



Special Finance Committee

Council Chambers, City Hall
6911 No. 3 Road

Monday, November 16, 2020

Immediately following the open General Purposes Committee meeting

Pg. # ITEM

MINUTES

FIN-3 *Motion to adopt the minutes of the meetings of the Finance Committee held*
FIN-6 *on **October 5, 2020** and the Special Finance Committee held on*
August 26, 2020.



PRESENTATION

FIN-8 1. Representatives from KPMG to speak on the **Audit Plan.**

FINANCE AND CORPORATE SERVICES DIVISION

NEW 2. **2021 UTILITY BUDGETS AND RATES**
VERSION (File Ref. No. 03-0970-01) (REDMS No. 6545588 v. 10)

FIN-30

See Page FIN-30 for full report

Designated Speakers: Jason Ho, Suzanne Bycraft, and Ivy Wong

STAFF RECOMMENDATION

That the 2021 utility budgets, as presented in Option 2 for Water (page 5), Option 2 for Sewer (page 10), Option 1 for Drainage and Diking (page 16), and Option 3 for Solid Waste and Recycling (page 18), as outlined in the staff report, dated November 6, 2020 from the General Manager, Engineering and Public Works and the Acting General Manager, Finance and Corporate Services, be approved as the basis for establishing the 2021 utility rates and included in the Consolidated 5 Year Financial Plan (2021-2025) Bylaw.



ENGINEERING AND PUBLIC WORKS DIVISION

3. **2021 DISTRICT ENERGY UTILITY RATES**

(File Ref. No. 01-0060-20-LIEC1; 12-8060-20-010208/010209/010210) (REDMS No. 6537172 v. 10; 6538843; 6538844; 6538846)

FIN-60

See Page FIN-60 for full report

Designated Speaker: Alen Postolka

STAFF RECOMMENDATION

- (1) *That the Alexandra District Energy Utility Bylaw No. 8641, Amendment Bylaw No. 10208 be introduced and given first, second and third readings;*
- (2) *That the Oval Village District Energy Utility Bylaw No. 9134, Amendment Bylaw No. 10209 be introduced and given first, second and third readings; and*
- (3) *That the City Centre District Energy Utility Bylaw No. 9895, Amendment Bylaw No. 10210 be introduced and given first, second and third readings.*



ADJOURNMENT





Finance Committee

Date: Monday, October 5, 2020

Place: Council Chambers
Richmond City Hall

Present: Mayor Malcolm D. Brodie, Chair
Councillor Chak Au
Councillor Carol Day (by teleconference)
Councillor Kelly Greene (by teleconference)
Councillor Alexa Loo
Councillor Bill McNulty (by teleconference)
Councillor Linda McPhail (by teleconference)
Councillor Harold Steves (by teleconference)
Councillor Michael Wolfe (by teleconference)

Call to Order: The Chair called the meeting to order at 5:47 p.m.

MINUTES

It was moved and seconded

That the minutes of the meeting of the Finance Committee held on September 8, 2020, be adopted as circulated.

CARRIED

FINANCE AND CORPORATE SERVICES DIVISION

1. **DEFERRING THE CPI INCREASE TO THE CONSOLIDATED FEES BYLAW TO 2021**

(File Ref. No. 03-1240-01) (REDMS No. 6530565)

It was moved and seconded

That the annual CPI increase to the Consolidated Fees Bylaw be deferred to 2021.

CARRIED

Finance Committee
Monday, October 5, 2020

2. **PERMISSIVE PROPERTY TAX EXEMPTION (2021) BYLAW NO. 10196**

(File Ref. No. 03-0925-02-01) (REDMS No. 6488014)

It was moved and seconded

That Permissive Property Tax Exemption (2021) Bylaw No. 10196 be introduced and given first, second and third readings.

CARRIED

3. **AMENDMENTS TO THE REVISED CONSOLIDATED 5 YEAR FINANCIAL PLAN (2020-2024) BYLAW NO. 10183**

(File Ref. No. 03-0975-01) (REDMS No. 6515307 v. 14; 6515307; 6516649)

It was moved and seconded

That the Revised Consolidated 5 Year Financial Plan (2020-2024) Bylaw No. 10183, Amendment Bylaw No. 10203, which incorporates and puts into effect the changes as outlined in the staff report titled "Amendments to the Revised Consolidated 5 Year Financial Plan (2020-2024) Bylaw No. 10183" dated September 15, 2020, from the General Manager, Finance and Corporate Services, be introduced and given first, second and third readings.

CARRIED

4. **DEVELOPMENT COST CHARGES IMPOSITION BYLAW ANNUAL INFLATIONARY UPDATE (2020)**

(File Ref. No. 03-0900-01) (REDMS No. 6413783 v. 8)

It was moved and seconded

That Option 1 – Keep DCC Rates Unchanged as outlined in the staff report titled "Development Cost Charges Imposition Bylaw Annual Inflationary Update (2020)" dated September 8, 2020 from the Director, Finance be approved by Council.

CARRIED

Opposed: Cllrs. Day
Greene
Steves
Wolfe

ADJOURNMENT

It was moved and seconded

That the meeting adjourn (5:53 p.m.).

CARRIED

2.

Finance Committee
Monday, October 5, 2020

Certified a true and correct copy of the Minutes of the meeting of the Finance Committee of the Council of the City of Richmond held on September 5, 2020.

Mayor Malcolm D. Brodie
Chair

Hanieh Berg
Legislative Services Associate



Special Finance Committee

- Date: Wednesday, August 26, 2020
- Place: Council Chambers
Richmond City Hall
- Present: Mayor Malcolm D. Brodie, Chair
Councillor Chak Au
Councillor Carol Day (attending via teleconference)
Councillor Kelly Greene (attending via teleconference)
Councillor Alexa Loo (attending via teleconference)
Councillor Bill McNulty (attending via teleconference)
Councillor Linda McPhail (attending via teleconference)
Councillor Harold Steves (attending via teleconference)
Councillor Michael Wolfe (attending via teleconference)
- Call to Order: The Chair called the meeting to order at 4:04 p.m.

FINANCE AND CORPORATE SERVICES DIVISION

1. **UPDATE ON REFERRAL RE: 2020 ANNUAL TAX SALE OPTIONS**
(File Ref. No. 03-1240-01) (REDMS No. 6516637)

Staff reviewed the proposed tax sale options and current tax delinquencies, noting that a relatively small number of those delinquencies have been reported to have been as a result of pandemic-related financial hardship. Staff added that staff will continue efforts to locate property owners and resolve outstanding balances and that the current tax delinquencies do not pose a significant impact to the City's budget.

Discussion ensued with regard to (i) options to defer the tax sale to 2021, (ii) options to resolve tax delinquencies by repeat offenders, (iii) the tax collection rate for 2020, and (iv) other municipalities that have deferred their tax sale to next year.

In reply to queries from Committee, staff noted that property information from BC Assessment can be utilized to locate property owners and qualifying property owners may apply for a property tax deferral from the Province.

Special Finance Committee
Wednesday, August 26, 2020

It was moved and seconded

- (1) *That the City proceed with the tax sale in accordance with the provisions of the Local Government Act; and*
- (2) *That the measures, process and procedure changes and adjustments, and the designation and change of venue described under the Status Quo Option set out on page 3 of Attachment 1 of the staff report titled "2020 Annual Tax Sale Options", dated July 20, 2020, from the Director, Finance, be approved.*

CARRIED

Opposed: Cllr. Au
Greene
Loo
Wolfe

ADJOURNMENT

It was moved and seconded

That the meeting adjourn (4:36 p.m.).

CARRIED

Certified a true and correct copy of the Minutes of the meeting of the Finance Committee of the Council of the City of Richmond held on Wednesday, August 26, 2020.

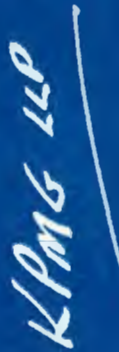
Mayor Malcolm D. Brodie
Chair

Evangel Biason
Legislative Services Coordinator



City of Richmond

Audit Planning Report
for the year ending December 31, 2020



Dated November 4, 2020 for the Finance Committee
Presentation on November 16, 2020.

kpmg.ca/audit

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FIN - 9
(Special)



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At KPMG, we are **passionate** about earning your **trust**. We take deep **personal accountability**, individually and as a team, to deliver **exceptional service and value** in all our dealings with you.

At the end of the day, we measure our success from the **only perspective that matters – yours**.



Executive summary

We are pleased to provide for your review the following information relating to the planned scope and timing for the audit of the consolidated financial statements of the City of Richmond (the "City") for the year ending December 31, 2020.

Changes in operations

In March 2020, the COVID-19 outbreak was declared a pandemic by the World Health Organization. The City's services were significantly impacted by this as many of its facilities including library branches and recreation centres were closed to the public from March 2020 to June 2020. During the closures, a reduced number of City staff continued providing services to the public. In July 2020, the City began opening its facilities to the public on a limited basis, followed by open public access in planned phases.

As the COVID-19 pandemic evolves, the City will continue to assess the impact on its operations and finances and consider the implications on financial reporting. We have analyzed the impact of the COVID-19 pandemic situation on the audit of the financial statements for the year ending December 31, 2020 and discussed the audit and financial reporting implications with management. In addition to the planned audit procedures, we will also evaluate the impact of the COVID-19 pandemic on the financial statements.

See pages 4 to 6 for further details.

Areas of audit focus

Our audit of the City is risk-focused. As part of our audit process, we have had discussions with management about any changes in the organization and other items that should be brought to our attention, and we have considered the impact, if any, to the audit. In planning our audit we have taken into account key areas of focus for financial reporting. These include:

- Tangible capital assets;
- Deferred revenue and development cost charges; and
- Valuation of post-employment benefits.

See pages 7 to 8 for further details.

Materiality

We determine materiality in order to plan and perform the audit and to evaluate the effects of identified misstatements on the audit and of any uncorrected misstatements on the financial statements. Materiality has been determined based on forecasted total expenses. We have determined materiality to be \$8,300,000 for the year ending December 31, 2020.

See page 9 for further details.

Quality control and independence

We are independent of the City and have extensive quality control and conflict checking processes in place. We provide complete transparency on all services and follow the City's approved protocols as determined by those changed with governance.

New accounting and auditing standards

There are no new accounting standards effective for the City's 2020 fiscal year.

A new auditing standard, CAS 540 Auditing Accounting Estimates and Related Disclosures, is effective for the City's 2020 fiscal year.

See Appendix 2 for further details.

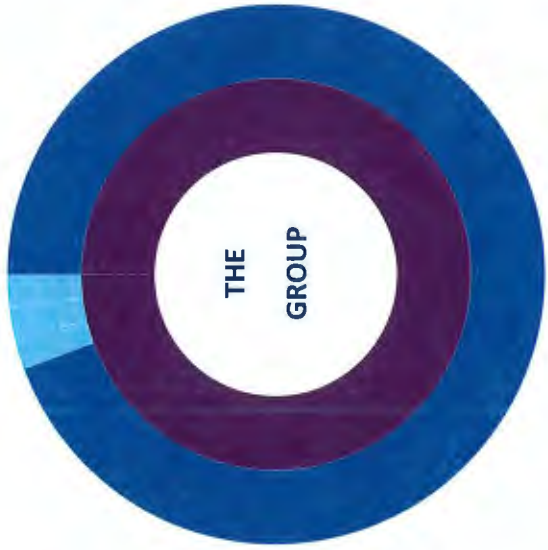
Current developments

Please refer to Appendix 2 for the current developments updates, including COVID-19 resources.

Group audit scope

Professional standards require that we obtain an understanding of City's organizational structure, including its components and their environments that is sufficient to identify those components that are financially significant or that contain specific risks that must be addressed during our audit.

The components included in the City's consolidated entity ("the Group") over which we plan to perform our audit procedures are as follows:



Components	Scope	Legend
Individually financially significant	Audit	
- City of Richmond (non-consolidated entity)		
Not financially significant components		
- Richmond Public Library	Audit	
- Richmond Olympic Oval Corporation	Audit	
- Lulu Island Energy Company	Audit	
Procedures performed by		Legend
Group team – KPMG Vancouver		

Audit and financial reporting impacts of COVID-19

We provide the following information for the review of the Finance Committee (“the Committee”) and describe the additional procedures that we will be performing. As the COVID-19 pandemic is a dynamic situation, we will continue to update our Audit Plan as the situation warrants. We will communicate any additional changes to our Audit Plan to the Committee in our Audit Findings Report.

Audit implications

Considerations Audit implications

- Conducting the audit work**
- KPMG is fully paperless and poised to undertake a remote audit in an efficient manner if required. We have established a secure ShareFile platform to facilitate the sharing of information with management. We have discussed the details of the audit with management, and we are ready to undertake the audit as planned and on schedule.
 - The ability for the audit to commence is highly fluid and dependent on management’s ability to physically or digitally access underlying documents in a safe and healthy manner.

General considerations

- Many organizations have been required, out of necessity, to amend process activities and controls, and as such, segregation of duties and approval of transactions may also have been impacted.
- We will obtain an understanding of what changes to process activities and controls have been implemented to determine if the planned audit procedures are appropriate. We have conducted preliminary discussions with management and will confirm our understanding of any significant changes by performing walkthroughs of transactions.
- Just as the City has been impacted by COVID-19 protocols, so have many of your partners, vendors and banking institutions. As a result, responses to third party confirmations may be delayed. Confirmations requests will be sent to confirming parties to facilitate receipt of responses in a timely manner.

Subsequent event

- Currently, we expect that COVID-19 may impact the City’s operations and finances subsequent to year-end.
- An assessment should be made by management of any COVID-19 financial implications. Actions undertaken by the City should be disclosed in a note to the financial statements, including a statement as to whether or not these factors present uncertainty over future cash flows, cause significant changes to assets and liabilities, and/or significantly impact future operations. Measurement of the estimated financial effect should be disclosed, or it should be stated if the effect is not determinable.
- We will work with management to customize the wording of the subsequent event note for the City’s specific situation.

Audit and financial reporting impacts of COVID-19 (continued)

Financial reporting considerations

Considerations	Financial reporting considerations
Investments	<ul style="list-style-type: none">– Management continues to monitor the performance of the investment to identify and assess whether there are indicators that the values may be permanently impaired. Management will continue to engage in discussions with its investment manager about the performance of its investments, and to ensure reliable information about the investment values continues to be obtained.– We will inquire with management about the performance of the investments subsequent to year-end and evaluate whether any indicators of permanent impairment have been identified. We will review investment statements and other information received from the investment manager to determine the impact on the portfolio values.
Accounts receivable, taxes receivable, and development fees receivable	<ul style="list-style-type: none">– Management will perform a detailed analysis of any uncollectible receivable balances including those owed by related parties and other entities. This includes ensuring provisions for uncollectible amounts is appropriate based on the ageing and expected collectability of balances.– We will perform an enhanced review of management's analysis, including the ageing of receivables and assess whether the provision is reasonable.
Accounts payable and accrued liabilities, and expenditures	<ul style="list-style-type: none">– Management will ensure that the liabilities and related expenses are complete and accurate. Accruals may need to be calculated due to delays in receiving vendor invoices.– We will evaluate enhanced audit risk surrounding cut-off due to matters such as potentially inability to receive goods, or the associated paperwork for processing from internal or external sources.– We will perform an enhanced review of management's assessment and calculation of significant accruals including severance accruals, if any.– We will review payments made and invoices received subsequent to year-end to ensure they are recorded in the appropriate fiscal year.
Revenue	<ul style="list-style-type: none">– Management will continue to analyze the changes in revenue relative to the prior year and identify the impacts of COVID-19.– We will review management's analysis to understand the impacts of COVID-19 and assess whether the variances from the prior year balances are reasonable to ensure revenue reported in the financial statements is complete and accurate.

