
To: Climate Action Committee

From: Neal Carley, General Manager, Parks and Environment
Roger Quan, Director, Air Quality and Climate Change

Date: October 8, 2021

Meeting Date: October 15, 2021

Subject: **2022 - 2026 Financial Plan – Air Quality**

RECOMMENDATION

That the Climate Action Committee endorse the 2022 - 2026 Financial Plan for Air Quality as presented in the report dated October 8, 2021, titled “2022 - 2026 Financial Plan – Air Quality”, and forward it to the Metro Vancouver Board Budget Workshop on October 20, 2021 for consideration.

EXECUTIVE SUMMARY

The 2022 - 2026 Metro Vancouver Financial Plan has been prepared following direction received at the April 8, 2021 Metro Vancouver Board Budget Workshop. This has resulted in a plan that maintains the goals and objectives of Metro Vancouver while using key financial tools to minimize the impact on the ratepayers of the region in 2022. The increase in Metro Vancouver’s overall consolidated household impact for 2022 is projected to be 3.5%, down from the 6.4% projected for 2022 in the prior financial planning cycle.

The Air Quality operating budget for 2022 is proposed to be \$12.5 million, a decrease of 0.5% from 2021. While operating expenditures have decreased, the tax requisition is increasing by 14.0%, to offset reduced revenues from regulatory fees, as regulatory action drives improvements in emissions. The regulatory fee system is under review, with proposed amendments for Board consideration to occur within 2021. With Board approval, the fee changes will be expected to be in effect by 2023.

Implementation of the *Clean Air Plan* and *Climate 2050* roadmaps continues to be a key priority, which is also resulting in climate action projects being budgeted across the organization. The Sustainability Innovation Funds will also supplement climate action projects, as will leveraging and collaboration with external partners. Additional priorities include the development of new and amended air quality regulations. Staff will pursue air quality improvement and health and environmental protection through promoting compliance with permits and air quality bylaws.

PURPOSE

To present the 2022 - 2026 Financial Plan for Air Quality for consideration by the Committee.

BACKGROUND

Metro Vancouver’s annual budget process includes the development of detailed annual budgets and the updating of five-year financial plans for each of the four Metro Vancouver legal entities (Metro Vancouver Regional District, Metro Vancouver Housing Corporation, Greater Vancouver Water District and Greater Vancouver Sewerage and Drainage District).

On April 8, 2021 a Metro Vancouver Board Budget Workshop was held with the objective to seek direction for the preparation of the 2022 - 2026 Financial Plan. The workshop outlined the principles that guide the work of Metro Vancouver as an organization, and a proposed approach for the 2022 - 2026 Financial Plan.

This report focuses on the Air Quality function and presents the 2022 annual budget and the updated five-year plan for the years 2022 to 2026 for committee consideration.

AIR QUALITY SERVICE

The Air Quality function within the Metro Vancouver Regional District (MVRD) provides services to all 22 members and encompasses the management of air quality within the region, under authority delegated from the Provincial government within the *Environmental Management Act*. Air Quality services provided are presented in two areas:

- Air Quality and Climate Change, including the development and implementation of climate action and air quality plans and policies, bylaws and regulations, and supporting activities such as the operation of a network of air quality monitoring stations located throughout the airshed, environmental assessment, and communications and outreach;
- Air Quality Regulation and Enforcement, including the issuance and administration of air quality permits, and promotion of compliance with and enforcement of Metro Vancouver air quality bylaws.

The provision of Air Quality services is guided by direction in the *Board Strategic Plan*, and the *Climate 2050 Strategic Framework* and *Clean Air Plan*, both adopted by the Board; specifically:

Board Strategic Plan:

- Guide climate change policy and action for the Metro Vancouver region for the next 30 years with Metro Vancouver's Climate 2050 strategy.
- Improve air quality by mitigating threats to public health and the environment.
- Strengthen awareness among and engagement with the public, members, other orders of government, and other stakeholders in the implementation of Climate 2050, and foster regional coordination to help implement effective adaptation measures and achieve the long-term targets in reducing greenhouse gas emissions.

Climate 2050 Strategic Framework:

- Ensuring our infrastructure, ecosystems, and communities are resilient to the impacts of climate change.
- Pursuing a carbon neutral region by 2050.

Clean Air Plan, Regional 2030 Targets:

- Reduce regional greenhouse gas (GHG) emissions by 45% from 2010 levels.
- Air quality in the region is continually improving, protecting human health and the environment, by ensuring that:
 - Ambient air quality meets or is better than the ambient air quality objectives and standards that are regularly updated by Metro Vancouver, the BC Government and the Government of Canada; and
 - The amount of time that visual air quality is classified as "excellent" is increasing.

Metro Vancouver also recognizes the history of Indigenous Peoples and aims to build meaningful and enduring relationships with First Nations. As part of our work, Air Quality is committed to engaging First Nation communities through information sharing, engagement and ongoing communication.

WORK PLAN PERFORMANCE INDICATORS

High level performance indicators have been developed across the organization to evaluate trends, determine key actions for the coming year, and to assist in long-term planning. The 2022 Work Plan for Air Quality is presented in this report. Within the air quality work plans, performance indicators have been developed and are being tracked. These include:

- Net corporate GHG emissions annually (tonnes of carbon dioxide equivalent, CO₂e);
- Regional GHG emissions annually (tonnes of CO₂e per capita);
- Days with air quality advisories in place due to emission sources located within the airshed;
- Reliability of air quality monitoring network (% of annual hours with monitoring data available for priority pollutants);
- Promote the reduction of emissions of harmful particulate matter from non-road diesel engines (cumulative number of engines retired, prohibited, moved out of region or out of use since the program began);
- Promote compliance with authorizations (total number of permits and approvals); and
- Response to complaints (number of complaints).

The trend in these performance measures supports the Board direction to reduce greenhouse gas emissions in the region, to meet a 45% reduction target by 2030 and achieve carbon neutrality by 2050. They also support the Board direction for Metro Vancouver to show leadership by achieving carbon neutrality as an organization, through improvements to energy efficiency, utilization of waste streams to generate heat and/or energy, the use of low-carbon fuels, and identification of new carbon capture and offset projects. On the air quality side, programs are focused on continuous improvement and will need to respond to new challenges such as wildfire events, extreme weather, and reducing emissions that are harmful to human health.

CONTINUOUS IMPROVEMENT

Air Quality continues to explore, evaluate and implement continuous improvement opportunities. The 2022 continuous improvement opportunities include the following:

- Continuing to update Climate 2050 roadmaps on a regular basis. The roadmaps are intended to be dynamic and to evolve with new science, developing technologies, and public opinion;
- Expansion of Metro Vancouver's portfolio of carbon credit projects and emission reductions, to maintain corporate carbon neutral status;
- Development of new and amended regulations, to drive continuous improvement in air quality, innovation in climate action, and cost recovery from regulated sources;
- Implementation of the recommendations from a third party review of the air quality monitoring network, resulting in improvements and efficiencies in the collection of air quality data and dissemination to the public;
- Continue to improve air quality regulatory data systems to automate administrative tasks by enforcement staff and accommodate new and amended bylaws;
- Develop procedures for virtual inspections; and
- Develop procedures and guidance for the issuance of administrative penalties.

2022 BUDGET AND 2022 - 2026 FINANCIAL PLAN

The five-year financial plans for this cycle have been updated to address five central themes identified by the Metro Vancouver Board in its Strategic Plan to guide the development of plans and budgets. The five themes are as follows:

- Financial Sustainability
- Environmental Sustainability
- System Stewardship
- Regulatory and Legislative Environment
- Regional Growth

Each Metro Vancouver function has an Annual Work Plan that includes strategic directions, performance indicators and key actions to guide the work for the coming year. Each function also has a “What’s Happening” summary that presents program highlights for the next five years.

The 2022 - 2026 Air Quality Financial Plan is included as Attachment 1. The 2022 Annual Work Plan for Air Quality presented in this report is included in Attachment 2 and the “What’s Happening” highlights for the years 2022 - 2026 are included in Attachment 3.

Operating Budget Highlights

The Air Quality 2022 operating budget is proposed to decrease by \$62,435 for a total budget of \$12,498,252 (Attachment 1). This decrease is primarily due to a reduction in consulting funds for studies and projects funded by the Sustainability Innovation Fund (SIF). Additional projects to be considered for SIF funding will be brought forward to the Climate Action Committee as part of the annual application process, and it is expected that numerous projects in all three SIF areas will have a climate action theme. The overall decrease is partially offset by inflationary factors such as increments for salaries and benefits. It should also be noted that, with the development of the Climate 2050 roadmaps, additional climate action projects are funded in other areas, including the utilities, regional parks, and housing, and that the funds in the Air Quality operating budget are used to leverage additional funding for projects with external partners.

The 2022 operating budget includes the following key actions:

- Continue to implement the *Climate 2050 Strategy* and the issue area roadmaps;
- Implement the next regional air quality and greenhouse gas management plan, the *Clean Air Plan*, adopted by the Board in September 2021;
- Develop new air quality bylaws, regulations and standards, towards goals for protection of human health and environment, continuous improvement in air quality, and cost recovery from regulated sources, for Board adoption;
- Implementation of new and amended bylaws, for further reductions in harmful emissions from non-road diesel engines and residential wood burning;
- Enhance the odour management framework based on consultation feedback, increased community outreach, and technical capacity-building through partnerships with industry and other levels of government;
- Improve public understanding of air quality and climate change, including outreach and progress reporting on *Climate 2050*, the *Clean Air Plan*, and the preparation of the annual Caring for the Air report; and

- Develop additional air quality monitoring and emissions assessment capabilities to provide the evidence basis and performance measurement for the air quality program, and provide air quality advisory services.

Over the next five years, expenditures are increasing by \$1,200,951, or an average of 1.9% per year.

Communications Program

The 2022 Air Quality Communications Program of \$150,000 is focused on outreach, communication and engagement on Climate 2050, Clean Air Plan, and air quality bylaws and regulations.

Reserve Funds

The financial plan for Air Quality includes the utilization of reserves to annually fund one-time initiatives. This is consistent with the *Operating, Statutory and Discretionary Reserves Policy*. The 2022 - 2026 Projected Reserves for Air Quality are included in Attachment 4.

APPROVAL PROCESS

The proposed 2022 - 2026 Financial Plan and Annual Work Plan is presented for consideration and endorsement before being forwarded to the Board for consideration.

The next steps of the process are:

- The 2022 - 2026 Financial Plan and Annual Work Plan will be presented for consideration at the Metro Vancouver Board Budget Workshop on October 20, 2021.
- The Board will consider adoption of the 2022 Budget and endorsement of the 2022 - 2026 Financial Plan on October 29, 2021.

ALTERNATIVES

1. That the Climate Action Committee endorse the 2022 - 2026 Financial Plan for Air Quality as presented in the report dated October 8, 2021, titled “2022 - 2026 Financial Plan – Air Quality”, and forward it to the Metro Vancouver Board Budget Workshop on October 20, 2021 for consideration.
2. That the Climate Action Committee make recommendations and endorse an amended 2022 - 2026 Financial Plan for Air Quality and forward the amended Financial Plan to the Metro Vancouver Board Budget Workshop on October 20, 2021 for consideration.

FINANCIAL IMPLICATIONS

If the MVRD Board endorses the 2022 - 2026 Financial Plan for Air Quality, as presented under Alternative 1, in 2022 the Air Quality requisition will increase by \$909,624 (14.0%) for a total requisition of \$7,392,266. The requisition increase is related to a reduction in regulatory fee revenues – as emissions are reduced, fee revenues decline. After completion of the review of the system of regulatory fees in 2021, staff will propose amendments to the regulatory fee bylaw for Board consideration. With Board approval, the fee changes will be expected to be in effect by 2023.

Over the term of the five-year plan, the annual Air Quality requisition is projected to increase by an average of \$650,941 per year (8.7%) to provide the required revenue to offset projected

expenditures. It is anticipated that the cost to the average regional household over the next five years for the Air Quality function will rise from just under \$6 in 2021 to just over \$7 in 2026.

Under Alternative 2, the Committee may wish to consider recommending amendments to the 2022 Budget and Five-Year Financial Plan for consideration at the Metro Vancouver Board Budget Workshop. Any changes to the plan may have an impact on the MVRD Financial Plan.

SUMMARY / CONCLUSION

The Air Quality 2022 Budget and Five-Year Financial Plan was prepared following direction received at the April 8, 2021 Metro Vancouver Board Budget Workshop and to respond to direction provided in the *Board Strategic Plan*. It is presented to Committee and Board members to provide overview information on activities and financial impacts for the years 2022 to 2026 for Air Quality.

The presentation of this year's five-year financial plan for Air Quality provides the opportunity for Metro Vancouver to share with its member jurisdictions the proposed service related initiatives over the next five years. It is intended to be used as a guiding document for member jurisdictions in the development of their five-year financial plans and includes projections on household impact to demonstrate how the plan will remain affordable for residents while keeping pace with our critical requirements.

Staff recommends endorsing the 2022 - 2026 Financial Plan and Annual Work Plan for Air Quality as presented under alternative one.

Attachments:

1. 2022 - 2026 Financial Plan – Air Quality
2. 2022 Work Plans
 - a. Air Quality
 - b. Environmental Regulation and Enforcement – Air Quality
3. 2022 - 2026 "What's Happening"
4. 2022 - 2026 Projected Reserves – Air Quality

METRO VANCOUVER REGIONAL DISTRICT
AIR QUALITY
2022 BUDGET REVIEW
2022-2026 FINANCIAL PLAN

	2021 BUDGET	2022 BUDGET	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE	2025 FORECAST	% CHANGE	2026 FORECAST	% CHANGE
REVENUES											
Metro Vancouver Regional District Requisitions	\$ 6,482,642	\$ 7,392,266	14.0%	\$ 8,747,776	18.3%	\$ 8,834,220	1.0%	\$ 9,108,949	3.1%	\$ 9,737,345	6.9%
User Fees	1,715,000	1,715,000		2,240,000		2,567,451		2,468,027		2,540,000	
Non-Road Diesel Permit Fees	1,365,000	1,070,000		1,070,000		1,070,000		1,070,000		1,070,000	
Other External Revenues	635,378	439,986		445,391		401,573		407,873		414,293	
Transfer from Sustainability Innovation Fund Reserves	1,032,667	400,000		-		-		-		-	
Transfer from Reserves	1,330,000	1,481,000		337,000		-		-		-	
TOTAL REVENUES	\$ 12,560,687	\$ 12,498,252	(0.5%)	\$ 12,840,167	2.7%	\$ 12,873,244	0.3%	\$ 13,054,849	1.4%	\$ 13,761,638	5.4%
EXPENDITURES											
Operating Programs:											
Ambient Air Quality Monitoring	\$ 2,227,265	\$ 2,377,133		\$ 2,367,128		\$ 2,385,060		\$ 2,334,044		\$ 2,734,108	
Air Quality and Climate Change Policy	2,650,389	2,738,184		3,381,547		3,004,595		3,075,564		3,175,156	
Air Quality Bylaw and Regulation Development	1,284,572	1,294,649		1,287,245		1,293,837		1,322,228		1,347,838	
Engineers in Training	34,880	46,525		47,390		48,452		49,538		50,649	
Regional Sustainability Initiatives	1,032,667	400,000		-		-		-		-	
Administration and Department Support	580,973	541,721		553,045		567,378		580,391		593,879	
	7,810,746	7,398,212	(5.3%)	7,636,355	3.2%	7,299,322	(4.4%)	7,361,765	0.9%	7,901,630	7.3%
Communications Program	150,000	150,000	0.0%	150,000	0.0%	180,000	20.0%	180,000	0.0%	180,000	0.0%
Environmental Regulation and Enforcement	3,484,723	3,993,324		4,065,325		4,426,601		4,639,739		4,882,387	
Contribution to Non-Road Diesel Reserve	257,500	-		-		-		-		-	
	3,742,223	3,993,324	6.7%	4,065,325	1.8%	4,426,601	8.9%	4,639,739	4.8%	4,882,387	5.2%
Allocation of Centralized Support Costs	857,718	956,716	11.5%	988,487	3.3%	967,321	(2.1%)	873,345	(9.7%)	797,621	(8.7%)
TOTAL EXPENDITURES	\$ 12,560,687	\$ 12,498,252	(0.5%)	\$ 12,840,167	2.7%	\$ 12,873,244	0.3%	\$ 13,054,849	1.4%	\$ 13,761,638	5.4%

AIR QUALITY

Description of services

Air Quality is a Metro Vancouver Regional District function established under the *Environmental Management Act* with the responsibility for managing air quality and developing and implementing climate actions for the region. The service is guided by the development of management plans that recognize the strong connections between air quality, health and climate change, and that integrate actions, whenever possible, to reduce both air contaminants and greenhouse gases across the region.

