September 26, 2025

BY EMAIL

CRD Board of Directors
Capital Regional District

Re: Proposed Regional Water Supply Development Cost Charge Program - Financial Analysis and Industry Concerns

Dear Chair and Directors,

On behalf of the Urban Development Institute (UDI), the Victoria Residential Builders Association (VRBA), and the WestShore Developers Association (WSDA), we write to follow up on our previous correspondence to the Capital Regional District (CRD) dated September 10, 2024, October 10, 2024, October 28, 2024, and December 18, 2024.

We have consistently raised significant concerns that leave the CRD's proposed Regional Water Supply (RWS) Development Cost Charge (DCC) program out of alignment with the Province's Local Government Act and the Development Cost Charge Best Practices Guide[1]. These concerns relate to flawed technical assumptions, non-compliance with statutory requirements, and insufficient consultation with the public and industry.

Since that time, two important developments have further confirmed the seriousness of these concerns:

1. Independent Economic Analysis:

With the CRD confirming it would not undertake the required economic study, UDI, VRBA, and WSDA commissioned Mulholland Parker Land Economists (MPLE) to

complete an independent financial impact review[2]. The MPLE September 2025 report concludes that four out of five housing forms in the region "are not viable under current market conditions."

The report states a "prolonged period of depressed housing starts" is anticipated. The proposed "water DCC would reduce project viability beyond these baseline market conditions and delay the timeline for market recovery" by up to 25% (e.g., wood-frame strata from 4 to 5 years, concrete rental from 5 to 6 years).

This is clear evidence the proposed DCCs will deter development.

The Local Government Act says (564) (4):

"In setting development cost charges, a local government must take the following into consideration:

> (f) whether the charges will, in the municipality or regional district,
>
> (i) deter development,
>
> (ii) discourage the construction of reasonably priced housing or the provision of reasonably priced serviced land"[3]

By not undertaking an economic study, the CRD fails to meet this obligation. UDI, VRBA and WSDA have done the necessary work demonstrating the CRD's proposed DCCs would further undermine housing supply in challenging market conditions.

As a result, **we are requesting the Inspector of Municipalities reject the CRD bylaw**. The DCC Best Practices Guide states, "…the Inspector of Municipalities (Ministry of Municipal Affairs) may refuse approval of a DCC bylaw… if the DCCs are excessive, deter development, or discourage construction of reasonably priced housing."[4]

2. Updated Population and Water Demand Forecasts:

Due to shifts in domestic migration and federal immigration policy, BC Stats now projects a *sharp deceleration* in regional population growth. The Capital Region is expected to add only 19,600 residents between 2025 and 2034: a 73% decline from the 73,800 residents added over the last decade and a 68% downward revision from BC Stats' prior forecast.

Yet, the CRD's 2022 Water Supply Master Plan assumes a 1.25% annual growth rate[6], which is over three times the rate now endorsed by BC Stats out to 2034.

At the same time, internal CRD data confirm falling per capita water demand, particularly in multi-family housing, the predominant new housing form, which the Master Plan does not account for. Pursuing a $2B+ capital plan based on overestimated population growth

and water demand figures risks our region will be faced with **unnecessary infrastructure projects** and **a funding shortfall to support them**.

Taken together, these findings directly challenge the validity of the 2022 Water Supply Master Plan's assumptions. The MPLE report demonstrates the economic impacts of the proposed DCCs on housing supply and affordability, while the updated BC Stats forecasts show that the population and water demand assumptions underpinning the CRD's capital program are materially overstated.[5,6] Advancing a multi-billion-dollar program based on these incorrect premises risks raising water rates for all residents and imposing a substantial DCC that will further constrain housing delivery.

We respectfully urge the CRD Board to:

1. Pause advancement of the proposed DCC until a full, independent economic impact analysis is completed in accordance with the Province's DCC Best Practices Guide[4];

2. Update the population and demand assumptions underpinning the Water Supply Master Plan to reflect BC Stats' revised forecasts[5] and the reality of lower per capita water use in denser housing formats[7]; and

3. Engage meaningfully with municipalities, First Nations, the development industry, and the public on the scale, timing, and fairness of the proposed capital plans.

We enclose the MPLE report for your review and, for context, attach our October 28, 2024, letter that identified these issues.

Sincerely,

L. Bell

Leah Bell
Regional Director
Urban Development Institute - Capital Region
447 Herald Street
Victoria, BC

On behalf of:

Casey Edge, Executive Director, Victoria Residential Builders Association
Ron Coutre, President, WestShore Developers Association

Enclosures:

- Financial Analysis of Proposed CRD Water DCC, September 2025
- Development Community Feedback Letter to CRD, October 28, 2024

cc:

Alicia Fraser, GM Integrated Water Services, Capital Regional District
Capital Regional District Regional Water Supply Commission
Ted Robbins, Chief Administrative Officer, Capital Regional District
Nelson Chan, Chief Financial Officer, Capital Regional District
The Honourable Christine Boyle, Minister of Housing and Municipal Affairs
The Honourable Gregor Robertson, Minister of Housing and Infrastructure
Ravi Parmar, MLA, Langford-Juan de Fuca
John Rustad, MLA, Nechako Lakes, Leader of the Official Opposition
Inspector of Municipalities, Ministry of Housing and Municipal Affairs

Endnotes

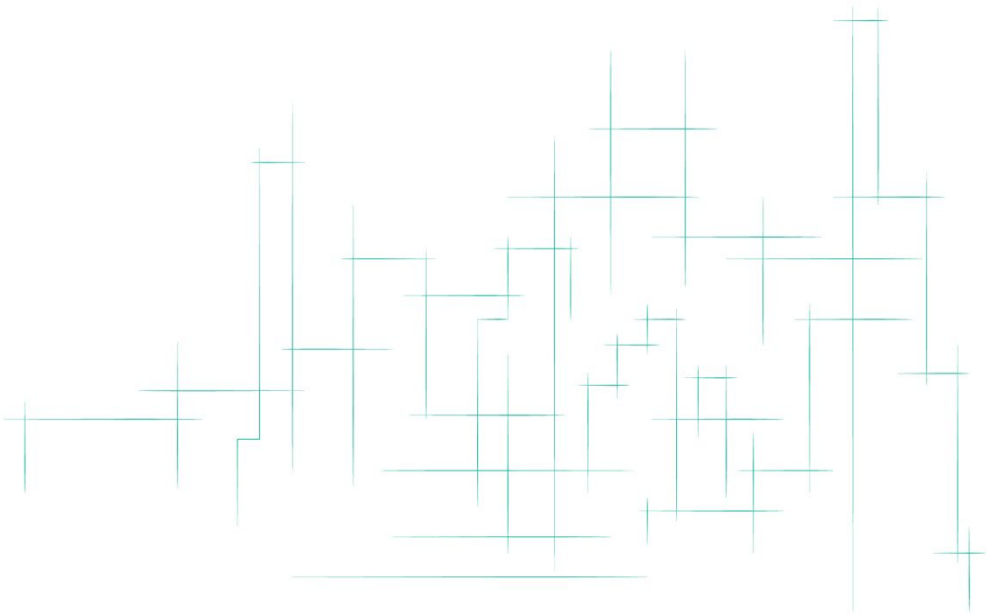
1. *Development Cost Charge Best Practices Guide*, Province of British Columbia, Ministry of Municipal Affairs - General reference to provincial guidelines for setting DCCs.
2. Mulholland Parker Land Economists, *Financial Analysis of Proposed CRD Water DCC*, September 2025.
3. *Local Government Act*, SBC 2015, c. 1, Section 564(4)(f), Province of British Columbia.
4. *Development Cost Charge Best Practices Guide*, Province of British Columbia, Ministry of Municipal Affairs - Specifically notes the Inspector of Municipalities may reject DCC bylaws that deter development or discourage affordable housing. https://www2.gov.bc.ca/assets/gov/bcc/dcc-best-practices-guide.pdf
5. BC Stats, *Sub-Provincial Population Projections - Capital Region*, August 2025 Release. https://www.bcstats.gov.bc.ca
6. Capital Regional District, *Water Supply Master Plan*, 2022 - Projects long-term population growth and supports assumptions used in the CRD's capital planning.
7. Capital Regional District, *Water Demand Trends Data Summary*, Internal Report, 2024 - Indicates declining per capita water use, particularly in multi-family housing.

Mulholland Parker
Land Economists Ltd.

Financial Analysis of Proposed CRD Water DCC

For: Urban Development Institute

September 2025



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Executive Summary

INTRODUCTION

Mulholland Parker Land Economists (MPLE) has been retained by the Urban Development Institute (the Client) to perform market research and financial analysis of the development economics of several development scenarios throughout the Capital Regional District (CRD). We understand that the Client is concerned about the economic viability of the proposed Regional Water Supply Development Cost Charge (DCC) plan, and fears that the added cost of the new DCCs on development could deter development, reduce overall housing supply, and therefore negatively impact housing affordability in the region. Provincial law and guidelines also make it clear that municipalities and regional governments are obligated to ensure that new or increased DCC rates do not deter development. In recognition of challenging economic circumstances, the CRD has deferred implementation of the Water DCC until 2027 in order to maintain regional eligibility for the $6 billion Canada Housing Infrastructure Fund. This highlights the recognition by both federal and regional governments that increased DCCs can affect housing viability and delivery timelines.

To investigate this concern and to inform the CRD's consideration of the proposed DCC rates, MPLE has undertaken financial analysis of three hypothetical developments in the CRD to understand the impact of the proposed Regional Water Supply DCCs on project economics:

1) A three-storey wood frame townhouse project at an average size of 1,500 ft^2 (net of garage area) at a floor space ratio (FSR)[1] of approximately 1.2, located in the Westshore area

2) A six-storey wood frame apartment building with one level of underground parking built at an FSR of 2.5, located in the Shelbourne Valley of Saanich

3) A 30-storey concrete high-rise apartment building located in the urban core of the City of Victoria.

Each of these three scenarios are modelled with and without the proposed Water Supply DCC to address the following questions:

- What are current market sales prices for townhouse and apartment products of the above types in the above locations? How do these amounts compare to construction costs and what residual land prices do they support?
- What is the anticipated impact of the proposed Regional Water Supply DCC plan on supportable land values?
- Do the proposed DCC rates cause residual land values to fall below critical thresholds such as BC Assessment land value and single family dwelling land value?

If the proposed DCCs are expected to deter development, how long would this period of deterrence be in years?

[1] A measure of density equal to a development's gross floor area divided by its land area

MARKET RESEARCH

MPLE has interviewed eight local experts including realtors, developers, and builders for this project as well as hundreds of others in recent years for recent work. They have expressed a range of opinions and perspectives on Victoria's housing market but have been remarkably consistent in their belief that there is indeed a housing crisis throughout British Columbia and the Capital Regional District is no exception. Housing prices are increasingly beyond the means of households with typical incomes due to a profound shortage of homes. The present shortage is longstanding and pervasive; its growth is well-documented throughout the twenty-first century. MPLE believes that only major reforms and changes to British Columbia's and Canada's approaches to land use and development can possibly reverse this worrying trend.

On top of this longstanding shortage, it is a uniquely difficult time to build housing in the CRD and throughout Canada due to high costs, high interest rates, and reduced demand as a result of widespread economic uncertainty. The provincial government's recent land use reforms (Bills 44, 46, 47, and 16) represent an attempt to increase housing supply at the provincial scale and may prove invaluable, but it is too soon to assess their overall effectiveness, especially since these reforms are fighting economic headwinds at the international scale emanating from the south. The local experts we interviewed for this research were generally of the opinion that now is not the time to increase development costs for any reason if the region aims to continue increasing its housing supply to do its part to stem the province's broad housing shortage.

FINANCIAL ANALYSIS

MPLE has prepared a financial analysis of five scenarios, each both with and without the CRD's proposed Water Supply DCCs:

- A three-storey wood frame townhouse project located in the Westshore area
- A six-storey wood frame apartment building with one level of underground parking built at an FSR of 2.5, located in the Shelbourne Valley of Saanich. We have modelled two tenures:
  - Strata
  - Rental
- A 30-storey concrete high-rise apartment building located in Downtown Victoria. We have modelled two tenures:
  - Strata
  - Rental.

The purpose of this model is to measure the expected impact of the CRD's proposed Water Supply DCCs on project economics throughout the region.

Table A: Expected wait time until project viability (years)

	Expected wait time		Impact of Water DCC	
	Without DCC	With DCC	Years	% increase
Townhouse	6	7	1	17%
Wood-frame apartment (strata)	4	5	1	25%
Wood-frame apartment (rental)	Viable	Viable	n/a	n/a
Concrete apartment (strata)	22	23	1	5%
Concrete apartment (rental)	5	6	1	20%

Of the five scenarios analyzed by MPLE, four are not viable under current market conditions because they support less land value than the land's market price. Assuming a middle-of-the-road economic recovery trajectory, all of these scenarios are expected to recover, but their recovery will be delayed by about one year if the proposed CRD Water Supply DCC is imposed:

- Townhouses on the West Shore: from six years of recovery to seven years (17% slower)
- Wood frame strata in Shelbourne Valley: from four years of recovery to five years (25% slower)
- Concrete strata in Downtown Victoria: from 22 years of recovery to 23 years (5% slower)
- Concrete rental in Downtown Victoria: from five years of recovery to six (20% slower).

The only analyzed scenario not adversely affected by the proposed DCC rates is wood frame rental apartments in Shelbourne Valley, which MPLE believes is an unusual case due to its desirable location next to the University of Victoria.

The economic analysis shows that four out of five scenarios examined are not economically feasible for new projects, signaling a prolonged period of depressed housing starts. The introduction of the new CRD Water DCC would reduce project viability beyond these baseline market conditions and delay the timeline for market recovery.

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1 Introduction

Mulholland Parker Land Economists (MPLE) has been retained by the Urban Development Institute (the Client) to perform market research and financial analysis of the development economics of several development scenarios throughout the Capital Regional District (CRD). We understand that the Client is concerned about the economic viability of the proposed Regional Water Supply Development Cost Charge (DCC) plan, and fears that the added cost of the new DCCs on development could deter development, reduce overall housing supply, and therefore negatively impact housing affordability in the region. Provincial law and guidelines also make it clear that municipalities and regional governments are obligated to ensure that new or increased DCC rates do not deter development. In recognition of challenging economic circumstances, the CRD has deferred implementation of the Water DCC until 2027 in order to maintain regional eligibility for the $6 billion Canada Housing Infrastructure Fund. This highlights the recognition by both federal and regional governments that increased DCCs can affect housing viability and delivery timelines.

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- Do the proposed DCC rates cause residual land values to fall below critical thresholds such as BC Assessment land value and single family dwelling land value?
- If the proposed DCCs are expected to deter development, how long would this period of deterrence be in years?

2 Market Research

MPLE has interviewed eight local experts including realtors, developers, and builders for this project as well as hundreds of others in recent years for recent work. They have expressed a range of opinions and perspectives on Victoria's housing market but have been remarkably consistent in their belief that there is indeed a housing crisis throughout British Columbia and the Capital Regional District is no exception. Housing prices are increasingly beyond the means of households with typical incomes due to a profound shortage of homes. The present shortage is longstanding and pervasive; its growth is well-documented throughout the twenty-first century. MPLE believes that only major reforms and changes to British Columbia's and Canada's approaches to land use and development can possibly reverse this worrying trend.

On top of this longstanding shortage, it is a uniquely difficult time to build housing in the CRD and throughout Canada due to high costs, high interest rates, and reduced demand as a result of widespread economic uncertainty. The provincial government's recent land use reforms (Bills 44, 46, 47, and 16) represent an attempt to increase housing supply at the provincial scale and may prove invaluable, but it is too soon to assess their overall effectiveness, especially since these reforms are fighting economic headwinds at the international scale emanating from the south. The local experts we interviewed for this research were generally of the opinion that now is not the time to increase development costs for any reason if the region aims to continue increasing its housing supply to do its part to stem the province's broad housing shortage.

This section presents and explains some of the issues causing the current economic headwinds at the national scale (Section 2.1 below), elaborates how these market forces manifest in the CRD (Section 2.2, pg. 7), and then takes a closer look at the market parameters governing this study's particular development scenarios (Sections 2.3 – 2.5, pg. 8 – 17).

2.1 Inflation and Interest Rates

Figure 1: Monthly inflation in Victoria in 2020 – 2024 (five years)[3]

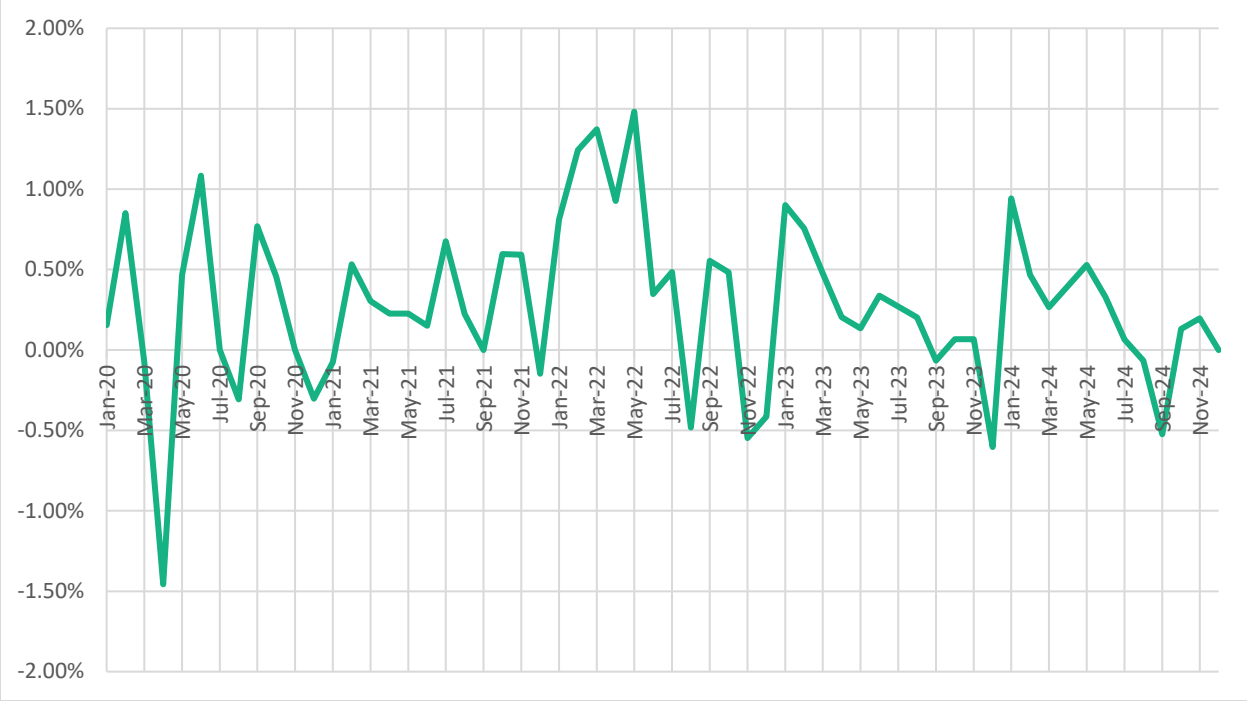


Figure 1 shows that considerable inflation occurred in the first half of 2022, more rapid than the several years before or since. Estimates of inflation in Victoria indicate 6.3% inflation in the first six months of 2022 (13% annualized), compared to a long-term annual average of 3.4%. Rapid inflation has had profound impacts on Victoria's housing market – both direct and indirect – and the subject deserves some discussion and analysis.