Audit and financial reporting impacts of COVID-19 (continued)

Financial reporting considerations

Considerations Financial reporting considerations

- | | |
|--|--|
| Deferred revenue, deposits, and holdback. | <ul style="list-style-type: none">- Management will monitor and track deferred revenue and deposits and holdbacks to determine whether any amounts require reclassification to accounts payable and accrued liabilities.- We will perform an enhanced review of management's analysis of deferred revenue, deposits, and holdbacks and assess whether the accounting and presentation is reasonable. |
| Employee future benefits | <ul style="list-style-type: none">- Management will work with the actuary to assess the potential impact of COVID-19 on the actuarial valuation of the employee future benefits. In particular, the assessment will consider the potential impact on the valuation from changes to the assumptions as a result of COVID-19, changes to the usage of benefits by employees, and the appropriateness of the discount rate.- We will assess the reasonableness of assumptions used by the actuary in the valuation.- The accounting treatment and any financial statement disclosures related to the impact of COVID-19, if any, will be reviewed to ensure it is in accordance with Canadian public sector accounting standards. |
| Expenditures | <ul style="list-style-type: none">- Management will monitor and track incremental expenditures and consider the presentation of the expenditures in the financial statements.- We will perform an enhanced review of management's analysis of expenditures and assess whether the accounting and presentation is reasonable. |

Areas of focus for financial reporting

Areas of focus	Why are we focusing here?	Our audit approach
Tangible Capital Assets (“TCA”)	Tangible capital assets represent a significant portion of assets of the City. The assets owned by the City are complex and may require estimation related to componentization and the fair value of developer contributed assets.	<ul style="list-style-type: none"> - Update our understanding of the process activities and controls over TCA. - Perform detailed testing of asset additions, including inspection of supporting documentation to determine if additions are capital in nature and to test accuracy of amounts recorded. - Perform detailed testing of dispositions including inspection of supporting documentation and assessing if the gain or loss on disposition has been recorded appropriately. - Review the reasonableness of estimated useful lives and amortization recognized. - Review agreements for contractual commitments and related disclosure requirements.
Deferred Revenue and Development Cost Charges (“DCC”)	The City receives government grants and development cost charges for certain projects. As these amounts are for specified purposes and could contain stipulations, there is a need to determine whether the amounts should be deferred or recognized as revenue upfront.	<p>In addition to the additional procedures noted in the section “Audit and financial reporting impacts of COVID-19” relating to deferred revenue, we will:</p> <ul style="list-style-type: none"> - Reconcile permits to new development cost charges during the year and inspect appropriate bylaws noting the appropriation for its specified purpose. - Update our understanding of the process activities and controls over DCC. - Select a sample of DCC charges, recalculate the total amount, agree each factor in the calculation to supporting documentation (e.g. approved rates) and agree the amount recorded to cash receipts. - Select a sample of DCC expenditures, ensure the expenditures bylaws were approved by Council and agree the amount recorded to supporting documentation.
Valuation of Post – Employment Benefits	The City provides post-employment benefits to its employees, creating a liability. Due to the variety of factors involved in calculating the estimate, a high degree of estimation uncertainty exists.	<p>In addition to the additional procedures noted in the section “Audit and financial reporting impacts of COVID-19”, and in accordance with the new estimates auditing standard, we will:</p> <ul style="list-style-type: none"> - Obtain the reports prepared by the City’s actuary Mercer (Canada) Limited and tie amounts from those reports into the financial statements. - Review the significant assumptions used in the actuarial report and test the data provided by the City to Mercer for completeness and accuracy. - Perform an analytical review over these amounts. - Review note disclosure in the financial statements to ensure it is complete and accurate.

Audit risks

Professional requirements

Why is it significant?

Risk of material misstatement due to fraud resulting from management override of controls This is a presumed risk of material misstatement due to fraud.

Our audit approach

As the risk is not rebuttable, our audit methodology incorporates the required procedures in professional standards to address this risk. These procedures include:

- Testing of journal entries and other adjustments,
- Performing a retrospective review of estimates, and
- Evaluating the business rationale of significant unusual transactions.

Inquiries required by professional standards

Professional standards require that we obtain your view on the risk of fraud. We make similar inquiries to management as part of our planning process:


- Are you aware of, or have you identified any instances of actual, suspected, possible, or alleged non-compliance of laws and regulations or fraud, including misconduct or unethical behavior related to financial reporting or misappropriation of assets? If so, have the instances been appropriately addressed and how have they been addressed?
- What are your views about fraud risks in the City?
- How do you exercise effective oversight of management's processes for identifying and responding to the risk of fraud in the City and internal controls that management has established to mitigate these fraud risks?
- Has the City entered into any significant unusual transactions?


Materiality

Materiality is used to identify risks of material misstatements, develop an appropriate audit response to such risks, and evaluate the level at which we think misstatements will reasonably influence users of the financial statements. It considers both quantitative and qualitative factors. To respond to aggregation risk, we design our procedures to detect misstatements at a lower level of materiality. Professional standards require us to re-assess materiality at the completion of our audit based on period-end results or new information in order to confirm whether the amount determined for planning purposes remains appropriate.

Materiality determination	Comments	Amount
Benchmark	Relevant metrics for this type of organization includes total assets, total expenses and total assets. The selected benchmark is the forecasted total expenses for the current year based on the expenses as of September 30, 2020. In the prior year, the 2018 total expenses of \$414,456,000 was selected as the benchmark.	\$415,684,000
Materiality	Determined to plan and perform the audit and to evaluate the effects of identified misstatements on the audit and of any uncorrected misstatements on the financial statements. The corresponding amount for the prior year's audit was \$8,300,000	\$8,300,000
% of Benchmark	The prescribed range is between 0.5% and 3.0% of the benchmark. The corresponding percentage for the prior year's audit was 2%.	2%
Audit misstatement posting threshold	Threshold used to accumulate misstatements identified during the audit. The corresponding amount for the prior year's audit was \$415,000.	\$415,000

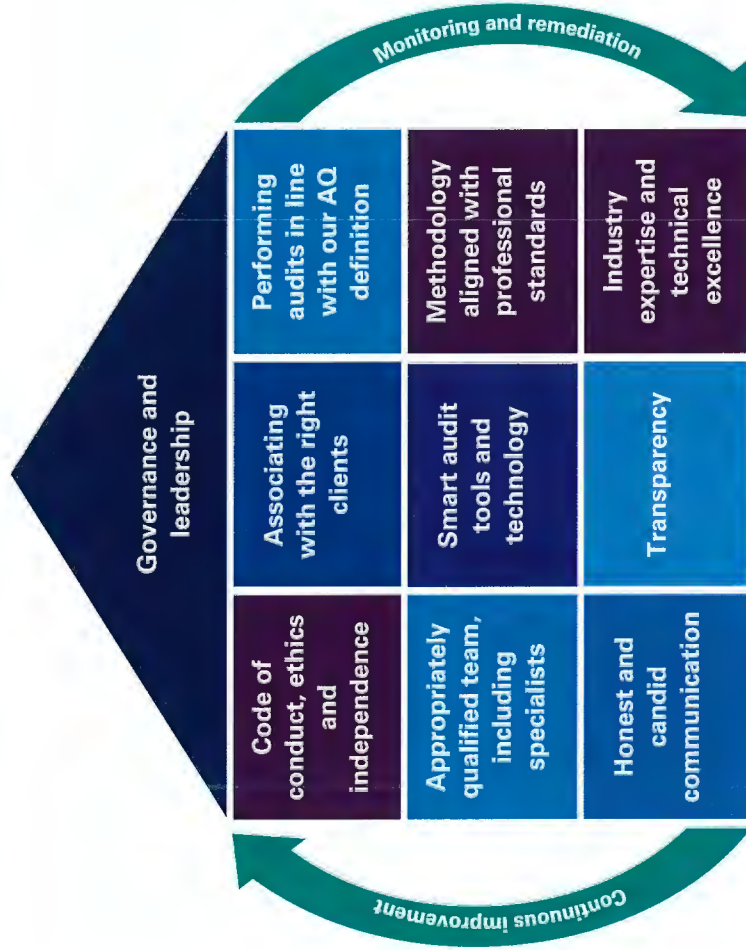
We will report to the Committee:

 Corrected audit misstatements

 Uncorrected audit misstatements

Audit quality and transparency

KPMG maintains a system of quality control designed to reflect our drive and determination to deliver independent, unbiased advice and opinions, and also meet the requirements of Canadian professional standards. Quality control is fundamental to our business and is the responsibility of every partner and employee. The following diagram summarizes the key elements of our quality control system.



Audit Quality Framework

What do we mean by audit quality?

Audit Quality (AQ) is at the core of everything we do at KPMG.

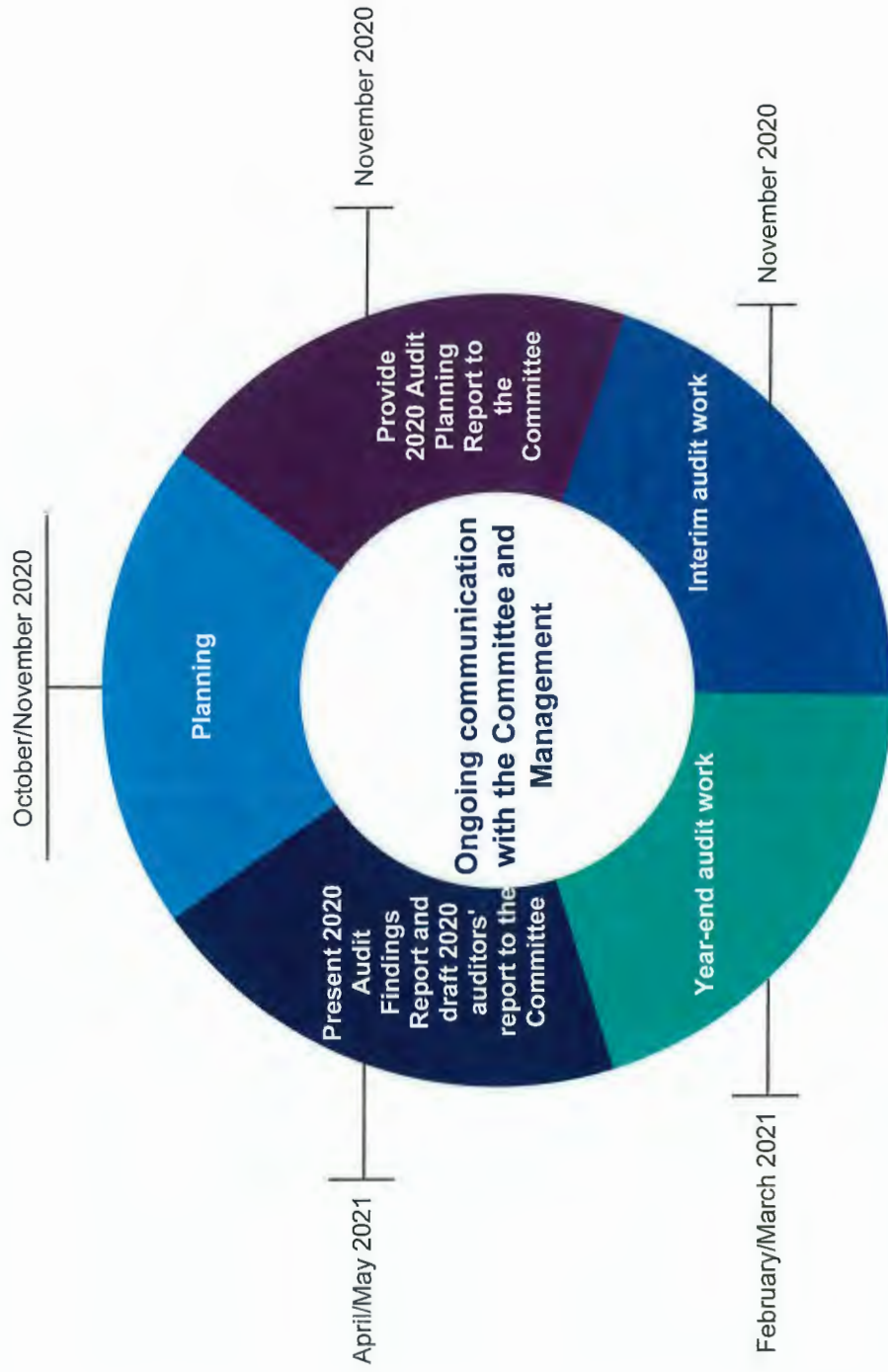
We believe that it is not just about reaching the right opinion, but how we reach that opinion.

We define 'audit quality' as being the outcome when audits are:

- Executed consistently, in line with the requirements and intent of applicable professional standards within a strong system of quality controls, and
- All of our related activities are undertaken in an environment of the utmost level of **objectivity, independence, ethics, and integrity**.

Our AQ Framework summarises how we deliver AQ. Visit our [Audit Quality Resources page](#) for more information including access to our [Audit Quality and Transparency report](#).

Key deliverables and milestones





Appendices

Appendix 1: Required communications

Appendix 2: Current developments

Appendix 1: Required communications

Engagement letter

The objectives of the audit, our responsibilities in carrying out our audit, as well as management's responsibilities, are set out in the engagement letter provided to management.

Auditors' report

A copy of our draft auditors' report setting out the conclusion of our audit will be provided at the completion of the audit.

Audit planning report

Presented by this report.

Management representation letter

We will obtain from management certain representations at the completion of the audit. In accordance with professional standards, a copy of the representation letter will be provided to the Committee.

Independence

At the completion of our audit, we will re-confirm our independence to the Committee.

Audit findings report

At the completion of the audit, we will provide our findings report to the Committee.

Internal control deficiencies

Control deficiencies identified during the audit will be communicated to management and the Committee.

Appendix 2 Current developments and audit trends

Current Developments, created by the KPMG Public Sector and Not-for-Profit Practice, summarizes regulatory and governance matters public sector entities today, or expected to impact them over the next few years. We provide this information to help public sector entities understand upcoming changes and challenges they may face in their industry. Some of these developments may not impact the City directly, but we believe it is important for the Committee to understand what is happening in the sector.

New auditing standard

Standard	Overview	Link
CAS 540 Auditing Accounting Estimates and Related Disclosures	<p>The new standard is effective for the City's 2020 fiscal year-end.</p> <p>Expected impact on the audit:</p> <ul style="list-style-type: none"> - More emphasis on the need for exercising professional skepticism. - More granular risk assessment to address each of the components in an estimate (method, data, assumptions). - More granular audit response designed to specifically address each of the components in an estimate (method, data, assumptions). - More focus on how we respond to levels of estimation uncertainty. - More emphasis on auditing disclosures related to accounting estimates. - More detailed written representations required from management. <p>We expect this new standard to impact our audit of the City's estimate for allowance for doubtful accounts, tangible capital asset estimated useful lives for amortization, and employee future benefits.</p>	CPA Canada Client Briefing

Appendix 2 Current developments and audit trends (continued)

Public Sector Accounting Standards

Standard	Summary and implications
Impact of COVID-19	<ul style="list-style-type: none"> - In response to the impact of COVID-19 on public sector entities, PSAB has approved deferral of all upcoming accounting standards by one year and will issue non-authoritative guidance on the effects of COVID-19.
Asset Retirement Obligations	<ul style="list-style-type: none"> - The new standard is effective for fiscal years beginning on or after April 1, 2022. The effective date was deferred by one year due to COVID-19. - The new standard addresses the recognition, measurement, presentation and disclosure of legal obligations associated with retirement of tangible capital assets in productive use. Retirement costs will be recognized as an integral cost of owning and operating tangible capital assets. PSAB currently contains no specific guidance in this area. - The ARO standard will require the public sector entity to record a liability related to future costs of any legal obligations to be incurred upon retirement of any controlled tangible capital assets ("TCA"). The amount of the initial liability will be added to the historical cost of the asset and amortized over its useful life. - As a result of the new standard, the public sector entity will have to: <ul style="list-style-type: none"> • consider how the additional liability will impact net debt, as a new liability will be recognized with no corresponding increase in a financial asset; • carefully review legal agreements, senior government directives and legislation in relation to all controlled TCA to determine if any legal obligations exist with respect to asset retirements; • begin considering the potential effects on the organization as soon as possible to coordinate with resources outside the finance department to identify AROs and obtain information to estimate the value of potential AROs to avoid unexpected issues.
Revenue	<ul style="list-style-type: none"> - The new standard is effective for fiscal years beginning on or after April 1, 2023. The effective date was deferred by one year due to COVID-19. - The new standard establishes a single framework to categorize revenues to enhance the consistency of revenue recognition and its measurement. - The standard notes that in the case of revenues arising from an exchange transaction, a public sector entity must ensure the recognition of revenue aligns with the satisfaction of related performance obligations. - The standard notes that unilateral revenues arise when no performance obligations are present, and recognition occurs when there is authority to record the revenue and an event has happened that gives the public sector entity the right to the revenue.

Appendix 2 Current developments and audit trends (continued)

Public Sector Accounting Standards

Standard	Summary and implications
Financial Instruments and Foreign Currency Translation	<ul style="list-style-type: none"> - The accounting standards, PS3450 <i>Financial Instruments</i>, PS2601 <i>Foreign Currency Translation</i>, PS1201 <i>Financial Statement Presentation</i> and PS3041 <i>Portfolio Investments</i> are effective for fiscal years commencing on or after April 1, 2022. The effective date was deferred by one year due to COVID-19. - Equity instruments quoted in an active market and free-standing derivatives are to be carried at fair value. All other financial instruments, including bonds, can be carried at cost or fair value depending on the public sector entity's choice and this choice must be made on initial recognition of the financial instrument and is irrevocable. - Hedge accounting is not permitted. - A new statement, the Statement of Remeasurement Gains and Losses, will be included in the financial statements. Unrealized gains and losses incurred on fair value accounted financial instruments will be presented in this statement. Realized gains and losses will continue to be presented in the statement of operations. - In July 2020, PSAB approved federal government narrow-scope amendments to PS3450 <i>Financial Instruments</i> which will be included in the Handbook in the fall of 2020. Based on stakeholder feedback, PSAB is considering other narrow-scope amendments related to the presentation and foreign currency requirements in PS3450 <i>Financial Instruments</i>. The exposure drafts will be released in summer 2020 with a 90-day comment period.
Employee Future Benefit Obligations	<ul style="list-style-type: none"> - PSAB has initiated a review of sections PS3250 <i>Retirement Benefits</i> and PS3255 <i>Post-Employment Benefits, Compensated Absences and Termination Benefits</i>. In July 2020, PSAB approved a revised project plan. - PSAB intends to use principles from International Public Sector Accounting Standard 39 <i>Employee Benefits</i> as a starting point to develop the Canadian standard. - Given the complexity of issues involved and potential implications of any changes that may arise from the review of the existing guidance, PSAB will implement a multi-release strategy for the new standards. The first standard will provide foundational guidance. Subsequent standards will provide additional guidance on current and emerging issues.

