

From: **"Mochrie, Paul"**
To: **"Direct to Mayor and Council - DL"**
Date: 2024-05-16 5:39:15 PM
Subject: Special Joint Meeting of the Metro Vancouver Board - May 17, 2024
Attachments: RD-SP-2024-05-17-AGE.pdf

Dear Mayor and Council,

There is a Special Joint Meeting of the Metro Vancouver Board on Friday, May 17, 2024. The public agenda is available [here](#).

Metro Vancouver Staff will present a report (attached) integration of the \$2.8 billion budgetary requirement for the North Shore Wastewater Treatment Plant Project. This discussion item was first brought forward by Metro Vancouver at the Special Joint Board Meeting on April 12, 2024, on the 2025 Budget and 5-Year Financial Plan. The report focuses on the

The proposed methodology for allocating the costs of the North Shore Wastewater Treatment Plant (NSWWTP) Program that is discussed in the report has several potential impacts on the City of Vancouver (Vancouver Sewerage Area - VSA).

Below is a detailed look at the potential impacts of this proposal on the City of Vancouver:

1. Incremental Household Impact:

Under the current cost allocation model, households in the VSA would experience an incremental cost increase of \$140 per year for 15 years to cover their portion of the \$2.8 billion required for the NSWWTP Program. If the allocation were adjusted to equalize the household impact across all sewerage areas, the cost for VSA households would remain the same at \$140 per year.

2. Alternative Allocation Models:

Assessed Value Model: If costs were allocated based on assessed property values, VSA households would see an increased burden. The average annual household impact would rise to \$185 per year.

Tier 3 Model: Allocating all costs to Tier 3 would further increase the impact on VSA households, raising the average annual cost to \$220 per year.

Water Consumption Model: If costs were based on water consumption, the VSA household impact would be \$170 per year.

3. Scenarios of Incremental Increases:

If other sewerage areas increase their average household impact by \$10 to reduce the burden on the North Shore Sewerage Area (NSSA), VSA households would see their cost increase to \$150 per year. If the average household impact were increased by \$20 for other areas, the VSA impact would rise to \$160 per year. Further increases by \$30 and \$40 would raise the VSA household impact to \$170 and \$180 per year, respectively.

4. Debt Financing and Amortization Implications:

The current financing model involves a 15-year amortization for the VSA, while the NSSA has a 30-year amortization period. Any changes to this structure would primarily affect the NSSA, but shifting the VSA to a longer amortization period would also affect its cost distribution.

5. Phase-In Options:

Different phasing options for the levy (e.g., phasing in over 1, 2, or 3 years) could impact how quickly the VSA households would feel the cost increase and the overall debt service savings for Metro Vancouver. Phasing in the costs over a longer period (e.g., 4 or 5 years) would result in less immediate financial burden but could lead to higher costs in the long run due to increased debt servicing requirements.

Considerations for City of Vancouver-Appointed Metro Directors:

The impact on the City of Vancouver largely depends on the chosen allocation methodology and phasing strategy. The

current allocation model results in an incremental cost of \$140 per year per household. However, alternative allocation models based on assessed value, water consumption, or equalizing household impact across regions could increase the financial burden on VSA households, potentially raising the cost to as much as \$220 per year. The Board's decision on the allocation model and phasing approach will ultimately determine the exact impact on Vancouver residents.

The estimated increase in the 2024 COV portion of property taxes over 2023 resulting from a \$140 incremental cost increase would be:

- Median residential strata unit assessed at \$804,000 - \$98 increase.
- Median overall residential unit assessed at \$1,371,000 - \$168 increase.
- Median single family home - \$260 increase.

While the current discussion is focussed on the costs of the NSWWTP, any changes to the methodology that requires VSA households to pay increased costs for the NSWWTP should also be considered when determining how the cost of the Iona WWTP will be funded. The VSA should not be required to share greater burden of the cost for the NSWWTP, and for Iona WWTP.

COV staff would suggest that City of Vancouver-Appointed Metro Directors raise the following considerations with the Metro Vancouver Board and Metro Vancouver staff:

- How will a change in methodology for funding the NSWWTP impact the cost distribution for the Iona WWTP project?
- Who has Metro Vancouver consulted on these options and have staff of metro municipalities been given more detailed information on the proposal in order to provide feedback?
- What are the pros and cons of the various options that are being presented to the Board?
 - Have they been informed by best practices?
- The impact of the NSWWTP for the COV appears to be an approximately 7.6% property tax increase.
 - Has Metro done an assessment of the impacts of the different options in terms of property tax increases for member municipalities?

Best,
Paul

Paul Mochrie (he/him)
City Manager
City of Vancouver



The City of Vancouver acknowledges that it is situated on the unceded traditional territories of the xʷməθkʷəy̓əm (Musqueam), Sḵwəxwú7mesh (Squamish), and səlilwətał (Tsleil-Waututh) Nations.

**METRO VANCOUVER REGIONAL DISTRICT (MVRD)
METRO VANCOUVER HOUSING CORPORATION (MVHC)
GREATER VANCOUVER WATER DISTRICT (GVWD)
GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT (GVS&DD)**

BOARD OF DIRECTORS

SPECIAL JOINT BOARD MEETING

Friday, May 17, 2024

9:00 am

28th Floor Boardroom, 4515 Central Boulevard, Burnaby, British Columbia

Webstream available at <https://metrovancover.org/>

Purpose: To participate in a workshop-style discussion of Metro Vancouver's budget preparations.

[Membership and Votes](#)

A G E N D A¹

A. ADOPTION OF THE AGENDA

1. May 17, 2024 Special Meeting Agenda

That the MVRD, MVHC, GVWD, and GVS&DD Boards adopt the agenda for their special meeting scheduled for May 17, 2024 as circulated.