This work plan addresses the air quality and climate change policy and planning area, which includes development of management plans and emission reduction actions using an evidence-based approach, relying on the regional network of air quality monitoring stations and other indicators to measure performance and identify priority areas for action. Reduction efforts involve both regulatory initiatives, such as air quality bylaws and regulations, and non-regulatory approaches.

Environmental Regulation and Enforcement is an integrated part of the Air Quality function with its responsibility to manage the discharge of air contaminants under Metro Vancouver Regional District air quality bylaws, through the issuance of permits, orders and licenses, and promotion of compliance.

Strategic directions and high level goals supported

Continue to promote a regional approach on climate action to all Metro Vancouver functions, including both mitigation and adaptation, through Climate 2050.

Guide climate change policy and action for the Metro Vancouver region for the next 30 years with Metro Vancouver's Climate 2050 strategy.

- Develop and advocate for actions fundamental to meeting regional greenhouse gas emission targets for 2030 and 2050 and ensuring our region is resilient to the impacts of climate change.
- Undertake corporate climate action to maintain carbon neutrality as an organization, that supports regional climate change mitigation and adaptation goals and targets and demonstrates leadership.

Improve air quality by mitigating threats to public health and the environment.

- Improve understanding of air quality issues in the region by expanding air monitoring capacity.
- Continue to identify air contaminants in the region, identify priorities and pursue effective actions to reduce pollutants.
- Explore solutions for mitigating health impacts of diminished air quality due to wildfires.

Strengthen awareness among and engagement with the public, members, other orders of government, and other stakeholders in the implementation of Climate 2050, and foster regional coordination to help implement effective adaptation measures and achieve the long-term targets in reducing greenhouse gas emissions.

Performance indicators

Indicator	Historical and/or industry benchmark	Current performance	2022 performance objective
Net corporate greenhouse gas emissions (tonnes of carbon dioxide equivalent, CO ₂ e)	1997: 13,900 2015: 0 (100% carbon neutral) 2016: 3,321 (60% carbon neutral)	2019, 2020: 0 (100% carbon neutral)	0 (100% carbon neutral)
Regional greenhouse gas emissions (tonnes of CO ₂ e per capita)	2010: 6.3 2015: 5.8 2018: 5.6	2020: 5.4	4.2 (aligned with Climate 2050 targets)
Days with air quality advisories in place due to emission sources located within the airshed	2018: 7 2020: 2	2021: 5	0
Reliability of air quality monitoring network (% of annual hours with monitoring data available for priority pollutants)	2019: 98%	2020: 97%	> 95%

2022 key actions

- Continue to implement the Climate 2050 Strategy including:
 - roadmaps for climate action in ten issue areas approved by the Board, including transportation, buildings and industry;
 - implementation of additional energy and greenhouse gas reduction offset projects that will maintain Metro Vancouver's corporate carbon neutrality;
 - advancement of corporate policies related to energy and climate change; and
 - partnerships and collaboration with member jurisdictions, academia and others on climate action.
- Utilize the Sustainability Innovation Funds to advance development of new and innovative climate actions, including new policies, renewable energy, carbon capture and storage, and engagement and outreach.
- Implementation of the next regional air quality and greenhouse gas management plan, the Clean Air Plan.
- Develop new air quality bylaws, regulations and standards, towards goals for protection of human health and environment and continuous improvement in air quality, for Board adoption, including:
 - consultation on new emission regulation bylaws for prioritized sources;
 - user fees from permits and regulations to recover costs of developing regulations, monitoring compliance, and enforcement, while ensuring that fees provide incentives to reduce emissions and impacts;
 - amendments to the non-road diesel engine emission regulation, addressing additional engines and utilizing partnerships with other levels of government; and
 - new ambient air quality standards.
- Enhance the odour management framework based on consultation feedback, increased community outreach, and technical capacity-building through partnerships with industry and other levels of government.
- Improve public understanding of air quality and climate change, including outreach and progress reporting on Climate 2050, the Clean Air Plan, and the preparation of the annual Caring for the Air report.
- Develop additional air quality monitoring and emissions assessment capabilities to provide the evidence basis and performance measurement for the air quality program, and provide air quality advisory services.

ENVIRONMENTAL REGULATION AND ENFORCEMENT

AIR QUALITY

Description of services

The Air Quality Regulation and the Non Road Diesel Engine Regulation Programs enable economic activity while advancing Metro Vancouver's air quality goals through the issuance of site-specific authorizations and promoting compliance with those authorizations and Metro Vancouver air quality bylaws. Bylaws include regulations to control emissions from non-road diesel engines, gas & wood fired boilers, gas stations and gasoline storage facilities, automotive re-finishing facilities, concrete facilities and residential indoor wood burning. The Air Quality Regulatory Program also manages a 24-hour public complaint service that annually handles approximately 3,000 complaints, mostly about odours, smoke and dust.

Strategic directions and high level goals supported

The Air Quality Regulatory Programs support Metro Vancouver's 2019-2022 Board Strategic Plan and the Integrated Air Quality and Greenhouse Gas Management Plan:

- Improving air quality by mitigating threats to public health and the environment
- Identifying air contaminants in the region and pursuing effective actions to reduce pollutants
- Issuing authorizations that limit the discharge of air contaminants
- Promoting compliance with air quality authorizations and regulations

Performance indicators

Air Quality Indicator	Historical and/or industry benchmark (2020)	Current performance (2021 YTD – Aug 10)	2022 performance objective
Respond to complaints – number of complaints	3000	1860	3000
Promote the reduction of non-road diesel engine particulate matter – cumulative number of engines retired, prohibited, moved out of region or out of use since program began	1527	1992	2350
Promote compliance with authorizations - Total number of permits and approvals	150	152	155

2022 key actions

Air Quality

- Defend permit decisions under appeal
- Bring unauthorized facilities into compliance with the Air Quality Management Bylaw
- Promote continuous improvement and reduction in PM, NOx and VOC emissions by large emitters
- Develop procedures required for issuance of administrative penalties
- Enforce Tier 0 and Tier 1 non-road diesel engine prohibitions
- Increase awareness of non-road diesel engine retirement rebates
- Promote awareness of and compliance with Residential Indoor Wood Burning Emission Regulation Bylaw 1303, 2020
- Support consultation on amendments to Non-Road Diesel Engine Emission Regulation and Air Quality Management Fees Bylaw
- Support development of bylaw regulating emissions from open-air burning of vegetative debris

Air Quality

2022 to 2026 – WHAT’S HAPPENING

Below is a summary of the significant initiatives to be undertaken by the Air Quality function over the next 5 years.

Initiative	Description	Theme
2022		
Climate 2050	Complete initial Climate 2050 roadmaps and proceed with implementation. First round of annual reporting on performance towards targets.	Environmental Sustainability
Clean Air Plan	Implementation of the Clean Air Plan, adopted by the Board in September 2021.	Environmental Sustainability
Bylaws and Regulations	Implementation of new and amended air quality regulations, including: <ul style="list-style-type: none"> updated regulatory fee bylaw to recover costs from regulated sources; enhanced non-road diesel engine regulation to address Tier 2 engines and higher; compliance promotion on residential wood burning bylaw; Ongoing development of new and amended regulations: <ul style="list-style-type: none"> new regulations for open air burning of vegetative debris, cannabis production and processing. 	Regulatory and Legislative Environment Financial Sustainability
Environmental Monitoring and Indicators	Act on recommendations of air quality monitoring network review completed in 2021. Complete and report out on next regional air emissions inventory, for 2020, to track sources of emissions and trends.	System Stewardship
Sustainability Innovation Fund	Fund applications for climate action projects in regional district portfolio as well as liquid waste and water.	Environmental Sustainability
2023		
Climate 2050	Ongoing implementation of projects and actions based on Climate 2050 roadmaps, with reporting on performance and sharing of best practices.	Environmental Sustainability
Bylaws and Regulations	Ongoing development of new and amended air quality regulations. Continuous improvement through enhanced ambient air quality objectives.	Regulatory and Legislative Environment
Sustainability Innovation Fund	Fund applications for climate action projects in regional district portfolio as well as liquid waste and water.	Environmental Sustainability
2024		
Climate 2050	Ongoing implementation of projects and actions based on Climate 2050 roadmaps, with reporting on performance and sharing of best practices.	Environmental Sustainability
Bylaws and Regulations	Ongoing development of new and amended air	Regulatory and

	quality regulations.	Legislative Environment
Sustainability Innovation Fund	Fund applications for climate action and air quality projects	Environmental Sustainability
2025		
Climate 2050	Ongoing implementation of projects and actions based on Climate 2050 roadmaps, with reporting on performance and sharing of best practices.	Environmental Sustainability
Clean Air Plan	Mid-point progress report on Clean Air Plan	Environmental Sustainability
Bylaws and Regulations	Ongoing development of new and amended air quality regulations. Review of ambient air quality objectives	Regulatory and Legislative Environment
Sustainability Innovation Fund	Fund applications for climate action projects in regional district portfolio as well as liquid waste and water.	Environmental Sustainability
2026		
Climate 2050	Ongoing implementation of projects and actions based on Climate 2050 roadmaps, with reporting on performance and sharing of best practices.	Environmental Sustainability
Bylaws and Regulations	Ongoing development of new and amended air quality regulations.	Regulatory and Legislative Environment
Sustainability Innovation Fund	Fund applications for climate action projects in regional district portfolio as well as liquid waste and water.	Environmental Sustainability

METRO VANCOUVER DISTRICTS
2022-2026 PROJECTED RESERVES - AIR QUALITY

OPERATING RESERVES

	2021	2022				2022	2023	2024	2025	2026
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Air Quality	\$ 580,436	\$ 580,436	\$ -	\$ -	\$ 11,609	\$ 592,045	\$ 603,886	\$ 615,964	\$ 628,283	\$ 640,849

DISCRETIONARY RESERVES

	2021	2022				2022	2023	2024	2025	2026
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Air Quality General Reserve	\$ 1,841,090	\$ 1,841,090	\$ -	\$ (1,481,000)	\$ 22,012	\$ 382,102	\$ 49,374	\$ 50,361	\$ 51,369	\$ 52,396

To: Electoral Area Committee

From: Heather McNell, General Manager, Regional Planning and Housing Services

Date: September 30, 2021 Meeting Date: October 7, 2021

Subject: **2022 - 2026 Financial Plan – Electoral Area Service**

RECOMMENDATION

That the Electoral Area Committee endorse the 2022 - 2026 Financial Plan for the Electoral Area Service as presented in the report dated September 30, 2021, titled “2022 - 2026 Financial Plan – Electoral Area Service”, and forward it to the Board Budget Workshop on October 20, 2021 for consideration.

EXECUTIVE SUMMARY

The 2022 - 2026 Metro Vancouver Financial Plan has been prepared following direction received at the April 8, 2021 Metro Vancouver Board Budget Workshop. This has resulted in a plan that maintains the goals and objectives of Metro Vancouver while using key financial tools to minimize the impact on the ratepayers of the region for 2022.

The Electoral Area Service provides local government administration, planning, building inspection and emergency services to residents of Electoral Area A. The 2022 Work Plan focuses on completion of ongoing initiatives such as the zoning bylaw review and bringing forward recommendations from 2021 studies.

The 2022 - 2026 Financial Plan for the Electoral Area continues to reduce long-term reliance on reserve funds to smooth the tax requisition rate and reflects the local government election costs in 2022 and 2026. Over the next five years, operating programs are increasing by \$128,614, or an average of 4.2% per year. Excluding local government election expenditures, operating programs are increasing by \$3,938, or an average of 0.1% per year.

PURPOSE

To present the 2022 - 2026 Financial Plan for the Electoral Area Service for consideration by the Committee.

BACKGROUND

Metro Vancouver’s annual budget process includes the development of detailed annual budgets and the updating of five-year financial plans for each of the four Metro Vancouver legal entities (Metro Vancouver Regional District, Metro Vancouver Housing Corporation, Greater Vancouver Water District and Greater Vancouver Sewerage and Drainage District).

On April 8, 2021 a Metro Vancouver Board Budget Workshop was held with the objective to seek direction for the preparation of the 2022 - 2026 Financial Plan. The workshop outlined the principles that guide the work of Metro Vancouver as an organization, and a proposed approach for the 2022 - 2026 Financial Plan.

This report focuses on the Electoral Area Service and presents the 2022 annual budget and the updated five-year plan for the years 2022 to 2026 for committee consideration.

ELECTORAL AREA SERVICE

The Electoral Area Service comprises Electoral Area A, the unincorporated area within Metro Vancouver, and provides local government planning, building inspection and emergency services to residents of Electoral Area A.

The Electoral Area A Service initiatives planned over the next five years are guided by direction provided in the *Board Strategic Plan*, specifically:

- Support the efforts of members in developing complete, livable and healthy communities.
- Enhance relationships between Metro Vancouver and other orders of government, First Nations, adjacent regional districts, and key stakeholders.
- Build resilience in communities to prepare for and adapt to changing physical and environmental conditions.

WORK PLAN PERFORMANCE INDICATORS

High level performance indicators have been developed across the organization to evaluate trends, determine key actions for the coming year, and to assist in long-term planning. The 2022 Work Plan for Electoral Area Service is presented in this report. Within the Electoral Area Work Plan, two performance indicators have been developed and are being tracked. These include:

- Number of public meetings and engagement events; and
- Number of visits to the Electoral Area website.

The trend in these performance measures suggests the number of public meetings and engagement events are higher in years when new planning initiatives requiring public consultation are undertaken (e.g. official community plan, zoning bylaw review). Since 2015, Electoral Area website visits have remained above 10,000 hits per year and are expected to remain steady in coming years.

CONTINUOUS IMPROVEMENT

Improvement initiatives include:

- *Barge Cleanup Events (2022/2024/2026)*: Assist water access residents in recycling large, hard to manage items (appliances, furniture, Styrofoam, mattresses, batteries, etc.) and reduce the risk of contamination of the natural environment from improper disposal of waste (i.e. dumping or burning). Based on the ongoing need and strong resident support for repeating these cleanup events in Pitt Lake, Howe Sound, and Indian Arm, they have been included as future events in the five-year work plan
- *Community Works Fund Projects (2022-2026)*: Engage with Electoral Area A communities to identify and implement projects to benefit local residents
- *Bylaw and policy updates and legal reviews (2022-2026)*: Results in updated and improved clarity of regulations and policies, and better alignment between fees and service costs.