Appendix 2: Current developments and audit trends (continued)

Standard	Summary and implications
Public Private Partnerships (“P3”)	<ul style="list-style-type: none"> - PSAB has proposed new requirements for the recognition, measurement and classification of infrastructure procured through a public private partnership. PSAB in the process of reviewing feedback provided by stakeholders on the exposure draft. - The exposure draft proposes that recognition of infrastructure by the public sector entity would occur when it controls the purpose and use of the infrastructure, when it controls access and the price, if any, charged for use, and it controls any significant interest accumulated in the infrastructure when the P3 ends. - The exposure draft proposes that the public sector entity recognize a liability when it needs to pay cash or non-cash consideration to the private sector partner for the infrastructure. - The infrastructure would be valued at cost, with a liability of the same amount if one exists. Cost would be measured by discounting the expected cash flows by a discount rate that reflects the time value of money and risks specific to the project.
Concepts Underlying Financial Performance	<ul style="list-style-type: none"> - PSAB is in the process of reviewing the conceptual framework that provides the core concepts and objectives underlying Canadian public sector accounting standards. - PSAB is in the process of developing exposure drafts for the proposed conceptual framework and proposed revised reporting model, and their related consequential amendments. - PSAB is proposing a revised, ten chapter conceptual framework intended to replace PS 1000 <i>Financial Statement Concepts</i> and PS 1100 <i>Financial Statement Objectives</i>. The revised conceptual framework would be defined and elaborate on the characteristics of public sector entities and their financial reporting objectives. Additional information would be provided about financial statement objectives, qualitative characteristics and elements. General recognition and measurement criteria, and presentation concepts would be introduced. <ul style="list-style-type: none"> - In addition, PSAB is proposing: <ul style="list-style-type: none"> • Removal of the net debt indicator, except for on the statement of net debt where it would be calculated exclusive of financial assets and liabilities that are externally restricted and/or not available to settle the liabilities or financial assets. • Changes to common terminology used in the financial statements, including re-naming accumulated surplus (deficit) to net assets (liabilities). • Restructuring the statement of financial position to present non-financial assets before liabilities. • Removal of the statement of remeasurement gains (losses) with the information instead included on a new statement called the statement of changes in net assets (liabilities). This new statement would present the changes in each component of net assets (liabilities). • A new provision whereby an entity can use an amended budget in certain circumstances. - Inclusion of disclosures related to risks and uncertainties that could affect the entity’s financial position.

Appendix 2: Current developments and audit trends (continued)

Standard	Summary and implications
International Strategy	<ul style="list-style-type: none"> - PSAB has reviewed all proposed options for its international strategy, and in accordance with its due process, approved the option to adapt International Public Sector Accounting Standards when developing future standards. PSAB noted that the decision will apply to all projects beginning on or after April 1, 2021.
Purchased Intangibles	<ul style="list-style-type: none"> - In October 2019, PSAB approved a proposal to allow public sector entities to recognize intangibles purchased through an exchange transaction. Practitioners are expected to use the definition of an asset, the general recognition criteria and the GAAP hierarchy to account for purchased intangibles. - Based on stakeholder feedback, PSAB will develop a Public Sector Guideline to clarify the guidance in the exposure draft to PS1000 <i>Financial Statement Concepts</i>, PS1100 <i>Financial Statement Objectives</i> and PS1201 <i>Financial Statement Presentation</i>. The updates to the Handbook are expected to be released in fall 2020. The accounting for intangibles may be addressed through future PSAB projects.

Appendix 2: Current developments and audit trends (continued)

Our discussions with you, our audit opinion and what KPMG is seeing in the marketplace - both from an audit and industry perspective - indicate the following is specific information that will be of particular interest to you. We would, of course, be happy to further discuss this information with you at your convenience.

Thought leadership

Thought leadership	Overview	Link
2019 Audit Quality and Transparency Report	Learn about KPMG's ongoing commitment to continuous audit quality improvement. We are investing in new innovative technologies and building strategic alliances with leading technology companies that will have a transformative impact on the auditing process and profession. How do we seek to make an impact on society through the work that we do?	Link to report
Put your data to work to gain competitive advantage	There is no "digital economy". The economy is digital and "digits" refer to data. Data is the lifeblood of every organization on this planet and organizations that embrace this notion are well positioned to grow as industries continue to evolve and disrupt at an ever increasing pace.	Link to report
Predictive analytics, it works	CEOs recognize the value that predictive analytics delivers to their decision-making process.	Link to report
Creating the workforce of the future	You can't transform the organization without also transforming the workforce. It may be time to rethink the people strategy.	Link to report
Accelerate	Introducing the new 2019/2020 Accelerate report, a KPMG report and video series offering insight into the key issues driving the Committee agenda, including: <ul style="list-style-type: none"> - Digital disruption of the finance function - Digital business brings increased cyber risk - Taking the lead on data privacy - Boards bracing for climate change - Future-proofing your enterprise risk management 	Link to report
Board Leadership Centre	KPMG provides leading insights to help Board members maximize boardroom opportunities.	Link to site

Appendix 2: Current developments and audit trends (continued)

COVID-19 pandemic resources

Resources	Summary	Links
Resources for management, Council, and the Committee	<p>Please visit our COVID-19 website for resources regarding the topics below. This site is being <u>updated daily</u> based on information being released by federal, provincial and municipal news releases.</p> <ul style="list-style-type: none"> - Business continuity guide - Immediate actions to take - Medium to long-term actions - Tax considerations and a summary of federal and provincial programs - Legal considerations - Financial reporting and audit considerations - Global perspectives 	COVID-19 Alerts (Live Link)

Return to the workplace

As all levels of government begin to take steps toward re-opening the country and restarting our economy, planning for the return to a physical workplace is quickly becoming a top priority for many organizations. With the guidelines for the pandemic continuing to evolve daily, there are many considerations, stages and factors employers need to assess in order to properly develop a robust action plan which can ensure the health and safety of their workforce.

We have put together a Return to the Workplace guide to support an organization's planning efforts in preparing to return to physical workplace. Our guide includes a list of considerations, stages and factors that can help establish a robust action plan for your organization to safely return to work. The guide is supported by a dynamic playbook, which our team has developed to outline a comprehensive list of actions an organization can take, based on their unique situation and immediate needs.

[Website link](#)

[Link to guide](#)

kpmg.ca/audit



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City of Richmond

Report to Committee

To: Finance Committee **Date:** November 6, 2020
From: John Irving, P.Eng. MPA **File:** 03-0970-01/2020-Vol
01
 General Manager, Engineering and Public
 Works
 Jerry Chong, CPA, CA
 Acting General Manager, Finance and Corporate
 Services
Re: **2021 Utility Budgets and Rates**

Staff Recommendation

That the 2021 utility budgets, as presented in Option 2 for Water (page 5), Option 2 for Sewer (page 10), Option 1 for Drainage and Diking (page 16), and Option 3 for Solid Waste and Recycling (page 18), as outlined in the staff report, dated November 6, 2020 from the General Manager, Engineering and Public Works and the Acting General Manager, Finance and Corporate Services, be approved as the basis for establishing the 2021 utility rates and included in the Consolidated 5 Year Financial Plan (2021-2025) Bylaw.

John Irving, P.Eng. MPA
 General Manager,
 Engineering and Public Works
 (604-276-4140)

Jerry Chong, CPA, CA
 Acting General Manager,
 Finance and Corporate Services
 (604-276-4064)

Att. 1

REPORT CONCURRENCE	
CONCURRENCE OF GENERAL MANAGER 	
REVIEWED BY SMT	INITIALS: SL
APPROVED BY CMO 	

Staff Report

Origin

This report presents the recommended 2021 utility budgets and rates for Water, Sewer, Drainage and Diking, and Solid Waste and Recycling. The utility rates need to be established and amended bylaws adopted by December 31, 2020 in order to take effect January 1, 2021.

This report supports the following strategies within Council's Strategic Plan 2018-2022:

Strategy #1 A Safe and Resilient City:

Enhance and protect the safety and well-being of Richmond.

1.2 Future-proof and maintain city infrastructure to keep the community safe.

1.3 Ensure Richmond is prepared for emergencies, both human-made and natural disasters.

Strategy #2 A Sustainable and Environmentally Conscious City:

Environmentally conscious decision-making that demonstrates leadership in implementing innovative, sustainable practices and supports the City's unique biodiversity and island ecology.

2.1 Continued leadership in addressing climate change and promoting circular economic principles.

2.2 Policies and practices support Richmond's sustainability goals.

Strategy #5 Sound Financial Management:

Accountable, transparent, and responsible financial management that supports the needs of the community into the future.

5.1 Maintain a strong and robust financial position.

5.2 Clear accountability through transparent budgeting practices and effective public communication.

5.3 Decision-making focuses on sustainability and considers circular economic principles.

5.4 Work cooperatively and respectfully with all levels of government and stakeholders while advocating for the best interests of Richmond.

Analysis

Utility services, including water, sewer, flood protection, and solid waste and recycling have been defined as essential services by the Province of BC during the COVID-19 pandemic. As such, the City continues to provide all utility services during this time, including:

Water

All residents and businesses continue to have access to clean water for drinking, cleaning, gardening, and fire protection. Operation, maintenance and upgrade of the City's water infrastructure are on-going.

Sewer

All residents and businesses with a sewer connection continue to receive full sewer service, including sewage collection and treatment. Operation, maintenance and upgrade of the City's sewer infrastructure are on-going.

Flood Protection

The City continues to be well-protected from flood risks. Operation, maintenance, and upgrade of the City's drainage and diking infrastructure are on-going.

Solid Waste and Recycling

Residents continue to receive regularly scheduled garbage and recycling collection. Litter collection, illegal dumping clean-up, and public space recycling are on-going, and the Recycling Depot continues to operate and serve the public.

During the COVID-19 pandemic, the City continues to provide a high level of service to Richmond residents and businesses, and the City's operating expenditures are carefully managed while operational efficiencies continue to be pursued in order to minimize the impact on ratepayers during this time.

Metro Vancouver's 2021 budget, as presented in their 2021-2025 Financial Plan, form a key component of the City's 2021 utility rates for water, sewer, and solid waste and recycling. Metro Vancouver rate increases for 2021 are as follows:

Water

The 2021 Greater Vancouver Water District (GVWD) rate increase is 3.5%. The GVWD water purchase cost represents 58% of the City's Water Utility user fee budget.

Sewer

The 2021 Greater Vancouver Sewerage and Drainage District (GVS&DD) sewer levy increase is 4.4%. The operations and maintenance component of the GVS&DD sewer

levy, which is funded through the Sewer Utility, represents 66% of the City's Sewer Utility user fee budget.

Solid Waste

The Metro Vancouver solid waste tipping fees are increased by \$4 to \$117 per tonne for 2021, plus a transaction fee of \$5 per load. A tiered structure based on load size/weight will continue to be used for small vehicles and commercial customers.

Another component of the City's utility budget relates to the replacement of ageing municipal infrastructure. Based on the "Ageing Utility and Road Infrastructure Planning – 2019 Update" report, dated August 16, 2019, there are additional annual funding requirements of \$1.7 million for water infrastructure, \$2.6 million for sanitary infrastructure, and \$7.4 million for drainage and diking infrastructure. The ageing infrastructure component is analyzed in subsequent sections of this report.

The recommended 2021 solid waste and recycling services include maintaining all services and programs which are designed to advance broader waste reduction and recycling objectives. The City remains a leader in providing robust recycling programs, currently diverting 79% of single-family residential waste. Budget amounts presented within this report include additional costs under the City's organics processing agreement for completion of the facility enclosure and related odour management controls. Various options are also presented relating to social distancing traffic control measures at the City's recycling depot, which are expected to be required through June 2021 in light of COVID-19.

Recognizing the impact of the COVID-19 pandemic on ratepayers as well as challenges of cost increases outside of the City's control and those associated with maintaining City infrastructure, staff have presented various budget and rate options for 2021. This includes three different options for each of the City's utilities.

For water, sewer, flood protection, and solid waste and recycling, Option 1 presents a zero rate increase; Options 2 and 3 present various actions the City can take to increase the rates depending on the varying circumstances and needs within each budget area. The various options are presented for each of the City utilities in the following sections, and the proposed 2021 rates are summarized in Tables 13 and 14.

Water Utility

Table 1. Water Utility Budget

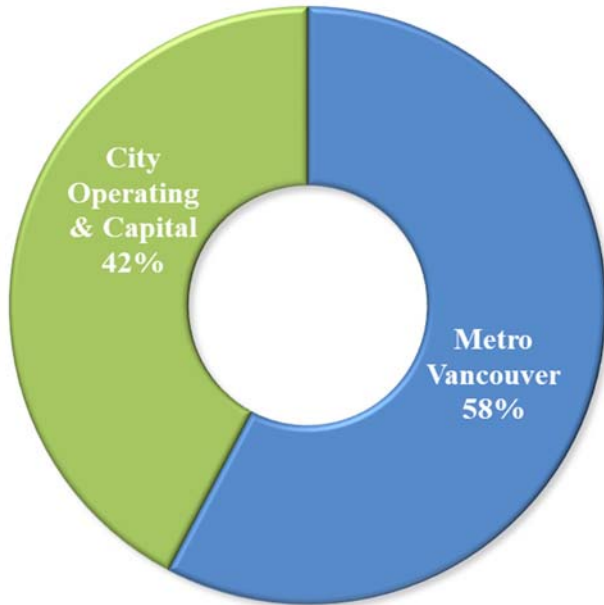
Key Budget Areas	2020 Base Level Budget (Restated for Comparison ¹)	Option 1 Zero Rate Impact \$1,400,000 Drawdown from Provision	Option 2 (Recommended) \$700,000 Drawdown from Provision	Option 3 Non- Discretionary Increases
<u>Expenditures</u>				
Salary	\$6,261,300	\$258,300	\$258,300	\$258,300
PW Materials/Equipment/Power Costs	\$2,409,700	\$400	\$400	\$400
Operating Expenditures	\$1,319,400	-\$19,600	-\$19,600	-\$19,600
Water Meter Reading and Maintenance	\$182,400	\$0	\$0	\$0
Toilet Rebate Program	\$100,000	\$0	\$0	\$0
GVWD Water Purchases (Metro Vancouver)	\$27,558,300	\$135,900	\$135,900	\$135,900
Capital Infrastructure Replacement Program	\$7,500,000	\$0	\$0	\$0
Firm Price/Receivable	\$2,677,100	\$79,600	\$79,600	\$79,600
Residential Water Metering Program	\$1,285,900	\$0	\$0	\$0
Overhead Allocation	\$976,100	\$0	\$0	\$0
Total Base Level Expenditure Budget	\$50,270,200	\$50,724,800	\$50,724,800	\$50,724,800
<u>Revenues</u>				
Provision (Rate Stabilization)	\$0	-\$1,400,000	-\$700,000	\$0
Investment Income	-\$392,000	\$196,000	\$196,000	\$196,000
Firm Price/Receivable	-\$2,677,100	-\$79,600	-\$79,600	-\$79,600
Meter Rental	-\$1,917,000	-\$28,400	-\$28,400	-\$28,400
YVR Maintenance	-\$30,000	\$0	\$0	\$0
Provision (Toilet Rebate/Flushing)	-\$259,200	-\$7,000	-\$7,000	-\$7,000
Provision (OBI Adjustment) ¹	-\$74,900	\$74,900	\$74,900	\$74,900
Meter Re-Reads and Other Services	-\$80,800	\$0	\$0	\$0
Total Base Level Revenue Budget	-\$5,431,000	-\$6,675,100	-\$5,975,100	-\$5,275,100
Net Budget	\$44,839,200	\$44,049,700	\$44,749,700	\$45,449,700
Net Difference Over 2020 Base Level Budget		-\$789,500	-\$89,500	\$610,500

¹The 2020 Base Level budget has been restated to include the approved Operating Budget Impacts approved with the 2020 Capital Budget. Refer to "Provision (OBI Adjustment)" discussion on page 7.

The following is an explanation of the budget reductions and increases outlined in Table 1.