B. REPORTS FROM COMMITTEE OR COMMISSIONER/CHIEF ADMINISTRATIVE OFFICER

1. 2025 Budget and 5-Year Financial Plan Scenarios for Consideration

That the MVRD / MVHC / GVS&DD / GVWD Boards receive for information the report titled "2025 Budget and 5-Year Financial Plan Scenarios for Consideration", dated May 10, 2024.

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C. ADJOURNMENT

That the MVRD, MVHC, GVWD, and GVS&DD Boards adjourn their special joint meeting of May 17, 2024.

¹ Note: Recommendation is shown under each item, where applicable. All Directors vote unless otherwise noted.

To: Metro Vancouver Regional District (MVRD) Board
Metro Vancouver Housing Corporation (MVHC) Board
Greater Vancouver Sewerage and Drainage District (GVS&DD) Board
Greater Vancouver Water District (GVWD) Board

From: Jerry W. Dobrovolny, Chief Administrative Officer and Commissioner

Date: May 10, 2024 Meeting Date: May 17, 2024

Subject: **2025 Budget and 5-Year Financial Plan Scenarios for Consideration**

RECOMMENDATION

That the MVRD / MVHC / GVS&DD / GVWD Boards receive for information the report titled “2025 Budget and 5-Year Financial Plan Scenarios for Consideration”, dated May 10, 2024.

EXECUTIVE SUMMARY

At the April 17, 2024 Board Budget Workshop, staff provided information on approaches for the 2025 Budget and 5-Year Financial Plan, seeking direction for the upcoming budget process. The main focus was to get direction on how to integrate the \$2.8B budgetary requirements to deliver the North Shore Wastewater Treatment Plant Program. The Board directed staff to provide a second Board Budget Workshop with additional information, and staff has prepared the following:

- A definition for the three tiers in the tiered allocation model for liquid waste capital projects
- Context and history of the tiered model
- A breakdown of the updated cost of the North Shore Wastewater Treatment Plant Program (NSWWTP Program) by tier and allocation by sewerage area
- An expanded range of scenarios to address the increased cost for the North Shore Wastewater Treatment Plant Program, including:
 - Allocation options including the current allocation model, distributing the cost equally by household across all sewerage areas, and a sensitivity analysis in \$10/household increments
 - Phasing in the levy over 1, 2, 3, 4, or 5 years, as well as applying different phase-in periods for different sewerage areas
 - Debt financing implications
 - Implications of amending the current amortization period for borrowing (currently 15 years for VSA/LIWSA/FSA and 30 years for the NSSA for the NSWWTP Program) to a 15-year amortization for all sewerage areas.

This report responds to those requests. The Board has already approved the revised budget to complete the NSWWTP Program. Direction provided by the Board at the May 17, 2024 Board Budget Workshop will determine whether there is direction to amend the allocation model and / or phase in a levy to incorporate these costs. Direction will guide the budget approach for the 2025 Budget and 2025-2029 Financial Plan, which will be considered by the Board in Q4, 2024. Please see the Alternatives section of this report.

PURPOSE

To provide the MVRD, MVHC, GVS&DD, and GVWD Boards with further analysis of options for allocating the household impact of the additional cost to complete the North Shore Wastewater Treatment Plant (NSWWTP) Program, to provide further information on Tier I, II and III costs as defined in the *GVS&DD Cost Apportionment Bylaw*, and to seek direction for the upcoming budget process.

BACKGROUND

At the April 17, 2024 Special Joint Board Budget Workshop Meeting, the MVRD, MVHC, GVS&DD, and GVWD Boards asked staff to provide more information on the tier definitions within the *GVS&DD Cost Apportionment Bylaw*, the history of cost apportionment for the GVS&DD, and further analysis for options for allocating the updated costs to complete the NSWWTP Program at an additional Board Budget Workshop.

COST APPORTIONMENT BYLAW AND DEFINITION OF ITS TIERS

The *Greater Vancouver Sewerage and Drainage District Cost Apportionment Bylaw* defines how the annual liquid waste services levy is distributed. The intent of the bylaw is to allocate costs equitably. Within it, costs related to projects that service a specific sewerage area are allocated to that sewerage area, and costs related to projects that benefit the region are shared regionally.

Cost apportionment was first proposed in 1953 in the [Rawn Report \(Sewerage and Drainage of the Greater Vancouver Area British Columbia\)](#), which was the original plan for the regional sewer collection and wastewater treatment system. The report allocated costs for operating, maintenance, and capital costs of wastewater infrastructure to be paid for by those serviced within areas defined by geographical and topographic factors (effectively, today's Tier I pricing). In 1956 this apportionment structure was incorporated in the [Greater Vancouver Sewerage and Drainage District Act](#).

In 1995, the *GVS&DD Cost Apportionment Bylaw* was established based on extensive evaluation of the cost allocation methodology by staff supported by the Regional Administrators Advisory Committee (RAAC) and Regional Engineers Advisory Committee (REAC). This bylaw was created in response to the costs associated with the provincially mandated secondary upgrades of the Annacis Island and Lulu Island wastewater treatment plants. This process introduced Tier II pricing and the regional allocation of costs associated with the secondary upgrade projects. This process also introduced fixed percentages for the apportionment among the members of the North Shore Sewerage Area.

Adjustments have been made to the bylaw through the years. These include: adoption of dry weather flows for the apportionment to members in the Fraser Sewerage Area, introduction of revenues from industrial treatment costs, and apportionment of growth-related capital costs in proportion to population growth. The most recent amendments include the introduction of tertiary filtration to Tier III (2019), addition of regional wastewater resource recovery projects to Tier III (2021), and the transition to wet weather pricing (2023). The bylaw classifies expenditures into four categories and allocates them as summarized in Table 1.