2022 BUDGET AND 2022 - 2026 FINANCIAL PLAN

The five-year financial plans for this cycle have been updated to address five central themes identified by the Metro Vancouver Board in its Strategic Plan to guide the development of plans and budgets. The five themes are as follows:

- Financial Sustainability
- Environmental Sustainability
- System Stewardship
- Regulatory and Legislative Environment
- Regional Growth

Each Metro Vancouver function has an Annual Work Plan that includes strategic directions, performance indicators and key actions to guide the work for the coming year. Each function also has a “What’s Happening” summary that highlights the program highlights for the next five years.

The 2022 - 2026 Electoral Area Service Financial Plan is included as Attachment 1. The 2022 Annual Work Plan for the Electoral Area Service presented in this report is included in Attachment 2 and the “What’s Happening” highlights for the years 2022 - 2026 are included in Attachment 3.

Operating Budget Highlights

The Electoral Area Service 2022 operating budget is proposed to increase by \$118,750 for a total budget of \$797,641 (Attachment 1). This increase is largely attributable to election-related costs for the 2022 local government election.

The 2022 operating budget includes the following key actions:

- Administer the local government election in Electoral Area A
- Undertake and report on the barge clean-up event for Bowyer and Passage Islands
- Receive and consider next steps related to the geotechnical study of the rural and remote portions of Electoral Area A
- Consider Community Works Fund projects identified by UBC/UNA and UEL communities
- Continue to administer the building, zoning, official community plan, and unsightly premise and nuisance bylaws
- Communicate with Electoral Area residents through the Electoral Area Bulletin and Electoral Area Director's Update
- Engage the UBC/UEL communities on liquor license and retail cannabis referrals
- Continue to offer staff support to Electoral Area Board Director
- Facilitate emergency management education for residents

Over the next five years, operating programs are increasing by \$128,614, or an average of 4.2% per year. Excluding local government election expenditures, operating programs are increasing by \$3,938, or an average of 0.1% per year.

Reserve Funds

Electoral Area receives two annual grants from the Province. These amounts, \$136,668 from the Community Works Fund and a Regional District grant of \$50,000 are received and contributed to a reserve pending plans for future use. In non-election years, \$30,000 is contributed annually to an election reserve. Every four years, this election reserve is to be used to fund the Electoral Area local government election.

The financial plan for Electoral Area has utilized transfers from the Electoral Area General Reserve to offset and smooth some of the changes in expenditures over the five-year plan as well as utilizing reserves to annually fund one-time initiatives. This is consistent with the *Operating, Statutory and Discretionary Reserves Policy*.

The 2022 - 2026 Projected Reserves for Electoral Area is included in Attachment 4.

APPROVAL PROCESS

The proposed 2022 - 2026 Financial Plan and Annual Work Plan is presented for consideration and endorsement before being forwarded to the Board for consideration.

The next steps of the process are:

- The 2022 - 2026 Financial Plan and Annual Work Plan will be presented for consideration at the Metro Vancouver Board Budget Workshop on October 20, 2021.
- The Board will consider adoption of the 2022 Budget and endorsement of the 2022 - 2026 Financial Plan on October 29, 2021.

ALTERNATIVES

1. That the Electoral Area Committee endorse the 2022 - 2026 Financial Plan for the Electoral Area Service as presented in the report dated September 30, 2021, titled “2022 - 2026 Financial Plan – Electoral Area Service”, and forward it to the Metro Vancouver Board Budget Workshop on October 20, 2021 for consideration.
2. That the Electoral Area Committee make recommendations and endorse an amended 2022 - 2026 Financial Plan for the Electoral Area Service and forward the amended Financial Plan to the Finance and Intergovernment Committee on October 13, 2021 and to the Metro Vancouver Board Budget Workshop on October 20, 2021 for consideration.

FINANCIAL IMPLICATIONS

If the MVRD Board endorses the 2022 - 2026 Financial Plan for the Electoral Area Service, as presented under Alternative 1, in 2022 the Electoral Area requisition will increase by \$11,572 (3.0%) for a total requisition of \$400,973. The increase in the Electoral Area requisition represents a \$2 increase in the cost to the average Electoral Area household to \$61.

Over the term of the five-year plan, the annual Electoral Area requisition is projected to increase by an average of \$11,604 per year (2.8%) to provide the required revenue to offset projected expenditures. It is anticipated that the cost to the average Electoral Area household over the next

five years for electoral area services will rise from \$59 in 2021 to \$68 in 2026 representing an average annual increase of \$2 (2.8%).

Under Alternative 2, the Committee may wish to consider recommending amendments to the 2021 Budget and Five-year Financial Plan for consideration at the Metro Vancouver Board Budget Workshop. Any changes to the plan may have an impact on the MVRD Financial Plan.

SUMMARY / CONCLUSION

The Electoral Area Service 2022 Budget and Five-year Financial Plan has been prepared following direction received at the April 8, 2021 Metro Vancouver Board Budget Workshop and to respond to direction provided in the *Board Strategic Plan*. It is presented to Committee and Board members to provide overview information on activities and financial impacts for the years 2022 to 2026 for Electoral Area Services.

The presentation of this year's five-year financial plan for Electoral Area provides the opportunity for Metro Vancouver to share with its member jurisdictions the proposed service related initiatives over the next five years. It is intended to be used as a guiding document for member jurisdictions in the development of their five-year financial plans and includes projections on household impact to demonstrate how the plan will remain affordable for residents while keeping pace with our critical requirements.

Staff recommends endorsing the 2022 - 2026 Financial Plan and Annual Work Plan for Electoral Area A Service as presented under alternative one.

Attachments (48005122)

1. 2022 - 2026 Financial Plan
2. 2022 Work Plan
3. 2022 - 2026 "What's Happening"
4. 2022 - 2026 Projected Reserves – Electoral Area Service

METRO VANCOUVER REGIONAL DISTRICT
ELECTORAL AREA SERVICE
2022 BUDGET REVIEW
2022-2026 FINANCIAL PLAN

	2021 BUDGET	2022 BUDGET	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE	2025 FORECAST	% CHANGE	2026 FORECAST	% CHANGE
REVENUES											
Electoral Area Requisition	\$ 389,401	\$ 400,973	3.0%	\$ 416,018	3.8%	\$ 420,991	1.2%	\$ 438,926	4.3%	\$ 447,422	1.9%
User Fees	10,000	11,000		11,000		12,000		12,000		12,000	
Other External Revenues	180,490	186,668		186,668		193,083		193,083		193,083	
Transfer from Reserves	99,000	199,000		74,000		77,000		50,000		155,000	
TOTAL REVENUES	\$ 678,891	\$ 797,641	17.5%	\$ 687,686	(13.8%)	\$ 703,074	2.2%	\$ 694,009	(1.3%)	\$ 807,505	16.4%
EXPENDITURES											
Operating Programs:											
Community Planning	\$ 399,907	\$ 410,791		\$ 381,596		\$ 404,621		\$ 396,870		\$ 419,214	
Building Inspections	16,341	18,049		18,411		18,854		19,307		19,770	
Local Government Election	-	122,566		-		-		-		124,676	
Fraser Valley Library Services	2,067	2,067		2,067		2,067		2,067		2,067	
Emergency Planning	18,000	18,000		20,000		20,000		20,000		20,000	
	436,315	571,473	31.0%	422,074	(26.1%)	445,542	5.6%	438,244	(1.6%)	585,727	33.7%
Contribution to Election Reserve	30,000	-		30,000		30,000		30,000		-	
Contribution to Reserve	180,490	186,668	3.4%	186,668	0.0%	193,083	3.4%	193,083	0.0%	193,083	0.0%
	210,490	186,668	(11.3%)	216,668	16.1%	223,083	3.0%	223,083	0.0%	193,083	(13.4%)
Allocation of Centralized Support	32,086	39,500	23.1%	48,944	23.9%	34,449	(29.6%)	32,682	(5.1%)	28,695	(12.2%)
TOTAL EXPENDITURES	\$ 678,891	\$ 797,641	17.5%	\$ 687,686	(13.8%)	\$ 703,074	2.2%	\$ 694,009	(1.3%)	\$ 807,505	16.4%

ELECTORAL AREA SERVICES

Description of services

Electoral Area Services of the Metro Vancouver Regional District (MVRD) provides local government services to Electoral Area A including emergency planning and response services for the entire area of Electoral Area A, including Point Grey. Building inspection and land use planning are provided to the noncontiguous unincorporated areas of the MVRD, excluding Point Grey. Electoral Area A is an unincorporated area comprising 818 km² of land area, stretching from Point Grey and Howe Sound in the west, to Pitt Lake in the east, and includes Barnston Island and the northern part of Indian Arm.

The local government services provided to Electoral Area A includes emergency planning and response services for the entire area of Electoral Area A, including Point Grey. Building inspection and land use planning are provided to the mainland areas outside of Point Grey only.

Strategic directions and high level goals supported

2019-2022 Board Strategic Plan

- Support the efforts of members in developing complete, livable and healthy communities.
- Enhance relationships between Metro Vancouver and other orders of government, First Nations, adjacent regional districts, and key stakeholders.
- Build resilience in communities to prepare for and adapt to changing physical and environmental conditions.

Performance indicators

Indicator	Historical and/or industry benchmark	Current performance	2022 performance objective
Number of public meetings and engagement events	2018: 8 2019: 9 2020: 9	Projected 2021: 10	8
Number of visits to the Electoral Area A Website	2018: 16,092 2019: 14,596 2020: 12,606	Projected 2021: 14,000	14,000

2022 key actions

- Administer the local government election in Electoral Area A
- Undertake and report on the barge clean-up event for Bowyer and Passage Islands
- Receive and consider next steps related to the geotechnical study of the rural and remote portions of Electoral Area A
- Consider Community Works Fund projects identified by UBC/UNA and UEL communities
- Continue to administer the building, zoning, official community plan, and unsightly premise and nuisance bylaws
- Communicate with Electoral Area residents through the Electoral Area A Bulletin and Electoral Area A Director's Update
- Engage the UBC/UEL communities on liquor license and retail cannabis referrals
- Continue to offer staff support to Electoral Area Board Director
- Facilitate emergency management education for residents

Electoral Area Services
2022 to 2026 – WHAT’S HAPPENING

Below is a summary of the significant initiatives to be undertaken by Electoral Area Services over the next 5 years.

Initiative	Description	Theme
2022		
Local Government Election	Administer local government election in Electoral Area A	System Stewardship
Howe Sound Fire Service Study	Work with adjacent municipalities and Howe Sound communities to consider next steps regarding a fire service area.	Regional Growth System Stewardship
Geotechnical Study	Tailor building permit-related requirements based on geotechnical hazards of local area and type of proposed development	Regulatory and Legislative Environment
Bylaw Reviews	Complete Zoning & Building Bylaw reviews	Regulatory and Legislative Environment
Community Works Fund	Consider priority projects in UBC/UEL for funding through the Community Works Fund	Regional Growth Financial Sustainability
Clean-up event	Barge cleanup event in Howe Sound	Environmental Sustainability
2023		
Emergency preparedness	Support resident-preparedness for fires & earthquake (hands-on training, equipment)	Regional Growth System Stewardship
2024		
Clean-up event	Barge cleanup event in Indian Arm	Environmental Sustainability
2025		
Emergency preparedness	Support resident-preparedness for fires & earthquake (hands-on training, equipment)	Regional Growth System Stewardship
2026		
Local Government Election	Administer local government election in Electoral Area A	System Stewardship
Clean-up event	Barge cleanup event in Pitt lake	Environmental Sustainability

METRO VANCOUVER DISTRICTS
2022-2026 PROJECTED RESERVES - ELECTORAL AREA SERVICE

OPERATING RESERVES

	2021 ENDING BALANCE	2022 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2022 ENDING BALANCE	2023 ENDING BALANCE	2024 ENDING BALANCE	2025 ENDING BALANCE	2026 ENDING BALANCE
Electoral Area Service	\$ 20,848	\$ 20,848	\$ -	\$ -	\$ 417	\$ 21,264	\$ 21,690	\$ 22,124	\$ 22,566	\$ 23,017

DISCRETIONARY RESERVES

	2021 ENDING BALANCE	2022 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2022 ENDING BALANCE	2023 ENDING BALANCE	2024 ENDING BALANCE	2025 ENDING BALANCE	2026 ENDING BALANCE
Electoral Area General Reserve	\$ 1,587,376	\$ 1,587,376	\$ 50,000	\$ (139,000)	\$ 30,858	\$ 1,529,234	\$ 1,535,579	\$ 1,539,020	\$ 1,569,801	\$ 1,586,047

STATUTORY RESERVES

	2021 ENDING BALANCE	2022 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2022 ENDING BALANCE	2023 ENDING BALANCE	2024 ENDING BALANCE	2025 ENDING BALANCE	2026 ENDING BALANCE
Electoral Area Service										
Community Works Reserve	\$ 713,988	\$ 713,988	\$ 136,668	\$ -	\$ 15,646	\$ 866,302	\$ 1,021,663	\$ 1,186,610	\$ 1,354,856	\$ 1,526,467
Electoral Area Election Reserve	60,900	60,900	-	(60,000)	618	1,518	31,848	62,785	94,341	5,328
Total	\$ 774,888	\$ 114,619,795	\$ 33,614,892	\$ (38,210,890)	\$ 2,246,436	\$ 867,820	\$ 1,053,511	\$ 1,249,395	\$ 1,449,197	\$ 1,531,795

To: Housing Committee

From: Heather McNell, General Manager, Regional Planning and Housing Services

Date: September 29, 2021

Meeting Date: October 6, 2021

Subject: **2022 - 2026 Financial Plan – Housing Planning and Policy**

RECOMMENDATION

That the Housing Committee endorse the 2022 - 2026 Financial Plan for Housing Planning and Policy as presented in the report dated September 29, 2021, titled “2022 - 2026 Financial Plan – Housing Planning and Policy”, and forward it to the Metro Vancouver Board Budget Workshop on October 20, 2021 for consideration.

EXECUTIVE SUMMARY

The 2022 – 2026 Metro Vancouver Financial Plan has been prepared following direction received at the April 8, 2021 Metro Vancouver Board Budget Workshop. This has resulted in a plan that maintains the goals and objectives of Metro Vancouver while using key financial tools to minimize the impact on the ratepayers of the region for 2022. The increase in Metro Vancouver’s overall consolidated household impact for 2022 is projected to be 3.5%, down from the 6.4% projected for 2022 in the prior financial planning cycle.

The Housing Planning and Policy function supports the development and operation of Metro Vancouver Housing Corporation affordable housing projects and implementation of the *Metro Vancouver Housing 10-Year Plan*. This function also supports and convenes member jurisdictions around housing issues and supports regional housing priorities through the provision of planning and policy resources and information, best practices research, and advocacy. Over the next five years, operating programs are increasing by \$1,868,455 or an average of 5.7% per year. The increase is due to an additional \$2.0M for the Contribution to Affordable Housing Development Reserve beginning in 2023.

PURPOSE

To present the 2022 – 2026 Financial Plan for the Housing Planning and Policy function for consideration by the Committee.

BACKGROUND

Metro Vancouver’s annual budget process includes the development of detailed annual budgets and the updating of five-year financial plans for each of the four Metro Vancouver legal entities (Metro Vancouver Regional District, Metro Vancouver Housing Corporation, Greater Vancouver Water District and Greater Vancouver Sewerage and Drainage District).

On April 8, 2021, a Metro Vancouver Board Budget Workshop was held with the objective to seek direction for the preparation of the 2022 - 2026 Financial Plan. The workshop outlined the principles

that guide the work of Metro Vancouver as an organization, and a proposed approach for the 2022 - 2026 Financial Plan.

This report focuses on the Housing Planning and Policy Service and presents the 2022 provisional annual budget and the updated five-year plan for the years 2022 to 2026 for Committee consideration.