GVWD Water Purchases – Metro Vancouver

Figure 1. 2021 Water Utility User Fee Breakdown



Metro Vancouver has indicated that their water rate will increase by 3.5%. Through careful management of the City’s water demand, the corresponding increase in water purchase cost from Metro Vancouver is \$135,900.

Bulk water is purchased from Metro Vancouver on a volumetric basis and accounts for 58% of Richmond’s water rate (Figure 1). The City’s 2021 water rates are based on Metro Vancouver’s 2021-2025 Financial Plan (Table 2), which was approved by the Metro Vancouver Board on October 30, 2020.

Table 2. Metro Vancouver Water Rate Projection – 2021-2025 Financial Plan

	2021	2022	2023	2024	2025
Blended Rate (\$/m³)	\$0.8110	\$0.8532	\$0.9078	\$0.9886	\$1.0954
% Change	3.5%	5.2%	6.4%	8.9%	10.8%

Metro Vancouver’s projected rate increases for the next three years are significantly less than previously indicated in their 2020-2024 Financial Plan, with the objective of reducing cost impacts to municipalities considering the implications of the COVID-19 pandemic. To achieve this, Metro Vancouver has deferred parts of their capital plan and increased borrowing, transferring the burden to future years in order to recover the shortfall resulting from delaying larger rate increases. This will likely result in more significant Metro Vancouver rate increases beyond 2025.

Water Metering (Avoided Water Purchase Costs)

Water metering plays a significant role in the City’s water demand management program, which improves equity to ratepayers by providing volume-based user fees and reduces bulk water purchase costs by promoting water conservation and reducing private-side leakage. Since the inception of the program in 2003, the City’s total water use has decreased by 12% despite an increase in population of 26%. In 2019, this reduction in per capita water usage resulted in annual savings of \$11.9 million in avoided water purchase cost.

The City has made significant advances in water metering since the program was first introduced. Approximately 83% of the City's water use is currently metered. All single-family and ICI properties are metered and 50% of multi-family units are metered. Programs are in place to continue advancing water metering within the City particularly through the volunteer multi-family water metering program.

City Operating Expenditures

The City's total operating expenditures (excluding Metro Vancouver costs) is below the Consumer Price Index (CPI). The main cost drivers for the operating expenditure increase include:

- Salary increase estimates for union agreements; and
- Equipment cost increases.

The City's operating expenditures are carefully managed and considerable measures have been taken to minimize cost increases where possible. The average increase to the City's operating expenditures since 2015 has been 1.3%, which is significantly below the CPI over the same period.

Provision (OBI Adjustment)

Each year, subsequent to the approval of the utility budgets, the City's Capital Budget is approved, including operating budget impacts associated with the approved projects. Operating budget impacts (OBIs) may result in increases to the utility budget. Since the utility budget is already established, the impacts are included in the Consolidated 5 Year Financial Plan, funded by a one-time transfer from the Water Levy Stabilization Provision. In 2020, \$74,900 was transferred from the Water Levy Stabilization Provision to fund OBIs associated with the 2020 Capital Program and has been incorporated into the 2021 base level budget.

Construction Period Revenues

The City receives construction period revenues from development customers for water use during construction. This revenue is not budgeted due to its long-term variability. Any actual revenue will be transferred to the Water Levy Stabilization Provision for future rate stabilization funding.

Capital Infrastructure Replacement Program Contribution

The Capital Infrastructure Replacement Program facilitates proactive management of the City's water assets, allowing the City to maintain a high level of service by minimizing watermain breaks and service disruptions. Through proactive management of ageing infrastructure and implementation of the City's water pressure management program, the City has also successfully reduced water losses due to pipe leakage in the water distribution system. This has resulted in additional cost savings from avoided Metro Vancouver water purchase costs.

The annual capital contribution for water-related infrastructure replacement is currently \$7.5 million. The "Ageing Utility and Road Infrastructure Planning – 2019 Update" report

identified a long-term annual funding requirement of \$9.2 million, with a target funding range of \$8.6 million to \$10.4 million. Considering the economic impact of the COVID-19 pandemic, in order to minimize rate increases, there are no proposed increases to the Water Capital Infrastructure Replacement Program.

Water Levy Stabilization Provision Contribution (Water Rate Options)

The Water Levy Stabilization was established by Council as a funding source for water rate stabilization. The Provision has a balance of \$15.7 million as of September 30, 2020, and is intended to offset significant increases in regional water purchase costs. Option 1 includes a drawdown of \$1.4 million and Option 2 includes a drawdown of \$0.7 million from the Water Levy Stabilization Provision to subsidize the water rate and reduce the impact on ratepayers; Option 3 maintains a \$0 impact on the Provision.

Investment Income

Due to the economic impacts of the COVID-19 pandemic, the Bank of Canada decreased their policy interest rate by 1.5% in 2020 (from 1.75% to 0.25%), which has a direct impact on the City's investment return. The interest rate is expected to remain at this low level until there are signs of steady economic recovery in future years.

Impact on 2021 Water Rates

The impact of the three budget options on water rates is shown in Tables 3 and 4. Table 3 shows the various options for metered customers; Table 4 shows the options for flat rate customers. The rates presented include fixed costs for metering, such as meter reading, billing, and maintenance. Italicized numbers represent the difference between the 2020 rates and the 2021 optional rates.

Option 1 presents zero rate increase with a drawdown from the Water Levy Stabilization Provision. Options 2 and 3 result in rate increases and less drawdown from the Provision.

Table 3. 2021 Metered Rate Water Options (net of discount)

Customer Class	2020 Rates	Option 1	Option 2 (Recommended)	Option 3
Single-Family Dwelling (based on 325 m ³ average)	\$459.27	\$459.27 <i>\$0</i>	\$466.22 <i>\$6.95</i>	\$473.18 <i>\$13.91</i>
Townhouse (based on 218 m ³ average)	\$315.08	\$315.08 <i>\$0</i>	\$319.75 <i>\$4.67</i>	\$324.41 <i>\$9.33</i>
Apartment (based on 157 m ³ average)	\$209.99	\$209.99 <i>\$0</i>	\$213.35 <i>\$3.36</i>	\$216.71 <i>\$6.72</i>
Metered Rate (\$/m ³)	\$1.2802	\$1.2802 <i>\$0</i>	\$1.3016 <i>\$0.0214</i>	\$1.3230 <i>\$0.0428</i>

Table 4. 2021 Flat Rate Water Options (net of discount)

Customer Class	2020 Rates	Option 1	Option 2 (Recommended)	Option 3
Single-Family Dwelling	\$679.83	\$679.83 \$0	\$691.17 \$11.34	\$702.52 \$22.69
Townhouse	\$556.49	\$556.49 \$0	\$565.78 \$9.29	\$575.06 \$18.57
Apartment	\$358.60	\$358.60 \$0	\$364.58 \$5.98	\$370.57 \$11.97

The rates outlined in Tables 3 and 4 are net rates. The Waterworks and Water Rates Bylaw provides a 10% discount for utility bills paid prior to the due date. The rates shown in the bylaw will be before the 10% discount is applied, in order to achieve full cost recovery.

Options Summary

Option 1

- Represents zero rate increase while maintaining the current level of service.
- Includes a drawdown of \$1.4 million from the Water Levy Stabilization Provision.
- Maintains \$7.5 million contribution to the Capital Infrastructure Replacement Program.

Option 2 (Recommended)

- Includes a drawdown of \$0.7 million from the Water Levy Stabilization Provision.
- Maintains \$7.5 million contribution to the Capital Infrastructure Replacement Program.

Option 3

- Maintains \$0 impact on the Water Levy Stabilization Provision.
- Maintains \$7.5 million contribution to the Capital Infrastructure Replacement Program.

Recommended Option

Staff recommend the budgets and rates identified in Option 2 for the Water Utility. This option maintains the current level of service while utilizing the Water Levy Stabilization Provision to reduce the rate increase, considering the economic impact of COVID-19. Staff also recommend maintaining the current contribution to the Capital Infrastructure Replacement Program at this time, as it is relatively close to the target funding range, and the funding gap can be reduced in future years when the impacts of COVID-19 on residents and businesses subside, without any negative effect on long-term ageing infrastructure.

Sewer Utility

Table 5. Sewer Utility Budget

Key Budget Areas	2020 Base Level Budget (Restated for Comparison ¹)	Option 1 Zero Rate Impact \$1,200,000 Drawdown from Provision	Option 2 (Recommended) \$600,000 Drawdown from Provision	Option 3 Non-Discretionary Increases
<u>Expenditures</u>				
Salary	\$3,397,000	\$136,400	\$136,400	\$136,400
PW Materials/Equipment/Power Costs	\$1,811,400	\$2,400	\$2,400	\$2,400
Operating Expenditures	\$733,200	-\$11,700	-\$11,700	-\$11,700
GVS&DD O&M (Metro Vancouver)	\$24,119,800	-\$41,000	-\$41,000	-\$41,000
GVS&DD Debt (Metro Vancouver) ²	\$2,218,600	\$1,193,700	\$1,193,700	\$1,193,700
Capital Infrastructure Replacement Program	\$5,806,400	\$0	\$0	\$0
Firm Price/Receivable	\$642,600	\$18,100	\$18,100	\$18,100
Overhead Allocation	\$585,400	\$0	\$0	\$0
Total Base Level Expenditure Budget	\$39,314,400	\$40,612,300	\$40,612,300	\$40,612,300
<u>Revenues</u>				
Provision (Rate Stabilization)	-\$500,000	-\$700,000	-\$100,000	\$500,000
Provision (OBI Adjustment) ¹	-\$83,200	\$83,200	\$83,200	\$83,200
Investment Income	-\$152,000	\$76,000	\$76,000	\$76,000
Firm Price/Receivable	-\$642,600	-\$18,100	-\$18,100	-\$18,100
Property Tax for GVS&DD Debt ²	-\$2,218,600	-\$1,193,700	-\$1,193,700	-\$1,193,700
Total Base Level Revenue Budget	-\$3,596,400	-\$5,349,000	-\$4,749,000	-\$4,149,000
Net Budget	\$35,718,000	\$35,263,300	\$35,863,300	\$36,463,300
Net Difference Over 2020 Base Level Budget		-\$454,700	\$145,300	\$745,300

¹ The 2020 Base Level budget has been restated to include the approved Operating Budget Impacts approved with the 2020 Capital Budget. Refer to "Provision (OBI Adjustment)" discussion on page 12

² GVS&DD Debt (Metro Vancouver) charges levied through taxes based on property assessment values

The following is an explanation of the budget reductions and increases outlined in Table 5.

Metro Vancouver GVS&DD Sewer Levy

Metro Vancouver’s GVS&DD Sewer Levy will increase by \$1.15 million for Richmond in 2021. Metro Vancouver’s Sewer Levy comprises of an operations and maintenance component as well as a debt component. The debt component, which is mainly due to the Gilbert Road Sewer, has historically been levied through taxes as sewer debt levy and charged to property owners who are in sewer areas and based on property assessment values.

Richmond pays Metro Vancouver for bulk transmission and treatment of liquid waste on a flat rate basis. Metro Vancouver costs account for 66% of Richmond’s sewer rate and is a primary budget driver (Figure 2). Richmond’s 2021 sanitary sewer rates are based on Metro Vancouver’s 2021-2025 Financial Plan (Table 6), which was approved by the Metro Vancouver Board on October 30, 2020.

Figure 2. 2021 Sewer Utility User Fee Breakdown

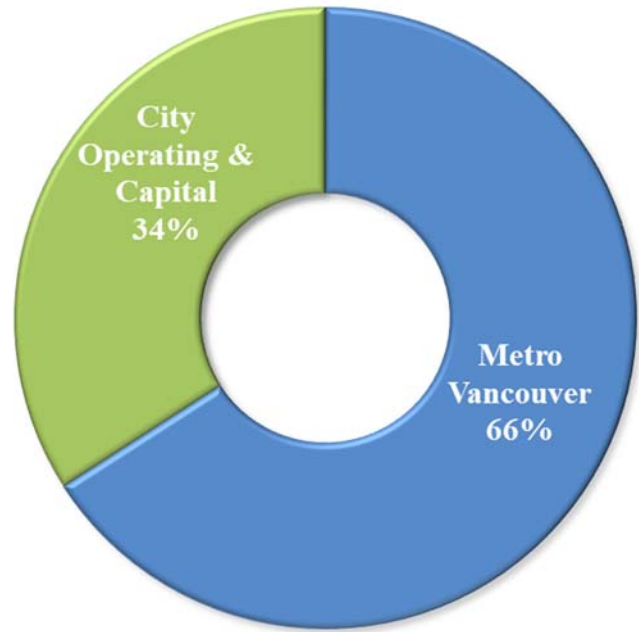


Table 6. Metro Vancouver 5-Year Overall Sewer Cost Projections – Lulu Island Sewerage Area

	2021	2022	2023	2024	2025
Sewer Levy – LSA (\$ Millions)	\$27.5	\$30.8	\$34.9	\$38.1	\$43.3
% Change	4.4%	12.2%	13.4%	8.9%	13.8%

Similar to their water rate, Metro Vancouver’s 2021 sewer rate increase is significantly less than previously indicated in their 2020-2024 Financial Plan, with the objective of reducing cost impacts to municipalities over that period considering the implications of the COVID-19 pandemic. To achieve this, Metro Vancouver has deferred parts of their capital plan and increased borrowing, transferring the burden to future years in order to recover the shortfall resulting from delaying larger rate increases. This will likely result in more significant Metro Vancouver rate increases beyond 2025.

Operating Expenditures

The City’s total operating expenditures (excluding Metro Vancouver costs) is below the CPI. The main cost drivers for the operating expenditure increase include:

- Salary increase estimates for union agreements; and
- Equipment cost increases.

The City's operating expenditures are carefully managed and considerable measures have been taken to minimize cost increases where possible.

Provision (OBI Adjustment)

Each year, subsequent to the approval of the utility budgets, the City's Capital Budget is approved, including OBIs associated with the approved projects. OBIs may result in increases to the utility budget. Since the utility budget is already established, the impacts are included in the Consolidated 5 Year Financial Plan, funded by a one-time transfer from the Sewer Levy Stabilization Provision. This amount is incorporated into the base sewer utility budget in the following year. In 2020, \$83,200 was transferred from the Sewer Levy Stabilization Provision to fund OBIs associated with the 2020 Capital Program and has been incorporated into the 2021 base level budget.

Construction Period Revenues

The City receives construction period revenues from development customers for sewer use during construction. This revenue is not budgeted due to its long-term variability. Any actual revenue will be transferred to the Sewer Levy Stabilization Provision for future rate stabilization funding.

Capital Infrastructure Replacement Program

The annual capital contribution for sewer-related infrastructure replacement is currently \$5.8 million. The "Ageing Utility and Road Infrastructure Planning – 2019 Update" report identified a long-term annual funding requirement of \$8.4 million, with a target funding range of \$7.8 million to \$9.1 million. Considering the economic impact of the COVID-19 pandemic, in order to minimize rate increases, there are no proposed increases to the Sewer Capital Infrastructure Replacement Program.

Sewer Levy Stabilization Provision (Sewer Rate Options)

The Sewer Levy Stabilization was established by Council as a funding source for sewer rate stabilization. The Provision has a balance of \$9.1 million as of September 30, 2020, and is intended to offset significant increases in regional sewer collection and treatment costs.

Over the past few years, the sewer utility has maintained a \$500,000 drawdown to partially offset rate increases. Option 1 increases the drawdown to \$1.2 million and Option 2 increases the drawdown to \$0.6 million from the Sewer Levy Stabilization Provision to subsidize the sewer rate and reduce the impact on ratepayers. Option 3 includes a \$0 impact on the Provision.

Investment Income

Due to the economic impacts of the COVID-19 pandemic, the Bank of Canada decreased their policy interest rate by 1.5% in 2020 (from 1.75% to 0.25%), which has a direct impact on the City's investment return. The interest rate is expected to remain at this low level until there are signs of steady economic recovery in future years.

Impact on 2021 Sewer Rates

The impact of the three budget options on sewer rates is shown in Tables 7 and 8. Table 7 shows the various options for metered customers; Table 8 shows the options for flat rate customers. Italicized numbers represent the difference between the 2020 rates and the 2021 optional rates.

Option 1 presents zero rate increase with a drawdown from the Sewer Levy Stabilization Provision. Options 2 and 3 result in rate increases and less drawdown from the Provision.