Table 1. Tier Definitions in the GVS&DD Cost Apportionment Bylaw

Category	Expenditure	Costs Allocated to Serviced Sewerage Area	Costs Allocated Regionally
Operating	All operating costs	100%	N/A
Tier 1 Capital	Conveyance system capital costs (and primary treatment portion of NSWWTP & Iona upgrades only)	100%	N/A
Tier 2 Capital	Treatment plant capital costs (Secondary Treatment portion of NSWWTP & Iona upgrades)	30%	70%
Tier 3 Capital	Tertiary filtration and resource recovery capital costs	N/A	100%

Costs for capital projects related to population growth are allocated to sewerage areas in proportion to population growth based on population estimates produced by BC Stats. Capital project costs that fall under the upgrade, maintenance, or opportunity categories are allocated to the sewerage areas in proportion to dry weather flow at the five regional wastewater treatment plants. The apportionment of the incremental costs to complete the NSWWTP Program to each sewerage area are summarized in the Table 2.

Table 2. Apportionment of incremental costs to complete NSWWTP Program by sewerage area

	VSA	NSSA	LIWSA	FSA	Total
Tier 1	-	19.3%	-	-	19.3%
Tier 2 (30%)	-	22.8%	-	-	22.8%
Tier 2 (70%)	19.7%	3.3%	3.6%	26.5%	53.1%
Tier 3	1.8%	0.3%	0.3%	2.4%	4.8%
Total	21.5%	45.7%	3.9%	28.9%	100%

Table 3 shows the incremental impact by sewerage area with the current allocation model. It shows both the average HHI (a metric utilized to make the rates more understandable / relatable), and, as Metro Vancouver actually charges based on levy, it also shows the average annual levy amount over the amortization period.

Table 3. Incremental HHI and average annual Levy over the amortization by sewerage area

Sewerage Area	Incremental HHI to complete the NSWWTP Program	Average Annual Levy Amount Over Amortization
VSA	\$140	\$46M
NSSA	\$725	\$71M
LIWSA	\$70	\$9M
FSA	\$80	\$64M
Total		\$190M

With the current tiered allocation model, North Shore residents, who represent 7% of the region’s population will be responsible for 46% of the \$2.8B cost, or \$1.3B over 30 years. Residents across the region will also be impacted with a cost ranging from \$80-\$140 per household for 15 years or 54% of the \$2.8B.

OPTIONS ANALYSIS TO ADDRESS THE INCREMENTAL COSTS TO COMPLETE THE NSWWTP PROGRAM

At the April 2024 Board Budget workshop, staff presented options to incorporate the required incremental costs to complete the NSWWTP Program into the 2025 Budget and 2025-2029 Financial Plan. This included information on phasing any required levy in over one or three years, as well as options to amend the allocation model to equitably distribute the cost across all sewerage areas based on the number of households in each sewerage area. Feedback from the Board included a request to model a wider variety of scenarios.

Over the past couple of weeks, staff have also been in discussions with municipal staff and Board members, where it was also requested that additional cost allocation methodologies to the average household impact based on the number of households be considered including:

- allocation based on assessed value;
- allocation of the total cost to Tier 3; and
- allocation based on water consumption.

These options are presented in Tables 4 and 5 below. They result in fluctuating results relative to the current cost apportionment model that overall do not address the gap across sewerage areas. These scenarios are based on the current financing arrangements of 15-year amortization for VSA, LIWSA, and FSA, and 30-year amortization for NSSA.

Table 4. Cost Allocation by Sewerage Area Via Different Methodologies (\$ Billions)

	Current Cost Allocation		Equal HHI		Assessed Value		All Tier 3		Water Consumption	
VSA	\$0.6	21%	\$0.7	24%	\$0.9	32%	\$1.0	37%	\$0.8	29%
NSSA	\$1.3	46%	\$0.2	8%	\$0.2	8%	\$0.2	6%	\$0.2	9%
LIWSA	\$0.1	4%	\$0.3	9%	\$0.3	10%	\$0.2	7%	\$0.3	9%
FSA	\$0.8	29%	\$1.6	59%	\$1.4	50%	\$1.4	50%	\$1.5	53%
Total	\$2.8	100%	\$2.8	100%	\$2.8	100%	\$2.8	100%	\$2.8	100%

Table 5. Incremental Household Impact by Sewerage Area Via Different Methodologies (\$)

	Current Cost Allocation	Equal HHI	Assessed Value	All Tier 3	Water Consumption
VSA	\$140	\$140	\$185	\$220	\$170
NSSA	\$725	\$140	\$140	\$95	\$135
LIWSA	\$70	\$140	\$150	\$105	\$140
FSA	\$80	\$140	\$125	\$125	\$135

Moving back to allocation by number of households, subsequent modelling included consideration of different cost allocation options looking at the impact of adjusting the average household impact

in \$10 increments for VSA, LIWSA, and FSA to mitigate the financial impact to the NSSA. For every \$10 adjustment in the household impact for VSA, LIWSA, and FSA, there is an approximate \$135 household impact adjustment for the NSSA. Table 6 outlines the household impacts of these adjustments with the average annual levy impact over the amortization of the project.

Table 6. Scenarios providing impact of increasing the average HHI in \$10 increments

Scenario	Sewerage Area	Incremental HHI	Average Annual Levy Amount Over Amortization
Current Cost Apportionment			
1	VSA	\$140	\$46M
	NSSA	\$725	\$71M
	LIWSA	\$70	\$9M
	FSA	\$80	\$64M
	Total		\$190M
Adjusted Regional Spreads			
Scenario	Sewerage Area	Incremental HHI	Average Annual Levy Amount Over Amortization
2	VSA	\$140	\$46M
	NSSA	\$140	\$15M
	LIWSA	\$140	\$23M
	FSA	\$140	\$106M
	Total		\$190M
3	VSA	\$150	\$50M
	NSSA	\$590	\$58M
	LIWSA	\$80	\$11M
	FSA	\$90	\$71M
	Total		\$190M
4	VSA	\$160	\$54M
	NSSA	\$455	\$45M
	LIWSA	\$90	\$13M
	FSA	\$100	\$78M
	Total		\$190M
5	VSA	\$170	\$58M
	NSSA	\$320	\$32M
	LIWSA	\$100	\$15M
	FSA	\$110	\$85M
	Total		\$190M
6	VSA	\$180	\$62M
	NSSA	\$185	\$19M
	LIWSA	\$110	\$17M
	FSA	\$120	\$92M
	Total		\$190M