This inflationary bout of Spring 2022 was due to recent historical forces:

- The COVID-19 Pandemic, the following Russian invasion of Ukraine, and subsequent conflict in the Middle East (all ongoing at the time of this report) caused worldwide logistical problems and shortages, increasing prices
- Canadian consumer-facing sectors are also increasingly prone to monopoly or oligopoly (dominance of a sector by a small number of large companies). Examples include telecommunications, groceries, gas stations, and banks. Widespread price fixing between these large companies is suspected and occasionally discovered.[4] This increases the price of consumer goods and services, and funnels funds to the shareholder class and corporate management elite

[3] Source: British Columbia (2024) Consumer Price Index. Retrieved from https://www2.gov.bc.ca/gov/content/data/statistics/economy/consumer-price-index in August 2025.

[4] Two recent examples of officially identified price fixing include bread prices in Canada's grocery stores (https://en.wikipedia.org/wiki/Bread_price-fixing_in_Canada) and fuel prices in British Columbia (https://docs.bcuc.com/documents/proceedings/2019/doc_54384_c1-2-allan-eliesen-submitting-report.pdf)

- Financial support for households and industries during COVID also increased the money supply, fueling inflation
- If housing is included in the calculation, then housing shortage is a major driver of inflation in Canada because the nation faces a considerable housing shortage as discussed on pg. 2; Canada is not alone in this; housing is in short supply in many OECD countries as housing supply struggles to keep up with demand.

The Bank of Canada – Canada's arms-length monetary body – controls the Policy Interest Rate. This is the rate at which banks can borrow from the Bank of Canada as a lender of last resort. It therefore represents a "floor" for most borrowers in the economy. It is hard to acquire financing for less than this amount. Raising interest rates in this way is an attempt to stem inflation through two means:

- The "carrot": household savings accrue to financial institutions that proceed to lend these funds. According to orthodox economic thought, at higher interest rates, financial institutions should be able to afford to offer higher interest rates to households who use these institutions for saving and should be incentivized to do so through competition. However, evidence of higher interest rates being passed on to Canadian savers in recent years is mixed at best.[5]
- The "stick": when interest rates increase, existing mortgages and other forms of debt become more expensive to carry, either immediately in the case of floating rate arrangements, or at the time of renewal in the case of fixed rate arrangements. This diverts household funds from other forms of spending to debt servicing, which decreases the money supply. Evidence suggests that this mechanism still works in Canada as inflation has slowed noticeably since May 2022, although both inflation and high debt costs represent hardship for households, so this treatment promises no short-term relief for most.

In the wake of inflation, the Bank of Canada – over several discrete increments – increased the Policy interest rate from 0.25% in February 2022 to 5% by mid-July of 2023, its highest value since 2001. This is the standard approach to fighting inflation and appears to be working as inflation has slowed considerably in the last two years.

Inflation and resulting high interest rates in combination have a profound and challenging impact on the housing development industry as they make both construction and financing more expensive for developers while reducing households' capacity to pay for housing.

Since 2022, inflation has slowed to a more normal pace, so the Bank of Canada reduced the Policy Interest Rate in several discrete adjustments from 5% in June 2024 to 2.75% in March 2025. This is expected to have a thawing effect on the industry but note that construction cost increases in the last several years have exceeded inflation and costs have not decreased to pre-2022 levels.

[5] Evans, Pete & Patel, Nisha (2023, March 2). Interest rates have skyrocketed. So why hasn't the rate on your savings account budged? *Canadian Broadcasting Corporation*. Retrieved from https://www.cbc.ca/news/business/interest-rates-analysis-1.6764143.

2.2 Victoria's Residential Development Market

While construction costs have continued to increase since 2022, demand for strata product has fallen due to reduced purchaser borrowing capacity from interest rates as well as households' reduced willingness to make major investments and lifestyle commitments under today's uncertain economic conditions. With new and volatile tariffs imposed on Canadian exports to the United States, whole industries have paused investment and hiring until more certainty is available, which further reduces households' appetite for major expenditure (reduced demand, decreasing price) while increasing development costs, threatening project viability everywhere. MPLE has observed that high rise strata construction is no longer economically viable anywhere in BC except in the Lower Mainland's most desirable neighbourhoods.

Due in part to decreased interest rates in late 2024 and early 2025, local realtors report that it has been an unusually busy summer. But despite a greater volume of sales than most years, today's home purchasers are extremely price-sensitive and risk-averse. After several years of economic uncertainty which has only intensified in 2025, there is a great deal of pent-up residential demand, but it is releasing selectively. For example, buyers are much less interested in presales than in recent decades; there appears to be a degree of urgency in today's market that is not compatible with the presale model, possibly due to reduced demand from investor purchasers. Reduced presales complicate development financing, delay project starts, and therefore increase overall borrowing costs.

With softening strata prices, reduced presales, and perpetual economic uncertainty, the housing market's focus in Victoria has shifted from strata to rental development. Rental housing represents less of a financial commitment from occupants and its value to builders depends less on current market conditions and more on future market conditions which are assumed to be less extreme and more like past decades. Rental inventory in Victoria and Saanich has therefore been rising in recent years while strata inventory has stalled. There are some recent wood frame purpose-built rental apartment developments in the region that are commanding super-economic rents[6] and appear to be viable, but all other large-scale multi-family development formats (concrete apartments of all kinds and townhouses of all kinds) are struggling acutely, with costs routinely exceeding revenues. In summary, the CRD's housing market is acutely distressed and bearish, with project viability limited to only the best-positioned purpose-built rental wood frame apartments.

[6] Rents that would support land value greater than the land's assumed market value today. See Section 2.5, pg. 15 – 15 and Section 3.2.4, pg. 26.

2.3 Construction Costs

MPLE has drawn construction cost data from several sources to produce a set of blended estimates for use in the financial analysis presented in Section 3.2.3, pg. 21. These are presented below by building type. All costs exclude contingency.

2.3.1 Townhouse Construction Costs

As usual, townhouse construction costs are communicated in dollars per square foot, such that the unit's parking garage or unfinished space is not included in the figure's denominator but is paid for by its numerator. Several sources suggest townhouse construction costs ranging from $205 - $315 per ft^2:

- The Altus Canadian Cost Guide (March 2025) suggests for *Vancouver*[7]:
  - For row townhouse: $205 - $310, **with a mid-point of $258 per ft^2**
  - For stacked townhouse: $225 - $315, **with a mid-point of $270 per ft^2**
- Butterfield Development Consultants Construction Cost Indicator[8] suggests a price of **$288 per ft^2**
- The Client provided project data on three recent townhouse projects on the West Shore. These show construction costs of $259 - $281 per ft^2 with **an average of $267 per ft^2**
- Local experts interviewed by MPLE suggest a range of **$225 - $275 per ft^2.**

On the balance of these sources, MPLE assumes a townhouse construction cost of **$265 per ft^2.**

2.3.2 Wood Frame Apartment Construction Costs

Several sources suggest wood frame apartment construction costs ranging from $275 - $365 per square foot of gross floor area, excluding parking:

- The Altus Canadian Cost Guide (March 2025) suggests for *Vancouver*[7] a cost of $275 - $365, **with a mid-point of $320 per ft^2**
- Butterfield Development Consultants Construction Cost Indicator[8] suggests a price of **$318 per ft^2**
- The Client provided project data on three recent wood frame apartment projects in the Shelbourne Valley. These show construction costs of $328 - $354 per ft^2 with **an average of $344 per ft^2**
- Local experts interviewed by MPLE suggest a cost of about **$350 per ft^2.**

On the balance of these sources, MPLE assumes an apartment construction cost of **$350 per square foot** of gross floor area, excluding parking.

[7] Because Altus does not address Victoria in its annual Construction Guide, this is not a very reliable indicator.

[8] Retrieved from https://www.bdconsultants.com/tools/ on 2025/08/04.

2.3.3 Concrete Construction Costs

Several sources suggest concrete apartment construction costs ranging from $360 - $455 per square foot of gross floor area, excluding parking:

- The Altus Canadian Cost Guide (March 2025) suggests for *Vancouver*[9] a cost of $360 - $455, **with a mid-point of $408 per ft²**
- Butterfield Development Consultants Construction Cost Indicator[10] suggests a price of $465 per ft² *including underground parking*. If approximately $100 per ft² for parking construction is removed (see Section 2.3.4 below), that yields a cost of **about $365 per ft²**
- The Client provided project data on three recent concrete apartment projects in Downtown Victoria. These show construction costs of $464 - $536 per ft² *including underground parking*, with an average of $503 per ft². If approximately $100 per ft² for parking construction is removed (see Section 2.3.4 below), that yields a cost of **about $403 per ft²**
- Local experts interviewed by MPLE suggest a range of $500 - $510 per ft² including parking, or **$400 - $410 per ft².**

On the balance of these sources, MPLE assumes an apartment construction cost of **$400 per ft² of gross floor area, excluding parking or about $500 per ft² of gross floor area including parking.**

2.3.4 Underground Parking Construction Costs

MPLE typically models building construction costs and underground parking construction costs as two separate line items to allow for independent control of the two parameters. In this section for maximum clarity, we provide parking construction costs in per-ft², per stall, and per-ft²-buildable formats based on the following assumptions which are discussed in more detail in Section 3.2.2, pg. 20 - 21:

- Average unit size of 592 ft² in wood frame apartment buildings and of 616 ft² in concrete apartment buildings
- Underground parking stalls of 1.09 per unit in Downtown Victoria and 1.04 per unit in Shelbourne Valley. This is one stall per unit – which MPLE deems to be the minimal marketable amount in today's market – plus sufficient guest parking to satisfy the City of Victoria's and the District of Saanich's respective requirements
- 350 ft² of surface parking per stall.

[9] Because Altus does not address Victoria in its annual Construction Guide, this is not a very reliable indicator.

[10] Retrieved from https://www.bdconsultants.com/tools/ on 2025/08/04.

Informed by the above assumptions, several sources suggest underground parking construction costs ranging from (items equivalent):

- $143 - $290 per square foot
- About $50,000 - $102,000 per stall
- About $75 - $152 per ft^2 of gross building area, per Section 2.3.3 above.

These sources are as follows:

- The Altus Canadian Cost Guide (March 2025) suggests for *Vancouver*[11] a cost of (items equivalent:
    - $170 - $290, **with a mid-point of $230 per ft^2**
    - About $60,000 - $102,000, **with a mid-point of $81,000 per stall**
    - About $90 - $152 per ft^2 of gross building area, **with a mid-point of $121 per ft^2 of gross building area**, per Section 2.3.3 above
- Client-provided project data on three recent wood frame apartment projects in the Shelbourne Valley shows underground parking construction costs of (items equivalent):
    - $146 - $206, with **an average of $167 per ft^2**
    - $51,000 - $71,000 with **an average of $58,000 per stall**
    - About $77 - $108 per ft^2 of gross building area, with a mid-point of $88 per ft^2 of gross building area, per Section 2.3.3 above
- Local experts interviewed by MPLE suggest underground parking costs of as little as $50,000 per stall, although MPLE considers this extremely low**.**

On the balance of these sources, MPLE assumes the following apartment construction costs, which are roughly equivalent:

- **About $186 per ft^2 of underground parking**
- **$65,000 per stall**
- **About $100 per ft^2 of gross building area, per Section 2.3.3 above.**

2.4 Sales Prices

MPLE has drawn sales price data for brand new strata housing from several sources to produce a set of blended estimates for use in the financial analysis presented in Section 3.2.4, pg. 25. These are presented below by building type.

[11] Because Altus does not address Victoria in its annual Construction Guide, this is not a very reliable indicator.

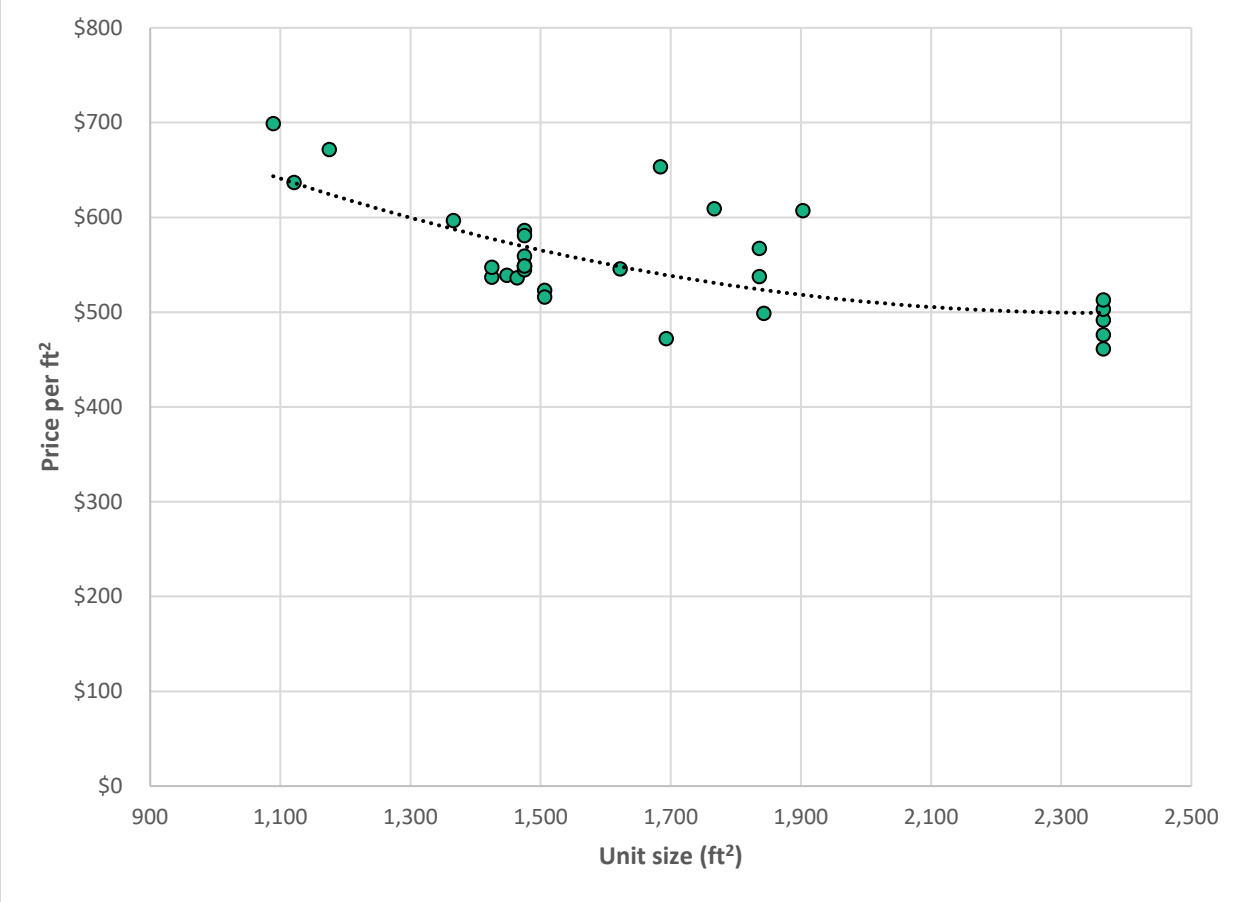
2.4.1 Townhouse Prices

Like construction costs, townhouse prices are communicated in dollars per square foot, such that the unit's parking garage or unfinished space is not included in the figure's denominator but is paid for by its numerator. Several sources suggest townhouse prices ranging from \$500 - \$692 per ft^2 or 750,000 – \$1 million for a 1,500 ft^2 unit:

- MPLE has approximated this study's West Shore Study Area by combining the following Multiple Listing Service (MLS) sub-areas:
    - Colwood, excluding the Lagoon and Royal Roads neighbourhoods
    - The following sub-areas of Langford:
        - Glen Lake
        - Jacklin
        - Langford Proper

    We have acquired data on all sales in this area from August 2024 – July 2025 of townhouses built since August 2023. This data is presented in Figure 2 below.

Figure 2: Sales price of new townhouses in the West Shore Study Area in the last year, per ft^2



The regression displayed in Figure 2 suggests a price of **\$566 per ft^2 or \$848,000 per unit**

- Client-provided project data on three recent West Shore townhouse projects shows sales prices of $569 - $692 per ft^2 with **an average of $624 per ft^2 or $936,000 per unit**
- Local experts interviewed by MPLE suggest townhouse prices in the mid-$500s per ft^2 or **$800,000 - $850,000 per unit**.

On the balance of these sources, MPLE assumes a townhouse price of **$565 per ft^2 or $848,000 per unit.**

2.4.2 Wood Frame Apartment Prices

Several sources suggest wood frame apartment prices ranging from $600 - $1,100 per square foot:

- Like townhomes in the West Shore, MPLE acquired data on all sales in the Shelbourne Valley from August 2024 – July 2025 of wood frame apartments built since August 2023. Unfortunately, there were too few sales during this time to draw conclusions
- As an inferior replacement for sales data, MPLE gathered all current sales listings in late July 2025 for wood frame apartments in the Shelbourne Valley built since 2005. These are displayed in Figures 3 and 4 below.