Table 7. 2021 Metered Rate Sewer Options (net of discount)

Customer Class	2020 Rates	Option 1	Option 2 (Recommended)	Option 3
Single-Family Dwelling (based on 325 m ³ average)	\$400.11	\$400.11 \$0	\$407.06 \$6.95	\$414.02 \$13.91
Townhouse (based on 218 m ³ average)	\$268.38	\$268.38 \$0	\$273.05 \$4.67	\$277.71 \$9.33
Apartment (based on 157 m ³ average)	\$193.28	\$193.28 \$0	\$196.64 \$3.36	\$200.00 \$6.72
Metered Rate (\$/m ³)	\$1.2311	\$1.2311 \$0	\$1.2525 \$0.0214	\$1.2739 \$0.0428

Table 8. 2021 Flat Rate Sewer Options (net of discount)

Customer Class	2020 Rates	Option 1	Option 2 (Recommended)	Option 3
Single-Family Dwelling	\$504.76	\$504.76 \$0	\$513.53 \$8.77	\$522.29 \$17.53
Townhouse	\$461.84	\$461.84 \$0	\$469.86 \$8.02	\$477.88 \$16.04
Apartment	\$384.65	\$384.65 \$0	\$391.33 \$6.68	\$398.01 \$13.36

The rates outlined in Tables 7 and 8 are net rates. The Drainage, Dyke and Sanitary Sewer System Bylaw provides a 10% discount for utility bills paid prior to the due date. The rates shown in the bylaw will be before the 10% discount is applied, in order to achieve full cost recovery.

Options Summary*Option 1*

- Represents zero rate increase while maintaining the current level of service.
- Increases the drawdown from the Sewer Levy Stabilization Provision to \$1.2 million.
- Maintains \$5.8 million contribution to the Capital Infrastructure Replacement Program.

Option 2 (Recommended)

- Increases the drawdown from the Sewer Levy Stabilization Provision to \$0.6 million.
- Maintains \$5.8 million contribution to the Capital Infrastructure Replacement Program.

Option 3

- Reduces drawdown from the Sewer Levy Stabilization Provision to \$0.
- Maintains \$5.8 million contribution to the Capital Infrastructure Replacement Program.

Recommended Option

Staff recommend the budgets and rates identified in Option 2 for the Sewer Utility. This option maintains the current level of service while utilizing the Sewer Levy Stabilization Provision to reduce the rate increase, considering the economic impact of COVID-19. Staff also recommend maintaining the current contribution to the Capital Infrastructure Replacement Program at this time, as the funding gap can be reduced in future years when the impacts of COVID-19 on residents and businesses subside, without any negative effect on long-term ageing infrastructure.

Drainage and Diking Utility

The Drainage and Diking Utility was created to develop a reserve fund to operate, maintain, and upgrade Richmond's flood protection infrastructure. The "Ageing Utility and Road Infrastructure Planning – 2019 Update" report identifies a capital funding target of \$19.5 million. Since 2003, Council has approved increasing annual funding levels for the Drainage and Diking Utility from \$0.6 million to its current level of \$13.4 million.

Flood Protection Rate Equity and Funding

In 2003, Council adopted an initial net rate of \$10 per property for flood protection, and increased the rate by \$10 each year from 2004 to 2015. Since 2016, new rate classes have been introduced to enhance equity amongst users and reflect the different levels of demand various properties have on the City's drainage and diking systems. Over the last four years, five rate classes have been established, along with separate drainage and diking rates:

- Single-family residential and agricultural
- Multi-family residential
- Small or stratified ICI
- Medium non-stratified ICI
- Large non-stratified ICI

At the November 4, 2019 Finance Committee, a referral was made for staff to examine the property rate classes for the Drainage and Diking rates. At the November 12, 2019 Regular Council Meeting, a referral was made for staff to examine the timing, concepts and plans for the potential acceleration of improvements to the City's diking system.

Staff have been developing a plan and options with respect to the above noted referrals for Council consideration. However, accelerating the flood protection program will result in significant utility rate increases to all ratepayers, and improving equity between rate classes will increase utility rates for some rate classes.

In consideration of the on-going COVID-19 pandemic, its economic impact, as well as the uncertainty and variability of the financial situation of Richmond ratepayers and the City, the report in response to both referrals has been deferred until Q2 2021, in advance of developing the 2022 Utility Rates and Budgets. Any recommended acceleration to the flood protection program in a fully accelerated mode would still be delivered over several decades, and delaying acceleration by one or two years will not have any negative impacts over the long term.

Drainage Operations and Maintenance

The drainage operating cost for 2021 is approximately \$5.5 million and, since inception in 2001, has been included in the City's operating budget. It is appropriate for the Drainage and Diking Utility to fund both capital and operating, consistent with the Water Utility and Sewer Utility. The 2021 flood protection rate options include \$2 million for drainage operations and maintenance, as part of a phased approach to relocate the drainage operations and maintenance from the operating budget to the Drainage and Diking Utility. This will not result in a rate increase for 2021, as the Capital Infrastructure Replacement Program can be reduced in the immediate term without negative long term impacts.

Impact on Flood Protection Rates

Table 9 provides a summary of the proposed flood protection rates for each rate class and the impact on the net utility budget. The rates outlined in Table 9 are net rates. The bylaw provides a 10% discount for utility bills paid prior to the due date. The rates shown in the bylaw will be before the 10% discount is applied, in order to ensure appropriate cost recovery. Italicized numbers represent the difference between 2020 and 2021 optional rates.

Table 9. 2021 Flood Protection Rate Options (net of discount)

Rate Class	2020 Rates	Option 1 (Recommended) Zero Rate Impact	Option 2 15% increase to medium and large non-stratified ICI properties, 2% increase to single-family, agricultural and small or stratified ICI properties, 1% increase to multi-family properties	Option 3 30% increase to medium and large non-stratified ICI properties, 4% increase to single-family, agricultural and small or stratified ICI properties, 2% increase to multi-family properties
Multi-family Residential	\$145.31	\$145.31 <i>\$0</i>	\$146.77 <i>\$1.46</i>	\$148.22 <i>\$2.91</i>
Single-family Residential and Agricultural	\$154.55	\$154.55 <i>\$0</i>	\$157.64 <i>\$3.09</i>	\$160.73 <i>\$6.18</i>
Small or Stratified ICI (less than 800m ²)	\$154.55	\$154.55 <i>\$0</i>	\$157.64 <i>\$3.09</i>	\$160.73 <i>\$6.18</i>
Medium Non-Stratified ICI (between 800m ² and 10,000m ²)	\$488.60	\$488.60 <i>\$0</i>	\$561.88 <i>\$73.28</i>	\$635.17 <i>\$146.57</i>
Large Non-Stratified ICI, above 10,000m ²	\$977.18	\$977.18 <i>\$0</i>	\$1,123.75 <i>\$146.57</i>	\$1,270.33 <i>\$293.15</i>
Net Budget	\$13,353,800	\$13,391,600	\$13,668,800	\$13,945,600
Capital Infrastructure Replacement Program	\$12,824,800	\$10,862,600	\$11,139,800	\$11,416,600
Drainage Operations and Maintenance	N/A	\$2,000,000	\$2,000,000	\$2,000,000
Box Culvert Preventative Maintenance Program	\$380,000	\$380,000	\$380,000	\$380,000
Dyke Repair Program	\$149,000	\$149,000	\$149,000	\$149,000
Net Difference Over 2020 Base Level Budget	\$0	\$37,800	\$315,000	\$591,800

Options Summary

Option 1 (Recommended)

- Zero rate impact to all properties.
- Maintains existing funding for the Box Culvert Preventative Maintenance Program and the Dike Repair Program.

Option 2

- Improves equity based on different levels of demand various properties have on the City's drainage and diking systems. Increases the rate for medium and large non-stratified ICI properties by 15%, single-family, agricultural, and small or stratified ICI properties by 2%, and multi-family properties by 1%.
- Maintains existing funding for the Box Culvert Preventative Maintenance Program and the Dike Repair Program.

Option 3

- Improves equity based on different levels of demand various properties have on the City's drainage and diking systems. Increases the rate for medium and large non-stratified ICI properties by 30%, single-family, agricultural, and small or stratified ICI properties by 4%, and multi-family properties by 2%.
- Maintains existing funding for the Box Culvert Preventative Maintenance Program and the Dike Repair Program.

Recommended Option

Staff recommend the budgets and rates identified in Option 1, which represents a zero rate increase for flood protection services. Mitigating the impacts of climate change-induced sea level rise and implementing the Flood Protection Management Strategy and Dike Master Plan is a long-term initiative that will span several decades. The funding gap can be reduced in future years when the impacts of COVID-19 on residents and businesses subside, without any negative impact to the City's level of flood protection in the immediate and long term.

Solid Waste and Recycling

Table 10. 2021 Solid Waste and Recycling Budget

Key Budget Areas	2020 Base Level Budget	Option 1 Zero Rate Impact	Option 2 Partial Cost Increases Offset by Provision Funding	Option 3 (Recommended) Same as Option 2 (with no Offset by Provision Funding)
<u>Expenditures</u>				
Salaries	\$3,760,600	\$430,400	\$430,400	\$430,400
Contracts	\$9,843,700	\$435,200	\$435,200	\$435,200
Equipment/Materials	\$918,000	\$73,600	\$73,600	\$73,600
Metro Vancouver Disposal Costs	\$1,391,600	\$223,000	\$223,000	\$223,000
Recycling Materials Processing	\$3,777,300	\$173,600	\$173,600	\$173,600
Container Rental/Collection	\$424,100	-\$53,600	-\$53,600	-\$53,600
Operating Expenditures	\$337,700	-\$100	-\$100	-\$100
Internal Shared Costs	\$104,900	\$7,300	\$7,300	\$7,300
Agreements	\$197,700	\$0	\$0	\$0
Rate Stabilization	\$368,400	\$0	\$0	\$0
Base Level Expenditure Budget	\$21,124,000	\$22,413,400	\$22,413,400	\$22,413,400
<u>Revenues</u>				
Application Fees	-\$90,000	\$0	\$0	\$0
Inspection Fees	-\$10,000	\$0	\$0	\$0
Recycling Material	-\$229,500	-\$57,600	-\$57,600	-\$57,600
Garbage Tags	-\$17,500	\$0	\$0	\$0
Unrealized Discounts	-\$108,000	\$0	\$0	\$0
Revenue Sharing Grant/Other	-\$9,100	\$0	\$0	\$0
Recycle BC Incentive	-\$1,927,800	-\$139,400	-\$139,400	-\$139,400
Provision (OBI Adjustment)	-\$1,061,200	-\$804,800	-\$261,900	\$0
Base Level Revenue Budget	-\$3,453,100	-\$4,454,900	-\$3,912,000	-\$3,650,100
Net Budget	\$17,670,900	\$17,958,500	\$18,501,400	\$18,763,300
Net Difference Over 2020 Base Level Budget		\$287,600	\$830,500	\$1,092,400

The following is an explanation of the budget reductions and increases outlined in Table 10.

Metro Vancouver Disposal Costs

The Metro Vancouver regional tipping fee for local governments will increase by \$4 from \$113/tonne in 2020 to \$117/tonne for 2021. The \$5 per load transaction fee remains in effect and is unchanged. Due to the success of the City's recycling initiatives, Metro Vancouver increases have lessened impacts (as more waste is diverted for recycling) on City budgets and rates.

Option 1 includes costs required to meet the City's contractual obligations relating to air quality permit requirements at the organics processing facility and continuation of all services under existing programs. Traffic control services provided by City staff at the Recycling Depot to achieve social distancing measures are also reflected in Option 1. Cost increases are offset by drawing from provision funding to keep rates at 2020 levels for most residents. Under Option 2, the cost for traffic control services (only) are offset by drawing from provision funding. All other program cost increases are recovered through rate increases. Under Option 3 there is no provision funding applied, therefore all program costs, including traffic control services, are recovered through rate increases.

These program options are discussed in more detail later in this report.

City Operating Expenditures

Salary increase estimates relating to union agreements are the primary utility budget increases. Additional costs under all options include labour resource requirements to provide City-operated traffic control services at the Recycling Depot (vs. using a contracted service provider) for a period of up to six months (assumed timeframe). This would require approximately three additional on-call or part-time staff resources for each day of operation during this period. These costs are necessary to keep the Recycling Depot operational for residents while conforming to provincial social distancing guidelines in light of the current pandemic situation.

Contracts

Contract costs are increased in accordance with overall growth in the number of units serviced and escalation clauses as stipulated in the City's solid waste and recycling services contract, which commenced January 1, 2019 and is for a maximum 10 year term. Costs include

Figure 3. 2021 Solid Waste and Recycling User Rate Breakdown



approximately \$30,000 for contracted traffic control services for the projected six month timeframe needed for social distancing measures at the Recycling Depot for those times where it may be needed periodically should trained City staff be unavailable.

Recycling Materials Processing

Recycling material processing costs are increased to meet the City's obligations under the current organics processing contract. The organics processing operator, GFL Environmental, completed their facility enclosure as of the end of August, 2020. As a result, the operational aspects of the ongoing odour management upgrades at the facility are now in effect. The associated costs were identified as a component of the City's agreement with GFL Environmental. Other cost increases relate to processing materials at the Recycling Depot, including additional hazardous waste items accepted.

Single-Use Plastics and Other Items

The City's *Single-Use Plastics and Other Items Bylaw 10000* was approved by the Minister of Environment and Climate Change Strategy on March 11, 2020. However, as the COVID-19 pandemic was emerging as a prevalent issue at that time, the provincial announcement regarding the bylaw approval was delayed until September 12, 2020. To enact the City's bylaw requires final adoption by Council. As the pandemic situation remains prevalent to this day and has impacted many businesses, implementation of the City's bylaw remains on hold at this time. Within the budget amounts in Table 10, all options include implementation costs of \$560,000 as per prior Council approvals. This allows for the bylaw implementation to proceed, once appropriate, in 2021. There is no impact to rates associated with this expenditure as there is a corresponding transfer from provision funding to offset these costs.

The challenges caused by plastic pollution is garnering action at both the provincial and federal levels of government. The province released amendments to the *Recycling Regulation* on June 29, 2020 based on feedback from the *CleanBC Plastics Action Plan* which includes the addition of "single-use products" to BC's extended producer responsibility program. The province is currently in consultation on their *Recycling Regulation Policy Intentions Paper* released September 12, 2020, which focuses specifically on extended producer responsibility programs in BC. At the federal level, Environment and Climate Change Canada is seeking feedback on a discussion paper released October 7, 2020, which proposes to restrict six harmful single-use plastics, establish recycled content requirements and improve and expand extended producer responsibility across Canada. Staff are actively reviewing these initiatives to evaluate potential impacts and will incorporate any necessary modifications to the City's implementation of Bylaw 10000.

General Solid Waste & Recycling Rate Stabilization provision (Rate Options)

The General Solid Waste and Recycling Provision was established by Council as a funding source for rate stabilization. The provision has a balance of \$3.3 million as of September 30, 2020.

Service Level Enhancements Discussion

Recycling Depot Operation

Seven Day per Week Service: All options include costs to expand the Recycling Depot to a seven day per week operation (increase from six days per week). Implementation of the seven day per week service level was contingent upon completion of the Recycling Depot upgrade project, which was substantially delayed during 2020 due to the COVID-19 pandemic. The upgrade project is now on target for completion in the fourth quarter 2020. As such, the seven day per week service level will commence January, 2021. The operating hours will remain from 9:00 a.m. – 6:15 p.m.

City Provided Traffic Control: The budgets and rates presented include the addition of labour hours for City staff (vs. a contractor) to conduct the traffic control operation at the Recycling Depot for an estimated six months in 2021 (i.e. to June, 2021). This service is needed to meet health regulation requirements for social distancing at the Recycling Depot in order for the facility to remain open to the public. Approximately three additional staff resources on a temporary full-time basis are required each day for this service.

Traffic control was initially considered a part-time need at the onset of the COVID-19 pandemic, therefore, contracting these services was appropriate. However, given the need is ongoing into 2021, a comparison of City staff vs. contracted services was undertaken. It was found that City staff provided services can be delivered at a savings of approximately \$40,000. The cost for contracted traffic control services seven days per week is estimated at \$300,000 vs. \$260,000 for City staff provided traffic control. The \$260,000 amount includes \$30,000 for contractor support, if required where City staff may be unavailable. Under Options 1 and 2, the additional traffic control costs do not impact the rates charged to residents since they are fully offset by a contribution from provision. Under Option 3, the additional costs do impact rates. Option 3 is the recommended approach as it does not dip into the City's provision funding for traffic control costs in the event additional funding is needed to continue traffic control services beyond the estimated six month timeframe.

In 2019, there were approximately 210,000 visits to the Recycling Depot, averaging over 17,400 visits per month, or over 73 customers for every hour the Recycling Depot is open. This represents a 25% increase in visits over the prior year.

Commercial Recycling Services Review

This project was also not undertaken during 2020 due to the impacts to business caused by the COVID-19 pandemic. The purpose of this initiative is to undertake a detailed review and scoping exercise to establish opportunities for enhanced recycling for the commercial sector. Recycling rates in the commercial sector are among the lowest in accordance with Metro Vancouver's waste composition audits, at 50%. The activities for this project include consultation with business, a review of current practices, limitations, challenges, etc. as well as a review of the waste collection industry's current practices and capacity as it relates to commercial recycling services. The outcome would be an approach and strategy, with recommendations, to present to Council for further review and consideration.