Options for Phasing in \$2.8B Costs to complete the NSWWTP Program Over 1 to 5 Years

The earlier the rates are phased in to fund the cost of the NSWWTP Program, the higher the debt service savings because this will offset the borrowing requirements over the first 5 years. By levying over 1, 2, or 3 years, Metro Vancouver can achieve an estimated \$20M–\$90M in debt avoidance over the 5-year Financial Plan. If levying over 4 or 5 years, additional borrowing would be required to fund the NSWWTP Program, and would result in an increase in the household impacts after the 5 years. Any scenario that does not include the 1-year phase-in will result in the household impacts in subsequent years being higher than the 5% target set by the Board for 2026 onwards, as set out in the current 5-Year Financial Plan. Table 7 below summarizes phasing options with the debt service implications under the current financing arrangements of 30-year amortization for NSSA and 15-year amortization for VSA, LIWSA, and FSA.

Table 7. Levy phasing options and Implications on 5-year debt servicing and 5-year plan HHI

Option	Phasing Options	5-Year Debt Service Impacts	Overall 5-Year HHI % Change
1	1 year	~\$90M savings	31%, 5%, 5%, 5%, 5%
2	1 year for three sewerage areas, 3 years for NSSA	~\$75M savings	26%, 7%, 6%, 5%, 5%
3	2 year	~\$70M savings	21%, 13%, 5%, 5%, 5%
4	1 year for three sewerage areas, 5 years for NSSA	~\$60M savings	25%, 6%, 6%, 6%, 6%
5	3 year	~\$20M savings	18%, 10%, 10%, 5%, 5%
6	4 year*	~ -\$25M cost	16%, 9%, 9%, 8%, 5%
7	5 year*	~ -\$60M cost	15%, 8%, 8%, 8%, 8%

**Will result in cash flow challenge and will need to increase rates post 5 years (not recommended)*

CONSIDERATIONS FOR 15 AND 30 YEAR AMORTIZATION PERIODS

The current financing arrangements for the NSWWTP Program are 30-year amortization for the NSSA portion of the project, and 15-year amortization for VSA, LIWSA, and FSA. The 30 year amortization period for the NSWWTP Program was requested by the NSSA and approved by the Metro Vancouver Board in 2021. Since the NSSA is the only sewerage area currently with a 30-year amortization, any financial savings resulting from the NSSA moving back to a 15-year amortization would only be realized by the NSSA.

If the NSSA is interested in moving back to a 15-year amortization, significant debt service savings could be realized, but the incremental household impact would increase over the amortization of the project because of the higher debt payments required on a shorter amortization term. For example, combining sample scenarios from Table 6 with a move to a 15-year amortization results in the following:

- Table 6 shows that if other sewerage areas increase their HHI by \$10, the NSSA HHI decreases from \$725 to \$590. If the NSSA went to a 15-year amortization, they would achieve, an estimated \$382M in debt service savings over the life of the loans. However, the revised household impact for the NSSA would become \$775.

- If other sewerage areas increase their HHI by \$20, the NSSA HHI decreases from \$725 to \$455. If the NSSA went to a 15-year amortization, they would achieve, an estimated \$297M in debt service savings over the life of the loans. However, the revised household impact for the NSSA would become \$605.

ALTERNATIVES

This is an information report; no alternatives are provided. However, staff are seeking direction from the Board on how to incorporate the budgetary requirements to complete the NSWWTP Program into the 2025 budget and 2025-2029 Financial Plan for the upcoming budget process. Staff are not providing a recommendation on allocation and phasing, however, are seeking direction from the Board to advance one option from Table 6 and one option from Table 7 in the report.

This entails the Board filling in and passing the following resolution:

That the MVRD / MVHC / GVS&DD / GVWD Boards direct staff to prepare the 2025 Budget and 2025-2029 Financial Plan by allocating the \$2.8B required to complete the NSWWTP Program according to [insert Options 1,2,3,4,5, or 6 from Table 6] and phasing the levy in according to [insert Options 1,2,3,4,5,6, or 7 from Table 7].

FINANCIAL IMPLICATIONS

The Board has already approved the revised budget to complete the NSWWTP Program. The direction from the Board with respect to the allocation and phasing the updated NSWWTP Program costs is key in the development of the 2025 budget and 2025-2029 Financial Plan. Based on direction from the Board, staff will incorporate the direction as part of the 2025 Budget and 2025-2029 Financial Plan to be considered in Q4, 2024.

CONCLUSION

The Board Budget Workshop is a key milestone for Metro Vancouver's annual budget process as it provides direction to staff from the Board on the annual budget and 5 year financial plans for the fall budget approvals. The purpose of this report is to seek direction on how to incorporate the updated North Shore Wastewater Treatment Plant (NSWWTP) Program costs within the 2025 Budget and 2025-2029 Financial Plan. Based on direction from the Board, staff will incorporate the direction as part of the 2025 Budget and 2025-2029 Financial Plan to be approved in Q4, 2024. Staff are seeking direction from the Board to advance one option from Table 6 and one option from Table 7 in the report.