Figure 3: Listing price of wood frame apartments in the Shelbourne Valley per ft^2, versus year built

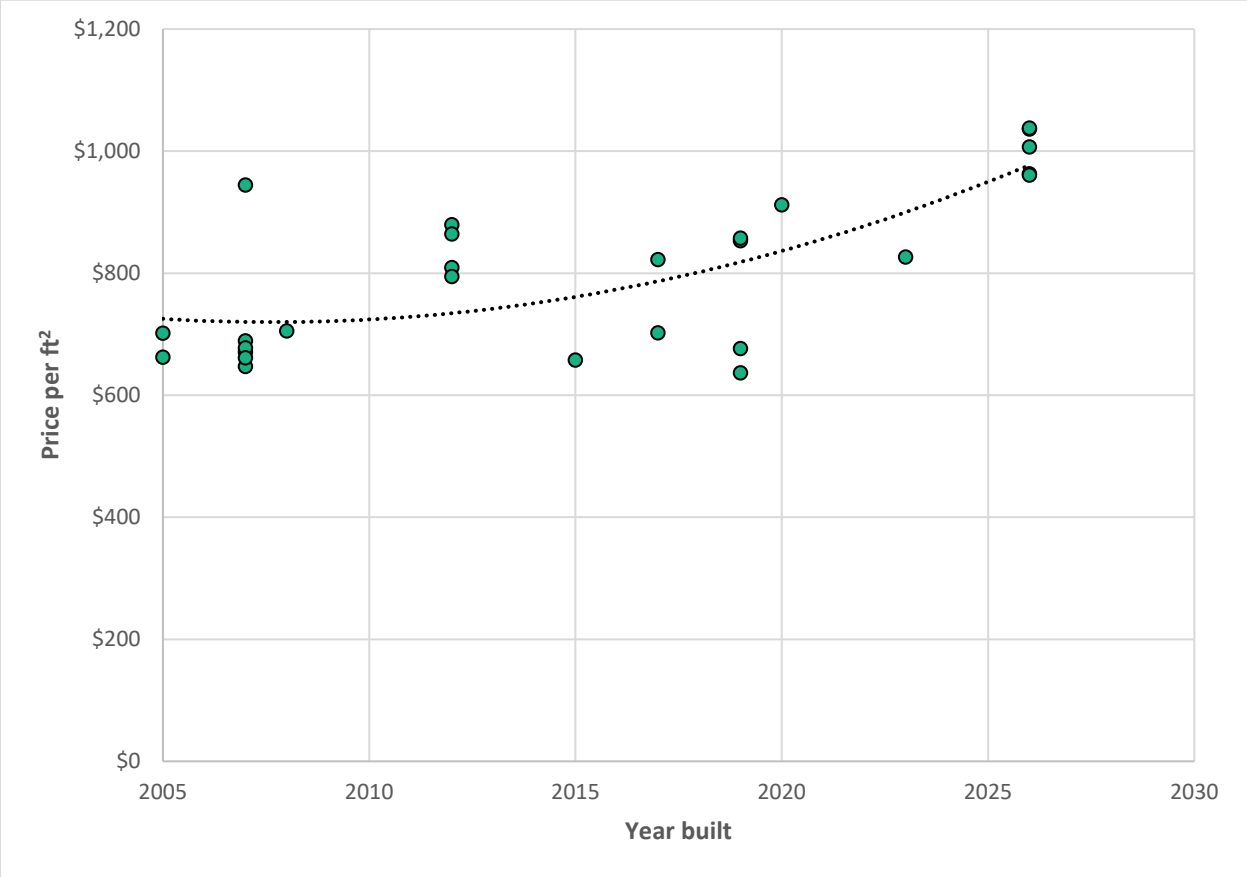
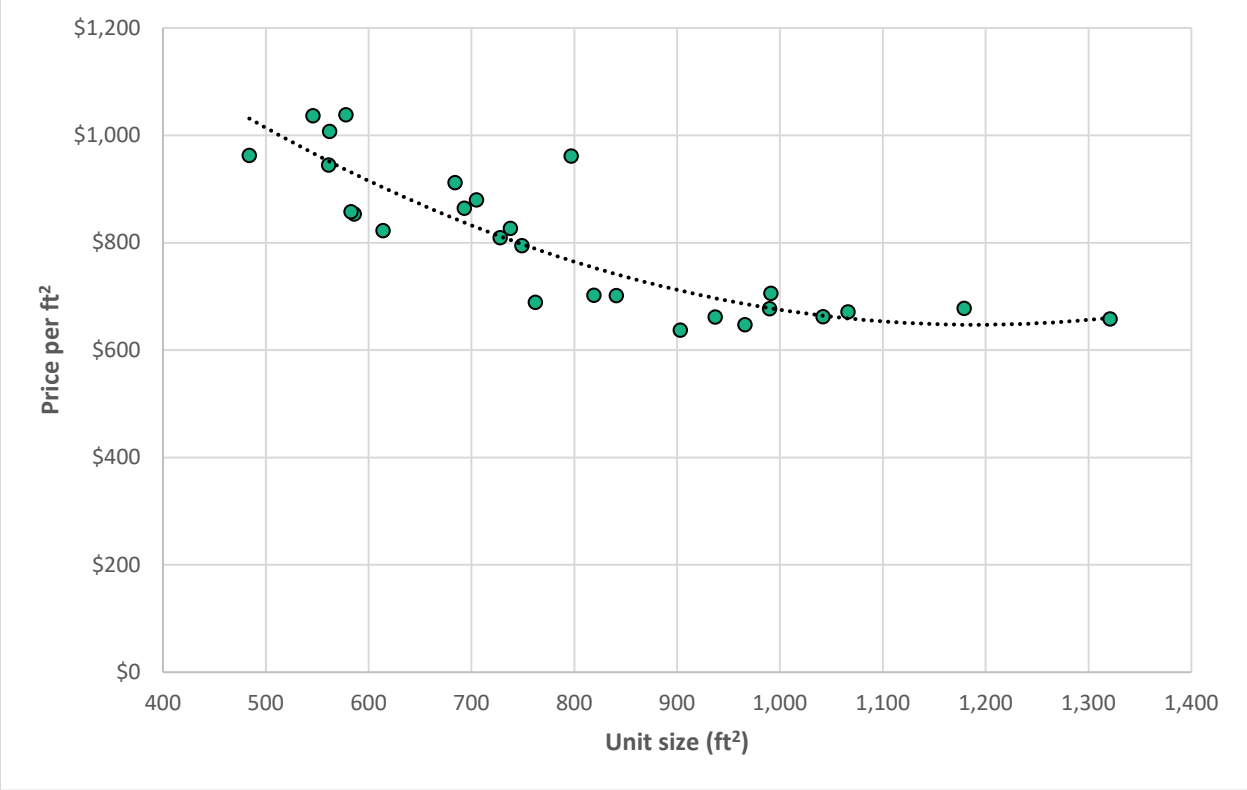


Figure 3 suggests a price for new wood frame apartments of about $1,000 per square foot.

Figure 4: Listing price of wood frame apartments in the Shelbourne Valley per ft^2, versus unit size



Performing a multivariate regression based on the data presented in Figures 3 and 4 above suggests the following prices:

- **Studio of 440 ft^2: $1,099 per ft^2 or $484,000 per unit**
- **1-bedroom of 520 ft^2: $1,035 per ft^2 or $538,000 per unit**
- **2-bedroom of 750 ft^2: $887 per ft^2 or $665,000 per unit**

Local experts suggest that listing prices are an accurate reflection of expected sales prices in this case.

- Client-provided project data on three recent wood frame apartment projects in the Shelbourne Valley shows prices of $943 - $1,019 per ft^2 with **an average of $985 per ft^2.**

On the balance of these sources, MPLE assumes the following wood frame apartment prices:

- **Studio of 440 ft^2: $1,100 per ft^2 or $484,000 per unit**
- **1-bedroom of 520 ft^2: $1,035 per ft^2 or $538,000 per unit**
- **2-bedroom of 750 ft^2: $885 per ft^2 or $664,000 per unit**
- **Average price: $971 per ft^2 or $575,000 per unit.**

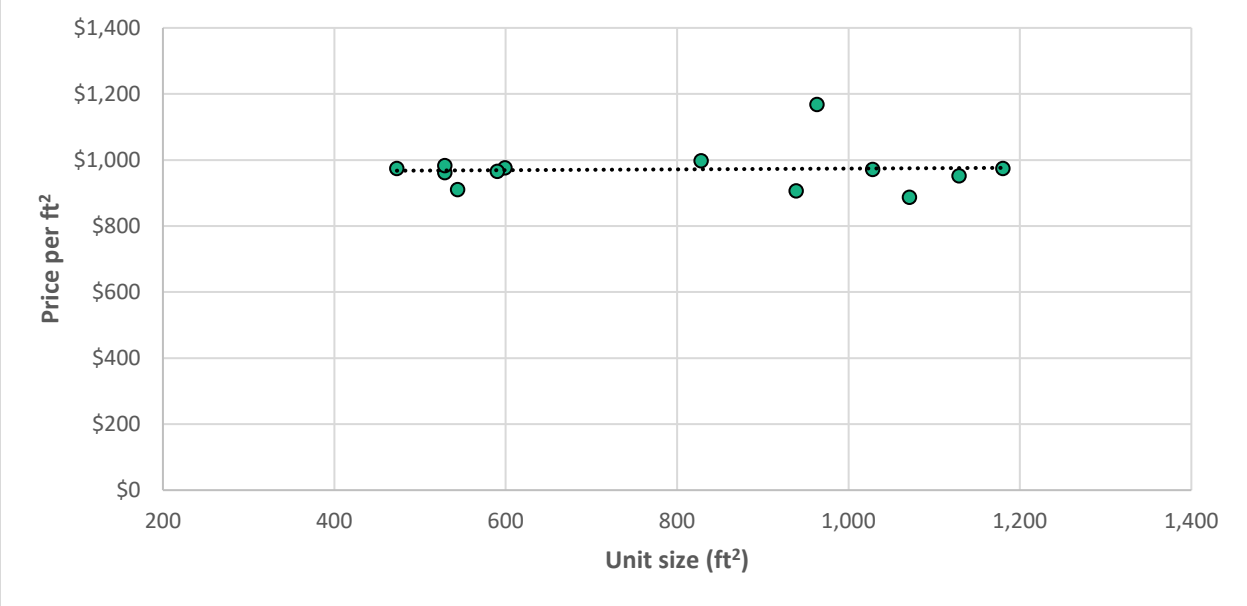
It may be counterintuitive that per-square-foot sales prices for studio and 1-bedroom wood frame apartments in the Shelbourne Valley are greater than sales prices for similarly-sized concrete apartments in Downtown Victoria (see Section 2.4.3 below), but this appears to be correct and is likely the result of high demand for smaller units near the University of Victoria.

2.4.3 Concrete Apartment Prices

Several sources suggest concrete apartment prices ranging from $800 - $1,000 per ft^2:

- MPLE has approximated Downtown Victoria by combining the Multiple Listing Service (MLS) sub-areas of Downtown and Central Park. We have acquired data on all sales in this area from August 2024 – July 2025 of apartments in concrete buildings built since August 2023. This data is presented in Figure 5 below.

Figure 5: Sales price of new concrete apartments in Downtown Victoria in the last year, per ft^2:



The sales data presented in Figure 5 suggest no strong relationship between unit size and price per square foot among concrete apartments in Downtown Victoria, with an average of about $972 per ft^2 achieved at all unit sizes. This is a rare condition that suggests a shortage of larger apartments in concrete strata developments. By comparison, price per square foot does appear to be a function of building age, with apartments built in 2023 showing an average price of $945 per ft^2 and apartments built in 2024 showing an average price of $994 per ft^2. Since we are modelling the sale of brand new units, this latter amount of **$994 per ft^2 is suggested**

- Client-provided project data on three recent concrete apartment projects in Downtown Victoria shows prices of **$971 per ft^2 on average.**

- Local experts interviewed by MPLE suggest a price range of **$800 - $1,000 per ft^2.**

On the balance of these sources, MPLE assumes the following concrete apartment prices:

- **Studio of 450 ft^2: $970 per ft^2 or $437,000 per unit**
- **1-bedroom of 525 ft^2: $970 per ft^2 or $509,000 per unit**
- **2-bedroom of 795 ft^2: $970 per ft^2 or $771,000 per unit**
- **3-bedroom of 1,075 ft^2: $970 per ft^2 or $1.04 million per unit**
- **Average price: $970 per ft^2 or $598,000 per unit.**

2.5 Rental Rates

MPLE has drawn rental rate data for brand new apartments from several sources to produce a set of blended estimates for use in the financial analysis presented in Section 3.2.4, pg. 26. These are presented below by building type. Note that the rental market is extremely price sensitive, which tends to equalize market rents between similarly sized units regardless of neighbourhood and building type.

On the balance of the sources shown below, MPLE assumes the following monthly rental rates for all new apartments under analysis:

- **Studio: $4.55 per ft^2 or $2,002 - $2,048 per unit**
- **1-bedroom: $4.50 per ft^2 or $2,340 - $2,363 per unit**
- **2-bedroom: $4.45 per ft^2 or $3,338 - $3,538 per unit**
- **3-bedroom: $4.30 per ft^2 or $4,623 per unit**

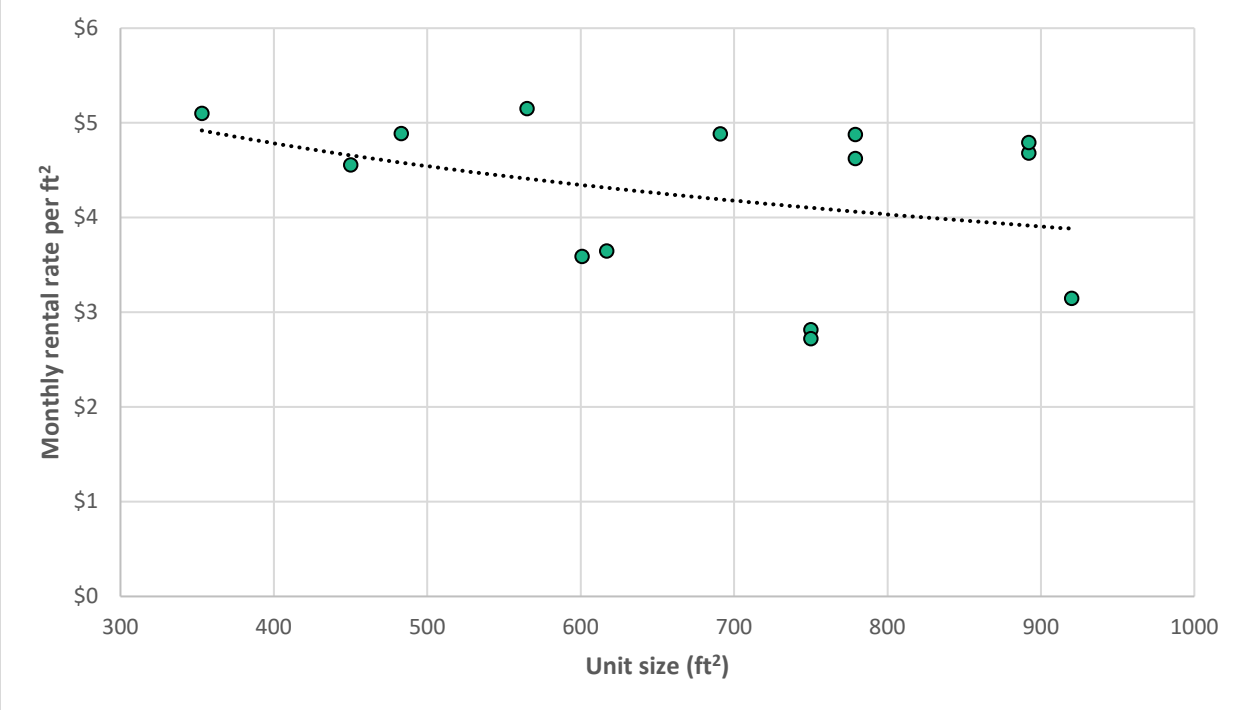
As with sales prices, we encounter in this data the surprising observation that per-square-foot rental rates for studio and 1-bedroom wood frame apartments in the Shelbourne Valley are equal in value to rental rates for similarly-sized concrete apartments in Downtown Victoria. Again, this appears to be correct and is likely the result of high demand for rental housing near the University of Victoria.

2.5.1 Wood Frame Rental Rates

Several sources suggest wood frame apartment rental rates ranging from $4.11 - $5.17 per ft^2:

- MPLE gathered all rental listings for apartments in wood-frame apartment buildings in the Shelbourne Valley. This data is presented in Figure 6 below.

Figure 6: Monthly rental listing price of wood frame apartments in the Shelbourne Valley per ft^2



Assuming that brand new units would tend to be among the pricier of those shown in Figure 6, rental listing data suggests the following monthly rental rates:

- **Studio of 440 ft^2: $5.08 per ft^2 or $2,237 per unit**
- **1-bedroom of 520 ft^2: $4.90 per ft^2 or $2,550 per unit**
- **2-bedroom of 750 ft^2: $4.51 per ft^2 or $3,380 per unit**

- University Heights is a new wood frame purpose-built rental building at 1520 McKenzie Avenue in the Shelbourne Valley (see Figure 7 below).

Figure 7: University Heights

It advertises:

- Units ranging in size from 353 – 892 ft^2
- Monthly rental rates ranging from $4.11 - $5.17 per ft^2 with most falling in the upper-mid-$4 range
- Monthly rental rates ranging from $1,800 - $4,175 per unit, with most falling in the $2,000 - $3,000 per month range

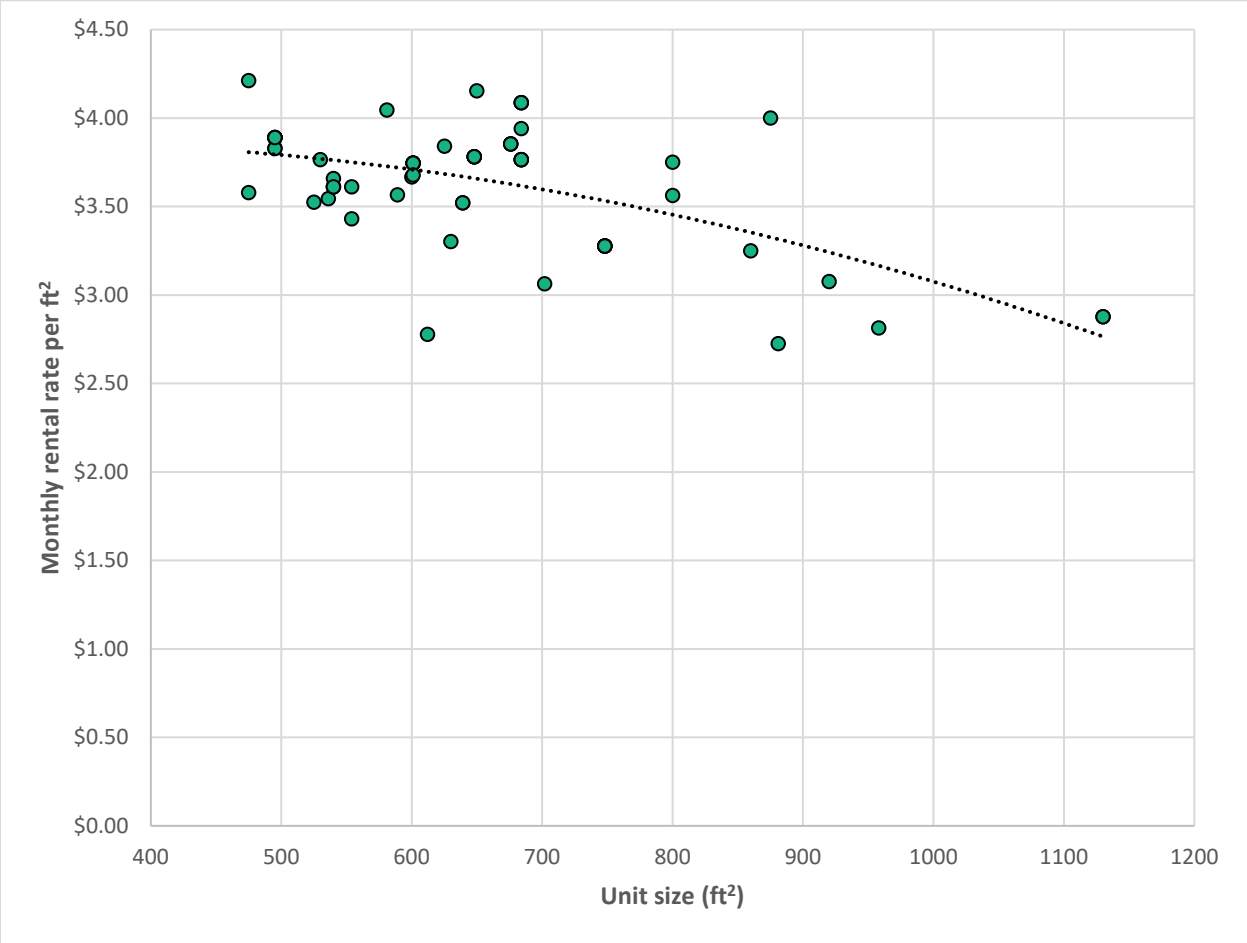
- Local experts interviewed by MPLE suggest that market rental rates **should not exceed $4.25 per ft^2.**

2.5.2 Concrete Rental Rates

Several sources suggest concrete apartment rental rates ranging from $3.15 - $4.85 per ft^2:

- MPLE gathered all rental listings for apartments in concrete apartment buildings in Downtown Victoria. This data is presented in Figure 8 below

Figure 8: Monthly rental listing price of concrete apartments in Downtown Victoria per ft^2



Assuming that brand new units would tend to be among the pricier of those shown in Figure 8, rental listing data suggests the following monthly rental rates:

- **Studio of 450 ft^2: $4.07 per ft^2 or $1,831 per unit**
- **1-bedroom of 525 ft^2: $4.02 per ft^2 or $2,112 per unit**
- **2-bedroom of 795 ft^2: $3.71 per ft^2 or $2,950 per unit**
- **3-bedroom of 1,075 ft^2: 3.15 per ft^2 or $3,388 per unit**

- Client-provided project data on three recent concrete apartment projects in Downtown Victoria shows monthly rental rates of **$4.15 - $4.85 per ft^2 or $2,000 - $4,250 per unit**

- Local experts interviewed by MPLE suggest that market rental rates **should not exceed $4.25 per ft^2.**

3 Financial Analysis

MPLE has developed a financial model analyzing the development economics of hypothetical sites under several scenarios of land use, location, tenure, and density. The purpose of this model is to measure the expected impact of the CRD's proposed Water Supply DCCs on project economics throughout the region.