The costs and temporary resources needed to undertake this project are included under all options at a cost of approximately \$370,000 with the expectation that this project will be undertaken at the appropriate time in 2021 (dependent on the pandemic situation). As the suggested review involves a scoping study to identify potential options for the commercial sector, the associated costs are offset by a contribution from provision in order that there is no impact to rates. Only after the results of the study are completed and reported back to Council would a recommended approach for City supported solutions be identified (with budget and rates identified).

Construction Period Revenues

The City receives construction period revenues from development customers for solid waste and recycling during construction. This revenue is not budgeted due to the long term variability in these revenues. Any actual revenues will be transferred to the General Solid Waste and Recycling provision for future rate stabilization funding.

Revenues – General Solid Waste and Recycling Provision

Recycling Material Revenues

Recycling material revenues are increased associated with payments obtained through staff initiative in seeking engagement contracts with producer responsibility stewards for electronics and motor oil.

Recycle BC Incentive

The net Recycle BC revenue incentive is adjusted to offset inflationary cost increases in order to maintain no net impact in the Blue Box/Multi-Family Recycling Rate. Overall, the Recycle BC program is expected to generate net revenues of approximately \$663,000 for 2021 and can be deposited into the General Solid Waste and Recycling provision account subject to Council approval. This is in alignment with previous Council direction (November 25, 2013) when the decision to join Recycle BC was made.

Impact on 2021 Rates

The impact of the budget options to ratepayers is provided in the tables which follow. The principal reason for the increase in 2021 relates to inflationary contract costs stipulated in existing contracts, disposal cost increases, and costs associated with organics processing under the change in law provisions for odour management/air quality permit requirements. Numbers in italics represent the difference between 2020 rates and 2021 optional rates.

Table 11 provides total costs based on standard garbage cart sizes for single-family (240L) and townhouse (120L). Table 12 provides a more detailed breakdown of Option 3 rates based on the four different garbage cart size options that are available to residents in single-family and townhouse units. The percentage of container sizes subscribed by each customer class is also presented for reference. Residents are able to reduce or increase the amount they pay based on the cart size they select for garbage collection services.

Table 11. 2021 Solid Waste and Recycling Rate Options (net of discount)

Customer Class	2020 Rates	Option 1	Option 2	Option 3 (Recommended)
Single-Family Dwelling (Standard 240L Cart)	\$372.90	\$372.90 \$0.00	\$384.40 \$11.50	\$387.65 \$14.75
Townhouse (Standard 120L Cart)	\$257.15	\$257.15 \$0.00	\$264.40 \$7.25	\$267.65 \$10.50
Apartment	\$118.60	\$118.60 \$0.00	\$122.85 \$4.25	\$126.10 \$7.50
Business Rate	\$36.18	\$36.18 \$0.00	\$36.95 \$0.77	\$37.60 \$1.42

Table 12. 2021 Single-Family and Townhouse Net Rates by Garbage Cart Size (Per Recommended Option 3)

Cart Size	Single Family		Townhomes	
	Full Service Rate (Including Recycling, Organics, Other Services)	Approximate Percent - Subscribed Size	Full Service Rate (Including Recycling, Organics, Other Services)	Approximate Percent - Subscribed Size
80L	\$338.40	4%	\$243.15	17%
120L	\$362.90	11%	\$267.65	74%
240L	\$387.65	79%	\$292.40	8%
360L	\$492.65	6%	\$397.40	1%

The rates outlined in Tables 11 and 12 are net rates. The Solid Waste & Recycling Regulation bylaw provides a 10% discount for utility bills paid prior to the due date. The rates shown in the bylaw will be before the 10% discount is applied.

Regional Issues

In 2021, garbage tipping fees for municipal loads will increase by \$4 per tonne. The generator levy will increase by \$6 per tonne, which represents the fixed costs of the region's transfer station network and solid waste planning. Tipping fees are projected to increase by \$4 per tonne in 2022, and increase by \$7 per tonne per year from 2023 to 2025.

In addition to standard operating programs, Metro Vancouver intends to pursue an update to the region's solid waste management plan to advance zero waste and incorporate circular economy principles. Other key activities to target in 2021 include an update to the funding model for recycling depots located at transfer stations, construction commencement at the Coquitlam Transfer Station replacement project and Surrey Recycling and Waste Drop-Off facility.

Options Summary

Option 1

- Represents full recovery via rates of all program costs, including seven day per week service at the Recycling Depot, and City staff provided traffic control for social distancing measures (for six months) to comply with COVID-19 related public health guidelines, where added program and traffic control costs are offset by provision funding for no net rate impact. The only exception under this Option is for multi-family residents who subscribe to the City's optional garbage service, where the optional garbage rate increases by \$1.75 or from \$75.00 to \$76.75.
- Meets the City's contractual obligations related to inflationary aspects of agreements and costs associated with odour management upgrades at the organics processing facility.
- Includes funding to implement the City's Single-Use Plastics and Other Items Bylaw 10000 and undertake a Commercial Recycling Services Review at the appropriate time, depending on the current pandemic situation, offset by provision funding.

Option 2

- Represents full recovery via rates of all program costs, including seven day per week service at the Recycling Depot, and City staff provided traffic control services to achieve social distancing measures (for six months) to comply with COVID-19 related public health guidelines where these added traffic control costs are offset by provision funding. Other program cost increases are reflected as an increase in the rates charged to residents.
- Meets the City's contractual obligations related to inflationary aspects of agreements and costs associated with odour management upgrades at the organics processing facility.
- Includes funding to implement the City's Single-Use Plastics and Other Items Bylaw 10000 and undertake a Commercial Recycling Services Review at the appropriate time, depending on the current pandemic situation, offset by provision funding.

Option 3 (Recommended)

- Represents full recovery via rates of all program costs, including seven day per week service at the Recycling Depot, and City staff provided traffic control services to achieve social distancing measures (for six months) to comply with COVID-19 related public health guidelines.
- Meets the City's contractual obligations related to inflationary aspects of agreements and costs associated with odour management upgrades at the organics processing facility.
- Includes funding to implement the City's Single-Use Plastics and Other Items Bylaw 10000 and undertake a Commercial Recycling Services Review at the appropriate time, depending on the current pandemic situation, offset by provision funding.

Recommended Option

Staff recommend the budget and rates identified in Option 3 for Solid Waste and Recycling. This option provides full funding for all existing programs in 2021. Additionally, this option allows for traffic control services to be provided by City staff resources for a six-month period in 2021 to ensure social distancing measures are effectively delivered at the City's Recycling Depot.

Total Recommended 2021 Utility Rate Option

In light of the economic impacts of the COVID-19 pandemic on ratepayers, staff recommend the budget and rate options as follows:

- Option 2 is recommended for Water
- Option 2 is recommended for Sewer
- Option 1 is recommended for Drainage and Diking
- Option 3 is recommended for Solid Waste and Recycling

Table 13 summarizes the estimated total metered rate utility charge, based on average water and sewer consumption. Table 14 summarizes the total flat rate utility charge. Numbers in italics represent the difference between 2020 rates and 2021 proposed rates.

Table 13. 2021 Estimated Total Net Rates to Metered Customers

Customer Class	2020 Estimated Net Metered Rates	2021 Estimated Net Metered Rates (Recommended)
Single-Family Dwelling	\$1,386.83	\$1,415.48 <i>\$28.65</i>
Townhouse (on City garbage service)	\$985.92	\$1,005.76 <i>\$19.84</i>
Townhouse (not on City garbage service)	\$892.92	\$910.26 <i>\$17.34</i>
Apartment	\$667.18	\$681.40 <i>\$14.22</i>
Commercial/Industrial		
Metered Water (\$/m ³)	\$1.2802	\$1.3016 <i>\$0.0214</i>
Metered Sewer (\$/m ³)	\$1.2311	\$1.2525 <i>\$0.0214</i>
Business: Garbage	\$36.18	\$37.60 <i>\$1.42</i>
Business: Drainage & Diking (800 m ² to 10,000 m ²)	\$488.60	\$488.60 <i>\$0</i>
Business: Drainage & Diking (above 10,000 m ²)	\$977.18	\$977.18 <i>\$0</i>
Business: Drainage & Diking (Others)	\$154.55	\$154.55 <i>\$0</i>

Table 14. 2021 Total Net Rates to Flat Rate Customers

Customer Class	2020 Net Flat Rates	2021 Net Flat Rates (Recommended)
Single-Family Dwelling	\$1,712.04	\$1,746.90 \$34.86
Townhouse (on City garbage service)	\$1,420.79	\$1,448.60 \$27.81
Townhouse (not on City garbage service)	\$1,327.79	\$1,353.10 \$25.31
Apartment	\$1,007.16	\$1,027.32 \$20.16

The rates outlined in Tables 13 and 14 are net rates. The bylaws provide a 10% discount for utility bills paid prior to the deadline. The rates shown in the bylaw will be before the 10% discount is applied, in order to achieve full cost recovery. The recommended rates outlined above result in gross rate charges to residents as outlined in Attachment 1. These rates would be reflected in the amending bylaws for each utility area, should they be approved by Council.

Flat Rate and Metered Customers

All single-family and ICI properties in the City are metered. The single-family residential flat rate will continue to apply to duplex units that share one water service. These units require significant internal plumbing separation work to facilitate metering and were not included in the universal metering program. 50% of townhouses and apartments are still on flat rate utility services; however, the number with meters will continue to increase with the ongoing volunteer and mandatory water meter programs for multi-family dwellings. The number of units by customer class is identified in Table 15.

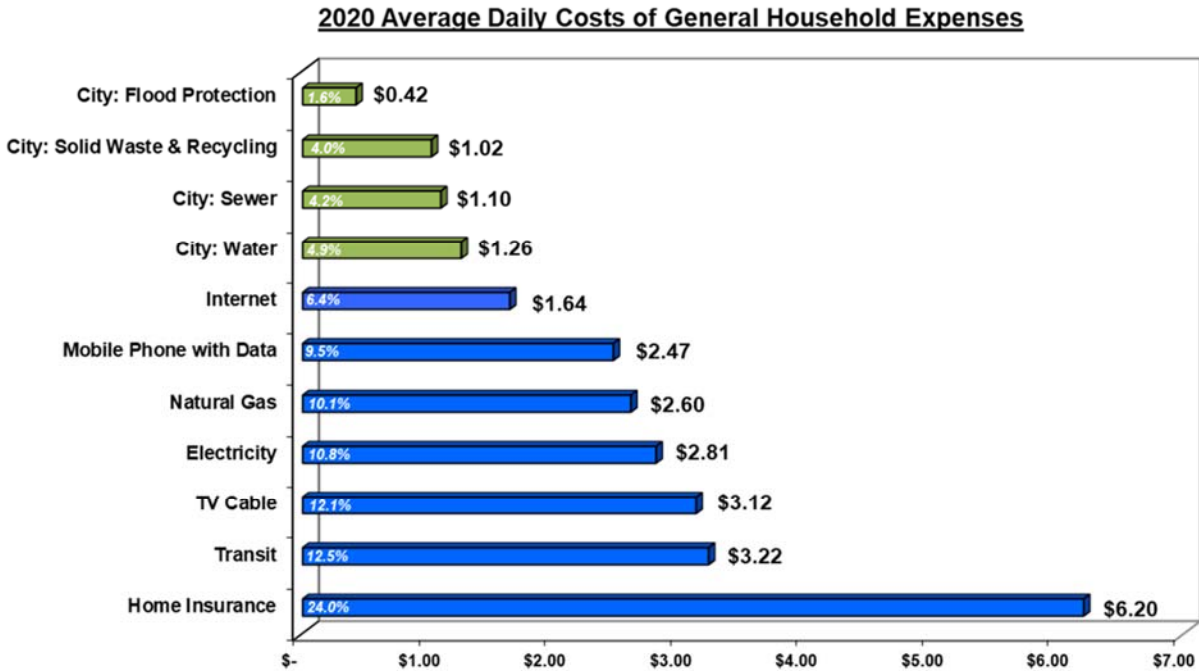
Table 15. Flat Rate and Metered Property Unit Counts

	2020 Percentages (Mid-Year)	2020 Counts (Mid-Year)	2021 Counts (Mid-Year Estimated)	Difference
Single-Family Residential	Flat Rate (3%)	769	769	0
	Metered (97%)	27,998	28,042	44
Townhouse	Flat Rate (64%)	11,482	11,367	-115
	Metered (36%)	6,344	6,516	172
Apartment	Flat Rate (43%)	14,797	14,715	-82
	Metered (57%)	19,481	20,694	1,213
Total Residential Units		80,871	82,103	1,232
Commercial Units	Metered	3,537	3,537	0
Farms	Metered	45	45	0

Comparison of 2020 City Utility Rates to Other Major Household Expenses

City utility fees represent approximately 15% of total average daily household expenses and are of good value when compared with common household expenses. Water, sewer, solid waste and recycling, and flood protection services are fundamental to the quality of life for residents and necessary infrastructure to support the local economy. Figure 4 illustrates the value of these services when compared to other common daily household expenses.

Figure 4. Cost Comparison of Main Household Expenses for a Single-Family Dwelling

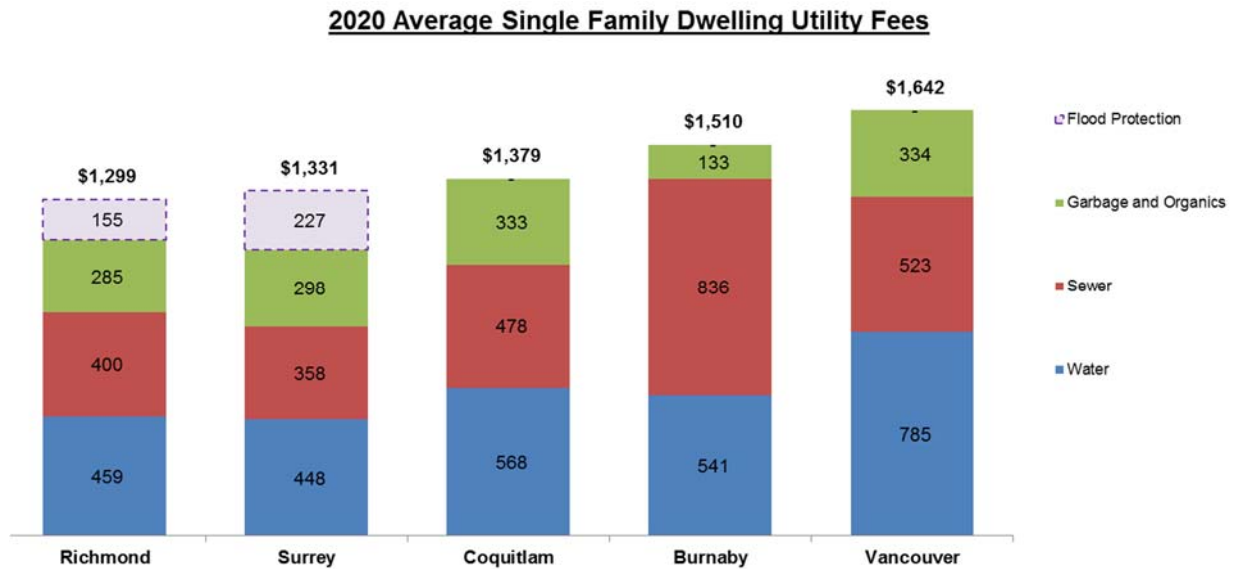


*Source: BC Hydro, Fortis BC, Rogers, Shaw, TD Insurance, and Translink
Reference REDMS 6517059*

Comparison of 2020 Comparator Municipality Utility Fees

Figure 5 provides a comparison between the City's 2020 average single-family dwelling utility fees with comparator municipalities. All utility fees presented below are net of applicable discounts. Richmond and Surrey water and sewer rates include applicable metering costs and are based on an average annual consumption of 325m³ and 345m³ respectively, as single-family dwellings in these cities are 100% and 70% metered respectively; all other comparator municipalities are predominately charging a flat rate for water and sewer services. Blue box, general recycling and waste management fees have been excluded in the garbage and organics fee presented for comparison purposes, as not all municipalities offer the same services. Coquitlam, Burnaby and Vancouver do not have applicable rates for drainage and flood protection services. The City of Richmond offers this additional and critical service while still maintaining the lowest combined fee for utility services.