ATTACHMENTS

1. Presentation re: Board Budget Workshop #2

REFERENCES

1. [Sewerage and Drainage of the Greater Vancouver Area British Columbia \(Rawn Report\)](#), 1953
2. [Greater Vancouver Sewerage and Drainage District Act](#), 1956
3. [BC Stats](#)



Metro Vancouver

Board Budget Workshop #2

2025 BUDGET AND 5-YEAR FINANCIAL PLAN

Jerry W. Dobrovolny, P.Eng, MBA
Commissioner / Chief Administrative Officer

Harji Varn
GM Financial Services / Chief Finance Officer

Sonu Kailley
Director, Financial Planning

Board Budget Workshop, May 17, 2024
67514051

metrovancover

TODAY'S OBJECTIVES

- Respond to requests for additional information on tier definitions and allocation of tiers for NSWWTP Program
- Provide Board with additional scenarios and information to inform direction to staff for:
 - 2025 Budget
 - 2025-2029 Financial Plan



COST APPORTIONMENT BYLAW

Category	Expenditure	Costs Allocated to Host Sewerage Area	Costs Allocated Regionally
Operating	All Operating Costs	100%	N/A
Tier 1 Capital	Conveyance System and Primary Treatment (NSWWTP & Iona upgrades only)	100%	N/A
Tier 2 Capital	Secondary Treatment	30%	70%
Tier 3 Capital	Tertiary Treatment	N/A	100%

- In place since 1995
- Last amended 2019

NSWWTP PROGRAM TIER BREAKDOWN FOR \$2.8B

Current apportionment

	Tier Allocation		VSA	NSSA	LIWSA	FSA
Tier 1	\$0.5B	19%	\$0.0B	\$0.5B	\$0.0B	\$0.0B
Tier 2	\$2.1B	76%	\$0.5B	\$0.8B	\$0.1B	\$0.7B
Tier 3	\$0.2B	5%	\$0.1B	\$0.0B	\$0.0B	\$0.1B
Total	\$2.8B	100%	\$0.6B (21%)	\$1.3B (46%)	\$0.1B (4%)	\$0.8B (29%)
Population	2.9M		0.8M (28%)	0.2M (7%)	0.2M (8%)	1.7M (57%)

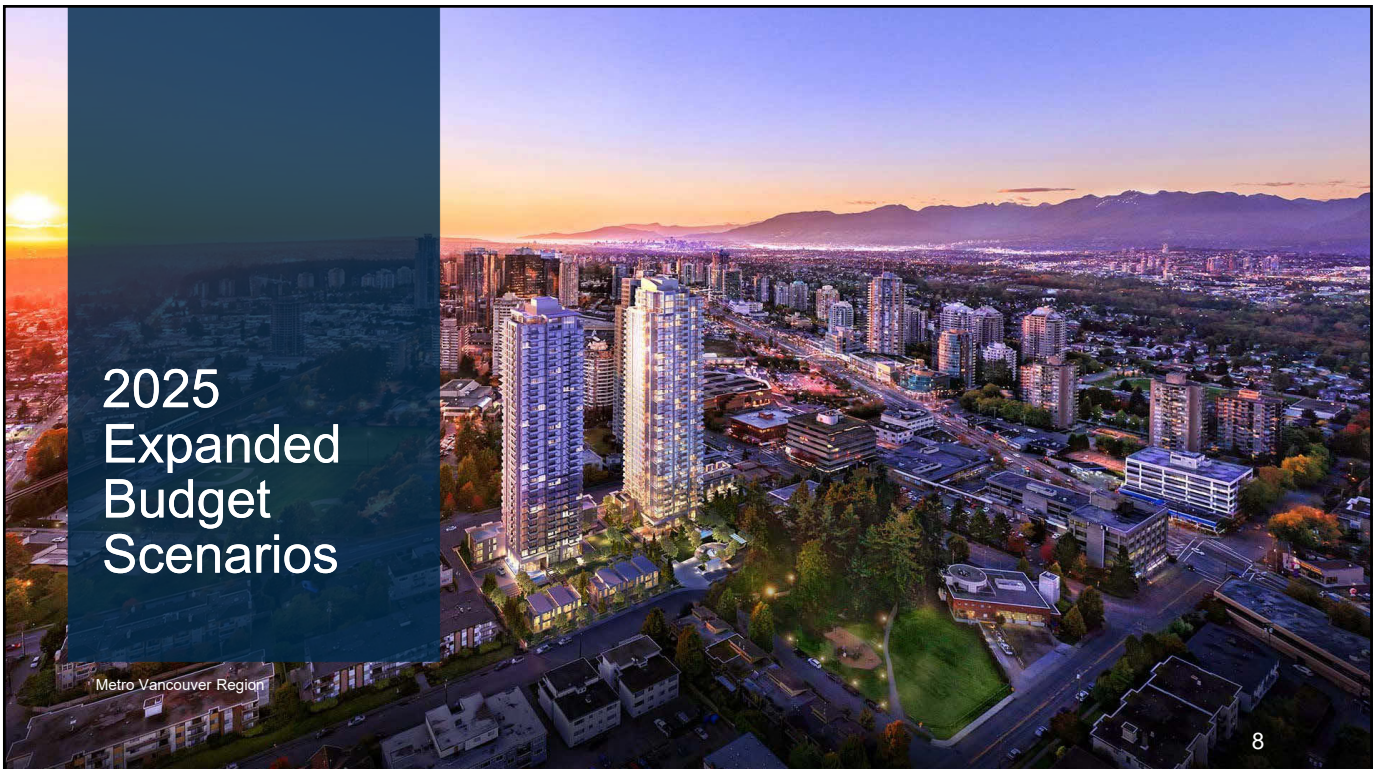
INCREMENTAL IMPACT OF NSWWTP PROGRAM BY SEWERAGE AREA; CURRENT APPORTIONMENT

	2024 Liquid Waste HHI	Incremental impact, current cost apportionment	
North Shore (NSSA)	\$464	+\$725	} Per year for 30 years
Vancouver (VSA)	\$432	+\$140	
Lulu Island (LIWSA)	\$295	+\$70	} Per year for 15 years
Fraser (FSA)	\$301	+\$80	

QUESTION

The federation has the ability to make changes to the allocation model to address the regional challenge that 7% of the region's population is responsible for 46% or \$1.3B of the \$2.8B cost increase for the NSWWTP Program.