3.1 Methodology

This analysis uses a standard developer proforma wherein estimates of revenues and costs are inputs and the remaining variable is the desired output. In typical proformas this output is usually profit, following a revenue minus costs equals profit formula. For the purposes of this analysis, the desired output is land value: we have applied known cost, revenue, and timing parameters to determine the land price that a developer could afford to pay for each hypothetical site while still maintaining an acceptable level of profit. This supported land value may also be compared to market benchmarks such as current market prices or neighbourhood single family lots to determine a project's economic viability. This study measures the impact of the CRD's proposed Water Supply DCCs on each scenario's supported land value to assess the likely impact of these anticipated cost increases.

To calculate a residual land valuation, an assumption on developer's return needs to be included in order to leave the land value as the variable to solve for. For this analysis MPLE determines the residual value based on the developer achieving acceptable project performance. The performance metric and target values used vary by tenure use as follows:

- For strata residential: profit of 15% on total project costs
- For rental residential: annual internal rate of return (IRR)[12] to total project costs of 6.25%.

MPLE has prepared a financial analysis of five scenarios, each both with and without the CRD's proposed Water Supply DCCs:

- A three-storey wood frame townhouse project located in the Westshore area
- A six-storey wood frame apartment building with one level of underground parking built at an FSR of 2.5, located in the Shelbourne Valley of Saanich. We have modelled two tenures:
    - Strata
    - Rental
- A 30-storey concrete high-rise apartment building located in Downtown Victoria. We have modelled two tenures:
    - Strata
    - Rental.

[12] The internal rate of return (IRR) is the interest rate of a hypothetical asset that produces interest at the same pace as the project in question. A measure of project performance. A higher IRR represents faster profit, or greater profit over the same timeframe. IRR is a better measure of project viability than simple profit-to-cost for projects that generate revenue over a long timeframe because the former reflects the time value of money whereas the latter does not.

3.2 Assumptions

This section reviews the assumptions that drive the financial analysis and upon which this study's conclusions are based.

3.2.1 Development Site Assumptions

For each of the three built form scenarios under analysis (townhouse, wood frame apartments, and concrete apartments), the Client has provided a selection of realistic development sites whose location, size, context, and other characteristics are assumed to be an appropriate basis for the forming of scenario assumptions. These nine sites – most of which contain multiple parcels – are summarized below.

Table 1: Example sites provided by Client[13]

Scenario	Site	Address	BC Assessment	Land area (ft^2)
Townhouse	1	3145 Metchosin Road	$1,430,000	36,155
	2	3439 Trumpeter Street	$4,724,000	80,412
	3	641 Latoria Road	$2,265,000	77,624
Wood frame apartment	4	4021 Shelbourne Street	$1,851,000	33,236
	5	4025 Shelbourne Street	$1,061,000	13,418
		4031 Shelbourne Street	$1,200,000	9,810
	6	975 McKenzie Avenue	$921,000	9,009
		981 McKenzie Avenue	$834,500	9,009
		985 McKenzie Avenue	$922,500	9,009
Concrete apartment	7	815 Fort Street	$5,387,600	13,657
		1019 Blanshard Street	$5,392,000	13,433
		804 Broughton Street	$4,906,100	12,490
		1009 Blanshard Street	$882,000	1,836
	8	1125 Blanshard Street	$4,824,000	12,608
		1115 Blanshard Street	$927,000	1,801
		810 Fort Street	$3,667,000	6,727
		1107 Blanshard Street	$5,851,000	6,729
	9	785 Pandora Avenue	$2,323,000	7,173
		791 Pandora Avenue	$3,408,000	7,168

Combining the data in Table 1 produces the following blended characteristics, which MPLE assumes will be typical among development sites of these types in the next few years, and which are applied in the financial model:

- Hypothetical townhouse site on the West Shore with land area of 64,730 ft^2 (1.49 ac) and a BC Assessment land value of $2.81 million

[13] All townhouse sites are located in Colwood, all wood frame apartment sites are located in Saanich, and all concrete apartment sites are located in Victoria.

- Hypothetical wood frame apartment site in Shelbourne Valley with land area of 27,879 (0.64 ac) and a BC Assessment land value of $2.26 million
- Hypothetical concrete apartment in Downtown Victoria with land area of 27,879 (0.64 ac) and a BC Assessment land value of $13.5 million.

BC Assessment land valuation does not appear in the financial model as an input, but is relevant in Section 3.3 to interpret the model's results.

3.2.2 Built Form Assumptions

MPLE applies the following built form assumptions:

- Townhouse: FSR of 1.2 and average unit size of 1,500 ft^2 to produce a total of 52 units[14]
- Wood frame apartments:
    - Unit composition and sizes as presented in Table 2, all of which is drawn from Client-provided project data on three recent wood frame apartment projects in the Shelbourne Valley:

Table 2: Unit composition and sizes in wood frame apartment scenarios

	Share of units	Average size (ft^2)
Studio	25%	440
1-bedroom	35%	520
2-bedroom	40%	750
3-bedroom	-	n/a
Average		**592**

    - Building efficiency[15] of 85%
    - FSR of 2.5 to produce a total of 100 units[14]
    - Although the Client originally instructed MPLE to assume a parking ratio of 0.8 underground parking stalls per unit, our market research suggests that a parking ratio of one stall per unit plus visitor parking is the minimum marketable amount. We therefore apply a parking ratio of 1.04, which is 1.0 plus sufficient guest parking to satisfy the District of Saanich's requirements
- Concrete apartments:
    - Unit composition and sizes as presented in Table 3, all of which is drawn from Client-provided project data on three recent concrete apartment projects in Downtown Victoria:

[14] As instructed by the Client

[15] A building's net saleable or net leasable area divided by its gross floor area

Table 3: Unit composition and sizes in wood frame apartment scenarios

	Share of units	Average size (ft^2)
Studio	5%	450
1-bedroom	65%	525
2-bedroom	25%	795
3-bedroom	5%	1,075
Average		**616**

- Building efficiency of 85%
- FSR of 6.0 to produce a total of 231 units[16]
- Our market research suggests that a parking ratio of one stall per unit plus visitor parking is the minimum marketable amount. We therefore apply a parking ratio of 1.09 underground parking stalls per unit, which is 1.0 plus sufficient guest parking to satisfy the City of Victoria's requirements.

3.2.3 Project Cost Assumptions

For purposes of financial analysis, MPLE has made the following assumptions regarding project costs:

- Lands costs:
  - Land price as required to achieve performance targets defined in Section 3.1, pg. 18
  - Property transfer tax[17]
  - Additional closing costs of $50,000
- Hard costs:
  - Site servicing:[18]
    - Townhouse: $570,000
    - Wood frame apartments: $150,000
    - Concrete apartments: $1.9 million
  - Servicing connections: $250,000 [18]
  - Building construction (see Section 2.3, pg. 8 – 10):
    - Townhouse: $265 per ft^2
    - Wood frame apartments: $350 per ft^2
    - Concrete apartments: $400 per ft^2
  - Underground parking (see Section 2.3.4, pg. 9 – 10): $65,000 per stall

[16] As instructed by the Client

[17] Property transfer tax is defined here: https://www2.gov.bc.ca/gov/content/taxes/property-taxes/property-transfer-tax

[18] Drawn in all three cases from Client-provided project data of the relevant types

- Furniture, fixtures, and equipment:[19]
  - Townhouse: none
  - Wood frame apartments: $70,000
  - Concrete apartments: $360,000
- Landscaping, signage, and lighting:[19]
  - Townhouse: $3.5 million
  - Wood frame apartments: $940,000
  - Concrete apartments: $55,000
- Hard cost contingency of 10% of all hard cost items above

- Soft costs:
  - Project management: 2% of project costs
  - Architect fee: 1% of building construction costs, including contingency
  - Engineering fee: 1% of hard costs
  - Other consultants: 0.5% of hard costs
  - Research and appraisal: $20,000
  - Surveying: $20,000
  - Accounting: $20,000
  - Legal costs: $1,000 per unit
  - Insurance: hard costs times 0.15% plus 0.03% for each month of construction (see financing costs below)
  - Rezoning costs, from municipal Fees and Charges Bylaws:
    - Townhouse (Colwood): about $12,500
    - Wood frame apartments: about $2,000
    - Concrete apartments: about $50,000
  - Development permit fees:
    - Townhouse: $3,453 plus $0.62 per m^2 of gross building area, or $7,927 total
    - Wood frame apartments: $1,700 in various expenses plus $1 per m^2 of gross building area, or $8,175 total
    - Concrete apartments: $6,000 plus $2.5 per m^2 of gross building area, or $44,852 total

[19] Drawn in all three cases from Client-provided project data of the relevant types

- Building permit fees:
    - Townhouse: $4,738 plus 0.8% of building and parking construction costs, or $182,000 total
    - Wood frame apartments: $8,234 plus 1.25% of building and parking construction costs, or $430,000 total
    - Concrete apartments: $8,000 plus 1.4% of building and parking construction costs, or $1.28 million
- Existing DCCs:
    - Townhouse: $14,803 per unit
    - Wood frame apartments: $8,436 per unit
    - Concrete apartments: $10,207 per unit
- Proposed CRD Water Supply DCCs – notably this is the testing condition which is present in some tested scenarios and not others. MPLE understands that it will be applied over and above the existing DCCs described above:
    - Townhouse: $7,914 per unit, a DCC increase of 53%
    - Wood frame apartments: $5,087 per unit, a DCC increase of 60%
    - Concrete apartments: $5,087 per unit, a DCC increase of 50%
- Amenity contributions:
    - Colwood seeks no community amenity contributions or amenity cost charges (ACCs) from development
    - Neither the District of Saanich or the City of Victoria expect community amenity contributions or ACCs from purpose-built rental projects
    - Both the District of Saanich and the City of Victoria expect community amenity contributions from strata development in proportion to the development's increase in residual land value (land lift) compared to its current zoning. As discussed in Section 3.3, the strata apartment projects under analysis support less land value than their current zoning, making this expected cost zero in all cases
- School site acquisition charges:
    - Colwood does impose school site acquisition charges equal in this case to $800 per townhouse unit, or $41,600 total
    - The District of Saanich (wood frame apartment scenarios) and the City of Victoria (concrete apartment scenarios) do not impose school site acquisition charges

- GST:
    - For strata projects, MPLE assumes that GST is paid by the purchaser so it does not appear as a developer cost
    - For rental projects, MPLE applies GST equal to 5% of each unit's total value upon completion, excluding those units with value of less than $450,000, per the Federal Government's GST rebate policy[20]. This amounts to $1.26 million in wood frame apartment scenarios and $2.44 million in concrete apartment scenarios
- Utilities during construction: $10,000
- Property taxes during planning, construction, and sales phases
- Advertising and promotion costs equal to 2% of project value at completion
- New home warranty: $2,000 per dwelling
- Post-construction strata fee: $2,000 per sold unit
- Post-construction customer service: $2,000 per dwelling
- Corporate overhead: 2% of total project costs
- Miscellaneous soft costs: 2% of all soft cost items above
- Soft cost contingency: 10% of all soft cost items above

- Financing costs:
    - Planning time:
        - Townhouse: 12 months
        - Apartments: 18 months
    - Construction time:
        - Townhouse: 12 months
        - Apartments: 18 months
    - Interest rate: 6.49% (prime plus 1.5%)

[20] Source: Government of Canada (2025). GST/HST new residential rental property rebate. Retrieved from https://www.canada.ca/en/revenue-agency/services/tax/businesses/topics/gst-hst-businesses/gst-hst-rebates/new-residential-rental-property-rebate.html

- Loan to value ratio:[21]
  - Land loan: 50%
  - Construction loan: 75%

- Takeout financing:[22]
  - Debt service cost ratio:[23] 1.25
  - Amortization: 25 years.

3.2.4 Revenue Assumptions

For purposes of financial analysis, MPLE has made the following assumptions regarding project revenues (see Sections 2.4 & 2.5, pg. 10 – 17):

- Strata prices:

  - Townhouse: $565 per ft^2 or about $848,000 per unit

  - Wood frame apartments:
    - Studio: $1,100 per ft2 or $484,000 per unit
    - 1-bedroom: $1,035 per ft2 or $538,000 per unit
    - 2-bedroom: $885 per ft2 or $664,000 per unit
    - Average price: $971 per ft2 or $575,000 per unit

  - Concrete apartments:
    - Studio: $970 per ft2 or $437,000 per unit
    - 1-bedroom: $970 per ft2 or $509,000 per unit
    - 2-bedroom: $970 per ft2 or $771,000 per unit
    - 3-bedroom: $970 per ft2 or $1.04 million per unit
    - Average price: $970 per ft2 or $598,000 per unit

  - Sales commission of 3% on all products above

[21] For projects or portions of projects producing products for sale (strata scenarios in our case), the magnitude of financing available is determined by the loan to value ratio, which is the ratio of the amount borrowed (loan) versus total project costs (value).

[22] For projects or portions of projects that are held as revenue-generating properties upon completion (rental scenarios in our case), the available financing – called "takeout financing" – is a mortgage against the project's normalized net income.

[23] The debt service cost ratio is the ratio of normalized net income to mortgage payments within a given duration.

- Rental apartments:
    - Monthly rental rates:
        - Wood frame apartments:
            - Studio: $4.55 per ft^2 or $2,002 per unit
            - 1-bedroom: $4.50 per ft^2 or $2,340 per unit
            - 2-bedroom: $4.45 per ft^2 or 3,338 per unit
            - Average rent: $4.48 per ft^2 or $2,655 per unit
        - Concrete apartments:
            - Studio: $4.55 per ft^2 or $2,048 per unit
            - 1-bedroom: $4.50 per ft^2 or $2,363 per unit
            - 2-bedroom: $4.45 per ft^2 or $3,338 per unit
            - 3-bedroom: $4.30 per ft^2 or $3,538 per unit
            - Average rent: $4.47 per ft^2 or $2,754 per unit
    - Vacancy rate:
        - First year: 5%
        - Second year: 2%
        - Ongoing: 1%
    - Operating costs equal to 30% of gross income
    - Periodic structural maintenance of $7.5 per ft^2 every five years
    - Annual capitalization rates:[24]
        - At present: 4.25% [25]
        - At disposition, after 30 years of operation: 7%.

[24] The capitalization rate of a revenue-generating asset is the amount of net revenue it produces in a given time-period (typically one year, as in this case), divided by the sale value of that asset. A lower capitalization rate indicates a higher sales price. Capitalization rates are therefore a measure of investor appetite.

[25] Source: Altus Canadian Cap Rate Guide for Q1 2025.

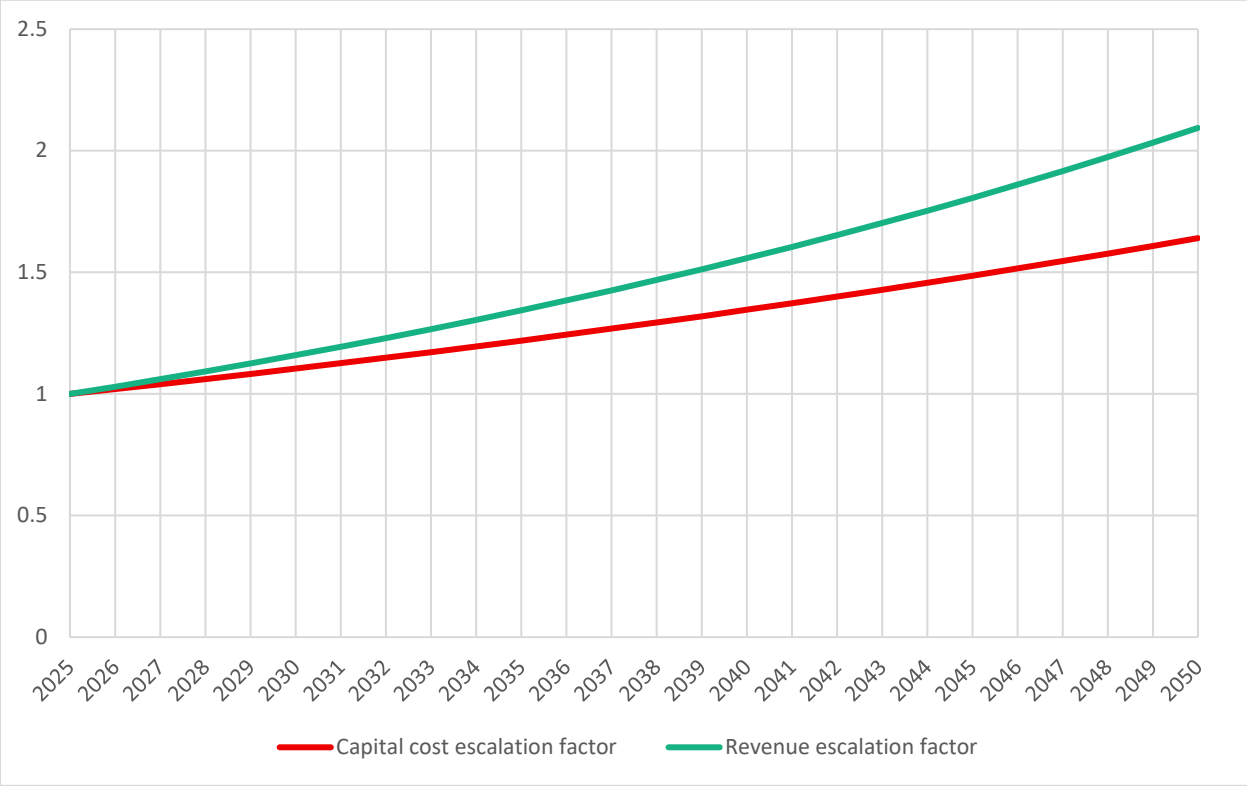
3.2.5 Timing Assumptions

This analysis aims to identify which development scenarios among those described above are viable under today's market conditions and which would be viable if the CRD's proposed Water Supply DCC is imposed.