HOUSING PLANNING AND POLICY PROGRAM

The Housing Planning and Policy function contributes to processes and decisions related to regional housing planning and research, supporting the development of affordable housing projects through implementation of the *Metro Vancouver Housing 10-Year Plan* and *Metro 2050*, coordinating the Regional Planning Advisory Committee – Housing Subcommittee and secure vacant lands owned by local governments for new affordable housing.

The Housing Planning and Policy Service initiatives planned over the next five years are guided by direction provided in the *Board Strategic Plan* and *Metro Vancouver Housing 10-Year Plan*, specifically:

- Implementation of the Metro Vancouver 10-Year Housing Plan to support affordable housing and engaged communities in the region
- Strengthen awareness and engagement with the public, members, other orders of government, and key stakeholders on a range of initiatives regarding the role and value of Metro Vancouver Housing Corporation
- Develop and implement financial plans and policies that reflect a commitment to sound financial management and long-term planning, in consideration of current and future ratepayers
- Support healthy engaged communities, preserve existing housing to maintain affordability and grow strategically through redevelopment and new developments

WORK PLAN PERFORMANCE INDICATORS

High level performance indicators have been developed across the organization to evaluate trends, determine key actions for the coming year, and to assist in long-term planning. The 2022 Work Plan for Housing Planning and Policy is presented in this report. Within the Housing Planning and Policy Work Plan, three performance indicators have been developed and are being tracked. These include:

- New Development - Southwynde (Burnaby) - 60% of design completed;
- New Development - Civic Centre Site (Pitt Meadows) - 75% of design completed; and
- New Expression of Interest site - 10% of design completed

The performance objective measures the percentage of design completed (through Building Permit) once project concepts have been approved by the MVHC Committee and Board. Projects in construction stages are listed in the MVHC Annual Work Plan report.

CONTINUOUS IMPROVEMENT

Housing Planning and Policy supports and guides MVHC with policy and strategic planning. Recent notable projects include the *Metro Vancouver Housing Tenant Relocation Strategy* that outlines Metro Vancouver Housing's approach to support tenants through relocation (while meeting and exceeding the requirements of provincial legislation and local government policies) as it seeks to expand affordable rental housing through strategic redevelopment of its housing sites.

Further improvement initiatives include:

- Leveraging MVHC investment to deliver more housing and/or deeper affordability for new affordable housing developments across the region by seeking a commitment to portfolio-level funding from provincial and federal governments (for a package of development projects);
- Enhancing the sustainability, livability, cost effectiveness, and efficiency of proposed development projects by conducting feasibility studies and research to assess opportunities to advance sustainability and/or efficiency in MVHC developments (i.e. NetZero studies, modular housing studies);
- Ensuring affordable housing supports those who need it most and supports greater financial sustainability and certainty for new development projects without reliance on external funding or ongoing operating subsidies by developing new policies/procedures to introduce income testing for new Low End of Market tenants, and support new affordability baseline (with fixed affordability set at 70% of HILS); and
- Supporting family-oriented amenities in new affordable housing developments by updating the MVHC mandate to support the development of integrated childcare facilities in new housing developments.

2022 BUDGET AND 2022 – 2026 FINANCIAL PLAN

The five-year financial plans for this cycle have been updated to address five central themes identified by the Metro Vancouver Board in its Strategic Plan to guide the development of plans and budgets. The five themes are as follows:

- Financial Sustainability
- Environmental Sustainability
- System Stewardship
- Regulatory and Legislative Environment
- Regional Growth

Each Metro Vancouver function has an Annual Work Plan that includes strategic directions, performance indicators and key actions to guide the work for the coming year. Each function also has a "What's Happening" summary that highlights the program highlights for the next five years.

The 2022 – 2026 Housing Planning and Policy Financial Plan is included as Attachment 1. The 2022 Annual Work Plan for Housing Planning and Policy presented in this report is included in Attachment 2, and the "What's Happening" highlights for the years 2022 – 2026 are included in Attachment 3.

Operating Budget Highlights

The Housing Planning and Policy 2022 operating budget is proposed to decrease by \$201,284 for a total budget of \$6.4 million (Attachment 1). This decrease is primarily due to a reduction in projects

funded by the Sustainability Innovation Fund and partially offset by the additional resources required to meet increased housing targets.

The 2022 operating budget includes the following key actions:

- Initiate concept planning and viability studies for a new housing site identified through MVH's Expression of Interest Round 2 (to be issued in Fall/Winter of 2021)
- Continue to pursue portfolio funding partnerships with provincial and federal governments, and other funding opportunities as they arise
- Continue to pursue partnership opportunities with public, private and other housing stakeholders
- Best practice research to support MVHC development standards
- Develop new policies and procedures to support periodic income testing for low end of market tenants and new baseline affordability options
- Explore the business case for a property management policy for inclusionary housing opportunities
- Support the implementation of the Metro Vancouver Housing Redevelopment Plan to advance the redevelopment of select redevelopment sites
- Support Metro Vancouver Regional Planning policies related to housing for Metro 2050, the update to the Regional Growth Strategy
- Support the Regional Planning Advisory Committee – Housing Subcommittee to convene members around regional housing issues and support with best practice research and advocacy
- Update existing MVHC leases with municipal members

Over the next five years, operating programs increase by \$1,868,455 or an average of 5.7% per year.

Communications Program

The 2022 Housing Planning and Policy Communications Program of \$25,000 is focused on outreach to build better understanding and awareness of the Housing Planning and Policy function in the region and to engage existing tenants to collect and analyze demographic and user experience data to guide development and operational planning. There will be emphasis on further branding work including multimedia support, focus groups and public opinion research where needed.

Reserve Funds

The 2022 – 2026 Financial Plan for Housing Planning and Policy includes a \$1.0 million annual contribution to support the re-development of existing housing sites through the affordable housing re-development reserve and a \$4.0 million annual contribution to the affordable housing development reserve to support the development of MVHC affordable housing on member jurisdiction or regional lands. Reserve usage is in accordance with the *Operating, Statutory and Discretionary Reserves Policy*.

The financial plan for Housing Planning and Policy does not have any proposed applications of reserve funding. The 2022 – 2026 Projected Reserves for Housing Planning and Policy is included in Attachment 4.

APPROVAL PROCESS

The proposed 2022 – 2026 Financial Plan and Annual Work Plan is presented for consideration and endorsement before being forwarded to the Board for consideration. The next steps of the process are:

- The 2022 – 2026 Financial Plan and Annual Work Plan will be presented for consideration at the Metro Vancouver Board Budget Workshop on October 20, 2021.
- The Board will consider adoption of the 2021 Budget and endorsement of the 2022 – 2026 Financial Plan on October 29, 2021.

ALTERNATIVES

1. That the Housing Committee endorse the 2022 – 2026 Financial Plan for Housing Planning and Policy as presented in the report dated September 29, 2021, titled “2022 – 2026 Financial Plan – Housing Planning and Policy”, and forward it to the Metro Vancouver Board Budget Workshop on October 20, 2021 for consideration.
2. That the Housing Committee make recommendations and endorse an amended 2022 – 2026 Financial Plan for the Housing Planning and Policy Service and forward the amended Financial Plan to the to the Metro Vancouver Board Budget Workshop on October 20, 2021 for consideration.

FINANCIAL IMPLICATIONS

If the MVRD Board endorses the 2022 – 2026 Financial Plan for the Housing Planning and Policy Service, as presented under Alternative 1, in 2022 the Housing Planning and Policy requisition will increase by \$222,142 (3.7%) for a total requisition of \$6.3 million. Of this total, \$5 million per year from the property tax requisition is allocated to advancing the planning and design of capital redevelopment projects and for new sites in partnership with member jurisdictions.

Over the term of the five-year plan, the annual Housing Planning and Policy requisition is projected to increase by an average of \$478,376 per year (7.5%) to provide the required revenue to offset projected expenditures. It is anticipated that the cost to the average regional household over the next five years for the Housing Planning and Policy function will stay at the current 2021 amount of \$5 per household in 2022, then increase to \$7 through to 2026.

Under Alternative 2, the Committee may wish to consider recommending amendments to the 2021 Budget and Five-Year Financial Plan for consideration at the Metro Vancouver Board Budget Workshop. Any changes to the plan may have an impact on the MVRD Financial Plan.

SUMMARY / CONCLUSION

The Housing Planning and Policy function 2022 Budget and Five-Year Financial Plan has been prepared following direction received at the April 8, 2021 Metro Vancouver Board Budget Workshop and to respond to direction provided in the *Board Strategic Plan*. It is presented to Committee and Board members to provide overview information on activities and financial impacts for the years 2022 to 2026 for Housing Planning and Policy.

The presentation of this year’s five-year financial plan for Housing Planning and Policy provides the opportunity for Metro Vancouver to share with its member jurisdictions the proposed service related

initiatives over the next five years. It is intended to be used as a guiding document for member jurisdictions in the development of their five-year financial plans and includes projections on household impact to demonstrate how the plan will remain sustainable while keeping pace with our critical requirements.

Staff recommends endorsing the 2022 – 2026 Financial Plan and Annual Work Plan for Housing Planning and Policy as presented under alternative one.

Attachments:

1. 2022 – 2026 Financial Plan
2. 2022 Work Plan
3. 2022 – 2026 “What’s Happening”
4. 2022 – 2026 Projected Reserves – Housing Planning and Policy Service

METRO VANCOUVER REGIONAL DISTRICT
HOUSING PLANNING & POLICY
2022 BUDGET REVIEW
2022-2026 FINANCIAL PLAN

	2021 BUDGET	2022 BUDGET	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE	2025 FORECAST	% CHANGE	2026 FORECAST	% CHANGE
REVENUES											
Metro Vancouver Regional District Requisitions	\$ 6,031,486	\$ 6,253,628	3.7%	\$ 8,248,312	31.9%	\$ 8,276,572	0.3%	\$ 8,296,943	0.2%	\$ 8,423,367	1.5%
Transfer from Sustainability Innovation Fund Reserves	523,426	100,000		-		-		-		-	
TOTAL REVENUES	\$ 6,554,912	\$ 6,353,628	(3.1%)	\$ 8,248,312	29.8%	\$ 8,276,572	0.3%	\$ 8,296,943	0.2%	\$ 8,423,367	1.5%
EXPENDITURES											
Operating Programs:											
Housing Planning and Policy	\$ 1,465,336	\$ 1,241,092		\$ 1,114,876		\$ 1,158,537		\$ 1,185,126		\$ 1,319,130	
Contribution to Affordable Housing Re-development Reserve	1,000,000	1,000,000		1,000,000		1,000,000		1,000,000		1,000,000	
Contribution to Affordable Housing Development Reserve	4,000,000	4,000,000		6,000,000		6,000,000		6,000,000		6,000,000	
	6,465,336	6,241,092	(3.5%)	8,114,876	30.0%	8,158,537	0.5%	8,185,126	0.3%	8,319,130	1.6%
Communications Program	25,000	25,000	0.0%	25,000	0.0%	25,000	0.0%	25,000	0.0%	25,000	0.0%
Allocation of Centralized Support Costs	64,576	87,536	35.6%	108,436	23.9%	93,035	(14.2%)	86,817	(6.7%)	79,237	(8.7%)
TOTAL EXPENDITURES	\$ 6,554,912	\$ 6,353,628	(3.1%)	\$ 8,248,312	29.8%	\$ 8,276,572	0.3%	\$ 8,296,943	0.2%	\$ 8,423,367	1.5%

HOUSING PLANNING & POLICY

Description of services

The Housing Planning & Policy function supports the development and operation of Metro Vancouver Housing Corporation affordable housing projects and implementation of the *Metro Vancouver Housing 10-Year Plan*. This includes identification and planning of new and existing housing sites, supporting development projects through design and approvals, strategic planning and policy development for MVHC, and best practice research to support processes and decisions related to housing development and operations. This function also supports and convenes member jurisdictions around affordable housing issues and supports regional housing priorities through the provision of planning and policy resources and information, best practices research, and advocacy.

The Housing Planning & Policy group has the following functions:

- Lead the planning and analysis of properties to assess redevelopment potential.
- Work with member municipalities to identify land for the development of affordable housing.
- Oversee initial site studies and assessment and confirm project viability
- Lead concept planning for new development projects
- Support MVHC affordable housing development projects including leading coordination of development approval processes, agreements, and community engagement
- Support MVHC Operations on development projects including planning for tenant relocation, tenant engagement, communications, and rent-up
- Research and integrate best practices to support development design decisions and standards
- Support or lead funding applications for MVHC development projects including project-specific funding calls and broader portfolio funding discussions with provincial and federal governments
- Develop both Corporate and Board policies for Metro Vancouver Housing to ensure housing operations and development align and support the Board Strategic Plan, the Metro Vancouver Housing 10-Year Plan, *Metro 2040*, and the *Residential Tenancy Act*.
- Monitor a 10-year housing strategy to implement goals around operations, maintenance, growth, and partnerships and meet strategic targets.
- Coordinate the Regional Planning Advisory Committee – Housing Subcommittee
- Provide support, planning and policy resources, best practice research and advocacy for regional housing priorities.

Strategic directions and high level goals supported

- Support the implementation of the Metro Vancouver Housing 10-Year Plan.
- Review, update and develop policies that reflect a commitment to sound financial management and long-term planning, in consideration of current and future residents.
- Strengthen awareness and engagement with the public, members, other orders of government, and key stakeholders on a range of initiatives regarding the role and value of Metro Vancouver Housing.

- Convene municipal staff and stakeholders to share ideas on affordable housing.
- Facilitate partnerships with member municipalities and other stakeholders to expand affordable rental housing within the region.
- Pursue funding and program opportunities with other orders of government.
- Implement the Metro Vancouver Housing Redevelopment Plan to advance the redevelopment of MVHC housing sites.
- Support the development of housing related policy for Metro 2050, the comprehensive update to the Regional Growth Strategy.

Performance indicators

Indicator (% of design completed)	Historical and/or industry benchmark (2020)	Current performance (2021)	2022 performance objective
Southwynde (Burnaby) – New development	0%	20%	60%
Civic Centre Site (Pitt Meadows) - New development	0%	30%	75%
New Expression of Interest site	0%	n/a	10%

**The performance objective measures the percentage of design completed (through Building Permit) once project concepts have been approved by the MVHC Committee and Board. Projects in construction stages are listed in the MVHC Annual Work Plan report.*

2022 Key actions

Policy & Planning

- Support the implementation of the Metro Vancouver Housing 10-Year Plan
 - Initiate concept planning and viability studies for a new housing site identified through MVH's Expression of Interest Round 2 (to be issued in Fall/Winter of 2021)
 - Continue to pursue portfolio funding partnerships with provincial and federal governments, and other funding opportunities as they arise
 - Continue to pursue partnership opportunities with public, private and other housing stakeholders
 - Best practice research to support MVHC development standards
 - Develop new policy to support periodic income testing for low end of market tenants
 - Update tenant policies to support new baseline affordability option
 - Create a tenancy management policy and information package for inclusionary housing opportunities
 - Update the MVHC mandate to facilitate the development of integrated childcare facilities in new developments
- Support the implementation of the Metro Vancouver Housing Redevelopment Plan to advance the redevelopment of select redevelopment sites.
 - Continue to support planning for 7 active redevelopment projects
 - Continue further study of sites identified for potential development partnerships

- Coordinate requirements for funding programs
- Support Metro Vancouver Regional Planning policies related to housing for Metro 2050, the update to the Regional Growth Strategy
- Support the Regional Planning Advisory Committee – Housing Subcommittee to convene members around regional housing issues and support with best practice research and advocacy
- Update existing MVHC leases with municipal members
- Support the update of MVHC's mandate to allow greater flexibility for integrated childcare facilities

Communications Program

- Work to build a better understanding and awareness of MVHC among key stakeholders through further branding work including multimedia support where needed.
- Engage existing tenants to collect and analyze demographic and user experience data to guide development and operational planning.
- Update housing website to include plain language summaries of tenant policies to be more user friendly and easy to understand and navigate.