North Shore residents will be paying on average, an additional \$725 / household per year for 30 years. The impact will also be borne by the rest of the region's residents; they will be paying on average an additional \$70-\$140 / year for 15 years depending on the sewerage area in which they reside.



5-YEAR FINANCIAL PLAN RESET

- Prior to NSWWTP Program budget reset, current 2024-2028 Financial Plan targets of 11%, 5%, 5%, 5% were attainable
- Staff have modelled various scenarios to support Board discussion (3 presented in April; additional for today)
- Two issues to discuss:
 1. **Allocation** of incremental NSWWTP Program (\$2.8B) costs
 2. **Phase-In** Approach to 5-Year Financial Plan to integrate \$2.8B

COST ALLOCATION OPTIONS FOR ADDED COSTS FOR THE NSWWTP PROGRAM 1. Allocation

	Current Cost Allocation (\$B)		Equal HHI (\$B)		Assessed Value (\$B)		All Tier 3 (\$B)		Water Consumption (\$B)	
VSA	\$0.6	21%	\$0.7	24%	\$0.9	32%	\$1.0	37%	\$0.8	29%
NSSA	\$1.3	46%	\$0.2	8%	\$0.2	8%	\$0.2	6%	\$0.2	9%
LIWSA	\$0.1	4%	\$0.3	9%	\$0.3	10%	\$0.2	7%	\$0.3	9%
FSA	\$0.8	29%	\$1.6	59%	\$1.4	50%	\$1.4	50%	\$1.5	53%
Total	\$2.8	100%	\$2.8	100%	\$2.8	100%	\$2.8	100%	\$2.8	100%

Household Impact	Current Cost Allocation	Equal HHI	Assessed Value	All Tier 3	Water Consumption
VSA	\$140	\$140	\$185	\$220	\$170
NSSA	\$725	\$140	\$140	\$95	\$135
LIWSA	\$70	\$140	\$150	\$105	\$140
FSA	\$80	\$140	\$125	\$125	\$135

COST ALLOCATION OPTIONS FOR ADDED COSTS FOR THE NSWWTTP PROGRAM 1. Allocation

	Current Cost Allocation (\$B)		Equal HHI (\$B)		Assessed Value (\$B)		All Tier 3 (\$B)		Water Consumption (\$B)	
VSA	\$0.6	21%	\$0.7	24%	\$0.9	32%	\$1.0	37%	\$0.8	29%
NSSA	\$1.3	46%	\$0.2	8%	\$0.2	8%	\$0.2	6%	\$0.2	9%
LIWSA	\$0.1	4%	\$0.3	9%	\$0.3	10%	\$0.2	7%	\$0.3	9%
FSA	\$0.8	29%	\$1.6	59%	\$1.4	50%	\$1.4	50%	\$1.5	53%
Total	\$2.8	100%	\$2.8	100%	\$2.8	100%	\$2.8	100%	\$2.8	100%
Household Impact	Current Cost Allocation		Equal HHI		Assessed Value		All Tier 3		Water Consumption	
VSA	\$140		\$140		\$185		\$220		\$170	
NSSA	\$725		\$140		\$140		\$95		\$135	
LIWSA	\$70		\$140		\$150		\$105		\$140	
FSA	\$80		\$140		\$125		\$125		\$135	

COST ALLOCATION OPTIONS FOR ADDED COSTS FOR THE NSWWTTP PROGRAM 1. Allocation

	Current Cost Allocation (\$B)		Equal HHI (\$B)		Assessed Value (\$B)		All Tier 3 (\$B)		Water Consumption (\$B)	
VSA	\$0.6	21%	\$0.7	24%	\$0.9	32%	\$1.0	37%	\$0.8	29%
NSSA	\$1.3	46%	\$0.2	8%	\$0.2	8%	\$0.2	6%	\$0.2	9%
LIWSA	\$0.1	4%	\$0.3	9%	\$0.3	10%	\$0.2	7%	\$0.3	9%
FSA	\$0.8	29%	\$1.6	59%	\$1.4	50%	\$1.4	50%	\$1.5	53%
Total	\$2.8	100%	\$2.8	100%	\$2.8	100%	\$2.8	100%	\$2.8	100%
Household Impact	Current Cost Allocation		Equal HHI		Assessed Value		All Tier 3		Water Consumption	
VSA	\$140		\$140		\$185		\$220		\$170	
NSSA	\$725		\$140		\$140		\$95		\$135	
LIWSA	\$70		\$140		\$150		\$105		\$140	
FSA	\$80		\$140		\$125		\$125		\$135	

COST ALLOCATION OPTIONS FOR ADDED COSTS FOR THE NSWWTTP PROGRAM [1. Allocation](#)

	Current Cost Allocation (\$B)		Equal HHI (\$B)		Assessed Value (\$B)		All Tier 3 (\$B)		Water Consumption (\$B)	
VSA	\$0.6	21%	\$0.7	24%	\$0.9	32%	\$1.0	37%	\$0.8	29%
NSSA	\$1.3	46%	\$0.2	8%	\$0.2	8%	\$0.2	6%	\$0.2	9%
LIWSA	\$0.1	4%	\$0.3	9%	\$0.3	10%	\$0.2	7%	\$0.3	9%
FSA	\$0.8	29%	\$1.6	59%	\$1.4	50%	\$1.4	50%	\$1.5	53%
Total	\$2.8	100%	\$2.8	100%	\$2.8	100%	\$2.8	100%	\$2.8	100%

Household Impact	Current Cost Allocation	Equal HHI	Assessed Value	All Tier 3	Water Consumption
VSA	\$140	\$140	\$185	\$220	\$170
NSSA	\$725	\$140	\$140	\$95	\$135
LIWSA	\$70	\$140	\$150	\$105	\$140
FSA	\$80	\$140	\$125	\$125	\$135