For each scenario that is not economically viable, we aim to comment on how long it might take to become viable. This projected recovery period is another economic viability metric that the proposed Water Supply DCC might impact.

We model economic recovery by assuming that revenue and operating cost factors increase at 3% annually (this is a conservative estimate; the average annual rate of price escalation in the CRD is about 6%[26]) while project costs increase at only 2% annually (the Bank of Canada's inflation target). As revenues increase faster than costs, projects that are not viable can become viable in time. A greater spread between revenue increase and cost increase would produce more rapid recovery, while a smaller spread would yield a slower recovery. Projected revenue and cost levels compared to 2025 are indicated in Figure 9 below.

Figure 9: Projected cost and revenue escalation over time



Another form of escalation is rental rate escalation once a building is completed and operating. MPLE assumes rental rates will increase but slow down as a building ages. We assumed 3% rental rate escalation for the first twenty years followed by 2.5% rental rate escalation for the next ten years.

[26] Source: Canadian Real Estate Association (2005). Housing Price Index Tool: https://www.crea.ca/housing-market-stats/mls-home-price-index/hpi-tool/

3.3 Results

Applying the assumptions presented in Section 3.2 allows us to identify each scenario's supported land value. This may be compared to market benchmarks to determine project viability. MPLE has selectively applied the following land value benchmarks as appropriate:

- Each site's current BC Assessment value (see Table 1, pg. 19), including both land and improvements, plus an additional 10% to reflect land assembly costs. MPLE assumes that this amount reflects what a developer would be expected to pay today for each development site:
    - Townhouse site: $3.09 million for 1.49 ac
    - Wood frame apartment site: $2.49 million for 0.64 ac
    - Concrete apartment site: $14.8 million for 0.64 ac
- The per-acre BC Assessment value of nearby single-family lots, excluding improvements, plus an additional 10% to reflect land assembly costs. Market land prices for development land can decrease over time if project viability remains poor and prospective projects are unable to support existing higher land values. If the CRD's development industry remains in its current state of poor project viability for many years, MPLE would expect land prices to start dropping as a result of developers being able to afford current prices. However, we do not expect development land prices to fall below the value of single family land in each neighbourhood, so this single family land price can be treated as a reasonable lower bound for falling development land prices, and serves as a second land value benchmark more appropriate for a worst-case scenario in the medium term. These benchmark land values are as follows:
    - Townhouse site: $2.65 million for 1.49 ac
    - Wood frame apartment site: $3.41 million for 0.64 ac
    - Concrete apartment site: $4.36 million for 0.64 ac.

3.3.1 Townhouse Results

Under present market conditions, the townhouse scenario supports land value of **$1.24 million**. This would be a viable project if the developer already possessed the land, but it is not properly viable because it supports less land value than the site's market price ($3.09 million) or even its market price after medium-term correction ($2.65 million).

If proposed CRD Water Supply DCCs are imposed, the scenario's supported land value drops to **$802,000**.

Based on the timing assumptions presented in Section 3.2.5 above, MPLE projects that this scenario will become viable in about 6 years if the proposed DCCs are not imposed, or 7 years if the proposed DCCs are imposed. **The proposed DCCs represent a delay of about one year of economic recovery, which is a 17% slower recovery.**

3.3.2 Wood Frame Strata Apartment Results

Under present market conditions, the wood frame strata scenario supports land value of **$960,000**. This would be a viable project if the developer already possessed the land, but it is not properly viable because it supports less land value than the site's market price ($2.49 million).

If proposed CRD Water Supply DCCs are imposed, the scenario's supported land value drops to **$433,000**.

Based on the timing assumptions presented in Section 3.2.5, MPLE projects that this scenario will become viable in about 4 years if the proposed DCCs are not imposed, or 5 years if the proposed DCCs are imposed. **The proposed DCCs represent a delay of about one year of economic recovery, which is a 25% slower recovery.**

3.3.3 Wood Frame Rental Apartment Results

This is a viable development scenario. Under present market conditions, the wood frame rental scenario supports land value of **$4.50 million**, which exceeds the site's market value of $2.49 million and is therefore an economically viable project. If proposed CRD Water Supply DCCs are imposed, the scenario's supported land value drops to **$4.00 million**, which is still viable.

We concluded that the proposed DCCs are not expected to deter development of this type in this location.

3.3.4 Concrete Strata Apartment Results

This is an extremely challenged development scenario. Under present market conditions, the concrete strata scenario supports land value of **negative $17.0 million**. This would not be a viable project even if the developer received the land for free; indeed, this project would require a subsidy of $17 million to be viable.

If proposed CRD Water Supply DCCs are imposed, the scenario's supported land value drops further to **negative $18.2 million** (a subsidy of $18.2 million would be required for project viability).

Based on the timing assumptions presented in Section 3.2.5, MPLE projects that this scenario will support land value of $4.36 million (its lower benchmark) in 22 years if the proposed DCCs are not imposed, or 23 years if the proposed DCCs are imposed. **The proposed DCCs represent a delay of about one year of economic recovery, which is a 5% slower recovery.**

3.3.5 Concrete Rental Apartment Results

Under present market conditions, the concrete rental scenario supports land value of **$3.6 million**. This would be a viable project if the developer already possessed the land, but it is not properly viable because it supports less land value than the site's market price ($14.8 million) or even its market price after medium-term correction ($4.36 million).

If proposed CRD Water Supply DCCs are imposed, the scenario's supported land value drops to **$2.5 million.**

Based on the timing assumptions presented in Section 3.2.5, MPLE projects that this scenario will support land value of $4.36 million (its lower benchmark) in 5 years if the proposed DCCs are not imposed, or 6 years if the proposed DCCs are imposed. **The proposed DCCs represent a delay of about one year of economic recovery, which is a 20% slower recovery.**

3.3.6 Results Summary

Table 4: Expected wait time until project viability (years)

	Expected wait time		Impact of Water DCC	
	Without DCC	With DCC	Years	% increase
Townhouse	6	7	1	17%
Wood-frame apartment (strata)	4	5	1	25%
Wood-frame apartment (rental)	Viable	Viable	n/a	n/a
Concrete apartment (strata)	22	23	1	5%
Concrete apartment (rental)	5	6	1	20%

Of the five scenarios analyzed by MPLE, four are not viable under current market conditions because they support less land value than the land's market price. Assuming a middle-of-the-road economic recovery trajectory, all of these scenarios are expected to recover, but their recovery will be delayed by about one year if the proposed CRD Water Supply DCC is imposed:

- Townhouses on the West Shore: from six years of recovery to seven years (17% slower)
- Wood frame strata in Shelbourne Valley: from four years of recovery to five years (25% slower)
- Concrete strata in Downtown Victoria: from 22 years of recovery to 23 years (5% slower)
- Concrete rental in Downtown Victoria: from five years of recovery to six (20% slower).

The only analyzed scenario not adversely affected by the proposed DCC rates is wood frame rental apartments in Shelbourne Valley, which MPLE believes is an unusual case due to its desirable location next to the University of Victoria.

October 28, 2024

BY EMAIL: aafraser@crd.bc.ca

Alicia Fraser
General Manager, Integrated Water Services
Capital Regional District

Dear Alicia Fraser:

RE: Development Community Response to CRD Response to Development Community Questions, File: 0510-20, Developer Engagement, RWS DCC

Thank you for the September 10th, 2024, in-person meeting and the Capital Regional District's (CRD) subsequent written responses dated September 16th, 2024 (included as Appendix 2) to the questions outlined in our development industry group letter for the meeting. Our detailed feedback on the CRD's response is included in Appendix 1.

We have summarized and made recommendations on our group's position on three core issues: Technical Assumptions, Rate Determination and Development Cost Charge (DCC) Applicable Works, and Public Consultation.

I. Technical Assumptions

Certain technical assumptions underpinning the CRD's Regional Water Supply's (RWS) capital expenditure plan originating from the 2022 Water Supply Master Plan (WSMP), particularly those related to projected growth in water consumption, are in our opinion flawed and do not reflect readily available data.

Historical trends indicate a lower rate of demand growth than what the 2022 WSMP assumes, and future projections should be reduced further from historical trends given the high confidence that multi-family housing will become the dominant form of new development moving forward. Additionally, as noted on page 65 of the 2022 WSMP, there is significant potential for water

conservation measures to defer these capital expenditures meaningfully.

These overly conservative assumptions have resulted in a multi-billion-dollar capital expenditure program over the next 30 years that will lead to increased residential water rates for all residents (current and future) and a substantial DCC that will directly affect housing supply and costs.

Recommendation #1
We recommend that the CRD:

- **Complete a more robust water demand analysis, including:**

    - Acknowledging that the 2022 WSMP demand growth assumptions are not reflective of historical and present trends and do not account for any future water conservation (demand management) measures. This is despite the 2022 WSMP itself which notes on Page 65 that "modest and achievable reductions in demand (e.g., 300 L/c/d from the current demand of 337 L/c/d) will significantly extend the life of the Sooke Lake Reservoir beyond the 2050 planning horizon." Furthermore, the assumptions in the 2022 WSMP do not align with the CRD's water demand data, which shows that water consumption in new multi-family housing—now the predominant form of new construction—is significantly lower than the historical averages of older, less efficient single-family homes; and,

    - Re-evaluating the timing of required capital expenditures once more accurate water demand growth assumptions are established. It is likely that many proposed capital expenditures would not be necessary within the 30-year planning horizon and should not be deemed DCC-eligible at this time.

II. DCC Rate Determination and DCC Applicable Works

The DCC rate determination is based on an oversimplified 35% 'allocation to population growth' methodology when the Province of British Columbia's (the Province) *DCC Best Practices Guide* and the principle of equity dictate that it should instead reflect the actual incremental cost of the added capacity. The result is a proposed DCC that is not equitable because it will fund more than its fair share of the resulting system capacity, consequently increasing housing costs and reducing housing starts in a crisis housing market that is already unaffordable and under-supplied.

Our development industry associations oppose the current simplistic and unreasonable cost allocation. The CRD's consultant was not tasked with determining the actual incremental costs, leading to the unfair and unreasonable conclusion that development should cover 35% of the capital works costs when the true allocation to development is significantly lower.

Per the *Local Government Act* s.564 (4) In setting development cost charges, a local government must consider the following:

> (f) whether the charges will, in the municipality or regional district,
> (i) deter development,
> (ii) discourage the construction of reasonably priced housing or the provision of reasonably priced serviced land, or

Given that these DCCs will both deter development and discourage the construction of reasonably priced housing, we are asserting that the proposed DCC is not compliant with the *Local Government Act* s.564 (f) as a result of an inappropriate methodology used in calculating the DCC.

We urge CRD to revise the proposed DCC to reflect the appropriate incremental cost method recommended by the Province's *DCC Best Practices Guide*.

The CRD has confirmed in a letter to our industry associations that it has not undertaken any analysis concerning the impact of the proposed DCC on the supply or cost impacts on housing. This is despite the Local Government Act requirement to do so, and on this basis, we believe that the CRD has not met an acceptable standard of care required to proceed with the DCC. We urge the CRD to analyze the proposed DCC's impact on housing before proceeding with the DCC.

Recommendation #2
We recommend that the CRD:

- **Revise the proposed DCC to reflect the actual incremental costs that development will impose on the required works and calculate these costs using the appropriate incremental cost method recommended by the Province's *DCC Best Practices Guide*; and, consider a phase-in period of the final DCC consisting of a generous "in-stream-protection" provision, and a two-year, two-stage implementation.**

Water Filtration Plant
Further to the methodology, the proposed DCC includes specific components that may not be eligible for DCCs and should not be included. Specifically, the CRD should demonstrate a well-constructed rationale relying on arms length peer review (not conducted by the same consultant that wrote the WSMP) for why the filtration plant is needed. Kelowna, whose water supply is Lake Okanagan, deals with severe wildfire instances annually and has heavy recreational use of the lake, which is its water supply. Despite this annual severe fire activity and extensive public access to and use of the water supply for recreation, Kelowna has exceeded all water quality criteria the Ministry of Health applies, without filtration.

Greater Victoria's water supply benefits from a coastal climate and does not have public use of its watershed impacting water quality and fire probability. The lack of public access ensures that it does not have the same fire frequency or severity risks. As Regional Water Supply Commission (RWSC) Chair Baird indicated, the RWSC may make political decisions regarding the construction of infrastructure projects. We assert that when such projects involve costs in the range of hundreds of millions to as much as one billion dollars, their impact on supply and housing costs becomes significant, warranting consideration of the *Local Government Act* s.564(4)(f). There should be a substantial burden of demonstrating a scientifically supported and thoroughly documented third-party peer review of the proposed capital plan, accompanied by best-in-class public and stakeholder engagement throughout the planning process. The RWMP does neither provide such a rationale at this time nor explain what this filtration plant would be doing if built, considering that the water quality is presently exceeding all health and aesthetic criteria.

Kapoor Tunnel
It is not well understood how the CRD would commit to spending over $350 million on a bypass without first assessing the likelihood and failure mechanism of a tunnel in bedrock. The CRD has built-in redundancy for emergencies with the Goldstream Reservoirs which can provide at least two months supply capacity, likely sufficient capacity unless there is a catastrophic failure of the Kapoor Tunnel. Investing a small amount in a risk assessment of the tunnel could defer construction of the bypass, which could potentially sit idle for decades.

The CRD has also repeatedly told our industry associations that it will not revisit any assumptions in the 2022 WSMP until the next review cycle for the DCC in approximately five years. However, it has now stated that it intends to proceed with this project. Presumably, it would need to amend the

2022 WSMP to add this Kapoor Tunnel redundant line.

The CRD should not be able to re-allocate proposed DCC funds to pay for works not included in the 2022 WSMP, so it's unclear to our associations how it could proceed without a) any geotechnical studies completed, b) provision for the tunnel in the WSMP, or c) capital budget allocated for the project.

Recommendation #3
We recommend that the CRD:

- **Demonstrate the rationale behind its unilateral decision that filtration is required, particularly given the reliance on unsubstantiated qualitative arguments without a technical basis or meaningful third-party review of the plan and alternative options; and, complete seismic studies of the Kapoor Tunnel, along with an analysis of engineering options and solutions, before committing ratepayers and new homeowners to the significant costs associated with this capital project, which has suddenly become a priority but lacks the typical justification accompanying large-scale regional infrastructure expenditures.**

III. Public Consultation

The public consultation, including with First Nations, by the CRD for the 2022 WSMP was minimal and inadequate considering the scale and scope of the proposed capital expenditure. The consultation was not reflective of the *Local Government Act's* appropriate level of public engagement best practices. The CRD is accountable to its member municipalities, water users, and the development industry, as it plans to impose substantial new charges that could significantly increase residential water bills and further increase housing costs amid a housing crisis.

As outlined in our questions to the CRD for the September 10th, 2024, meeting, the 2022 WSMP did not meet an adequate standard of public engagement. This 290-page technical document is complex, making it difficult for the public and municipal politicians to understand and critically evaluate without extensive explanation and dialogue—conditions that were not ideal given the limited engagement conducted during the COVID-19 pandemic. The CRD's efforts resulted in only 22 written comments, reflecting a clear failure to engage the public meaningfully, despite the significant impacts of this program.

The final 2022 WSMP was rushed through during the final days of the political term, with former Councillor Ben Issit requesting a deferral to give commissioners adequate time to review the report—a motion that was denied. The 2022 WSMP was adopted without full board attendance, and two-thirds of those Board members are no longer serving. The CRD now states that public consultation is closed and will not consider further engagement on the 2022 WSMP. It is difficult to understand how a regional government with substantial resources, including dedicated communications and planning professionals on staff, and significant consulting resources at its disposal has conducted such inadequate engagement.

The scale and cost of the proposed works, along with the significant water rate increases for the public, have been obscured due to inadequate consultation. A program of this magnitude requires a robust education initiative, including in-person and digital engagement. The public has not been given the opportunity to understand that this program will lead to substantial increases in their

water bills and property taxes due to municipal water consumption.

Recommendation #4
We recommend that the CRD:

- **Conduct a comprehensive public engagement on the 2022 WSMP to thoroughly educate the public about the plan and its impact on bulk and retail water rates.**

In conclusion, we strongly urge the CRD to actively consider our collective recommendations to safeguard the sustainability and equity of water supply planning in our region, particularly in the face of our escalating housing crisis.

Yours sincerely,

Ben Mycroft
Chair
Urban Development Institute Capital Region

On behalf of: Canadian Home Builders' Association Vancouver Island
Sooke Builders Association
Vancouver Island Construction Association
Victoria Residential Builders Association
West Shore Developers Association

Attachments: (3)
Appendix 1: Development Industry Group Feedback to CRD's Response to Questions
Appendix 2: Capital Regional District Response to Development Community Questions
Appendix 3: Demand Statistics

cc: Ted Robbins, Chief Administrative Officer, Capital Regional District
Nelson Chan, Chief Financial Officer, Capital Regional District
The Honourable Sean Fraser, Minister of Housing, Infrastructure and Communities
The Honourable Anne Kang, Minister of Municipal Affairs
The Honourable Ravi Kahlon, Minister of Housing
MLA Ravi Parmar, Langford-Juan de Fuca
MLA John Rustad, Nechako Lakes

APPENDIX 1

Development Industry Group Feedback to CRD's Response to Questions

Question 1. Disclosing Foundational Data

Will the CRD release the Urban Systems Ltd. Reports on which the DCCs are based, in accordance with the Province's Development Cost Charge Best Practices Guide and allow adequate time for stakeholder analysis prior to proceeding with implementation of the DCC? If not, why not?

