68
Multi-Family Residential**	\$1.18	\$1.68
Commercial**	\$1.18	\$1.68

*Single Family Residential Volume Rate applied quarterly to average winter period usage.

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