COST ALLOCATION OPTIONS FOR ADDED COSTS FOR THE NSWWTTP PROGRAM [1. Allocation](#)

	Current Cost Allocation (\$B)		Equal HHI (\$B)		Assessed Value (\$B)		All Tier 3 (\$B)		Water Consumption (\$B)	
VSA	\$0.6	21%	\$0.7	24%	\$0.9	32%	\$1.0	37%	\$0.8	29%
NSSA	\$1.3	46%	\$0.2	8%	\$0.2	8%	\$0.2	6%	\$0.2	9%
LIWSA	\$0.1	4%	\$0.3	9%	\$0.3	10%	\$0.2	7%	\$0.3	9%
FSA	\$0.8	29%	\$1.6	59%	\$1.4	50%	\$1.4	50%	\$1.5	53%
Total	\$2.8	100%	\$2.8	100%	\$2.8	100%	\$2.8	100%	\$2.8	100%

Household Impact	Current Cost Allocation	Equal HHI	Assessed Value	All Tier 3	Water Consumption
VSA	\$140	\$140	\$185	\$220	\$170
NSSA	\$725	\$140	\$140	\$95	\$135
LIWSA	\$70	\$140	\$150	\$105	\$140
FSA	\$80	\$140	\$125	\$125	\$135

COST ALLOCATION OPTIONS FOR ADDED COSTS FOR THE NSWWTWP PROGRAM [1. Allocation](#)

	Current Cost Allocation (\$B)		Equal HHI (\$B)		Assessed Value (\$B)		All Tier 3 (\$B)		Water Consumption (\$B)	
VSA	\$0.6	21%	\$0.7	24%	\$0.9	32%	\$1.0	37%	\$0.8	29%
NSSA	\$1.3	46%	\$0.2	8%	\$0.2	8%	\$0.2	6%	\$0.2	9%
LIWSA	\$0.1	4%	\$0.3	9%	\$0.3	10%	\$0.2	7%	\$0.3	9%
FSA	\$0.8	29%	\$1.6	59%	\$1.4	50%	\$1.4	50%	\$1.5	53%
Total	\$2.8	100%	\$2.8	100%	\$2.8	100%	\$2.8	100%	\$2.8	100%

Household Impact	Current Cost Allocation	Equal HHI	Assessed Value	All Tier 3	Water Consumption
VSA	\$140	\$140	\$185	\$220	\$170
NSSA	\$725	\$140	\$140	\$95	\$135
LIWSA	\$70	\$140	\$150	\$105	\$140
FSA	\$80	\$140	\$125	\$125	\$135

COST ALLOCATION OPTIONS FOR ADDED COSTS FOR THE NSWWTWP PROGRAM [1. Allocation](#)

	Current Cost Allocation (\$B)		Equal HHI (\$B)		Assessed Value (\$B)		All Tier 3 (\$B)		Water Consumption (\$B)	
VSA	\$0.6	21%	\$0.7	24%	\$0.9	32%	\$1.0	37%	\$0.8	29%
NSSA	\$1.3	46%	\$0.2	8%	\$0.2	8%	\$0.2	6%	\$0.2	9%
LIWSA	\$0.1	4%	\$0.3	9%	\$0.3	10%	\$0.2	7%	\$0.3	9%
FSA	\$0.8	29%	\$1.6	59%	\$1.4	50%	\$1.4	50%	\$1.5	53%
Total	\$2.8	100%	\$2.8	100%	\$2.8	100%	\$2.8	100%	\$2.8	100%

Household Impact	Current Cost Allocation	Equal HHI	Assessed Value	All Tier 3	Water Consumption
VSA	\$140	\$140	\$185	\$220	\$170
NSSA	\$725	\$140	\$140	\$95	\$135
LIWSA	\$70	\$140	\$150	\$105	\$140
FSA	\$80	\$140	\$125	\$125	\$135

COST ALLOCATION OPTIONS FOR ADDED COSTS FOR THE NSWWTP PROGRAM [1. Allocation](#)

Current Cost Apportionment

Scenario	Sewerage Area	Incremental HHI	Average Annual Levy Amount Over Amortization
1	VSA	\$140	\$46M
	NSSA	\$725	\$71M
	LIWSA	\$70	\$9M
	FSA	\$80	\$64M
	Total		\$190M

Adjusted Regional Spread (equal HHI)

Scenario	Sewerage Area	Incremental HHI	Average Annual Levy Amount Over Amortization
2	VSA	\$140	\$46M
	NSSA	\$140	\$15M
	LIWSA	\$140	\$23M
	FSA	\$140	\$106M
	Total		\$190M

COST ALLOCATION OPTIONS FOR ADDED COSTS FOR THE NSWWTP PROGRAM [1. Allocation](#)

Adjusted Regional Spread (add \$10/HH for 3SAs)

Scenario	Sewerage Area	Incremental HHI	Average Annual Levy Amount Over Amortization
3	VSA	\$150	\$50M
	NSSA	\$590	\$58M
	LIWSA	\$80	\$11M
	FSA	\$90	\$71M
	Total		\$190M

Adjusted Regional Spread (add \$20/HH for 3SAs)

Scenario	Sewerage Area	Incremental HHI	Average Annual Levy Amount Over Amortization
4	VSA	\$160	\$54M
	NSSA	\$455	\$45M
	LIWSA	\$90	\$13M
	FSA	\$100	\$78M
	Total		\$190M

COST ALLOCATION OPTIONS FOR ADDED COSTS FOR THE NSWWTP PROGRAM

1. Allocation

Adjusted Regional Spread (add \$30/HH for 3SAs)

Scenario	Sewerage Area	Incremental HHI	Average Annual Levy Amount Over Amortization
5	VSA	\$170	\$58M
	NSSA	\$320	\$32M
	LIWSA	\$100	\$15M
	FSA	\$110	\$85M
	Total		\$190M