Thank you for providing the document entitled *Capital Regional District, Regional Water Supply Service Development Cost Charge Background Report, Draft, September 2024* through the CRD's website and notification of the posting to many of our industry groups. This report does not provide any new information and simply confirms that the CRD utilized a method not preferred by the Province's *DCC Best Practices Guide*: using conceptual-level budgetary estimates of the cost of the proposed works and simply multiplying them all by a minimum of 35%.

Our industry associations had assumed that there were more rigorous and detailed calculations made in determining the DCCs. Further to the original letter, using a simplistic 35% allocation to growth is not reasonable, and should instead be based on the actual incremental cost increase of the infrastructure caused by growth. Given the massive, proposed capital expenditure there should be a reasonable burden of proof placed upon the CRD to demonstrate that the cost allocation is reasonable and does not unnecessarily burden the cost of new development, as is required by the Local Government Act S. 564(4)(f).

It is concerning to our associations that the largest capital expenditure program in Greater Victoria's history, and the accompanying large new DCC on new housing is being applied at a time when the economics of the housing industry have deteriorated to such a state that housing starts are demonstrably weak and trending downward. This will occur while the Province and most Greater Victoria municipalities are simultaneously attempting to increase housing starts. Using this simplistic approach is not reasonable, equitable, or appropriate and we are asking the CRD to ask Urban Systems to take the time required to determine equitable incremental costs.

Question 2. How does the CRD reconcile the Best Practices Guide with the Statements Made by the General Manager?

The statement that "The DCCs don't commit the CRD to building every single specific project. Rather, they're a long funding tool to ensure that there is funding being put into reserves for that infrastructure to be created when it's needed," when contrasted with the *DCC Best Practices Guide* statement that "certainty should be built into the DCC process, both in terms of stable charges and orderly construction of infrastructure" remain of concern to our associations.

Our industry associations are familiar with DCC programs at work in municipalities across Greater Victoria. They are generally based on reasonably accurate cost estimates for specific capital works projects. We remain concerned with the perspective of the CRD that development should start filling up a large capital reserve fund that could be used for whatever the CRD decides it needs to spend it on later. This is during a housing supply and affordability crisis that this DCC will exacerbate. Kapoor Tunnel at $350 million is one such item that the CRD appears intent on simply proceeding with which is not costed into the 2022 WSMP.

The CRD response includes a suggestion that currently, existing users unfairly pay for works that also benefit new development and that this proposed DCC would correct that. Under the current rate model all users: both existing and new residents added through growth/development, pay for all

infrastructure through the wholesale water rate. The current system of water user fees paying for capital costs is reasonable and in fact ensures that all residents equitably pay for the cost of system improvements. New water users do in fact pay equitably for system expansion under the current system.

Question 3. Water Demand Growth Rate Assumptions

The CRD response does not directly address the question asked. The original question was:

Why has the CRD forecasted compound growth in water demand when no data suggests that is a reasonable assumption? Will the CRD analyse current water use trends based on available retail billing data to establish a statistically valid rate of growth in water demand?

What the industry requests is that the CRD and its consultant team re-evaluate the over-simplified and excessively cautious assumption in the 2022 WSMP that "no further reductions in total per capita demand are expected in the future below the average observed over the period of 2010 to 2019" (pg. 61, 2022 WSMP). As discussed at the in-person meeting on September 10th, 2024, the CRD and its member municipalities have detailed water consumption data by housing type. Given the fact that new housing typologies moving forward will be predominantly higher density apartment and townhome format, and the impact to the cost of housing, the CRD cannot use conservative assumptions that incorrectly overstate the rate of future demand growth when the resulting impact to water usage and DCC rates are so heavily influenced by the outcome.

Whereas the 2022 WSMP assumes water demand and population will grow indefinitely at a 1-to-1 ratio (i.e. due to no future changes in per capita demand rates), our review of publicly available data, including the CRD's Demand Statistics summary (included as Appendix 3), demonstrates that total water demand is not growing in lockstep with population. For example, the CRD's own data shows that, between 2014 and 2019, Total Supply increased by 3% while the Service Population increased by 9% (a ratio of 0.3-to-1); and between 2014 and 2023, Total Supply increased by 10% while Service Population increased by 17% (a ratio of 0.6-to-1). The CRD's data similarly shows that, between 2014 and 2023, water supplied to single-family homes increased by 11%, while water supplied to condos increased by 42%, reflecting the already-emerging shift in regional housing typologies. Given the nature of long-term projections, incorrect rates of demand and growth result in the inclusion of capital works into the DCC which may not be required during the 30-year project horizon.

Page 65 of the 2022 WSMP states: 'Modest and achievable reductions in demand, (e.g., 300 L/c/d from the current demand of 337 L/c/d) will go a long way to extending the life of the Sooke Lake Reservoir beyond the 2050 planning horizon.' (A 10% reduction was considered 'modest' in the Master Plan). The 'only 14% difference' (51 litres per person per day!) noted by CRD in their response to our original letter, between Westhills and the Regional average day demand, is sufficient to significantly extend the life of the Sooke Lake Reservoir beyond 2050.

The "only 14% difference" comment also ignores all of the qualifying subtext that was provided alongside the Westhills data. Winter Day Demand (WDD) is, in many ways, a more relevant comparative metric, because it strips away the unusually high and temporary current outdoor water usage at Westhills (due to it being an active new development site) and instead focuses on indoor water use only. The WDD comparison shows 38% less water used in new construction at Westhills compared to the CRD figure.

The 2022 WSMP assumes effectively no reduction in per capita water demand despite:

- A historically successful water demand management program and a population that is responsive to conservation and demand management measures.
- Significant opportunities for reduction in discretionary outdoor water use in Greater Victoria where summer outdoor water consumption is high relative to other comparable or larger urban

regions in North America.
- The predominance of new growth is high-density housing formats favouring apartments and townhomes while replacing older and less dense single-family housing and its accompanying high outdoor water consumption rates.
- Forthcoming higher bulk water rates, and resulting higher retail water rates will result in reduced discretionary consumption.

Question 4. Water Demand Growth Rate Assumptions

CRD seems to acknowledge that price elasticity of demand, (the fact that people will use less of a thing when the price of the thing increases), is something that should have been done previously in the master plan. It is not acceptable to our industry that all housing in the region should pay the DCC for five years before this basic resource management principle is incorporated into a future WSMP update. As a first step, the CRD could pose a simple survey question to the public along the lines of: "If the CRD's wholesale water rate increases by 300%, how likely would you be to use less (conserve) water?"

The response that the DCC cannot address this is not accurate, since this should be reflected in the base 2022 WSMP demand growth forecasts which are overly conservative.

Question 5. Public, First Nations, and Developer Consultation

Public Engagement
The CRD's consultation on the largest capital expenditure program in the history of Greater Victoria remains one of the weakest governmental or public agency engagement processes conducted in recent memory. Last minute, after the fact efforts to generate the appearance of consultation are not adequate. Well-advertised and meaningful public, in-person engagement is required.

As identified in the CRD's response to our question, the entire foundation of the 2022 WSMP, upon which the DCC was based, was the posting of complex and voluminous engineering documents to the CRD Water website, resulting in the collection of 22 written responses. All done at the height of the COVID-19 pandemic when the public was not aware of this process in any meaningful way, as they were rightfully focused on the public health emergency facing the world. All subsequent requests by our industry associations, and by the public asking for actual in-person consultation on these documents have resulted in being told that the consultation process is closed and not open for discussion. As a result, the entire foundation of the DCC program rests on a document calling for multi-billion-dollar spending but lacking an acceptable level of public or third-party review. User fee increases have not been adequately conveyed to the general public and more must be done to engage in meaningful, in-person dialogue.

Concerning the DCC program itself, the CRD has not addressed in any substantive way the points made by our letter. The *Development Cost Charge Background Report* further reinforces this: 45 participants is not an accurate cross-section of payees (both users and developers). A limited Zoom session where comments are neither permitted nor recorded and where only the questions that the CRD determined they wanted to answer were recorded into the public record. The CRD Board should look into how this "consultation" was conducted as it can rightly be described as manipulative and creating a false and incomplete record of public engagement. At a minimum, it must be redone using multiple in-person engagement events.

As the CRD Board Chair Colin Plant's own municipal council is actively doing significant engagement work on many crucial public planning processes, so too must the CRD do for this massive new capital spending program and unaffordable DCC which will have serious impacts to housing starts, and housing affordability in this region. The Ministry of Transportation does a good job of engagement on much less significant highway improvement projects. The development industry is held to an even higher standard for individual housing projects, both large and small, and is expected by all local

government levels including in the CRD governed Electoral Areas to demonstrate a far more rigorous and extensive public engagement process than the CRD has applied to itself for this massive capital expenditure program. The CRD has a communications function, as well as a planning department, and through its past experience and connections throughout the local government consulting landscape, would have access to and experience with consultation through the sewage treatment plant approval process, but has not been able to achieve relative to other local public entities at public engagement.

First Nations Engagement

When the Sooke Dam was raised, the CRD negotiated a water-sharing agreement with the T'Sou-ke First Nation, the Federal Government, and the Province. As part of the agreement, the license to Deception Reservoir was changed from Waterworks to Conservation, and the Sooke Dam was raised 6 metres instead of the previously approved five metres to provide capacity for releases for the Sooke River salmon fishery. The 2022 WSMP contemplates the use of Deception Reservoir for 'Waterworks' purposes without reference to the T'Sou-ke rights to the Sooke River fishery.

The 2022 WSMP does not address the implications of raising the water level in Deception Reservoir given leakage under the dam. Sealing the leak was previously considered but due to the high-cost estimate and lack of a guarantee that the leak would be sealed, the spillway crest was set at an elevation considered to provide minimal risk to the integrity of the dam. Raising the water level could cause the leakage to increase and potentially risk the dam failing. Not being able to use the Deception Reservoir as anticipated has implications for the implementation of the 2022 WSMP.

Question 6. DCC Capital Works Allocations to New Growth are Not Consistent with DCC Best Practices. Benefit Allocation to New Growth is Not Correct.

The CRD has taken the approach of allocating cost benefits based on 'service population' but has not been able to justify this approach. This approach, while simple to calculate, does not equitably allocate costs and has the effect of unjustly allocating costs to development. The CRD justifies this method because only a 'planning level of engineering analysis is available', implying that this level of analysis is insufficient to allocate costs based on 'technical data and good engineering judgment'. It is concerning that the CRD has no problem using a 'planning level' of engineering analysis to develop a $2 billion infrastructure program budget, which results in immediate and impactful DCCs that have a drastic and immediate impact on the cost of housing. A more equitable allocation of costs on the benefiter pay principle, and using more than 'planning level' design and costing information is justified and must be done.

An example is the cost of installing a pipe. While the capacity of a pipe increases by the square of the radius, the cost to install does not. Allocating 35% based on a 'rule of thumb' is inappropriate when technical information is available to allocate based on marginal cost. Similarly, a water filtration plant would likely only require some slightly upsized inlet and outlet sizes, and slightly upsized components to support future development which would not increase the cost of the plant by 35%, and yet this is the approach selected by the CRD and its consultant.

Question 7. DCC Capital Works Allocations to New Growth are Not Consistent with DCC Best Practices. Benefit Allocation to New Growth is Not Correct.

Question 7 was mutually determined by CRD and the industry associations to be substantially the same as prior questions and can be ignored.

Question 8. Kapoor Tunnel Redundancy

The 2022 WSMP does not include a redundant bypass for the Kapoor Tunnel, and the total capital cost does not budget for it. Yet as the Water Commission Chair Baird noted in our meeting on September 10th, 2024, the decision to bypass the Kapoor Tunnel is a political decision not based on an assessment of its failure risk and failure mechanism. The CRD's response to our letter clearly states that this tunnel replacement is needed within the 30-year DCC horizon.

The 2022 WSMP clearly states that there is adequate capacity in the Kapoor Tunnel long past the DCC horizon:

> *Master Plan Section 9.6.1 Kapoor Tunnel*
> *The Kapoor Tunnel is a critical conveyance infrastructure for the RWS. The CRD has done a good job in managing this asset and completing maintenance repairs. The tunnel has sufficient hydraulic capacity to convey projected demands to near the year 2100. The CRD should continue with condition assessment inspections of the tunnel to manage this critical asset.*
>
> *There is no redundancy for the Kapoor Tunnel. Based on inspections and maintenance completed by the CRD and others, the tunnel is in good condition; however, due to the tunnel proximity to the Leech River Valley fault, a seismic evaluation of the tunnel should be completed. Further detailed seismic assessment is warranted to identify if there are any significant vulnerabilities. It is noted that the Kapoor Tunnel has the hydraulic capacity to supply demands to the year 2100, so provided it is maintained and seismically stable, additional capital investment on a second conveyance system from SLR can be deferred for many years. Other considerations such as emergency water supply may warrant construction of a second transmission main earlier, but this transmission main can likely be sized for an emergency level of service flow (ADD) to reduce capital costs.* [emphasis added]

It is inconceivable that the CRD would commit to spending over $350 million on a bypass without first assessing the likelihood and failure mechanism of a tunnel in bedrock. The CRD already has built in redundancy for emergencies with the Goldstream Reservoirs which can provide at least 2 months supply capacity, likely sufficient capacity unless there is a catastrophic failure of the Kapoor Tunnel. Investing a small amount in a risk assessment of the tunnel could defer construction of the bypass, which could potentially sit idle for decades.

The CRD has also repeatedly told our industry associations that it will not revisit any assumptions in the 2022 WSMP until the next review cycle for the DCC in approximately five years. However, it has now stated that it intends to proceed with this project. Presumably, it would need to amend the 2022 WSMP to add this Kapoor Tunnel redundant line.

The CRD should not be able to re-allocate proposed DCC funds to pay for works not included in the 2022 WSMP and it should not be legal or acceptable to attempt to do so.

Question 9. Impacts on New Housing Cost and Supply

The CRD has responded that it does not intend to conduct any kind of feasibility analysis into the impact on the supply or cost of housing resulting from the proposed DCC.

> Local Government Act s.564 (4) In setting development cost charges, a local government must take the following into consideration:
>
> (f)whether the charges will, in the municipality or regional district,
> (i)deter development,
> (ii)discourage the construction of reasonably priced housing or the provision of reasonably priced serviced land, or…

Supplementary Comments Regarding Water Filtration

The CRD should provide a detailed and researched rationale for why the filtration plant is needed. Can the CRD provide the background research that went into this decision? It does not appear that any public research of rationale has been provided.

Currently, the water quality is extremely good and will be better at the deep intake. The CRD frequently references the risk of wildfire as a reason for the water filtration plant and has recently referenced the Old Man Lake fire as further reason that such a fire is possible. Despite the fire's remote location and difficult terrain, the fire was held to 230 hectares because of the quick response of firefighters. A fire of this magnitude in the water supply lands would have a negligible impact on water quality. While on the surface this may be interpreted as a reasonable assumption, the experience of other jurisdictions such as Kelowna does not support the conclusion.

Kelowna whose water supply is Lake Okanagan, deals with severe wildfire instances on an annual basis and has heavy recreational use of its water supply. Despite this annual severe fire activity, and extensive public access to and use of the water supply for recreation, Kelowna has exceeded all water quality criteria applied by the Ministry of Health and its water supply remains unfiltered.

Given that Greater Victoria's water supply does not have any public use of its watershed and has a significantly reduced wildfire fire risk as a result of our coastal climate and the lack of public access, the CRD must demonstrate why they have unilaterally decided that filtration is required as the reasons provided to date do not stand up to even cursory scrutiny. The 2022 WSMP does not provide a clear rationale or outline the intended function of the proposed filtration plant, particularly given that the current water quality exceeds all health and aesthetic criteria. Constructing such a facility—entailing significant capital costs, high operational expenses, and substantial greenhouse gas emissions—would be questionable if it is likely to remain idle or underutilized, placing an undue financial burden on ratepayers and new homeowners.

As RWSC Chair Baird noted, the RWSC may make political decisions regarding the construction of infrastructure projects. We assert that when such projects involve costs in the range of hundreds of millions to as much as one billion dollars, their impact on supply and housing costs becomes significant, warranting consideration of the *Local Government Act* s.564(4)(f). There should be a substantial burden of demonstrating a scientifically supported and thoroughly documented third-party peer review of the proposed capital plan, accompanied by best-in-class public and stakeholder engagement throughout the planning process.

<<END>>

APPENDIX 2

Making a difference...together

Integrated Water Services
479 Island Highway
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September 16, 2024

File: 0510-20
Developer Engagement, RWS DCC

BY EMAIL: bmycroft@gablecraft.ca

Ben Mycroft
Chair of the Urban Development Institute Capital Region

Dear Mr. Mycroft:

RE: CAPITAL REGIONAL DISTRICT RESPONSE TO DEVELOPMENT COMMUNITY QUESTIONS

Thank you for your questions and the follow up meeting with the Capital Regional District (CRD) on September 10, 2024. We appreciate the time you have spent detailing your concerns and further expanding on them in the meeting. The following is a written summary of the verbal responses provided in the meeting, and where possible, we have expanded on those responses below.

Disclosing Foundational Data

1. Will the CRD release the Urban Systems Ltd. reports on which the Development Cost Charges (DCC) are based, in accordance with the Province's Development Cost Charge Best Practices Guide and allow adequate time for stakeholder analysis prior to proceeding with implementation of the DCC? If not, why not?

    - Key program inputs, including details regarding the DCC project list, benefit allocations and municipal assist factor have been provided as part of the stakeholder engagement process in presentations and as well on the CRD's Get Involved page – Proposed Regional Water Supply Development Cost Charge Program | Get Involved CRD.
    - Yes, we will publicly release the Urban Systems Draft DCC Background Report and related documents prior to the Bylaw receiving three readings and within the package submitted to the Ministry of Municipal Affairs.
    - The CRD is in the process of compiling a DCC Background Report and will provide a draft version to the Regional Water Supply Commission (the commission) in September. Following the commission meeting, the report will be posted online on the CRD Get Involved page. This report will provide further details requested on the rationale for the project cost apportionment.

2. How does the CRD reconcile the DCC Best Practices Guide with the statements made by the General Manager?

    - The statement refers to changes in budgets due to refined scopes and cost estimates. It has been noted that these projects (as identified in the Master Plan) are at a conceptual level and as designs progress, the project scopes will be refined based innovations over time and input from interested parties. If there are opportunities to do so, projects may also be realigned as long as the same goals are achieved.
    - Regularly completing minor or major updates to DCC programs are encouraged in the DCC Best Practices Guide to capture changes in costs, grants received, inflation, and other factors. The CRD has committed to regular updates of all its DCC programs.
    - Projects identified in the DCC program have been outlined in the Master Plan and/or the five-year capital plan. These projects benefit future users by ensuring both capacity and quality of the water supply and are therefore eligible for DCC funding based on provincial requirements outlined in the DCC Best Practices Guide and in alignment with the 'benefiter pay' principle.
    - To date, existing users have been paying for works that also benefit new development and will continue to do so going forward unless a DCC program is introduced.