Housing Planning and Policy

2022 to 2026 – WHAT’S HAPPENING

Below is a summary of the significant initiatives to be undertaken by Housing Planning and Policy over the next 5 years.

Initiative	Description	Theme
2022		
10-Year Plan Implementation	Continue to implement the Metro Vancouver Housing 10-Year Plan	Regional growth, financial & environmental sustainability
Implement redevelopment and new development projects	Continue to support the development approval processes and design of redevelopment projects including: Heather Place B, Kingston Gardens, Welcher Avenue, Eastburn Square, 119B Ave – Pitt Meadows, Southwynde Ave – Burnaby, and Malaspina Village – Phase 1	Regional growth
Progress Expression of Interest for Member Lands	Select one to two new development projects from MVH’s second call for member lands to build new affordable housing; complete feasibility studies and concept planning	Regional growth
Concept development of pipeline projects in planning	Continue the concept development and refinement of projects in the planning phase	Regional growth
Strategic planning and policy for MVHC	Develop new policies and procedures to support periodic income testing for low end of market tenants and new baseline affordability options	Financial sustainability
Support flexibility for integrated childcare facilities in affordable housing	Update the MVHC mandate to allow greater flexibility for the development of integrated childcare facilities in new MVHC developments	Regulatory and Legislative Environment
Seek funding support for development projects	Continue to pursue provincial and federal funding for development projects, including funding opportunities to further enhance sustainability	Regional growth, financial & environmental sustainability
Expand housing portfolio through development partnerships	Actively work with housing stakeholders, including funders, private developers, and non-profits, to identify opportunities for development partnerships on specific sites	Regional growth
Expand housing portfolio through management partnerships	Explore the business case for a property management service to increase MVH’s portfolio through taking on the management of units obtained through inclusionary housing policies	Regional growth
Support regional planning and policy on housing-related issues	Undertake best practice research to support regional housing priorities; support capacity building for MVHC as well as regional housing stakeholders	Regional capacity building
Support regional housing policy in Metro 2050	Support the implementation of housing related policy for Metro 2050, the comprehensive update to the Regional Growth Strategy.	Regional planning

Updates existing MVHC leases	Support the renewal of existing MVHC leases with member jurisdictions	Regulatory and Legislative environment
2023		
10-Year Plan Implementation	Continue to implement the Metro Vancouver Housing 10-Year Plan	Regional growth, financial & environmental sustainability
Implement redevelopment and new development projects	Continue to support progress redevelopment and new development projects	Regional growth
Implement Redevelopment Plan	Confirm next round of redevelopment priority projects; pursue funding opportunities and initiate design processes, tenant relocation, and development approvals	Regional growth
Seek funding support for development projects	Continue to pursue provincial and federal funding for development projects, including funding opportunities to further enhance sustainability	Regional growth, financial & environmental sustainability
Strategic planning and policy for MVHC	Continue to develop new policies and procedures to support operational, financial efficiency and industry best practices	Financial & environmental sustainability
Expand housing portfolio through partnerships	Actively pursue partnerships with development partnerships on specific sites	Regional growth
Support regional planning and policy on housing-related issues	Undertake best practice research to support regional housing priorities; support capacity building for MVHC as well as regional housing stakeholders	Regional capacity building
2024		
10-Year Plan Implementation	Continue to implement the Metro Vancouver Housing 10-Year Plan	Regional growth, financial & environmental sustainability
Implement redevelopment and new development projects	Continue to progress redevelopment and new development projects	Regional growth
Seek funding support for development projects	Continue to pursue provincial and federal funding for development projects, including funding opportunities to further enhance sustainability	Regional growth, financial & environmental sustainability
Strategic planning and policy for MVHC	Continue to develop new policies and procedures to support operational, financial efficiency and industry best practices	Financial & environmental sustainability
Expand housing portfolio through partnerships	Actively pursue partnerships with development partnerships on specific sites	Regional growth
Support regional planning and policy on housing-related issues	Undertake best practice research to support regional housing priorities; support capacity building for MVHC as well as regional housing stakeholders	Regional capacity building
2025		

10-Year Plan Implementation	Continue to implement the Metro Vancouver Housing 10-Year Plan	Regional growth, financial & environmental sustainability
Implement redevelopment and new development projects	Continue to progress redevelopment and new development projects	Regional growth
Seek funding support for development projects	Continue to pursue provincial and federal funding for development projects, including funding opportunities to further enhance sustainability	Regional growth, financial & environmental sustainability
Strategic planning and policy for MVHC	Continue to develop new policies and procedures to support operational, financial efficiency and industry best practices	Financial & environmental sustainability
Expand housing portfolio through partnerships	Actively pursue partnerships with development partnerships on specific sites	Regional growth
Support regional planning and policy on housing-related issues	Undertake best practice research to support regional housing priorities; support capacity building for MVHC as well as regional housing stakeholders	Regional capacity building
2026		
10-Year Plan Implementation	Continue to implement the Metro Vancouver Housing 10-Year Plan	Regional growth, financial & environmental sustainability
Implement redevelopment and new development projects	Continue to progress redevelopment and new development projects	Regional growth
Expression of interest	Issue a third expression of interest for member partnerships to continue the development of affordable rental homes	Regional Growth
Seek funding support for development projects	Continue to pursue provincial and federal funding for development projects, including funding opportunities to further enhance sustainability	Regional growth, financial & environmental sustainability
Strategic planning and policy for MVHC	Continue to develop new policies and procedures to support operational, financial efficiency and industry best practices	Financial & environmental sustainability
Expand housing portfolio through partnerships	Actively pursue partnerships with development partnerships on specific sites	Regional growth
Support regional planning and policy on housing-related issues	Undertake best practice research to support regional housing priorities; support capacity building for MVHC as well as regional housing stakeholders	Regional capacity building

METRO VANCOUVER DISTRICTS
2022-2026 PROJECTED RESERVES - HOUSING PLANNING AND POLICY

OPERATING RESERVES

	2021 ENDING BALANCE	2022 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2022 ENDING BALANCE	2023 ENDING BALANCE	2024 ENDING BALANCE	2025 ENDING BALANCE	2026 ENDING BALANCE
Housing Planning and Policy	\$ 54,675	\$ 54,675	\$ -	\$ -	\$ 1,094	\$ 55,769	\$ 56,884	\$ 58,022	\$ 59,182	\$ 60,366

STATUTORY RESERVES

	2021 ENDING BALANCE	2022 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2022 ENDING BALANCE	2023 ENDING BALANCE	2024 ENDING BALANCE	2025 ENDING BALANCE	2026 ENDING BALANCE
Housing Planning and Policy										
Affordable Housing Re-development Reserve	\$ 4,369,908	\$ 4,369,908	\$ 1,000,000	\$ -	\$ 97,398	\$ 5,467,306	\$ 6,586,652	\$ 7,728,385	\$ 8,892,953	\$ 10,080,812
Affordable Housing Development Reserve	8,120,000	8,120,000	4,000,000	-	202,400	12,322,400	18,628,848	25,061,425	31,622,653	21,145,107
Total	\$ 12,489,908	\$ 12,489,908	\$ 5,000,000	\$ -	\$ 299,798	\$ 17,789,706	\$ 25,215,500	\$ 32,789,810	\$ 40,515,606	\$ 31,225,918

To: Housing Committee

From: Heather McNell, General Manager, Regional Planning and Housing Services

Date: September 29, 2021

Meeting Date: October 6, 2021

Subject: **2022 - 2026 Financial Plan – Metro Vancouver Housing Corporation (MVHC)**

RECOMMENDATION

That the Housing Committee endorse the 2022 - 2026 Financial Plan for the Metro Vancouver Housing Corporation as presented in the report dated September 29, 2021, titled “2022 - 2026 Financial Plan – Metro Vancouver Housing Corporation”, and forward it to the Metro Vancouver Board Budget Workshop on October 20, 2021 for consideration.

EXECUTIVE SUMMARY

The 2022 - 2026 Metro Vancouver Financial Plan has been prepared following direction received at the April 8, 2021 Metro Vancouver Board Budget Workshop. This has resulted in a plan that maintains the goals and objectives of Metro Vancouver while using key financial tools to minimize the impact on the ratepayers of the region. The Metro Vancouver Housing Corporation (MVHC) is funded primarily through rental revenues, and does not have an impact on the overall MVRD tax requisition; this focus has been maintained while preparing and reviewing budgets.

MVHC’s 5-year financial plan supports its goals of supporting healthy engaged communities, preserving existing housing to maintain affordability and improve energy efficiency, growing strategically through redevelopment and new developments and partnering to expand affordable rental housing across the region. Over the next five years, the MVHC annual budget is expected to increase an average of \$4.5 million or 7.4% per year, primarily due to the expansion of the portfolio.

PURPOSE

To present the 2022 - 2026 Financial Plan for the Metro Vancouver Housing Corporation (MVHC) for consideration by the Committee.

BACKGROUND

Metro Vancouver’s annual budget process includes the development of detailed annual budgets and the updating of five-year financial plans for each of the four Metro Vancouver legal entities (Metro Vancouver Regional District, Metro Vancouver Housing Corporation, Greater Vancouver Water District and Greater Vancouver Sewerage and Drainage District).

On April 8, 2021 a Metro Vancouver Board Budget Workshop was held with the objective to seek direction for the preparation of the 2022 - 2026 Financial Plan. The workshop outlined the principles that guide the work of Metro Vancouver as an organization, and a proposed approach for the 2022 - 2026 Financial Plan.

This report focuses on the Metro Vancouver Housing Corporation Service and presents the 2022 provisional annual budget and the updated five-year plan for the years 2022 to 2026 for Committee consideration.

METRO VANCOUVER HOUSING CORPORATION

The MVHC is a not-for-profit entity with the Metro Vancouver Regional District as its sole shareholder. MVHC operates 49 housing sites that provide 3,400 units of affordable rental housing for low to moderate income households across the region. MVHC's operations and maintenance is primarily financed through the collection of tenant rents and supplemented by BC Housing operating subsidies for eight of the 49 sites. Operations maintains MVHC assets, manages tenants and builds communities within the housing portfolio and surrounding neighborhoods. The Planning, Development and Finance teams manage the strategic redevelopment of existing sites and partnerships with member jurisdictions, provincial and federal government to develop additional affordable homes across the Region.

MVHC initiatives planned over the next five years are guided by direction provided in the *Board Strategic Plan* and *Metro Vancouver Housing 10-Year Plan*, specifically:

- **Providing** safe, inclusive, diverse and affordable homes in communities throughout the region;
- **Preserving** the existing portfolio through capital maintenance to support affordability and improve sustainability and accessibility; and
- **Expanding** Metro Vancouver Housing's portfolio through redevelopment and partnerships with member jurisdictions and other levels of government.

WORK PLAN PERFORMANCE INDICATORS

High level performance indicators have been developed across the organization to evaluate trends, determine key actions for the coming year, and to assist in long-term planning. The 2022 Work Plan for MVHC is presented in this report. Within the MVHC Work Plan, twelve performance indicators have been developed and are being tracked. These include:

- Percentage of total units rented to subsidized tenants
- Vacancy percentage (based on number of available units)
- MVHC communities with tenant associations
- Reduction of GHG emissions
- Redevelopment projects including Kingston Gardens (Surrey), Welcher Avenue (Port Coquitlam), Heather Place – Building B (Vancouver), Eastburn Square (Burnaby) and Malaspina Village (Phase I) (Coquitlam)
- Rehabilitation projects including Strathearn Court (Vancouver), Evergreen Downs (Delta) and Kelly Court (Vancouver)

The trends in these performance measures suggest that MVHC will continue to provide one third of the tenant portfolio with subsidized tenants, maintain a low vacancy rate (0.2%), uphold its management of 32 tenant associations and continue the decrease in GHG emissions from MVHC operations. The redevelopment at five sites demonstrates the trend of increasing the amount of affordable rental homes in MVHC's portfolio.

CONTINUOUS IMPROVEMENT

MVHC has been reviewing and updating its policies and procedures. Notable policy updates include the *Tenant Selection Policy* that ensures the corporation is providing housing that prioritizes very low to moderate income residents who have less opportunities to rent in the private market.

Following the completion of Heather Place Building A, a ‘lessons learned’ review was completed to provide information to increase effectiveness and efficiency, and design considerations in future projects.

Further improvement initiatives include:

- Expanding through redevelopment and partnerships;
- Accelerating the delivery of large capital rehabilitation projects through the financing of these projects;
- Participating in the Pembina Reframed Initiative to undertake comprehensive whole-building retrofits to improve tenant comfort, well-being and safety, extend the life of the asset, reduce operational costs, improve energy efficiency, and reduce GHG emissions (3 sites);
- Installing high efficiency mechanical equipment and make thermal improvements to building structures;
- Continuing projects approved through the Sustainability Innovation Fund:
 - Building Resilience: Exploring the Potential of Renewable Energy Building Infrastructure
 - Net-Zero Feasibility Study for Welcher Avenue Affordable Housing Development
 - Step Code Implementation Impacts for Building Envelope Rehabilitation of Existing Buildings;
- Continuing to explore and incorporate mobile technology into day-to-day field operations; and
- Creating and implementing a strategy to reduce illegal waste dumping to reduce operational costs.

2022 BUDGET AND 2022 - 2026 FINANCIAL PLAN

The five-year financial plans for this cycle have been updated to address five central themes identified by the Metro Vancouver Board in its Strategic Plan to guide the development of plans and budgets. The five themes are as follows:

- Financial Sustainability
- Environmental Sustainability
- System Stewardship
- Regulatory and Legislative Environment
- Regional Growth

Each Metro Vancouver function has an Annual Work Plan that includes strategic directions, performance indicators and key actions to guide the work for the coming year. Each function also has a “What’s Happening” summary that highlights the program highlights for the next five years.

The 2022 - 2026 MVHC Financial Plan is included as Attachment 1. The 2022 Annual Work Plan for the MVHC presented in this report is included in Attachment 3 and the “What’s Happening” highlights for the years 2022 - 2026 are included in Attachment 4.

Operating Budget Highlights

The MVHC 2022 operating budget is proposed to increase by \$1.1 million for a total budget of \$54.8 million (Attachment 1). This increase is primarily due to the increased rental revenue and operating subsidies to meet service requirements and growth demands.

The 2022 operating budget includes the following key actions:

- Continue implementation of the Metro Vancouver Housing 10-Year Plan and Asset Management Plan;
- Ongoing construction on Kelly Court (Vancouver) and Evergreen Downs (Delta) building envelope renewals and energy improvements;
- Finalize design, obtain permits, and start construction on Strathearn Court (Vancouver) building envelope renewals and energy improvements;
- The Pembina Reframed initiative will be completing the exploration labs and will be starting detailed design for Deep Retrofits at Manor House (North Vancouver), Crown Manor (New Westminster), and Le Chateau (Coquitlam);
- Continue to develop and implement innovative tenant programs such as community gardens, free food programs, decorative wraps contests, complimentary spring flowers programs, murals and communications projects;
- Continue to support tenants that need to be relocated due to redevelopment;
- Develop and begin implementation of a new internal and external work order system;
- Gradually return to ‘new normal’ through the reopening of head office and area offices to the public and to our tenants and increase face-to-face interactions as guidelines allow;
- Review payment plans, discounted rents, and delinquencies for current tenants;
- Use the COVID-19 Safe Restart Funds to construct MVH amenity space that will be used as a place to run a free food program for vulnerable tenants and also as a gathering place for community events and other tenant programs;
- Progress construction of Kingston Gardens Phase 1 (Surrey) and Welcher Avenue (Port Coquitlam);
- Finalize detailed design for Heather Place Building B (Vancouver);
- Schematic design and development approvals for: Civic Centre (Pitt Meadows), Malaspina Phase 1 (Coquitlam), Eastburn Square (Burnaby) and Southwynde (Burnaby);
- Work with BC Housing and CMHC to secure funding partnerships for redevelopment projects;
- Update the Housing website;
- Enhance the online housing application process for tenants;
- Continue to build brand awareness with key industry stakeholders and residents of the region; and
- Work to build a better understanding the opinions and community needs of MVHC through focus group and public opinion research where needed.