Adjusted Regional Spread (add \$40/HH for 3SAs)

Scenario	Sewerage Area	Incremental HHI	Average Annual Levy Amount Over Amortization
6	VSA	\$180	\$62M
	NSSA	\$185	\$19M
	LIWSA	\$110	\$17M
	FSA	\$120	\$92M
	Total		\$190M

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PHASE-IN OPTIONS FOR SEWERAGE LEVY

2. Phase in

	Phase-in period for levy	5 Year Debt Financing Impacts	Overall 5-Year HHI % Change
1	1 Year	~\$90M savings	31%, 5%, 5%, 5%, 5%
2	1 Year for 3 SAs, 3 years for NSSA	~\$75M savings	26%, 7%, 6%, 5%, 5%
3	2 Year	~\$70M savings	21%, 13%, 5%, 5%, 5%
4	1 Year for 3 SAs, 5 year for NSSA	~\$60M savings	25%, 6%, 6%, 6%, 6%
5	3 Year	~\$20M savings	18%, 10%, 10%, 5%, 5%
6	4 Year *	~ -\$25M cost	16%, 9%, 9%, 8%, 5%
7	5 Year *	~ -\$60M cost	15%, 8%, 8%, 8%, 8%

* Will result in cash flow challenge and will need to increase rates post 5 years (not recommended)

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SCENARIOS FOR CONSIDERATION

Choose one phase-in period and one allocation option

5 Year Debt Financing Impacts	Phase-in Period for Levy
~\$90M avoid	1 Year
~\$75M avoid	1 Year for 3 sewerage areas, 3 years for NSSA
~\$70M avoid	2 Year
~\$60M avoid	1 Year for 3 sewerage areas, 5 year for NSSA
~\$20M avoid	3 Year
~ -\$25M cost	4 Year *
~ -\$60M cost	5 Year *

Allocation Options
Current (variable and \$725 for NSSA)
\$140 for each household in region
Adjusted (+\$10 and \$590 for NSSA)
Adjusted (+\$20 and \$455 for NSSA)
Adjusted (+\$30 and \$320 for NSSA)
Adjusted (+\$40 and \$185 for NSSA)

*Would present cash flow challenge. Would need to increase rates after 5 years (not recommended)

SCENARIOS FOR CONSIDERATION

Scenario Provided at April Board Budget Workshop

5 Year Debt Financing Impacts	Phase-in Period for Levy
~\$90M avoid	1 Year
~\$75M avoid	1 Year for 3 sewerage areas, 3 years for NSSA
~\$70M avoid	2 Year
~\$60M avoid	1 Year for 3 sewerage areas, 5 year for NSSA
~\$20M avoid	3 Year
~ -\$25M cost	4 Year *
~ -\$60M cost	5 Year *

Allocation Options
Current (variable and \$725 for NSSA)
\$140 for each household in region
Adjusted (+\$10 and \$590 for NSSA)
Adjusted (+\$20 and \$455 for NSSA)
Adjusted (+\$30 and \$320 for NSSA)
Adjusted (+\$40 and \$185 for NSSA)

*Would present cash flow challenge. Would need to increase rates after 5 years (not recommended)

SCENARIOS FOR CONSIDERATION

Scenario Provided at April Board Budget Workshop

5 Year Debt Financing Impacts	Phase-in Period for Levy
~\$90M avoid	1 Year
~\$75M avoid	1 Year for 3 sewerage areas, 3 years for NSSA
~\$70M avoid	2 Year
~\$60M avoid	1 Year for 3 sewerage areas, 5 year for NSSA
~\$20M avoid	3 Year
~ -\$25M cost	4 Year *
~ -\$60M cost	5 Year *

Allocation Options
Current (variable and \$725 for NSSA)
\$140 for each household in region
Adjusted (+\$10 and \$590 for NSSA)
Adjusted (+\$20 and \$455 for NSSA)
Adjusted (+\$30 and \$320 for NSSA)
Adjusted (+\$40 and \$185 for NSSA)

*Would present cash flow challenge. Would need to increase rates after 5 years (not recommended)

SCENARIOS FOR CONSIDERATION

5 Year Debt Financing Impacts	Phase-in Period for Levy
~\$90M avoid	1 Year
~\$75M avoid	1 Year for 3 sewerage areas, 3 years for NSSA
~\$70M avoid	2 Year
~\$60M avoid	1 Year for 3 sewerage areas, 5 year for NSSA
~\$20M avoid	3 Year
~ -\$25M cost	4 Year *
~ -\$60M cost	5 Year *

Allocation Options	
Current (variable and \$725 for NSSA)	
\$140 for each household in region	
Adjusted (+\$10 and \$590 for NSSA)	\$775
Adjusted (+\$20 and \$455 for NSSA)	\$605
Adjusted (+\$30 and \$320 for NSSA)	
Adjusted (+\$40 and \$185 for NSSA)	

* If NSSA chooses 15-year amortization, debt service savings is \$297M to \$382M; but accrues to NSSA

DIRECTION TO STAFF

Recommendation in the report is to receive for information
However, staff are seeking direction on how to prepare the 2025 Budget and 2025-2029 Financial Plan in terms of:

1. **Allocation** - How to allocate the \$2.8B required to complete the NSWWTP Program (Table 6)
2. **Phase in** - How to phase in the required levy (Table 7)

BOARD RESOLUTION

“That the MVRD / MVHC / GVS&DD / GVWD Boards direct staff to prepare the 2025 Budget and 2025-2029 Financial Plan by allocating the \$2.8B required to complete the NSWWTP Program according to [insert Option 1,2,3,4,5, or 6 from Table 6] and phasing the levy in according to [insert Option 1,2,3,4,5,6, or 7 from Table 7]”.



First Nation Drum – Heather Place Opening

TOGETHER
WE MAKE OUR REGION
STRONG

Thank You

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