Figure 5. Comparison of 2020 Average Single-Family Dwelling Utility Fees



Sources:

City of Richmond - Based on metered rate

- Waterworks and Water Rates Bylaw No. 5637; Amendment Bylaw No. 10113
- Drainage, Dyke and Sanitary Sewer System Bylaw No. 7551; Amendment Bylaw No. 10114
- Solid Waste & Recycling Regulation Bylaw No. 6803; Amendment Bylaw No. 10115

City of Surrey - Based on metered rate

- Waterworks Regulation and Charges By-law No 2007 ; Amendment By-law No. 16337
- Sanitary Sewer Regulation and Charges By-law No. 2008; Amendment By-law No. 16611
- Waste Management Regulations and Charges Bylaw No. 2015; Amendment Bylaw No. 18412
- Drainage Parcel Tax By-law No. 2001; Amendment By-law No. 14593

City of Coquitlam - Based on flat rate

- Water Distribution Bylaw No. 4428; Amendment Bylaw No. 5021
- Sewer and Drainage Bylaw No. 4429; Amendment Bylaw No. 5022
- Solid Waste Management Bylaw No. 4679; Amendment Bylaw No. 5023

City of Burnaby - Based on metered rate

- Waterworks Regulation Bylaw No 1953 ; Amendment Bylaw No. 14113
- Sewer Charge Bylaw No. 1961; Amendment Bylaw No. 14111
- Solid Waste & Recycling Bylaw No. 2010; Amendment Bylaw No. 14090
- Sewer Parcel Tax Bylaw No. 1994; Amendment Bylaw No. 14110

City of Vancouver - Based on flat rate

- Water Works By-law No. 4848; Amendment Bylaw No. 12596
- Sewer & Watercourse By-law No. 8093; Amendment Bylaw No. 12600
- Solid Waste By-law No. 8417; Amendment Bylaw No. 12637

Financial Impact

The budget and rate impacts associated with each option are outlined in detail in this report. In all options, the budgets and rates represent full cost recovery for each City service.

Staff recommend the following budgets by utility:

- Option 2 is recommended for Water, for a net budget of \$44.7 million;
- Option 2 is recommended for Sewer, for a net budget of \$35.9 million;
- Option 1 is recommended for Drainage and Diking, for a net budget of \$13.4 million;
- Option 3 is recommended for Solid Waste and Recycling, for a net budget of \$18.8 million; and
- An overall net utility budget of \$112.8 million.

Considerable effort has been made to minimize City costs and other costs within our ability, in order to minimize the impact to property owners.

Conclusion

This report presents the 2021 proposed utility budgets and rates for City services relating to the provision of water, sewer, flood protection, as well as solid waste and recycling. Considerable measures have been taken to reduce costs where possible in order to minimize rate increases. A significant portion of the City’s costs relate to impacts from influences outside of the City’s direct control, such as regional and contract cost impacts. Regional costs are expected to continue increasing to meet demands for high quality drinking water and sewer treatment. Staff recommend that the budgets and rates, as outlined in this report, be approved and that the appropriate amending bylaws be brought forward to Council to bring these rates into effect.



Jason Ho, P.Eng.
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Suzanne Bycraft
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Melissa Shiau, CPA, CA
Manager, Financial Planning
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JH:jh

Att. 1: 2021 Annual Utility Charges – Recommended Gross Rates per Bylaw

2021 Annual Utility Charges – Recommended Gross Rates per Bylaw (Estimated Metered and Actual Flat Rates)

	Water	Sewer	Flood Protection	Solid Waste & Recycling	Total
Metered (Based on Average Consumption)					
Single-Family Dwelling	\$518.02	\$452.29	\$171.72	\$430.72	\$1,572.75
Townhouse (with City garbage)	\$355.28	\$303.39	\$161.46	\$297.39	\$1,117.52
Townhouse (no City garbage)	\$355.28	\$303.39	\$161.46	\$191.28	\$1,011.41
Apartment	\$237.06	\$218.49	\$161.46	\$140.11	\$757.12
Flat Rate (Actual)					
Single-Family Dwelling	\$767.97	\$570.59	\$171.72	\$430.72	\$1,941.00
Townhouse (with City garbage)	\$628.64	\$522.07	\$161.46	\$297.39	\$1,609.56
Townhouse (no City garbage)	\$628.64	\$522.07	\$161.46	\$191.28	\$1,503.45
Apartment	\$405.09	\$434.81	\$161.46	\$140.11	\$1,141.47
General – Other/Business					
Metered Water (\$/m ³)	\$1.4462				
Metered Sewer (\$/m ³)		\$1.3917			
Business: Garbage				\$41.78	
Flood Protection (Medium Non-stratified ICI)			\$542.89		
Flood Protection (Large Non-Stratified ICI)			\$1,085.76		
Flood Protection (Small or Stratified ICI)			\$171.72		



City of Richmond

Report to Committee

To: Finance Committee
From: Peter Russell, MCIP RPP
 Director, Sustainability and District Energy
Re: 2021 District Energy Utility Rates

Date: September 25, 2020
File: 01-0060-20-
 LIEC1/2020-Vol 01


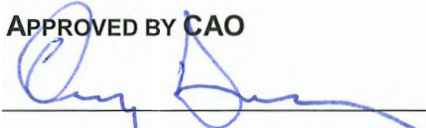
Staff Recommendation

1. That the Alexandra District Energy Utility Bylaw No. 8641, Amendment Bylaw No. 10208 be introduced and given first, second and third readings;
2. That the Oval Village District Energy Utility Bylaw No. 9134, Amendment Bylaw No. 10209 be introduced and given first, second and third readings; and
3. That the City Centre District Energy Utility Bylaw No. 9895, Amendment Bylaw No. 10210 be introduced and given first, second and third readings.



Peter Russell, MCIP RPP
 Director, Sustainability and District Energy
 (604-276-4130)

Att. 8

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Finance Department Law	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	
REVIEWED BY SMT	INITIALS: SL	APPROVED BY CAO 

Staff Report

Origin

The purpose of this report is to recommend 2021 Alexandra District Energy Utility (ADEU), Oval Village District Energy Utility (OVDEU), and City Centre District Energy Utility (CCDEU) district energy utility rates. This report also proposes amendments to the ADEU and CCDEU rate structure to bring consistency across all DEU service area Bylaws. See Attachment 1 for a brief overview of the DEU service areas.

This report supports Council's Strategic Plan 2018-2022 Strategy #2: A Sustainable and Environmentally Conscious City:

Environmentally conscious decision-making that demonstrates leadership in implementing innovative, sustainable practices and supports the City's unique biodiversity and island ecology.

2.1 Continued leadership in addressing climate change and promoting circular economic principles.

2.2 Policies and practices that support Richmond's sustainability goals.

This report supports Council's Strategic Plan 2018-2022 Strategy #5 Sound Financial Management:

Accountable, transparent, and responsible financial management that supports the needs of the community into the future.

5.1 Maintain a strong and robust financial position.

Analysis

The City established the Lulu Island Energy Company Ltd. (LIEC) to provide district energy services on behalf of the City. City Council is the regulator and thus sets customer rates for the ADEU, OVDEU and CCDEU service areas. In accordance with this structure, LIEC staff have assessed the following factors when developing the 2021 rate recommendation:

- **Financially self-sustainable:** All LIEC service areas were established on the basis that all capital and operating costs would be recovered through revenues from user fees. The financial models for all three service areas have built in a rate increase of 4.0% annually to recover the capital, financing, operations, sales, general and administration costs to ensure the financial viability of the systems. The rate increase was based on the historical increase of conventional utility rates, which is consistent with the 4.0% average rate increase of conventional utility rates observed since the beginning of the DEU operations in the City.

- **Concession Agreement between LIEC and Corix:** As endorsed by Council, LIEC executed a concession agreement with Corix Utilities to design, construct, finance, operate and maintain the OVDEU. Under the agreement Corix recovers all capital and operating costs from LIEC without adding any overhead, and obtains a return on their investment. Corix's expenses are reviewed by LIEC in accordance with prudent utility practices. All obligations under the Concession Agreement have been met. Under the annual rate review process, Corix has submitted to LIEC a request for a 4.0% rate increase for 2021.
- **LIEC Cost Drivers:** Expenditures required to provide utility service include capital, operations, utilities, financing and administration costs. These costs are susceptible to non-discretionary increases due to material and equipment cost increases, rises in electricity and natural gas rates and general inflation. These costs are projected to increase 3.1% in 2021.
- **Competitive Rate:** Council's objective is to provide end users with annual energy costs that are competitive to conventional system energy costs, based on the same level of service. For a residential customer, BC Hydro's rates are expected to increase by 1.5% in 2021. While natural gas commodity costs are expected to have a marginal increase in the Lower Mainland, Fortis BC customers will see a 3.4% increase in their rates in 2021 due to an increase in delivery charges and the escalation of the Provincial carbon tax. It is estimated that customers using energy from a conventional utility system in a business as usual (BAU) scenario would see a blended Fortis BC and BC Hydro rate increase of around 2.5% in 2021¹, while the eight-year average blended BAU rate increase is estimated to be at 4.0% (see Table 1 below).

Table 1: Annual Percent Increase and 8-Year Average Comparison of Blended Fortis BC and BC Hydro (BAU) Rates

	2014	2015	2016	2017	2018	2019	2020	2021 Proposed	8 Year Avg.
ADEU Rate	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	0.0% ²	3.5%
OVDEU Rate	-	-	4.0%	4.0%	4.0%	4.0%	4.0%	2.5%	3.8%
CCDEU Rate	-	-	-	-	-	-	4.0%	2.5%	3.3%
Blended BAU Rate	6.5%	3.3%	4.5%	7.1%	2.4%	3.3%	2.5%	2.5%	4.0%

¹ The 2.5% blended increase for 2021 is based on an estimated 1.5% increase of electricity cost and a 3.4% increase in natural gas cost assuming that all energy was provided for heating. Non-fuel BAU costs are assumed to be 25% of total costs and that they increase by the CPI (2.0%).

² Excluding commercial rate (Area A).

2021 Recommended Customer Rates

The economic impacts of the COVID-19 pandemic have been significant. Many residents have experienced job or income loss, and many businesses have been forced to suspend or close their operations. In consideration of this, LIEC staff have done further analysis to assess the feasibility of recommending a lower rate increase to its customers in 2021.

LIEC's three district energy utilities are at different stages of their operational life; as such, each of their capital and operating costs affect rates differently. ADEU is a more mature system with most of the capital required to produce low carbon energy already been invested. Due to the efficient operation of the system and higher than originally projected energy efficiency of the residential buildings, more customers can be serviced by the two existing geo-exchange fields. This makes the system less sensitive to changes in electricity and natural gas price, and allows for postponed capital investments for new low carbon energy sources. Taking into account these factors, ADEU's residential rate could remain constant with a 0% increase in 2021 without significantly impacting its overall financial performance.

The OVDEU and CCDEU systems are earlier in their operational life and still require significant capital investments in low carbon energy sources to connect more customers and ensure low carbon objectives are achieved. Additionally, due to the nature of their current energy sources, the costs to run these utilities are more sensitive to changes in electricity and natural gas prices. Once all costs are considered, the costs for these utilities are projected to increase in line with the projected 4% rate increase built into the financial models; however, LIEC staff evaluated the impact of a 2.5% increase (to match the BAU Rate increase for 2021), and have confirmed that this lesser increase for this year will have a low financial risk to LIEC business, while alleviating the burden on customers affected by COVID-19.

Proposed changes to ADEU and CCDEU Rate Structure

In addition to the rate increase, rate structure amendments are being proposed for Alexandra District Energy Utility Bylaw No. 8641, Amendment Bylaw No. 10085, and City Centre District Energy Utility Bylaw No. 9895, Amendment Bylaw No. 10087 to ensure consistency in the rates structure across all three service area Bylaws. These changes will be cost neutral to customers.

Financial Impact

None.

Conclusion

The recommended 2.5% increase for OVDEU and CCDEU 2021 service rates, and 0% increase for ADEU 2021 service rates supports Council's objective to keep the annual energy costs for LIEC customers competitive with conventional energy costs, based on the same level of service. This rate increase also ensures sufficient revenues to offset the capital investment and operating costs. Staff will continuously monitor energy costs and review the rate to ensure fairness for consumers and cost recovery for LIEC.



Peter Russell, BAsC MSc MCIP RPP
Director, Sustainability & District Energy
(604-276-4130)

- Att.1: District Energy In Richmond
- Att.2: Alexandra Neighbourhood and ADEU Service Area Informational Map
- Att.3: ADEU Green House Gas (GHG) Emissions Reduction Graph
- Att.4: Oval Village Neighbourhood and OVDEU Service Area Informational Map
- Att.5: City Centre Area and CCDEU Service Area Informational Map
- Att.6: ADEU Proposed 2021 Rates for Services
- Att.7: OVDEU Proposed 2021 Rates for Services
- Att.8: CCDEU Proposed 2021 Rates for Services

Attachment 1 – District Energy in Richmond

Richmond’s 2041 Official Community Plan (OCP) establishes a target to reduce greenhouse gas (GHG) emissions 33 per cent below 2007 levels by 2020 and 80 per cent by 2050. The OCP also aims to reduce energy use 10 per cent below 2007 levels by 2020. The City identified district energy utilities (DEUs) as a leading strategy to achieve the City’s GHG reduction goals.

The City incorporated Lulu Island Energy Company Ltd. (LIEC) in 2013 for the purposes of carrying out the City’s district energy initiatives. LIEC owns and operates the Alexandra District Energy (ADEU) and Oval Village District Energy (OVDEU) Utilities and advances new district energy opportunities. Table 1 below provides a summary of the developments connected under the DEU service areas to-date.

Table 1 – District Energy Utility Service Areas

	Buildings To-Date	Residential Units To-Date	Floor Area	
			To-Date	Build-out
Alexandra District Energy Utility	12	2,200	2.3M ft ²	4.4M ft ²
Oval Village District Energy Utility	10	2,277	2.6M ft ²	6.4M ft ²
City Centre District Energy Utility	10 ⁽¹⁾	3,388 ⁽¹⁾	4.7Mft ² ⁽¹⁾	48M ft ²
DEU-Ready Developments ⁽²⁾	17	4,524	5.3M ft ²	N/A
Total Connected Floor Area			4.9M ft² ⁽³⁾	58.8M ft²

(1) Commitments secured from upcoming developments in the City Centre; first connection expected in 2021.

(2) DEU-Ready developments are designed to connect to the City Centre district energy system at a future point.

(3) The “To-Date Connected Floor Area” figure corresponds to constructed developments currently served by a DEU.

Alexandra District Energy Utility (ADEU)

ADEU provides heating and cooling services to nine residential buildings in the ADEU service area, the large commercial development at “Central at Garden City”, the Richmond Jamatkhana temple and Fire Hall No. 3, comprising over 2,200 residential units and over 2.3 million square feet of floor area. While some electricity is consumed for pumping and equipment operations, almost 100% of this energy is currently produced locally from the geo-exchange fields in the greenway corridor and West Cambie Park, and highly efficient air source heat pumps.

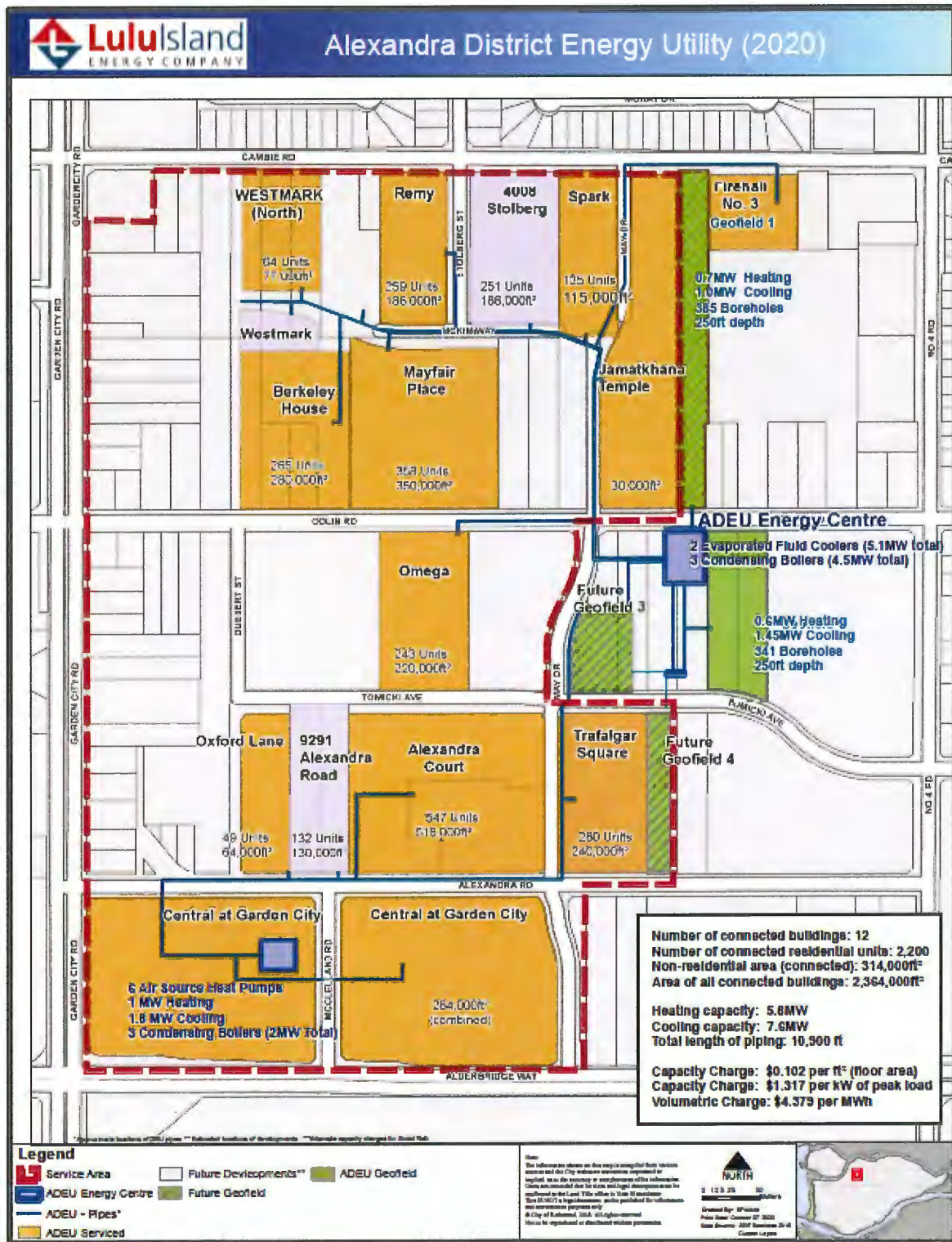
Oval Village District Energy Utility (OVDEU)

OVDEU services ten buildings in the OVDEU service area, containing over 2,277 residential units. Energy is currently supplied from the two interim energy centres with natural gas boilers which combined provide 11 MW of heating capacity. LIEC recently received a \$6.2 million grant from the CleanBC Communities Fund for the design and construction of the sewer heat recovery technology and a permanent energy centre for OVDEU. The project has been already initiated; once completed (estimated 2023-2024), the system will be able to produce up to 80% of low-carbon energy from the Gilbert Trunk sanitary force main sewer.