Water Demand Growth Rate Assumptions

3. Why has the CRD forecasted compound growth in water demand when there is no data which suggests that is a reasonable assumption? Will the CRD analyse current water use trends based on available retail billing data to establish a statistically valid rate of growth in water demand?

    - As noted in the 2022 Master Plan, the total supply-level (all sectors/uses and nonrevenue water) per capita water demand at the time (2020) was 337 litres per capita per day (L/c/d), down from the 2010 to 2019 average of 366 L/c/d. This equates to a total annual demand of 48 million cubic metres per year.
    - It is important to note that total water demand is based on both population and per capita demand, which is also influenced by climate, in that hotter drier years typically have higher per capita demands. The overall water demand is increasing in the Region; the total regional water demand reached its lowest point in 2013, and regional demand has been increasing since. For example, the 2023 total annual water demand was approximately 51 million cubic metres, a roughly 6% increase in total water demand from the 48 million cubic metres seen in 2020. Further, the regional per capita demand has ranged from 337 L/c/d in 2020 to as high as 357 L/c/d in 2021.
    - To ensure the CRD continues to provide a reliable drinking water supply for the current and future supply population, the Master Plan included a conservative estimate of future water reductions and assumed that the per capita demand remains constant at the 10-year average of 366 L/c/d. The DCC Best Practices Guide requires Regional Districts to use current project costs and do not allow for future inflation. The CRD's approach to the per capital demand assumption follows the same principal in that we cannot assume that demand will decrease, however, the per capita demands will be updated every five years based on actuals.

- It is important to note that to plan for the future, we have to aggregate total demand at a regional level for all sectors including commercial, industrial and agricultural. The Westhills Water System is a localized example with limited diversity of land uses, which does not reflect the scale and diversity of the CRD's Regional Water Supply (RWS) system which spans 13 member municipalities and an Electoral Area. As previously stated, the CRD will nevertheless monitor consumption and adjust projections accordingly. To note, there is only a 14% difference between the Westhills average day demand of 315 L/c/d and the Regional average day demand of 366 L/c/d regardless.
- Again, DCC project eligibility is not solely determined based on capacity, but also level of service and who will benefit from the proposed works in alignment with the 'benefiter pays' principle. All these projects are to reduce risk and improve resilience in the RWS System and have been endorsed by the commission. Those elements of the project that provide redundancy and resilience also incorporate additional capacity required to service future population growth. Even with a reduction in per capita consumption, these projects will still be required within the 30-year DCC program window and will benefit future users.
- Though the DCC program will continue to utilize actual average per capita demands for planning purposes, the CRD will review and provide the Regional and Juan de Fuca historic per capita demands per sector in the coming week.

4. How did you calculate the price elasticity of demand in the CRD Master Plan's long-term water models?

    - The CRD's approach to demand is to remain conservative and proactive. The CRD cannot undertake long term planning based on unrealized demand reductions to future water consumption and is therefore using the water usage levels identified today as a benchmark for future consumption. This is consistent with the DCC Best Practice Guide regarding project costs.
    - The CRD is also committed to regularly updating the Regional Water Supply Master Plan every 5 years (or sooner, depending on need) as part of the Master Plan update. Major and minor updates to the proposed RWS DCC program will reflect price elasticity – project costs can be updated in both a major or minor update. The CRD is aware that many of the projects included on the proposed DCC's project list are still in the conceptual phase and that costing for these projects will be updated as more information is made available and these projects progress towards construction.

Public, First Nations, and Developer Consultation

5. Will the CRD commit to engaging in real, meaningful public consultation with its direct stakeholders, First Nations, and the general public? If not, why not?

    - The CRD has remained committed to ensuring that Municipal staff, Councils, the public, and other interested parties are informed at all major stages in the development of the RWS DCC program.

- Engagement opportunities to date have included: 13 municipal staff workshops, 13 municipal Council meetings, 2 Regional Water Supply Commission meetings, 2 virtual information sessions, an online survey, and a project webpage. This level of engagement meets or exceeds the expectations for consultation outlined in the DCC Best Practices Guide.
- Many organizations that historically relied on in-person engagement switched to relying on digital engagement during the pandemic. What we learned in that time was though there are some challenges there are also opportunities with digital engagement.
- Among the opportunities are the ability to reach new audiences and invite participation from residents who would not otherwise join. Virtual sessions do not have geographic/travel constraints, plus a recorded session is available for people who cannot attend at the scheduled time.
- The decision of whether to do engagement solely online or in combination with in-person engagement is specific to each project. Reviewing past open houses for Juan De Fuca DCCs we offered an in-person open house that had minimal participation. Based on this we focused our efforts on reaching a broader range of residents and developers from across the region through digital channels.
- First Nations within the CRD were invited to all virtual information sessions and encouraged to complete the survey. The CRD is having government-to-government conversations with interested First Nations and will continue to work directly with First Nations to answer any questions related to the proposed DCC.
- First Nations reserve lands and other federal lands currently do not pay any DCCs and will not be paying the proposed RWS DCC unless otherwise agreed to. Any development on non-reserve privately held / fee simple lands may be subject to DCCs and other development charges both regionally and locally. There is currently no mechanism in legislation or the DCC Best Practices Guide to exempt non-reserve privately held / fee simple lands owned by First Nations from paying DCCs.
- The transcripts of questions asked during both virtual information sessions, as well as all comments submitted through the survey, will be shared in the Public Engagement Summary. The Public Engagement Summary will be included alongside the Draft DCC Background Report (Background Report) which will be published in the Regional Water Supply Commission September agenda package and will be posted on the CRD Get Involved page.
- We acknowledge the further feedback provided in the meeting regarding the format of the virtual session and will strive to improve the opportunities for two-way dialogue in the future.
- As part of the September DCC Update Report to the Regional Water Supply Commission, staff will recommend the addition of a comment period on the DCC Background Report. The comment period will be opened to all public and interested parties and feedback on the draft Background Report will be incorporated in the public engagement section of the final Background Report with the verbatim comments included in an appendix. The final Background Report will be presented to the commission.

DCC Capital Works Allocations to New Growth are Not Consistent with DCC Best Practices. Benefit Allocation to New Growth is Not Correct.

6. Has the CRD allocated the benefit to development based on capacity or incremental cost? If not incremental cost as the DCC Best Practices Guide recommends, will the CRD and its consultant, Urban Systems Ltd., share the detailed benefit allocation?

    - The Guide also notes in section 6.3 that "service population could also be a way of allocating benefit". This is the approach that the CRD and Urban Systems has taken when determining benefit allocation for projects. As the Guide subsequently notes, "if only a planning level of engineering analysis is available at the time of bylaw development, general ranges of benefit could be assigned based on technical data accompanied by good engineering judgement."
    - As most of the DCC projects identified are expected to benefit both existing development and future growth equally, distributing the costs proportionately based on population was determined to be the most equitable approach and most aligned with the DCC Best Practices Guide and the 'benefiter pay' principle. This is in alignment with the methodologies used in many other municipal DCC programs in British Columbia to apportion DCC costs. The 35% benefit factor used to reflect increase in service population is based on a 30-year equivalent population increase of 185,000 including both residential and non-residential uses.
    - As per Section 6.3 of the DCC Best Practices Guide, the example referred to in the question is one of many possible methodologies for calculating benefit allocation.
    - As also noted in section 6.2 of the DCC Best Practices Guide: "For storm drainage, sanitary, and **water**, new infrastructure systems or extensions into previously unserviced areas clearly have little benefit to existing users. However, for infrastructure components that are well integrated into existing systems, such as an interconnected watermain, allocating benefit may be more difficult. If existing residents are inadequately served by existing utilities, existing users may receive benefit in the form of improved service." Methodology examples 6.2 (Case 1B), 6.3 (Case 1C), 6.4 (Case 2) and 6.5 (Case 3A) of the DCC Best Practices Guide more closely reflect the methodologies used to calculate the benefit allocations for many of the projects identified in the proposed DCC program as they better reflect the anticipated benefit of the identified DCC projects.
    - The implementation of the proposed RWS DCC will ensure that existing residents and future development equitably share the costs included in the DCC program, thereby appropriately balancing any potential increases to the water user rate. It should be noted that DCCs are only covering 36% ($523 million) of the total anticipated project costs ($1.44 billion in 2022 dollars).
    - A detailed description of specific benefit allocations applied is provided in Appendix A.

7. Will the CRD undertake a study to determine the sensitivity of demand to water rate increases substantiate assumptions on growth in water demand with an objective of deferring major capital expenditures. If not, why not?

    - The response to this question was addressed above in question 4.

Kapoor Tunnel Redundancy

8. Given the potential for the bypass to remain unused until 2100 as it is not currently required for capacity, will the CRD commit to undertaking a seismic evaluation prior to proceeding with the bypass, and if the CRD intends to proceed anyway, how does the CRD intend to incorporate the cost into the current DCC, given that the project is not required for growth within the DCC study timeframe (30 years)?

    - This project is to provide redundancy as the Kapoor tunnel is the only feed to 400,000 users and a potential single point of failure. The consequence of the failure of this asset would prevent the delivery of drinking water to customers for a prolonged period, failing to meet our commitments to the residents.
    - The Master Plan projects, including the Jack Lake bypass, are to reduce risk and improve resilience in the Regional Water Supply System and have been endorsed by the Regional Water Supply Commission.
    - These projects will be required within the 30-year DCC program window and will benefit both existing and future users regardless of a seismic analysis. These projects will incorporate the additional capacity needed to service both the existing population and future growth as addressed in question 6.
    - Opportunities for evaluating capacity will continue as the project gets closer to delivery. The CRD has committed to updating the DCC program and the RWS Master Plan every 5 years to account for any changes.
    - Once completed the bypass will also be used to allow regular and consistent maintenance, inspections and repairs of the Kapoor tunnel without being constrained by water quality or quantity concerns with the current back up system (Goldstream Lake).

Impacts to New Housing Cost and Supply

9. Will the CRD commit to undertaking and publicly sharing an economic feasibility analysis to determine what the affects of these new DCCs will have on the future housing supply, prior to taking it forward to the CRD Board for Bylaw consideration?

    - Economic feasibility analyses are not required by the Province for DCC programs; rather, they are a recommendation for Amenity Cost Charge programs.
    - As an economic feasibility study is not required by the Local Government Act or the DCC Best Practices Guide, the vast majority of previously completed DCC programs do not include an economic feasibility analysis. Nevertheless, staff and councils work to ensure that any proposed rates are reasonable and will not deter development.
    - The City of Victoria recently completed an economic feasibility study which showed limited impacts on development viability (1% of projects until 2030) in the City despite DCCs increasing by 2-3 times previously.
    - We have not yet received any direction from the Regional Water Supply Commission or the CRD Board to complete an economic analysis.

- Completing an economic feasibility study for the RWS DCC is likely to be time consuming and costly given the diversity of housing markets, development fees and development timelines of communities within the RWS service area. This work may also not yield any meaningful information as the impact of DCCs is expected to vary across the member municipalities and region.
- Any reduction to the DCC will increase water user rates which will also affect the affordability for all water users, not just developers and home builders.

In closing, we would like to reiterate our thanks for the time you took to bring forward your concerns. We acknowledge the important role that that development industry plays in meeting the needs of the growing communities of the CRD. We also acknowledge the strain that the current economy is putting on your business and projects. We are committed to continuing to seek feedback from this group on the design of the DCC program but are also obligated to the existing rate payers to implement a DCC program. To date, existing users have been paying for works that support new development and will continue to do so unless a DCC program is introduced.

The CRD wants to ensure the 'benefiter pay' principle is upheld, and new developments are contributing to those future projects that benefit those developer project costs going forward. Understanding that a DCC program for this service is required, the Regional Water Supply Commission is respective to considering actionable recommendations from the development community on how this program be designed and implemented.

Yours truly,

Alicia Fraser, P.Eng.
General Manager, Integrated Water Services

Attachments: (3)
Appendix A: DCC Benefit Rationale
Appendix B: DCCs being proposed by the CRD for the 2022 Regional Water Supply Master Plan – Questions
Appendix C: Letter to Chair Plant

cc: Ted Robbins, Chief Administrative Officer, Capital Regional District
Joseph Marr, Senior Manager, Infrastructure Engineering
Caitlyn Vernon, Manager, First Nations Relations
Colin Plant, Chair, CRD Board
Gord Baird, Chair, Regional Water Supply Commission
Shannon Russell, Keycorp

Appendix A: DCC Benefit Rationale

A 100% benefit allocation is used for projects required only to increase system capacity to support new growth. Projects assigned this benefit allocation include the Leech Watershed, which is required to develop a new water supply source. This is required only if future growth occurs, which is aligned with the methodology outlined in Example 6.1 (Case 1A) in section 6.3 of the DCC Best Practices Guide.

Item	Project	Cost Estimate A	DCC Benefit Factor B	Benefit to New Development = A x B
LEECH WATERSHED				
W4	Leech River Diversion			
W5	Sooke Lake Saddle Dam Hydraulic Improvements and Studies			
W6	Leech River Watershed Restoration, Mapping and Studies			
	Subtotal	**$28,513,000**	**100%**	**$28,513,000**

Using the "rule of thumb" rationale a 50% benefit is allocation was used for projects that provide both capacity increases as well as improvements to the existing level of service. Projects assigned this benefit allocation include the Smith Hill Storage Tank, which will provide an additional balancing tank and pump station. The Smith Hill Storage Tank would help accommodate growing demands in the Victoria core area, as it would help balance flows during periods of high demand. This project both enhances the existing level of service for domestic, fire and emergency purposes and adds additional capacity to accommodate and service future growth. This aligns with the methodology outlined in Example 6.2 (Case 1b) in section 6.3 of the DCC Best Practices Guide.

Item	Project	Cost Estimate A	DCC Benefit Factor B	Benefit to New Development = A x B
SMITH HILL STORAGE TANK				
W21	Smith Hill Tank - Including Design and Decommissioning			
W22	Smith Hill Tank Pump Station			
	Subtotal	**$31,268,000**	**50%**	**$15,634,000**

A 35% benefit allocation is used for DCC projects that are expected to benefit both existing development and future growth proportionately. Projects assigned this benefit allocation include the: Sooke Lake Reservoir Deep Northern Intake, Water Filtration Plant, Transmission Mains and Studies and Modelling, which provide an increased level of service, increased resilience, redundancy and additional capacity to service future population growth. The DCC Best Practices Guide notes in s. 6.3 that "service population could also be a way of allocating benefit" and distributing the costs proportionately based on population was determined to be the most equitable approach and most aligned with the DCC Best Practices Guide and the 'benefiter pay' principle. This also aligns with the methodology outlined in Example 6.4 (Case 2) of the DCC Best Practices Guide.

Item	Project	Cost Estimate A	DCC Benefit Factor B	Benefit to New Development = A x B
SOOKE LAKE RESERVOIR DEEP NORTHERN INTAKE				
W1	Deep Northern Intake (Floating Pump Station)			
W2	Sooke Lake Reservoir - Studies			
W3	Conceptual Design of Floating Pump Station and Transmission Main			
	Subtotal	**$74,745,000**	**35%**	**$26,160,750**
WATER FILTRATION PLANT				
W7	Japan Gulch Dam Decommissioning			
W8	Filtration Plant			
W9	Filtration Plant Clearwell			
W10	Treated Water Pump Station			
W11	Filtration Plant Stage 2 Balancing Tank			
	Subtotal	**$819,074,000**	**35%**	**$286,675,900**
TRANSMISSION MAINS				
W12	Phase 1 - Transmission Main Upgrades			
W13	Phase 2 - Transmission Main Upgrades			
W14	Phase 3 - Transmission Main Upgrades			
W15	Deep Northern Intake to Head Tank Transmission Main			
W16	Sooke Lake Dam to Head Tank Transmission Main			
W17	Jack Lake Head Tank to Japan Gulch Transmission Main			
W18	Goldstream Connector to Japan Gulch Transmission Main			
W19	Goldstream Connector Balancing Tank			
W20	East-West Connector Transmission Main			
	Subtotal	**$486,972,000**	**35%**	**$170,440,200**
STUDIES/MODELLING				
W23	Project Delivery Plan			
W24	Master Planning and System Upgrades			
W25	Supply System Computer Model Update			
W26	Phase 2 Hydrology Study			
	Subtotal	**$3,800,000**	**35%**	**$1,330,000**

CRD AND CAPITAL REGION BUILDING INDUSTRY LEADERS MEETING
SEPTEMBER 10, 2024, 10:00AM
RE: DEVELOPMENT COST CHARGES BEING PROPOSED BY THE CRD
FOR THE 2022 REGIONAL WATER SYSTEM MASTER PLAN

QUESTIONS

DISCLOSING FOUNDATIONAL DATA

The Province of British Columbia Development Cost Charge (DCC) Best Practices Guide states:

The establishment of DCCs should be a transparent, local government process, and all information on which the DCCs are based should be accessible and understandable to stakeholders.

This Urban Systems Ltd. document used to determine the proposed DCCs was requested during the public/developer Zoom consultation, but that request was declined and remains un-released to the public. Without his information, the public and the affected development industry have not been afforded the opportunity to understand the detailed assumptions and formulation of the DCC prior to CRD Board's consideration of the Bylaw.

QUESTION 1:

Will the CRD release the Urban Systems Ltd. reports on which the DCCs are based, in accordance with the Province's Development Cost Charge Best Practices Guide and allow adequate time for stakeholder analysis prior to proceeding with implementation of the DCC? If not, why not?

Further, in the June 28, 2024 Capital Daily article, Alicia Fraser, the CRD's integrated water services general manager, stated that "A financial plan would be developed by the CRD for the ministry submission though this wouldn't be a finalized budget forever," said Fraser but rather will be used as a funding tool to ensure the reserves are there for infrastructure as it is needed." She also states that "The DCCs don't commit the CRD to building every single specific project. Rather, they're a long funding tool to ensure that there is funding being put into reserves for that infrastructure to be created when it's needed,".

The Best Practices Guide states "Therefore, certainty should be built into the DCC process, both in terms of stable charges and orderly construction of infrastructure."

QUESTION 2:

How does the CRD reconcile the Best Practices Guide with the statements made by the General Manager?

WATER DEMAND GROWTH RATE ASSUMPTIONS

The 2022 Water Master Plan and the resulting DCCs are based on the projects and project implementation schedule included in the Plan. The approach lacks rigour and makes no attempt to forecast water use trend data shown in the Plan's own long term data set. The total water demand today has declined during the past 30 years, despite the population increasing over 42% from 317,989 people in 1996 (source: Canada Census, 1996), to an estimated 453,425 in 2023 (source: CRD Population Estimates, May 2024).