Over the next five years, the MVHC annual budget is expected to increase an average of \$4.5 million or 7.4% per year, primarily due to the expansion of the housing portfolio as more units come on line.

Communications Program

The 2021 MVHC Communications Program of \$40,000 is focused on video and graphic documentation of new and existing MVHC sites for partnership engagement and public opinion research through focus groups on Metro Vancouver's role in housing and branding opportunities.

Capital Budget Highlights

The MVHC capital budget for 2022 approval is \$322.5 million (Attachment 2). The capital program is funded by mortgage financing, reserve funding, and grants from external agencies. The capital projects planned and ongoing for 2022 are the redevelopment of Heather Place - Building B (Vancouver), Kingston Gardens - Phase I (Surrey), and Welcher Avenue (Port Coquitlam) as well as planning for Eastburn Square (Burnaby), Malaspina (Coquitlam), Pitt Meadows Town Centre and Southwynde (Burnaby).

The projected capital cash flow for 2022 - 2026 totals \$428.0 million with Kingston Gardens - Phase I (Surrey) and Welcher Avenue (Port Coquitlam) estimated to be completed in 2023 and 2024, respectively. Heather Place - Building B (Vancouver) and Malaspina – Phase 1 (Coquitlam) are estimated to be completed in 2025. Eastburn Square (Burnaby), Pitt Meadows Town Centre and Southwynde (Burnaby) are estimated to be completed in 2026. The 2022-2026 capital plan also includes projects that are currently in the planning phase and have not yet been endorsed by the Housing Committee or Board.

Reserve Funds

The application of reserve funding in MVHC is in accordance with the *Operating, Statutory and Discretionary Reserves Policy* and is primarily made through its Capital Development and Capital Replacement Reserves. In 2022, the financial plan includes \$4.1 million in reserve usage for significant asset maintenance and replacement, of which \$3.8 million is from the Capital Replacement Reserve and the remaining \$0.3 million is from the Restricted Capital Replacement Reserve. The 2022 - 2026 Projected Reserves for MVHC is included in Attachment 5.

APPROVAL PROCESS

The proposed 2022 - 2026 Financial Plan and Annual Work Plan is presented for consideration and endorsement before being forwarded to the Board for consideration.

The next steps of the process are:

- The 2022 - 2026 Financial Plan and Annual Work Plan will be presented for consideration at the Metro Vancouver Board Budget Workshop on October 20, 2021; and
- The Board will consider adoption of the 2022 Budget and endorsement of the 2022 - 2026 Financial Plan on October 29, 2021.

ALTERNATIVES

1. That the Housing Committee endorse the 2022 - 2026 Financial Plan for the Metro Vancouver Housing Corporation as presented in the report dated September 29, 2020, titled "2022 - 2026 Financial Plan – Metro Vancouver Housing Corporation", and forward it to the Metro Vancouver Board Budget Workshop on October 20, 2021 for consideration.

2. That the Housing Committee make recommendations and endorse an amended 2022 - 2026 Financial Plan for the MVHC and forward the amended Financial Plan to the to the Metro Vancouver Board Budget Workshop on October 20, 2021 for consideration.

FINANCIAL IMPLICATIONS

MVHC operations are funded primarily through rental revenues and do not have an impact on the overall MVRD tax requisition. If the MVRD Board endorses the 2022 - 2026 Financial Plan for the MVHC, as presented under Alternative 1, in 2022 the rental revenues are expected to generate a surplus from operations ranging from \$10.7 million in 2022 to \$8.9 million in 2026. The financial plan includes three redevelopment projects: Kingston Gardens – Phase 1 (Surrey) which started in 2019, Heather Place – Building B (Vancouver) which started in 2020, and Welcher Avenue (Port Coquitlam) which started in 2020, as well as estimates for several future projects currently in the planning stages. These projects will be funded through a combination of reserves, grants, partnerships and mortgage financing.

Under Alternative 2, the Committee may wish to consider recommending amendments to the 2022 Budget and Five-year Financial Plan for consideration at the Metro Vancouver Board Budget Workshop. Any amendments to the plan may have an impact on the MVRD Financial Plan.

SUMMARY / CONCLUSION

The MVHC 2022 Budget and Five-year Financial Plan was prepared following direction received at the April 8, 2021 Metro Vancouver Board Budget Workshop and to respond to direction provided in the *Board Strategic Plan*. It is presented to Committee and Board members to provide overview information on activities and financial impacts for the years 2022 to 2026 for MVHC.

The presentation of the 2022 budget and five-year financial plan for MVHC provides the opportunity for Metro Vancouver to share with its member jurisdictions the proposed capital projects and operating programs, and the financial impact of these projects, over the next five years. The financial plan illustrates how Metro Vancouver proposes to pay for MVHC investments that will be required to maintain our assets and to respond to our region's growing population. It is intended to be used as a guiding document for member jurisdictions in the development of their five-year financial plans.

Staff recommends endorsing the 2022 - 2026 Financial Plan and Annual Work Plan for MVHC as presented under alternative one.

Attachments:

1. 2022 - 2026 Financial Plan
2. 2022 - 2026 Capital Portfolio – Housing Development
3. 2022 Work Plan
4. 2022 - 2026 “What’s Happening”
5. 2022 - 2026 Projected Reserves – Metro Vancouver Housing Corporation

METRO VANCOUVER HOUSING CORPORATION
HOUSING
2022 BUDGET REVIEW
2022-2026 FINANCIAL PLAN

	2021 BUDGET	2022 BUDGET	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE	2025 FORECAST	% CHANGE	2026 FORECAST	% CHANGE
REVENUES											
Housing Rents	\$ 41,303,421	\$ 42,110,363	2.0%	\$ 42,910,062	1.9%	\$ 46,572,836	8.5%	\$ 49,231,139	5.7%	\$ 57,651,998	17.1%
Housing Mortgage and Rental Subsidies	2,099,058	1,885,840		1,921,671		2,408,182		2,445,387		2,483,298	
Other External Revenues	801,468	884,490		899,466		915,291		930,264		946,095	
Financing Proceeds	-	5,820,000		10,730,000		13,580,000		8,500,000		8,000,000	
Transfer from Reserves	9,488,074	4,098,180		3,826,636		3,287,444		7,713,628		7,327,886	
TOTAL REVENUES	\$ 53,692,021	\$ 54,798,873	2.1%	\$ 60,287,835	10.0%	\$ 66,763,753	10.7%	\$ 68,820,418	3.1%	\$ 76,409,277	11.0%
EXPENDITURES											
Operating Programs:											
Property Operations	\$ 19,715,819	\$ 17,976,727		\$ 18,135,553		\$ 19,256,361		\$ 20,243,059		\$ 22,984,432	
Maintenance	912,592	1,108,815		1,130,223		1,155,877		1,182,107		1,208,926	
Housing Finance Operations	945,735	965,411		984,673		1,008,129		1,033,831		1,056,695	
Tenant Program and Services	412,897	585,086		594,605		607,343		620,375		633,705	
Site Administration	2,052,399	2,250,084		2,291,376		2,342,016		2,393,791		2,446,722	
Engineers in Training	11,627	15,508		15,797		16,151		16,513		16,883	
Administration and Department Support	1,407,505	1,479,635		1,509,470		1,543,832		1,578,972		1,613,992	
	25,458,574	24,381,266	(4.2%)	24,661,697	1.2%	25,929,709	5.1%	27,068,648	4.4%	29,961,355	10.7%
Communications Program	40,000	40,000	0.0%	40,000	0.0%	40,000	0.0%	40,000	0.0%	40,000	0.0%
Allocation of Centralized Support Costs	2,082,758	2,401,739	15.3%	2,185,410	(9.0%)	2,108,414	(3.5%)	2,038,626	(3.3%)	1,913,691	(6.1%)
Total Operating Programs	27,581,332	26,823,005	(2.7%)	26,887,107	0.2%	28,078,123	4.4%	29,147,274	3.8%	31,915,046	9.5%
Capital Maintenance	9,488,074	9,918,180	4.5%	14,556,636	46.8%	16,867,444	15.9%	16,213,628	(3.9%)	15,327,886	(5.5%)
Allocation of Project Delivery Cost	388,442	-	(100.0%)	933,341	0.0%	973,791	4.3%	980,228	0.7%	982,333	0.2%
Debt Service:											
Mortgage Payments	5,154,165	4,799,022	(6.9%)	4,599,645	(4.2%)	6,537,379	42.1%	7,719,073	18.1%	12,341,328	59.9%
Capital Maintenance Financing	-	678,428	0.0%	1,053,978	55.4%	2,572,483	140.0%	2,869,983	11.6%	4,615,127	60.8%
Contribution to Capital Replacement Reserve	1,720,546	1,859,270	8.1%	1,859,270	0.0%	1,992,506	7.2%	2,070,241	3.9%	2,375,040	14.7%
Contribution to Reserve	9,359,462	10,720,968	14.5%	10,397,858	(3.0%)	9,742,027	(6.3%)	9,819,991	0.8%	8,852,517	(9.9%)
TOTAL EXPENDITURES	\$ 53,692,021	\$ 54,798,873	2.1%	\$ 60,287,835	10.0%	\$ 66,763,753	10.7%	\$ 68,820,418	3.1%	\$ 76,409,277	11.0%

METRO VANCOUVER HOUSING CORPORATION
CAPITAL PORTFOLIO
HOUSING DEVELOPMENT
2022 CAPITAL BUDGET AND 2022-2026 CAPITAL PLAN

	2022 CAPITAL BUDGET	ACTUALS ESTIMATED TO DEC 31 2021	2022 CAPITAL CASH FLOW	2023 CAPITAL CASH FLOW	2024 CAPITAL CASH FLOW	2025 CAPITAL CASH FLOW	2026 CAPITAL CASH FLOW	2022 TO 2026 TOTAL	ACTIVE PHASE	PRIMARY DRIVER
CAPITAL EXPENDITURES										
Heather Place - Building B	\$ 48,100,000	\$ 2,000,000	\$ 2,400,000	\$ 13,400,000	\$ 18,000,000	\$ 12,300,000	\$ -	\$ 46,100,000	Starting 2021 - Detailed Design	Expand/Re-develop
Kingston Gardens - Phase 1	44,600,000	8,000,000	25,000,000	11,600,000	-	-	-	36,600,000	Starting 2021 - Construction	Expand/Re-develop
Welcher Avenue	36,100,000	2,800,000	18,000,000	11,500,000	3,800,000	-	-	33,300,000	Starting 2021 - Construction	Expand/Re-develop
Eastburn Square (2021 Projects in Planning)	63,800,000	500,000	800,000	3,400,000	25,100,000	29,000,000	5,000,000	63,300,000	Planned	Expand/Re-develop
Malaspina (2021 Projects in Planning)	38,700,000	500,000	500,000	1,700,000	16,000,000	20,000,000	-	38,200,000	Planned	Expand/Re-develop
Pitt Meadows Town Centre (2021 Projects in Planning)	45,800,000	500,000	800,000	3,500,000	17,500,000	20,000,000	3,500,000	45,300,000	Planned	Expand/Member Partnerships
Southwynde - Burnaby (2021 Projects in Planning)	45,400,000	500,000	800,000	2,300,000	17,800,000	20,500,000	3,500,000	44,900,000	Planned	Expand/Member Partnerships
Projects in Planning	-	-	-	800,000	7,200,000	46,500,000	65,800,000	120,300,000	Planned	Expand/Re-develop and Member Partnerships
TOTAL CAPITAL EXPENDITURES	\$ 322,500,000	\$ 14,800,000	\$ 48,300,000	\$ 48,200,000	\$ 105,400,000	\$ 148,300,000	\$ 77,800,000	\$ 428,000,000		
CAPITAL FUNDING										
Grants	\$ 29,000,000	\$ 2,500,000	\$ 17,535,892	\$ 1,202,500	\$ 7,770,054	\$ 3,581,473	\$ -	\$ 30,089,919		
External Borrowing	224,500,000	1,500,000	25,464,108	32,106,415	86,629,946	121,063,471	48,577,277	313,841,217		
Reserve	69,000,000	10,800,000	5,300,000	14,891,085	11,000,000	23,655,056	29,222,723	84,068,864		
Total	\$ 322,500,000	\$ 14,800,000	\$ 48,300,000	\$ 48,200,000	\$ 105,400,000	\$ 148,300,000	\$ 77,800,000	\$ 428,000,000		
SUMMARY BY DRIVER										
Expand/Re-develop	\$ 231,300,000	\$ 13,800,000	\$ 46,700,000	\$ 42,050,000	\$ 67,100,000	\$ 95,800,000	\$ 43,200,000	\$ 294,850,000		
Expand/Member Partnerships	91,200,000	1,000,000	1,600,000	6,150,000	38,300,000	52,500,000	34,600,000	133,150,000		
Total	\$ 322,500,000	\$ 14,800,000	\$ 48,300,000	\$ 48,200,000	\$ 105,400,000	\$ 148,300,000	\$ 77,800,000	\$ 428,000,000		

**METRO VANCOUVER HOUSING CORPORATION
CAPITAL PORTFOLIO
HOUSING DEVELOPMENT
ESTIMATED TOTAL PROJECT COST**

	ESTIMATED TOTAL PROJECT COST	ACTIVE PHASE	PRIMARY DRIVER
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CAPITAL EXPENDITURES

Heather Place - Building B	\$ 48,100,000	Starting 2021 - Detailed Design	Expand/Re-develop
Kingston Gardens - Phase 1	44,600,000	Starting 2021 - Construction	Expand/Re-develop
Welcher Avenue	36,100,000	Starting 2021 - Construction	Expand/Re-develop
Eastburn Square (2021 Projects in Planning)	63,800,000	Planned	Expand/Re-develop
Malaspina (2021 Projects in Planning)	38,700,000	Planned	Expand/Re-develop
Pitt Meadows Town Centre (2021 Projects in Planning)	45,800,000	Planned	Expand/Member Partnerships
Southwynde - Burnaby (2021 Projects in Planning)	45,400,000	Planned	Expand/Member Partnerships
Projects in Planning	143,300,000	Planned	Expand/Re-develop and Member Partnerships
TOTAL CAPITAL EXPENDITURES	\$ 465,800,000		

CAPITAL FUNDING

Grants	\$ 32,589,919		
External Borrowing	328,341,216		
Reserve	104,868,865		
Total	\$ 465,800,000		

SUMMARY BY DRIVER

Expand/Re-develop	\$ 314,450,000		
Expand/Member Partnerships	151,350,000		
Total	\$ 465,800,000		

METRO VANCOUVER HOUSING CORPORATION

Description of Services

Metro Vancouver Housing Corporation (MVHC) is a not-for-profit entity with the Metro Vancouver Regional District as its sole shareholder. MVHC operates 49 housing sites that provide 3,400 units of affordable rental housing for low to moderate income households across the region. MVHC is primarily financed through the collection of tenant rents. Operations maintains MVHC assets, manages tenants and builds communities within the housing portfolio and surrounding neighborhoods.