City Centre District Energy Utility (CCDEU)

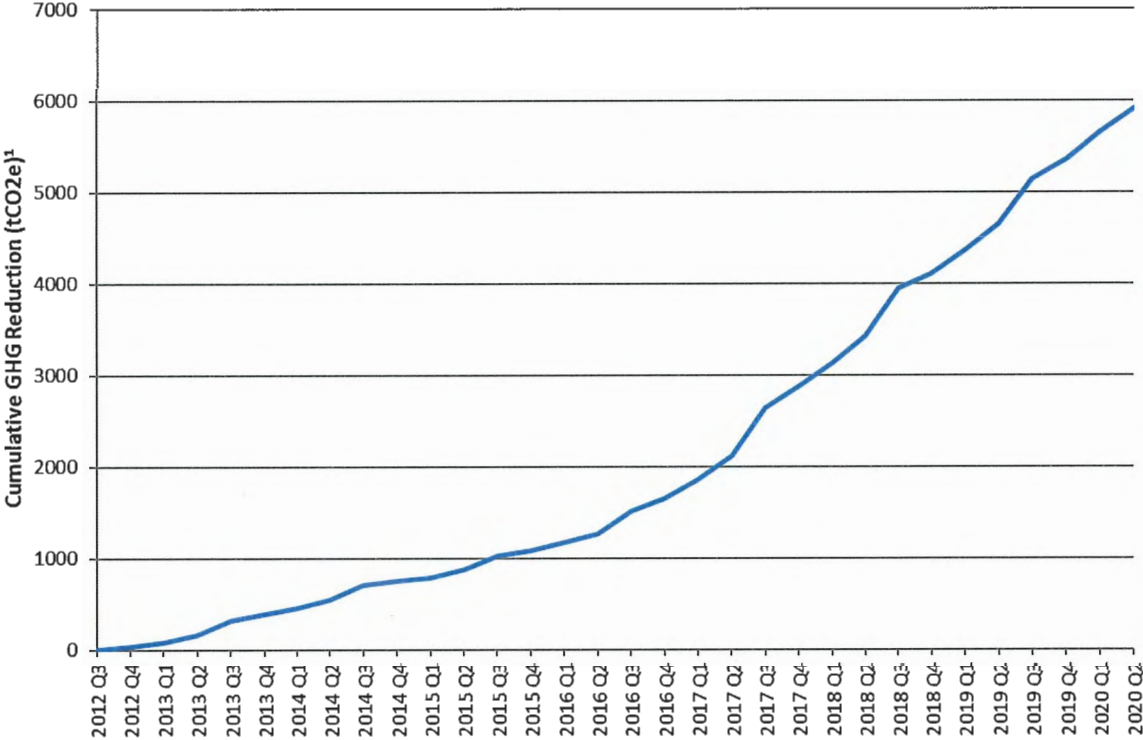
Ten developments, comprising of approximately 4.7 million square feet of residential, commercial, and hotel uses, have committed to construct and transfer low carbon energy plants to the City or LIEC at no cost. LIEC will operate and maintain these energy plants and provide heating and cooling services to these developments.

Attachment 2 – Alexandra Neighbourhood and ADEU Service Area Informational Map



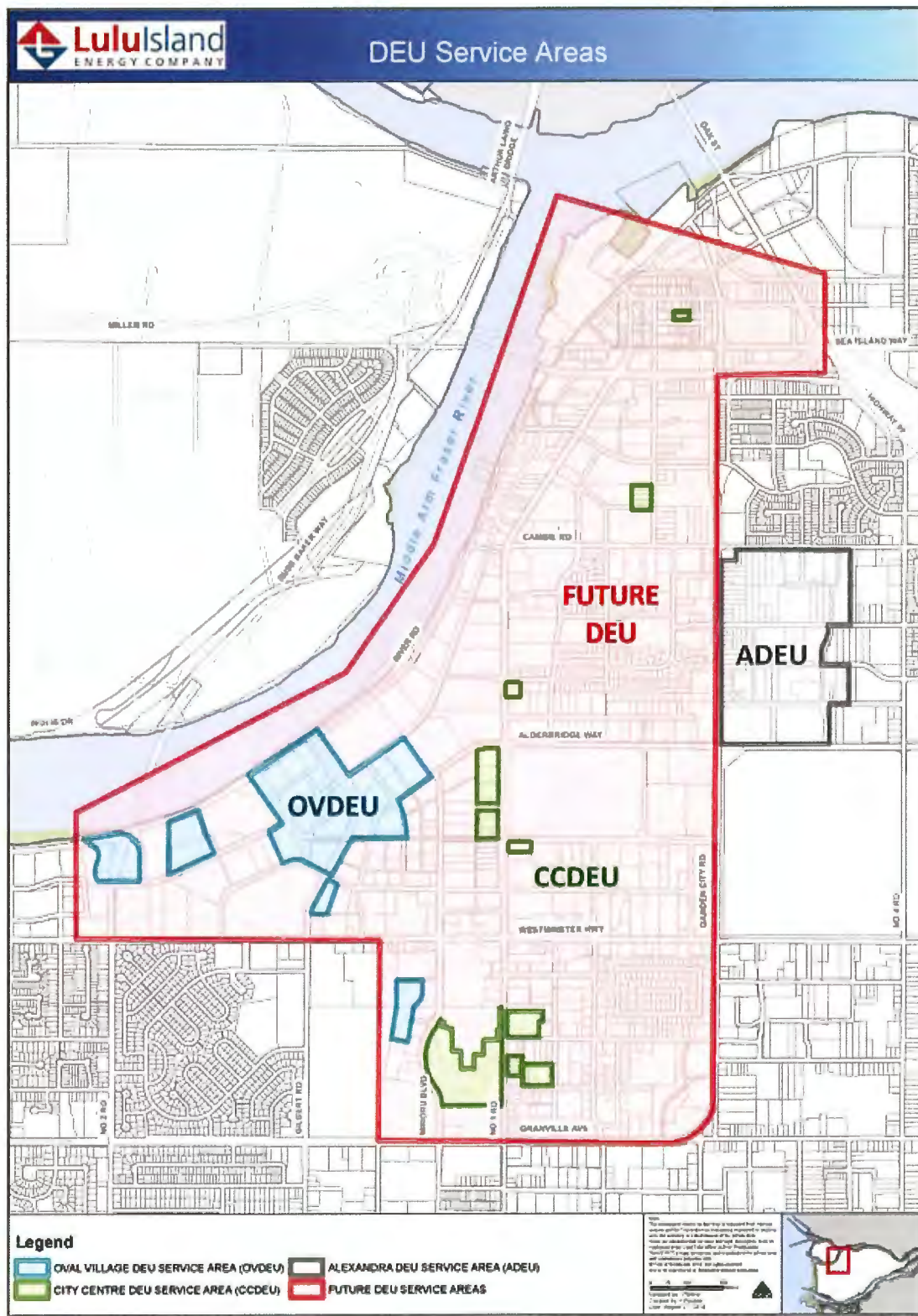
Attachment 3 – ADEU Green House Gas (GHG) Emission Reduction Graph

ADEU Cumulative GHG Emissions Reductions



¹ Assumed that all energy was provided for heating. The business-as-usual (BAU) assumed that 40% of the building heating load would be provided from electricity and the remaining 60% would be from gas make-up air units.

Attachment 5 – City Centre Area and CCDEU Service Area Informational Map



Attachment 6 – ADEU Proposed 2021 Rates for Services

Table 1: Proposed Rates for Services, excluding Area A

	ADEU	
	2020	2021
Capacity Charge One: Monthly charge per square foot of the building gross floor area	\$0.1020	\$0.0992
Capacity Charge Two: Monthly charge per kilowatt of the annual peak heating load supplied by DEU	\$1.370	-
Volumetric Charge: Charge per megawatt hour of energy consumed by the building	\$4.379	\$15.808
Excess Demand Fee - for each watt per square foot of each of the estimated peak heat energy demand and the estimated peak cooling demand that exceeds 6 W/ft ²	-	\$0.166

Table 2: Proposed Rates for Services, Area A

	Area A	
	2020	2021
Volumetric Charge: Charge per megawatt hour of energy consumed	\$78.29	\$80.25

Attachment 7 – OVDEU Proposed 2021 Rates for Services

OVDEU		
	2020	2021
Capacity Charge One: Monthly charge per square foot of the building gross floor area	\$0.0557	\$0.0571
Volumetric Charge: Charge per megawatt hour of energy consumed by the building	\$34.310	\$35.168
Excess Demand Fee - for each watt per square foot of the aggregate of the estimated peak heat energy demand that exceeds 6 W/ft ²	\$0.162	\$0.166

Attachment 8 – CCDEU Proposed 2021 Rates for Services

CCDEU		
	2020	2021
Capacity Charge One: Monthly charge per square foot of the building gross floor area	\$0.1134	\$0.0666
Volumetric Charge: Charge per megawatt hour of energy consumed by the building	-	\$40.935
Excess Demand Fee - for each watt per square foot of each of the estimated peak heat energy demand and the estimated peak cooling demand that exceeds 6 W/ft ²	\$0.146	\$0.166



**Alexandra District Energy Utility Bylaw No. 8641
Amendment Bylaw No. 10208**

The Council of the City of Richmond enacts as follows:

1. The **Alexandra District Energy Utility Bylaw No. 8641**, as amended, is further amended by adding the following after Section 11.3 as a new section 11.4:

“11.4 Excess Demand Fee

Pursuant to section 21.1(f), a building permit applicant must pay to the Service Provider the excess demand fee set out in Part 2 of Schedule C (Rates and Charges).”.

2. The **Alexandra District Energy Utility Bylaw No. 8641**, as amended, is further amended at Section 21.1 (Building Permit Application), by:

- a) inserting the words “and cooling” after the words “space heating” in Section 21.1(e)(i);
- b) inserting the words “for space heating and cooling and domestic hot water heating” after the words “consumption of energy” in Section 21.1(e)(iv);
- c) inserting the word “and” after the words “an estimated fee;” in section 21.1(f)(ii); and
- d) inserting the following after Section 21.1(f)(ii) as a new Section 21.1(f)(iii):

“(iii) the excess demand fee as specified in Part 2 of Schedule C.”.

3. The **Alexandra District Energy Utility Bylaw No. 8641**, as amended, is further amended by deleting Schedule C (Rates and Charges) in its entirety and replacing it with a new Schedule C attached as Schedule A to this Amendment Bylaw.
4. This Bylaw is cited as “**Alexandra District Energy Utility Bylaw No. 8641, Amendment Bylaw No. 10208**”

FIRST READING

SECOND READING

THIRD READING

ADOPTED

MAYOR

CORPORATE OFFICER

CITY OF RICHMOND
APPROVED for content by originating dept. CR
APPROVED for legality by Solicitor BRB

Schedule A to Amendment Bylaw No. 10208***SCHEDULE C to BYLAW NO. 8641******Rates and Charges*****PART 1 - RATES FOR SERVICES**

The following charges, as amended from time to time, will constitute the Rates for Services for the Service Area excluding shaded Area A as shown in Schedule A to this Bylaw:

- (a) Capacity charge – a monthly charge of \$0.0992 per square foot of Gross Floor Area; and*
- (b) Volumetric charge – a charge of \$15.808 per megawatt hour of Energy returned from the Energy Transfer Station at the Designated Property.*

PART 2 - EXCESS DEMAND FEE

Excess demand fee of \$0.166 for each watt per square foot of each of the estimated peak heat energy demand and estimated peak cooling demand referred to in section 21.1(e)(i), 21.1(e)(ii), and 21.1(e)(iii) that exceeds 6 watts per square foot.

PART 3 - RATES FOR SERVICES APPLICABLE TO AREA A

The following charges will constitute the Rates for Services applicable only to the Designated Properties identified within the shaded area (Area A) shown in Schedule A to this bylaw:

- (a) Volumetric charge – a charge of \$80.25 per megawatt hour of Energy returned from the Energy Transfer Station at the Designated Property calculated on each of (i) an energy use of 2644 MWh per annum (“Basic Supply Amount”), and (ii) any energy use in excess of the Basic Supply Amount.*



**Oval Village District Energy Utility Bylaw No. 9134
Amendment Bylaw No. 10209**

The Council of the City of Richmond enacts as follows:

1. The **Oval Village District Energy Utility Bylaw No. 9134**, as amended, is further amended by deleting **Schedule D (Rates and Charges)** of the Bylaw in its entirety and replacing it with a new Schedule D as attached as Schedule A to this Amendment Bylaw.
2. This Bylaw is cited as **“Oval Village District Energy Utility Bylaw No. 9134, Amendment Bylaw No. 10209”**.

FIRST READING

SECOND READING

THIRD READING

ADOPTED

CITY OF RICHMOND
APPROVED for content by originating dept.
CR
APPROVED for legality by Solicitor
BRB

MAYOR

CORPORATE OFFICER

Schedule A to Amendment Bylaw No. 10209

SCHEDULE D

Rates and Charges

PART 1 - RATES FOR SERVICES

The following charges, as amended from time to time, will constitute the Rates for Services:

- (a) capacity charge - a monthly charge of \$0.0571 per square foot of gross floor area; and
- (b) volumetric charge – a monthly charge of \$35.168 per megawatt hour of Energy returned from the Energy Transfer Station at the Designated Property.

PART 2 - EXCESS DEMAND FEE

Excess demand fee of \$0.166 for each watt per square foot of the aggregate of the estimated peak heat energy demand referred to in section 19.1(e)(i), (ii), and (iii) that exceeds 6 watts per square foot.



City Centre District Energy Utility Bylaw No. 9895
Amendment Bylaw No. 10210

The Council of the City of Richmond enacts as follows:

- 1. The City Centre District Energy Utility Bylaw No. 9895, as amended, is further amended at Section 15.1 (Discontinuance With Notice and Refusal Without Notice), by:
a) inserting the following after Section 15.1(h) as a new Section 15.1(i):
“(i) the Customer is otherwise in breach of the Energy Services Agreement.”.
2. The City Centre District Energy Utility Bylaw No. 9895 is amended by deleting Schedule D (Rates and Charges) of the Bylaw in its entirety and replacing it with a new Schedule D as attached as Schedule A to this Amendment Bylaw.
3. This Bylaw is cited as “City Centre District Energy Utility Bylaw No. 9895, Amendment Bylaw No. 10210”.

FIRST READING

SECOND READING

THIRD READING

ADOPTED

Four horizontal lines for signatures of the Mayor and Corporate Officer.

Table with approval stamps: CITY OF RICHMOND, APPROVED for content by originating dept. (CR), APPROVED for legality by Solicitor (BRB).

MAYOR

CORPORATE OFFICER

Schedule A to Amendment Bylaw No. 10210

SCHEDULE D

Rates and Charges

PART 1 - RATES FOR SERVICES

The following charges, as amended from time to time, will constitute the Rates for Services:

- (a) capacity charge - a monthly charge of \$0.0666 per square foot of gross floor area;
and
- (b) volumetric charge – a monthly charge of \$40.935 per megawatt hour of Energy returned from the Energy Transfer Station at the Designated Property.

PART 2 - EXCESS DEMAND FEE

Excess demand fee of \$0.166 for each watt per square foot of each of the estimated peak heat energy demand and estimated cooling demand referred to in section 19.1(f) (i), 19.1(f) (ii) and 19.1(f) (iii) that exceeds 6 watts per square foot.