Water demand growth will be moderated further with the planned increased cost of water, and lower water use in new homes on smaller lots and in multi-family homes. As condo, apartment, and townhomes come to dominate new housing, with new single-family homes no longer a significant factor in new housing supply. Further, all this new housing replaces older water inefficient, and large lot homes. See the attached "Appendix A" detailed summary of the Westhills Water System which demonstrates that new housing supply, even one that is predominantly single family in nature yields significantly lower incremental per capita water consumption that that assumed by Stantec in the 2022 Water Master Plan.

QUESTION 3:

Why has the CRD forecasted compound growth in water demand when there is no data which suggests that is a reasonable assumption? Will the CRD analyse current water use trends based on available retail billing data to establish a statistically valid rate of growth in water demand?

We know that significant increases to water rates, such as those proposed by the CRD 2022 Master Plan, will have a corresponding reduction effect on water demands. We also know that significant opportunities exist to reduce regional water demand from the 2010-2019 baseline which underpins the CRD's 2022 Master Plan (for example: 35% of all water supplied to the region is used outdoors; municipal systems are bleeding upwards of 20% of their water supply and other non-revenue categories like leaks, theft and unmetered consumption); in fact, the Master Plan authors (Stantec) state that *"modest and achievable reductions in demand … will go a long way to extending the life of the Sooke Lake Reservoir beyond the 2050 planning horizon"*.

QUESTION 4:

How did you calculate the price elasticity of demand in the CRD Master Plan's long term water models?

PUBLIC, FIRST NATIONS, AND DEVELOPER CONSULTATION

The Best Practices Guide states:

> ***The development of DCCs must provide adequate opportunities for meaningful and informed input from the public and other interested parties.***

The CRD 2022 Water Master Plan, upon which the DCC is based, had only 22 public comments received during its Covid-era consultation. This document has not been scrutinized by the public, and questions relating to it are diverted or declined.

The CRD provided only two opportunities for public input on the DCCs via Zoom with no in-person public consultation and no web-platform consultation. Participants of these sessions were only permitted to ask questions through a chat function. Many questions and follow up questions were not answered, and many others were determined unilaterally by the moderators to be 'similar to others' and thereby not answered. Questions that were contingent on the 2022 Water Master Plan were disregarded as being not directly relevant to the DCC consultation. The published videos of those consultation events do not include records of the questions asked, and only provide records of those answered. We made a request for the full list of questions but were denied.

This consultation process does not appear to follow the general standard of public engagement best practices.

Further, with regard to First Nations Consultation, in In their Summary of Feedback Report for the July 20, 2022, meeting, the CRD's Regional Water Supply Commission (RWSC) stated its "commitment to engage First Nations communities respectfully and appropriately in regional plans, strategies, decision making and shared interests." However:

- On June 10, 2022, CRD staff emailed letters (many to unchecked addresses) to 16 Nations across the southern Island. Nations were given mere days to respond to an on-line overview and information session prior to relaying their interests in the Plan.
- On July 20th the Regional Water Supply Commission approved the 2022 Master Plan despite Commissioner Isitt motioning to postpone the approval so First Nations

could be given time to comment on the Plan. Then on August 10th, the CRD Board also approved the Plan, despite the lack of consultation with First Nations.

- The CRD stated that although they had not received written responses from First Nations to date, given the timeframe for engagement and acknowledging the other engagement and referral demands on First Nations communities, the CRD does not consider the response reflective of the interests and concerns of the Nations. The CRD states it will be conducting more and specific engagement with First Nations on a project-by-project basis as each project proceeds through further study and design phases.
- Two years later Malahat and Beecher Bay First Nations are formally expressing their upset that the CRD has not adequately or meaningfully engaged with First Nations (see attached letters).

QUESTION 5:

Will the CRD commit to engaging in real, meaningful public consultation with its direct stakeholders, First Nations, and the general public? If not, why not?

DCC CAPITAL WORKS ALLOCATIONS TO NEW GROWTH ARE NOT CONSISTENT WITH DCC BEST PRACTICES. BENEFIT ALLOCATION TO NEW GROWTH IS NOT CORRECT.

Working without the detailed summary report by Urban Systems Ltd. , we are forced to review the limited public reports available. Nonetheless the CRD DCC is evidently non-compliant with the Provincial DCC Best Practices Guide yet again with respect to the benefit allocation to new growth. The USL allocation is based on capacity, and not cost.

In the presentation report to the RWSC on March 28, 2023, assigned a benefit allocation for various component works ranging from 35% to 100% based on technical analysis and 'rule of thumb'.

In a report to the RWSC on May 3, 2021, USL provided the following example of technical analysis. 'Increasing a water main from 150mm to 300mm = approximately 25%/75% benefit'. In this example, the benefit is based on capacity, meaning that the capacity of a 300mm pipe is four times that of a 150mm pipe, and that 25% is assigned to existing users, and 75% is assigned to future users. However, the cost to install a 300mm pipe is not four times that of a 150mm pipe. Using the USL method the benefit allocation is greatly

overstated and not consistent with the Best Practices Guide. The Best Practices Guide example based on the cost of replacing a 250mm pipe with a 300mm pipe is that the cost of 250mm pipe is $50,000, while 300mm pipe cost is $60,000. Benefit to existing users is" $50,000/$60,000 (83%) and benefit to new development is $10,000/$60,000 (17%).

Allocation based on cost is particularly important for the filtration facility because the economies of scale factor into the cost of capacity for existing users and that required for growth, i.e. the cost per megalitre for the growth increment will be less than the cost per megalitre for existing users. CRD has not demonstrated any technical rationale for the incremental cost of the additional filtration to future development, at least publicly.

QUESTION 6:

Has the CRD allocated the benefit to development based on capacity or incremental cost? If not incremental cost as the DCC Best Practices Guide recommends, will the CRD and its consultant, Urban Systems Ltd., share the detailed benefit allocation?

It is projected that the wholesale water rate will increase significantly if the 2022 Master Plan is fully implemented. Depending on the municipality, residents could see their water bills increase by more than 200%. Basic economic theory states that as the price increases, demand will decrease. Indoor water use is considered inelastic (i.e., not price sensitive), whereas outdoor water use (discretionary) is considered to be elastic and price sensitive.

QUESTION 7:

Will the CRD undertake a study to determine the sensitivity of demand to water rate increases substantiate assumptions on growth in water demand with an objective of deferring major capital expenditures. If not, why not?

KAPOOR TUNNEL REDUNDANCY

The hydraulic capacity of the existing Kapoor Tunnel has ability to convey projected demands until approximately the year 2100. With the high-pressure main failure in Calgary (and more recently in Montreal) comments were made by the CRD to proceed with the Kapoor Tunnel bypass to provide redundancy, estimated to cost $350 million.
This redundant capacity appears to be required primarily to address the perceived risk to existing users of a tunnel failure, with some benefit to future development.

QUESTION 8:

Given the potential for the bypass to remain unused until 2100 as it is not currently required for capacity, will the CRD commit to undertaking a seismic evaluation prior to proceeding with the bypass, and if the CRD intends to proceed anyway, how does the CRD intend to incorporate the cost into the current DCC, given that the project is not required for growth within the DCC study timeframe (30 years)?

IMPACTS TO NEW HOUSING COST AND SUPPLY

The new housing market is currently facing strong headwinds from increased cost of construction, interest rates, and increasing and significant new government fees and charges. Project economics are operating on razor thin margins, with many planned projects now being stopped prior to starting. Our industry believes adding this new DCC will curtail new housing supply, and those that do proceed will face higher costs that will be passed on to new home buyers and renters.

CRD's consultant, Urban Systems Ltd., stated clearly during the Zoom consultation that no modelling has been done to determine the impacts on housing costs.

QUESTION 9:

Will the CRD commit to undertaking and publicly sharing an economic feasibility analysis to determine what the affects of these new DCCs will have on the future housing supply, prior to taking it forward to the CRD Board for Bylaw consideration?

APPENDIX A

WESTHILLS WATER DEMAND ANALYSIS
New Construction Data vs. CRD Master Plan Projections

Background

The 2022 CRD Master Plan ("Master Plan") prepared by Stantec combines long-term projections of water demand and population growth in order to estimate when our water source (Sooke Lake Reservoir) will approach its limit in terms of providing a reliable and safe supply to the region. When this limit is reached, the Master Plan calls for diversion of the Leech River into Sooke Lake as a supplemental source. The natural water quality profile of this source will in turn require a Filtration Plant, projected to cost >$1B (the largest single capital project within the Master Plan, by far).

Master Plan Water Demand Projections & Assumptions

The Master Plan uses the average per-capita Average Day Demand (ADD) and Winter Day Demand (WDD) for the period of 2010-2019 and assumes these rates of demand will hold constant across the entire region until the year 2100 (i.e. assumes all new/future growth will continue to use the same amount of water per-capita):

- **366 L/c/d ADD** average for CRD from 2010-2019
- **274 L/c/d WDD** average for CRD from 2010-2019

These figures are fundamentally important because they – along with population projections – form the basis of **when** the $1B Filtration Plant will be required. Using these per capita demand rates, the Master Plan projects that the Sooke Lake supply will reach its limit in the year 2045. It then states, if ADD is reduced to 300 L/c/d (described by Stantec as "modest and achievable"), this limit is extended to 2060; at 250 L/c/d, it could be extended beyond 2070.

While not directly factored into long-term projections and sensitivity analyses, the Master Plan also references "Residential Only" demands, which are helpful when assessing water conservation:

- **240 L/c/d Residential Only**, CRD average annual demand in 2020
- **220 L/c/d Residential Only**, North America average annual demand in 2016

New Construction Water Demand

The Westhills Water System (WWS) in Langford provides a uniquely valuable dataset for observing water demand in new construction for the following reasons:

- WWS supplies a mixed-use community with a resident population of approx. 3,000 living in a diverse range of housing types, with everything constructed after the year 2009.
    - This is important, because low-flow plumbing code changes and CRD water conservation bylaws, the two biggest drivers of water conservation in the last 25 years, were introduced in the early-/mid-2000s.
- WWS is a standalone modern water distribution system, with 100% of its input supply recorded through a CRD wholesale/bulk meter, coupled with near-total end use metering and virtually zero non-revenue water (e.g. line losses).
- Westhills is comprised of small lots and medium-to-high density land uses, which is indicative of what new growth across the CRD will look like in the decades ahead (i.e. large single-family lots as seen in places like Oak Bay or Gordon Head will not be the predominant form of new growth moving forward).

Westhills Water System (WWS) – Demand Figures

Data from the WWS over a three-year period between 2021 and 2023 (provided by SSL, the utility operator) yields the following demands:

- **315 L/c/d ADD** average for WWS from 2021-2023*
- **170 L/c/d WDD** average for WWS from 2021-2023**

**ADD skewed higher than typical new construction because the WWS currently has a much higher ICI-to-residential ratio (40% ICI vs. 22% ICI for the wider CRD); with ICI especially driving up summer usage. For example, the community of only 3,000 people currently includes three large schools with irrigated grass fields, regional recreation centre with swimming pool (YMCA), large-scale earthworks requiring active dust control (e.g. water trucks and spray cannons), and significant boulevard irrigation on new main roads, which are often constructed years before adjacent land uses are fully realized. As Westhills builds out, it should more closely align with the CRD's sector ratios and thus see ADD drop below 300 L/c/d without factoring in any further conservation efforts.*

***WDD is a more apples-to-apples comparison with the CRD Master Plan data, as it strips away the unusually high and temporary non-residential outdoor water use at Westhills.*

Residential Only demand is similarly worth observing. As of 2024, the makeup of housing in Westhills is 70% detached, 19% town/row housing, and 11% multi-family. Future growth is expected to include minimal new detached housing and these ratios will eventually be reversed at full community buildout. Despite having a much higher ratio of detached housing in Westhills than should be expected as a share of future growth across the region in the coming decades, observed Residential Only demand is much lower than the CRD average:

- **182 L/c/d Residential Only**, WWS average annual demand, 2021-2023
    - **130-140 L/c/d** if restricted to townhomes and multi-family only

CRD Master Plan vs. New Construction – Direct Comparisons

As others have observed, a critical component of the Master Plan is that it assumes all future growth will continue to use water at the average rate observed for the region between the period of 2010-2019. By comparing the Master Plan's 2010-2019 demands with those occurring today in the newly constructed Westhills Water System, we see the following:

	CRD Master Plan	New Development	Difference
ADD (L/c/d)	366	315	14% less
WDD (L/c/d)	274	170	38% less
Res. Only (L/c/d)	240	182	24% less

Closing

The 2022 Master Plan serves as a robust high-level guide for our regional water supply system. As the authors quite rightly state, *"when developing water demand forecasts based on a per-capita demand model, the projected population introduces the greatest source of uncertainty in the results compared to the uncertainties in the actual demand assumptions"*.

Given the inherent uncertainty with long-term population growth, and the volatile nature of predicting hyper-localized impacts of climate change, it is imperative that the most reliable (and controllable) ingredient in our master planning – water demand – is properly scrutinized and validated.

Despite the timing of such immense capital projects being linked to the water demand profile of future growth, the Master Plan contains precious-little data specific to new construction within the region; presumably because that level of detail cannot be easily extracted from the larger CRD dataset. Readily available water demand information from the Westhills Water System could be exceptionally valuable in this exercise and this information can be considered by the CRD and its supporting members in an effort to continue refining the Master Plan.

APPENDIX C

September 5, 2024

Colin Plant
Chair
Capital Regional District
625 Fisgard Street
Victoria, BC V8W 1R7

Dear Chair Plant:

In preparation for your September 10, 2024, meeting with leaders from the Capital Region building industry, please find attached our questions pertaining to the Development Cost Charges being proposed by the CRD for the 2022 Regional Water System Master Plan.

We agreed to provide these questions in advance so you could ensure you were well prepared with answers, and together we could have a more fulsome discussion on this important issue.

We look forward to our meeting. Please do not hesitate to contact me if you have any questions or concerns.

Yours sincerely,

Ben Mycroft
Chair
Urban Development Institute Capital Region
On behalf of: Canadian Home Builders Association
Sooke Builders Association
Victoria Residential Builders Association
West Shore Developers Association

Attachment

cc: The Honourable Sean Fraser, Minister of Housing, Infrastructure and Communities
Honourable Anne Kang, Minister of Municipal Affairs
The Honourable Ravi Kahlon, Minister of Housing
MLA Ravi Parmar, Langford-Juan de Fuca

APPENDIX 3

Total Regional Demand by Major Sector 2014 - 2023

Year	Total Supply (m3)	Retail (m3)	Single Family (m3)	Multi-Family (m3)	Condo (m3)	Agriculture (m3)	Industrial (m3)	Commercial (m3)	Institutional (m3)	Other (m3)	Non-Revenue (m3)
2014	46,890,405	43,022,863	21,042,249	4,809,625	3,847,342	1,164,150	1,720,043	5,102,235	3,428,759	1,908,460	3,867,541
2015	47,722,872	42,852,843	20,971,930	4,511,899	3,951,387	1,250,560	1,743,596	5,290,610	3,430,546	1,702,314	4,870,029
2016	48,699,115	43,677,857	21,535,653	4,611,416	3,973,236	1,322,213	1,813,690	5,149,330	3,783,011	1,489,308	5,021,258
2017	47,584,170	42,170,500	20,865,034	4,557,487	3,809,630	1,195,273	1,793,216	4,935,016	3,655,128	1,359,716	5,413,670
2018	48,783,869	43,599,290	21,154,551	5,224,031	3,548,886	1,289,852	1,919,147	5,306,839	3,806,363	1,349,621	5,184,579
2019	48,202,087	43,671,687	21,861,127	5,683,628	3,824,319	1,184,459	1,890,959	4,982,061	3,698,569	546,565	4,530,400
2020	48,384,071	43,008,380	22,713,835	5,608,892	4,327,072	1,268,291	1,543,994	3,653,432	3,170,871	721,993	5,375,691
2021	51,984,150	46,686,241	23,268,062	5,258,825	5,548,299	1,557,405	1,874,428	4,432,608	3,800,770	945,845	5,297,909
2022	50,459,607	44,586,971	21,758,477	5,193,007	5,267,952	1,335,881	1,797,165	4,518,281	3,716,347	999,861	5,872,635
2023	51,427,981	47,498,215	23,264,991	5,263,792	5,470,193	1,606,304	2,092,424	4,949,417	3,987,683	863,411	3,929,766
AVERAGE	**49,013,833**	**44,077,485**	**21,843,591**	**5,072,260**	**4,356,832**	**1,317,439**	**1,818,866**	**4,831,983**	**3,647,805**	**1,188,709**	**4,936,348**
3-YR AVG	**51,290,579**	**46,257,142**	**22,763,844**	**5,238,541**	**5,428,815**	**1,499,863**	**1,921,339**	**4,633,435**	**3,834,933**	**936,372**	**5,033,437**

Juan De Fuca Demand by Major Sector 2014 - 2023

Year	Total Supply (m3)	Retail (m3)	Single Family (m3)	Multi-Family (m3)	Condo (m3)	Agriculture (m3)	Industrial (m3)	Commercial (m3)	Institutional (m3)	Other (m3)	Non-Revenue (m3)
2014	46,890,405	8,283,577	4,858,841	552,802	477,607	92,640	354,824	738,955	667,354	540,554	-34,590
2015	47,722,872	8,355,180	4,835,894	517,680	521,844	96,342	407,594	774,874	683,673	517,279	10,491
2016	48,699,115	9,266,652	5,191,831	645,532	561,481	106,625	486,605	921,524	749,934	603,120	-439,313
2017	47,584,170	8,832,551	5,042,974	631,103	523,616	104,375	417,267	833,094	734,323	545,799	-18,820
2018	48,783,869	9,119,868	5,184,282	1,154,408	162,119	120,479	462,416	807,106	714,869	514,189	-1,204
2019	48,202,087	9,060,828	5,110,975	638,406	971,460	138,824	418,621	856,084	735,512	190,946	115,429
2020	48,384,071	9,551,004	5,625,692	1,663,533	162,454	148,660	514,936	636,201	617,874	181,654	470,260
2021	51,984,150	10,582,752	6,224,387	721,568	1,169,449	179,239	535,143	759,141	697,200	296,625	-5,817
2022	50,459,607	10,344,370	5,955,012	677,568	1,322,526	132,968	563,457	752,892	682,334	257,613	-9,198
2023	51,427,981	11,016,434	6,310,376	706,407	1,376,488	161,932	629,169	938,220	655,542	238,300	27,970
AVERAGE	**49,013,833**	**9,441,322**	**5,434,026**	**790,901**	**724,904**	**128,208**	**479,003**	**801,809**	**693,862**	**388,608**	**11,521**
3-YR AVG	**51,290,579**	**10,647,852**	**6,163,258**	**701,848**	**1,289,488**	**158,046**	**575,923**	**816,751**	**678,359**	**264,179**	**4,318**