Strategic Directions and High Level Goals Supported

- Provide safe, affordable rental homes to individuals and families across the region
- Implement the Metro Vancouver Housing 10-Year Plan - Provide, preserve and expand affordable housing in the region
- Continue to implement innovative tenant programs to engage healthy, livable communities
- Continue the implementation of the MVH Redevelopment and Asset Management plans. These plans:
 - Identify a pipeline of housing developments and building rehabilitations that are prioritized to create new units and maintain existing affordable rental homes
 - Identify areas for environmental and energy sustainability improvements
 - Create an agreed standard of service and delivery for core building infrastructure

Performance Indicators

Indicator	Historical and/or industry benchmark (2020)	Current performance (2021)	2022 performance objective
Total units rented to subsidized tenants	33% (3 Year average)	33% (2020)	33%
Vacancy percentage (based on number of units)	0.2% (3 Year Average)	0.2% (2020)	0.2%
MVHC communities with tenant associations	63% (3 Year Average, 31 sites)	65% (2021, 32 sites)	65% (2022, 32 sites)
Reduce GHG emissions	10.2 grams CO ² Emissions per square metre (2010 baseline)	7.71 grams CO ² Emissions per square metre (2020)	7.45 grams CO ² Emissions per square metre
Kingston Gardens Redevelopment	95% (design)	5% (construction)	75% (construction)
Welcher Avenue Redevelopment	50% (design)	5% (construction)	70% (construction)
Heather Place B Redevelopment	0%	100% (DP Amendment) 25% (design)	95% (design)
Eastburn Square Redevelopment	0%	10% (design)	60% (design)

Indicator	Historical and/or industry benchmark (2020)	Current performance (2021)	2022 performance objective
Malaspina Village (Phase 1) Redevelopment	0%	100% (Consultant RFP/Contract)	100% (OCP Application Submission) 75% (Rezoning Package) 50% (Design)
Strathearn Court Rehabilitation Project	60% (Design)	100% (Design) 30% (Permitting)	5% (Construction)
Evergreen Downs Rehabilitation Project	90% (Design)	40% (Construction)	100% (Construction)
Kelly Court Rehabilitation Project	100% (Design) 30% (Permitting)	10% (Construction)	80% (Construction)

**The performance objective measures for municipal partnership projects are included in the Housing Planning and Policy Annual Work Plan Report.*

2022 Key Actions – Metro Vancouver Housing

Operations & Maintenance

- Continue to implement the Metro Vancouver Housing 10-year Plan and Asset Management Plan
- Ongoing construction on Kelly Court and Evergreen Downs building envelope renewals and energy improvements
- Finalize design, obtain permits, and start construction on Strathearn Court building envelope renewals and energy improvements
- The Pembina Reframed initiative will be completing the exploration labs and will be starting detailed design for Deep Retrofits at Manor House (North Vancouver), Crown Manor (New Westminster), and Le Chateau (Coquitlam)
- Continue to develop and implement innovative tenant programs such as community gardens, free food programs, decorative wraps contests, complimentary spring flowers programs, murals and communications projects
- Continue to support tenants that need to be relocated due to redevelopment
- Develop and begin implementation of a new internal and external work order system

COVID Response

- Gradually return to 'new normal' through the reopening of head office and area offices to the public and to our tenants and increase face-to-face interactions
- Review payment plans, discounted rents, delinquencies for current tenants
- Use the COVID -19 Safe Restart Funds to construct MVH amenity space that will be used as a place to run a free food program for vulnerable tenants and also as a gathering place for community events and other tenant programs

New and Re-Development

- Progress construction of Kingston Gardens Phase 1, Surrey
- Progress construction of Welcher Avenue, Port Coquitlam
- Finalize detailed design for Heather Place Building B, Vancouver
- Schematic design and development approvals for: Civic Centre – Pitt Meadows, Malaspina Phase 1 - Coquitlam, Eastburn Square – Burnaby and Southwynde - Burnaby
- Work with BC Housing and CMHC to secure funding partnerships for redevelopment projects

Communications

- Update the Housing website
- Enhance the online housing application process for tenants
- Continue to build brand awareness with key industry stakeholders and residents of the region
- Work to build a better understanding the opinions and community needs of MVHC through focus group and public opinion research where needed

Metro Vancouver Housing Corporation

2022 to 2026 – WHAT'S HAPPENING

Below is a summary of the significant initiatives to be undertaken by the MVHC over the next 5 years.

Initiative	Description	Theme
2022		
Metro Vancouver Housing 10 year Plan	Continue the exploration and implementation of actions identified in the 10-year plan	Regional growth, financial sustainability & environmental sustainability
Kingston Gardens – Phase 1 Redevelopment	Continue construction phase of project	Regional Growth
Welcher Avenue Redevelopment	Continue construction phase of project	Regional Growth
Heather Place B Redevelopment	Finalize the design phase of project and permitting. Complete tendering process of contractor	Regional Growth
Eastburn Square Redevelopment	Continue planning and begin detailed design	Regional Growth
Malaspina Village – Phase 1 Redevelopment	Continue planning and begin detailed design	Regional Growth
New development projects (through Partnerships)	Detailed design of two projects	Regional Growth
Strathearn Court Rehabilitation Project	Begin construction phase	System stewardship
Evergreen Downs Rehabilitation Project	Complete construction phase	System stewardship
Kelly Court Rehabilitation Project	Progress through construction phase	System stewardship
Process development	Review and refine preventative maintenance procedures	System stewardship
2023		
Metro Vancouver Housing 10 year Plan	Continue the exploration and implementation of actions identified in the 10-year plan	Regional growth, financial sustainability & environmental sustainability
Kingston Gardens – Phase 1 Redevelopment	Complete construction and begin rent-up	Regional Growth
Welcher Avenue Redevelopment	Continue to progress through construction	Regional Growth
Heather Place B Redevelopment	Begin construction phase	Regional Growth
Eastburn Square Redevelopment	Finalize design and tender	Regional Growth
Malaspina Village – Phase 1 Redevelopment	Finalize design and tender	Regional Growth
New development projects (through Partnerships)	Finalize design of projects and tender	Regional Growth

Strathearn Court Rehabilitation Project	Complete construction phase	System stewardship
Kelly Court Rehabilitation Project	Complete construction phase	System stewardship
Building rehabilitation projects	Continue construction of initiated projects and the development of design in newly initiated projects	System stewardship
2024		
Metro Vancouver Housing 10 year Plan	Continue the exploration and implementation of actions identified in the 10-year plan	Regional growth, financial sustainability & environmental sustainability
Welcher Avenue Redevelopment	Complete construction and begin rent-up	Regional Growth
Heather Place B Redevelopment	Continue to progress through construction	Regional Growth
Eastburn Square Redevelopment	Begin construction phase	Regional Growth
Malaspina Village – Phase 1 Redevelopment	Begin construction phase	Regional Growth
New development projects (through Partnerships)	Begin construction at Town Centre, Pitt Meadows and Southwynde, Burnaby.	Regional Growth
Building rehabilitation projects	Continue construction of initiated projects and the development of design in newly initiated projects	System stewardship
2025		
Metro Vancouver Housing 10 year Plan	Complete a review of the 10-year plan and assessment of achievements to date. Monitor emerging trends and changes to the affordable housing sector	Regional growth, financial sustainability & environmental sustainability
Heather Place B Redevelopment	Complete construction and begin rent-up	Regional Growth
Eastburn Square Redevelopment	Continue to progress through construction	Regional Growth
Malaspina Village – Phase 1 Redevelopment	Continue to progress through construction	Regional Growth
New development projects (through Partnerships)	Continue construction at Town Centre, Pitt Meadows and Southwynde, Burnaby.	Regional Growth
Building rehabilitation projects	Continue construction of initiated projects and the development of design in newly initiated projects	System stewardship
2026		
Metro Vancouver Housing 10 year Plan	Complete a review of the 10-year plan and assessment of achievements to date. Monitor emerging trends and changes to the affordable housing sector	Regional growth, financial sustainability & environmental sustainability
Eastburn Square Redevelopment	Complete construction and begin rent-up	Regional Growth

Malaspina Village – Phase 1 Redevelopment	Complete construction and begin rent-up	Regional Growth
New development projects (through Partnerships)	Complete construction of Town Centre, Pitt Meadows and Southwynde, Burnaby.	Regional Growth
Building rehabilitation projects	Continue construction of initiated projects and the development of design in newly initiated projects	System stewardship

METRO VANCOUVER DISTRICTS
2022-2026 PROJECTED RESERVES - METRO VANCOUVER HOUSING CORPORATION

OPERATING RESERVES

	2021 ENDING BALANCE	2022 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2022 ENDING BALANCE	2023 ENDING BALANCE	2024 ENDING BALANCE	2025 ENDING BALANCE	2026 ENDING BALANCE
Metro Vancouver Housing Corporation	\$ 2,577,597	\$ 2,577,597	\$ -	\$ -	\$ 51,552	\$ 2,629,149	\$ 2,681,732	\$ 2,735,366	\$ 2,790,074	\$ 2,845,875

DISCRETIONARY RESERVES

	2021 ENDING BALANCE	2022 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2022 ENDING BALANCE	2023 ENDING BALANCE	2024 ENDING BALANCE	2025 ENDING BALANCE	2026 ENDING BALANCE
Housing										
MVHC Capital Replacement Reserve	\$ 4,854,248	\$ 4,854,248	\$ 3,985,282	\$ (3,839,530)	\$ 98,542	\$ 5,098,542	\$ 5,200,513	\$ 5,304,524	\$ 5,410,614	\$ 5,518,826
MVHC Capital Development Reserve	40,337,480	40,337,480	8,363,125	(5,300,000)	837,381	44,237,986	39,113,487	36,570,121	17,967,374	10,329,438
Total	\$ 45,191,729	\$ 45,191,729	\$ 12,348,407	\$ (9,139,530)	\$ 935,923	\$ 49,336,529	\$ 44,314,000	\$ 41,874,644	\$ 23,377,988	\$ 15,848,265

STATUTORY RESERVES

	2021 ENDING BALANCE	2022 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2022 ENDING BALANCE	2023 ENDING BALANCE	2024 ENDING BALANCE	2025 ENDING BALANCE	2026 ENDING BALANCE
MVHC Restricted Cap. Replacement Reserve	\$ 4,173,293	\$ 4,173,293	\$ 433,791	\$ (460,610)	\$ 83,198	\$ 4,229,671	\$ 3,798,325	\$ 4,621,488	\$ 4,374,830	\$ 4,053,327

To: Indigenous Relations Committee

From: Jessica Beverley, General Manager, Legal Services and Indigenous Relations

Date: September 30, 2021 Meeting Date: October 7, 2021

Subject: **2022 - 2026 Financial Plan – Indigenous Relations**

RECOMMENDATION

That the Indigenous Relations Committee endorse the 2022 - 2026 Financial Plan for Indigenous Relations as presented in the report dated September 30, 2021, titled “2022 - 2026 Financial Plan – Indigenous Relations”, and forward it to the Metro Vancouver Board Budget Workshop on October 20, 2021 for consideration.

EXECUTIVE SUMMARY

The 2022 - 2026 Metro Vancouver Financial Plan has been prepared following direction received at the April 8, 2021 Metro Vancouver Board Budget Workshop. This has resulted in a plan that maintains the goals and objectives of Metro Vancouver while using key financial tools to minimize the impact on the ratepayers of the region for 2022. The increase in Metro Vancouver’s overall consolidated household impact for 2022 is projected to be 3.5%, down from the 6.4% projected for 2022 in the prior financial planning cycle.

Indigenous Relations staff support Metro Vancouver’s continuing efforts to strengthen relationships with local First Nations, respond to pan-municipal First Nation issues, represent regional and local government interests at active treaty tables, and contribute valuable work towards Reconciliation. There are significantly increased expectations that Metro Vancouver is taking concrete actions towards Reconciliation with First Nations. This translates to increased workload within the program, as is demonstrated by the Indigenous Relations performance indicators.

As a result of the increased workload within the program, the Indigenous Relations operating budget is proposed to increase from \$583,698 in 2021 to \$1,383,577 in 2022, by a total of \$799,879. Over the five years, the operating program is increasing by an annual average of \$211,303, or 31.5% per year.

PURPOSE

To present the 2022 - 2026 Financial Plan for Indigenous Relations for consideration by the Committee.

BACKGROUND

Metro Vancouver’s annual budget process includes the development of detailed annual budgets and the updating of five-year financial plans for each of the four Metro Vancouver legal entities (Metro Vancouver Regional District, Metro Vancouver Housing Corporation, Greater Vancouver Water District and Greater Vancouver Sewerage and Drainage District).

On April 8, 2021 a Metro Vancouver Board Budget Workshop was held with the objective to seek direction for the preparation of the 2022 - 2026 Financial Plan. The workshop outlined the principles that guide the work of Metro Vancouver as an organization, and a proposed approach for the 2022 - 2026 Financial Plan.

This report focuses on Metro Vancouver's Indigenous Relations program and presents the 2022 provisional annual budget and the updated five-year plan for the years 2022 to 2026 for Committee consideration.

INDIGENOUS RELATIONS PROGRAM

The Indigenous Relations program provides information, advice, and support to Metro Vancouver entities on First Nations' interests and issues, and analyzes how such First Nations' interests and issues may affect Metro Vancouver's programs, processes and projects. In 2020, Indigenous Relations staff responded to 2,300 requests; the current trend for 2021 is 3,600 requests. Indigenous Relations supports two committees: Indigenous Relations Committee and a municipal staff advisory committee, the Municipal Technical Advisory Committee on Indigenous Relations. The Indigenous Relations program also responds to pan-municipal First Nation issues and represents and supports Metro Vancouver local government interests at active treaty negotiation tables in the region as well as on provincial and federal issues.

Indigenous Relations supports the strategic directions and high-level goals of the Board's updated Strategic Plan, 2019-2022 as it relates to Fostering Collaboration and Engagement. Specifically, enhancing relationships between Metro Vancouver and other orders of government, First Nations, adjacent regional districts, and key stakeholders.

4.2 Strengthen relationships with First Nations by exploring new pathways to reconciliation, such as increased engagement, dialogue, and collaboration between Metro Vancouver and First Nations in the region.

WORK PLAN PERFORMANCE INDICATORS

High level performance indicators have been developed across the organization to evaluate trends, determine key actions for the coming year, and to assist in long-term planning. The 2022 Work Plan for Indigenous Relations is presented in this report. Within the Indigenous Relations Work Plan, five performance indicators have been developed and are being tracked. These include:

- Number of local government interests represented at treaty table meetings
- Number of special Indigenous Relations events hosted by Metro Vancouver (e.g. Community to Community Forums, workshops, lunch and learns)
- Number of bilateral meetings between Metro Vancouver and the nine area First Nations with lands within the region
- Total requests for information or advice related to First Nations and/or Indigenous Relations

The upward trend in these performance measures (see Attachment 2) reflects the increased expectation that Metro Vancouver is taking concrete actions towards Reconciliation with First Nations.

CONTINUOUS IMPROVEMENT

Successful continuous improvement initiatives in 2021 include:

- coordination of region-wide or sub-regional Multi-Assessment archaeological permits. Indigenous Relations staff continue to advise on Multi-Assessment archaeological permits to maximize efficiencies, including reduced costs and wait times on Crown permit applications.
- creation of web-based and video-based modules for staff training purposes (e.g. archaeological Chance Find Protocols). Over 150 staff have, so far, received online training on Chance Find Protocols. Indigenous Relations staff will be working with the External Relations Department in 2022 to create video-based archaeological training modules for project managers, work crews and contractors.
- the identification and implementation of software to assist with tracking requests with the aim of a more efficient tracking of performance indicators. Indigenous Relations staff is continuing to test various possible software in order to assist with the tracking of requests and performance indicators.

Key work for 2022 includes:

- Co-hosting with an area First Nation a Regional Gathering of elected leaders from the 10 local First Nations in the region, the Board of Directors and the Indigenous Relations Committee;
- Facilitating First Nation involvement in regional governance;
- Undertaking more bilateral engagement and negotiation with each of the First Nations within the region;
- Reviewing Metro Vancouver’s policy on First Nations engagement;
- Developing an archaeological management approach and policy for Metro Vancouver;
- Developing Metro Vancouver’s program for the 2022 National Day for Truth and Reconciliation; and
- Preparatory work for the creation of a web-based portal for the purposes of sharing data with First Nations.

2022 BUDGET AND 2022 - 2026 FINANCIAL PLAN

The five-year financial plan for this cycle has been updated to address five central themes identified by the Metro Vancouver Board in its Strategic Plan to guide the development of plans and budgets. The five themes are as follows:

- Financial Sustainability
- Environmental Sustainability
- System Stewardship
- Regulatory and Legislative Environment
- Regional Growth

Each Metro Vancouver function has an Annual Work Plan that includes strategic directions, performance indicators and key actions to guide the work for the coming year. Each function also has a “What’s Happening” summary that highlights the program highlights for the next five years.

The 2022 - 2026 Indigenous Relations Financial Plan is included as Attachment 1. The 2022 Annual Work Plan for Indigenous Relations presented in this report is included in Attachment 2 and the “What’s Happening” highlights for the years 2022 - 2026 are included in Attachment 3.

Operating Budget Highlights

The Indigenous Relations operating budget is proposed to increase by \$799,879 for a total budget of \$1,383,577 in 2022 (Attachment 1). This increase is a direct result of increasing demands and expectations placed upon Metro Vancouver as well as recognized need to increasingly involve First Nations in the regional district’s plans, projects and initiatives.

The 2022 operating budget includes the following key actions:

- Bilateral engagement and negotiations with First Nations within the region.
- Support ongoing First Nation engagement efforts (including agreements) on capital and construction projects such as North West Langley Wastewater Treatment Plant upgrade, Iona Island Wastewater Treatment Plant upgrade, Coquitlam Lake Water Supply project, Coquitlam Main Water project, and Widgeon Marsh Regional Park development.
- Develop an archaeological management approach for Metro Vancouver including: the creation of a strategic policy; the provision of education as well as Chance Find and cultural awareness training sessions; the conduct of project reviews for archaeological potential; collaboration with First Nations and local governments; and increased internal capacity.
- Host a Regional Gathering involving members of the Indigenous Relations Committee, MVRD Board, and respective First Nation Chiefs and Councils from the 10 First Nation communities in the region.
- Host an annual event (e.g. workshop) involving staff of First Nations and local governments on a topical issue in local government/Indigenous relations.
- Host and/or participate in reconciliation activities (e.g. National Indigenous Peoples Day on June 21 and National Day for Truth and Reconciliation on September 30).
- Participate in active treaty table meetings in the region as part of the provincial negotiating team.
- Provide training sessions for Metro Vancouver staff on corporate policy related to sharing information and engagement with First Nations on construction projects, as well as the Board’s procurement policy that includes economic opportunities for First Nations and more use of their services (e.g. archaeological) on Metro Vancouver projects.
- Respond to the increasing number of internal requests: including the provision of advice on information sharing and engagement with First Nations; the identification of First Nation economic and procurement opportunities; as well as the coordination of, and participation in, meetings with First Nations involving staff from across the Metro Vancouver organization.
- Complete the video series of the 10 First Nations in the region.
- Complete an annual review/update of Metro Vancouver’s *Guide to Indigenous Nations*.

Over the five years, the operating program is increasing by a total of \$1,056,514, which represents an annual average of \$211,303 or 31.5% per year.

APPROVAL PROCESS

The proposed 2022 - 2026 Financial Plan and Annual Work Plan is presented for consideration and endorsement before being forwarded to the Board for consideration.

The next steps of the process are:

- The 2022 - 2026 Financial Plan and Annual Work Plan will be presented at the Metro Vancouver Board Budget Workshop on October 20, 2021.
- The Board will consider adoption of the 2022 Budget and endorsement of the 2022 - 2026 Financial Plan on October 29, 2021.

ALTERNATIVES

1. That the Indigenous Relations Committee endorse the 2022 - 2026 Financial Plan for Indigenous Relations as presented in the report dated September 30, 2021, titled “2022 - 2026 Financial Plan – Indigenous Relations”, and forward it to the Metro Vancouver Board Budget Workshop on October 20, 2021 for consideration.
2. That the Indigenous Relations Committee make recommendations and endorse an amended 2022 - 2026 Financial Plan for Indigenous Relations, and forward the amended Financial Plan to the Metro Vancouver Board Budget Workshop on October 20, 2021 for consideration.

FINANCIAL IMPLICATIONS

If the MVRD Board endorses the 2022 Budget and Five-year Financial Plan for Indigenous Relations, as presented under Alternative 1, the Program will be funded through the allocation of centralized support services. The 2022 - 2026 Financial Plan, if endorsed, will increase by \$1,056,514, or an average of \$211,303 (31.5%) per year. Indigenous Relations supports all Metro Vancouver entities and functions and its costs are allocated to those entities and functions through the centralized support allocation in accordance with the *Corporate Allocation Policy*.

Under Alternative 2, the Committee may wish to consider recommending amendments to the five-year financial plan for consideration at the Metro Vancouver Board Budget Workshop. Any changes to the plan may have an impact on the MVRD Financial Plan.

SUMMARY / CONCLUSION

The 2022 Budget and Five-year Financial Plan for Indigenous Relations has been prepared following direction received at the April 8, 2021 Metro Vancouver Board Budget Workshop and to respond to direction provided in the *Board Strategic Plan* and supports the goals of Metro Vancouver’s four legal entities. It is presented to Committee and Board members to provide overview information on activities and financial impacts for the years 2022 to 2026 for Indigenous Relations.

The presentation of this year’s Five-Year Financial Plan for Indigenous Relations provides the opportunity for Metro Vancouver to share with its member jurisdictions the proposed program initiatives and the financial impact of these projects, over the next five years. The Financial Plan illustrates how Metro Vancouver proposes to pay for the Indigenous Relations program while addressing an increasing workload. Metro Vancouver’s Financial Plan is intended to be used as a guiding document for member jurisdictions in the development of their five-year financial plans and includes projections on household impact to demonstrate how the plan will remain affordable for Metro Vancouver residents while keeping pace with our critical requirements.

Indigenous Relations supports all Metro Vancouver entities and functions and the associated costs are allocated to those entities and functions as part of Centralized Support Services allocation in accordance with the *Corporate Allocation Policy*.

Staff recommend endorsing the 2022 - 2026 Financial Plan for Indigenous Relations as presented under alternative one.

Attachments:

1. 2022 - 2026 Financial Plan
2. 2022 Work Plan
3. 2022 - 2026 “What’s Happening”

METRO VANCOUVER DISTRICTS
INDIGENOUS RELATIONS
2022-2026 FINANCIAL PLAN

	2021 BUDGET	2022 BUDGET	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE	2025 FORECAST	% CHANGE	2026 FORECAST	% CHANGE
REVENUES											
Allocated to Functional Departments	\$ 583,698	\$ 907,578	55.5%	\$ 921,966	1.6%	\$ 943,054	2.3%	\$ 964,635	2.3%	\$ 986,541	2.3%
Transfer from Capital	-	475,999	0.0%	601,821		618,707	2.8%	635,989	2.8%	653,671	2.8%
TOTAL REVENUES	\$ 583,698	\$ 1,383,577	140.0%	\$ 1,523,787	10.1%	\$ 1,561,761	2.5%	\$ 1,600,624	2.5%	\$ 1,640,212	2.5%
EXPENDITURES											
Operating Programs:											
Indigenous Relations	\$ 583,698	\$ 1,383,577		\$ 1,523,787		\$ 1,561,761		\$ 1,600,624		\$ 1,640,212	
TOTAL EXPENDITURES	\$ 583,698	\$ 1,383,577	140.0%	\$ 1,523,787	10.1%	\$ 1,561,761	2.5%	\$ 1,600,624	2.5%	\$ 1,640,212	2.5%

LEGAL SERVICES AND INDIGENOUS RELATIONS

Indigenous Relations 2022 WORK PLAN

Description of services

Indigenous Relations provides information, advice and support to Metro Vancouver on First Nations' interests and issues, and analyzes how such First Nations' interests and issues may affect corporate programs, processes and projects. Indigenous Relations also responds to pan-municipal First Nation issues and represents and supports Metro Vancouver local government interests at treaty negotiation tables as well as at provincial and federal venues.

Strategic directions and high level goals supported

Board Strategic Plan, 2019-2022:

Fostering Collaboration and Engagement

- Enhance relationships between Metro Vancouver and other orders of government, First Nations, adjacent regional districts, and key stakeholders.
 - 4.2 Strengthen relationships with First Nations by exploring new pathways to reconciliation, such as increased engagement, dialogue, and collaboration between Metro Vancouver and First Nations in the region.

Performance indicators

Indicator	Historical and/or industry benchmark	Current performance	2022 performance objective
Number of local government interests represented at treaty table meetings.	MV 4-year average (2017-2020) 6	Projected 2021: 10	12
Number of special Indigenous Relations events hosted by Metro Vancouver (e.g. Community to Community Forums, workshops, lunch and learns)	MV 4-year average (2017-2020) 3	Projected 2021: 4	5
Number of bilateral meetings between Metro Vancouver and the nine area First Nations with lands	MV 4-year average (2017-2020) 30	Projected 2021: 75	100
Total requests for information or advice related to First Nations and/or Indigenous Relations	MV 4-year average (2017-2020) 1,350	Projected 2021: 3,600	5,000

2022 key actions

- Support ongoing First Nation engagement efforts (including agreements) on capital and construction projects such as North West Langley Wastewater Treatment Plant upgrade, Iona Island Wastewater Treatment Plant upgrade, Coquitlam Lake Water Supply project, Coquitlam Main Water project, and Widgeon Marsh Regional Park development.
- Develop an archaeological management approach for Metro Vancouver including: the creation of a strategic policy; the provision of education as well as Chance Find and cultural awareness training sessions; the conduct of project reviews for archaeological potential; collaboration with First Nations and local governments; and increased internal capacity.
- Host a Regional Gathering involving members of the Indigenous Relations Committee, MVRD Board, and respective First Nation Chiefs and Councils from the 10 First Nation communities in the region.
- Host an annual event (e.g. workshop) involving staff of First Nations and local governments on a topical issue in local government/Indigenous relations.
- Host and/or participate in reconciliation activities (e.g. National Indigenous Peoples Day on June 21 and Orange Shirt Day on September 30).
- Participate in active treaty table meetings in the region as part of the provincial negotiating team.
- Provide training sessions for Metro Vancouver staff on corporate policy related to sharing information and engagement with First Nations on construction projects, as well as the Board's procurement policy that includes economic opportunities for First Nations and more use of their services (e.g. archaeological) on Metro Vancouver projects.
- Respond to the increasing number of internal requests: including the provision of advice on information sharing and engagement with First Nations; the identification of First Nation economic and procurement opportunities; as well as the coordination of, and participation in, meetings with First Nations involving staff from across the Metro Vancouver organization.
- Complete the video series of the 10 First Nations in the region.
- Complete an annual review/update of Metro Vancouver's *Guide to Indigenous Nations*.

Indigenous Relations

2022 to 2026 – WHAT’S HAPPENING

Below is a summary of the significant initiatives to be undertaken by Indigenous Relations over the next 5 years.

Initiative	Description	Theme
2022		
A Metro Vancouver-First Nations Regional Gathering	A forum to be co-hosted by the MVRD Board with 10 First Nation communities’ elected leaders in the region; the first such meeting of its kind in the Metro Vancouver region	Environmental Sustainability
First Nations Engagement	Undertake a review of Metro Vancouver’s engagement approach with First Nations	Regulatory and Legislative Environment
Climate 2050	Support First Nation engagement and participation in the implementation of the Climate 2050 issue area roadmaps	Environmental Sustainability
Sensitive Ecosystem Inventory	Support First Nation engagement in the 5-year update of the sensitive ecosystem inventory for the region	Environmental Sustainability
Capital and Construction Projects	Support ongoing First Nation engagement efforts on Metro Vancouver capital and construction projects	Regional Growth
Reconciliation	Foster First Nation involvement in regional governance	Environmental Sustainability
Liquid Waste Management Plan	Support First Nation engagement and participation in the plan update	Environmental Sustainability
Solid Waste Management Plan	Support First Nation engagement and participation in the plan update	Environmental Sustainability
Project Data Portal	Preparatory work for the creation of a web-based portal for the purposes of sharing data with First Nations	Regional Growth
Archaeological Management	Develop an approach and policy for Metro Vancouver, including staff training, project reviews and collaboration with First Nations	Regulatory and Legislative Environment
2023-2026		
A Community to Community Forum or Regional Gathering	A forum to be co-hosted by Metro Vancouver Indigenous Relations Committee with one First Nation (i.e. a Community to Community Forum) or the MVRD Board with 10 First Nation communities’ elected leaders in the region (i.e. a Regional Gathering)	Environmental Sustainability
Capital and Construction Projects	Support ongoing First Nation engagement efforts on Metro Vancouver capital and construction projects	Environmental Sustainability
Project Data Portal	Development of a system for sharing project information and engaging with First Nation	Environmental Sustainability

To: Liquid Waste Committee

From: Peter Navratil, General Manager, Liquid Waste Services

Date: October 7, 2021 Meeting Date: October 14, 2021

Subject: **2022 - 2026 Financial Plan – Liquid Waste Services**

RECOMMENDATION

That the Liquid Waste Committee:

- a) endorse the 2022 - 2026 Financial Plan for Liquid Waste Services as presented in the report dated October 7, 2021, titled “2022 - 2026 Financial Plan – Liquid Waste Services”, and forward it to the Metro Vancouver Board Budget Workshop on October 20, 2021 for consideration; and
 - b) endorse amendments to the Cost Apportionment Bylaw to enable the division of the GVS&DD levy into separate dry and wet weather components and issue a separate requisition for each component.
-

EXECUTIVE SUMMARY

The 2022 – 2026 Metro Vancouver Financial Plan has been prepared following direction received at the April 8, 2021 Metro Vancouver Board Budget Workshop. This has resulted in a plan that maintains the goals and objectives of Metro Vancouver while using key financial tools to minimize the impact on the ratepayers of the region for 2022. The increase in Metro Vancouver’s overall consolidated household impact for 2022 is projected to be 3.5%, down from the 6.4% projected for 2022 in the prior financial planning cycle.

In 2022, the Liquid Waste Services operating budget is proposed to increase by \$36.8 million (10.4%) for a total of \$391.2 million. A significant portion of this increase is related to capital expenditures which will be partially funded by External Interagency sources and DCC Reserves. This will result in a levy increase of \$13.2 million (4.6%), which represents an \$8 increase (2.7%) for a total of \$281 in the cost to the average regional household after growth is accounted for (which compares to a previous forecast for 2022 of \$298). Efforts to reduce expenditures along with the application of excess operating reserves of approximately \$3.3 million have resulted in a reduction in the overall Sewer levy of \$18.5 million from last year’s projection. For longer term cost containment, amendments to the Cost Apportionment Bylaw are recommended, to enable the introduction of wet weather performance to establish incentives for municipal action on Inflow & Infiltration management.

PURPOSE

To present the 2022 - 2026 Financial Plan for Liquid Waste Services for consideration by the Committee.

BACKGROUND

Metro Vancouver’s annual budget process includes the development of detailed annual budgets and the updating of five-year financial plans for each of the four Metro Vancouver legal entities (Metro Vancouver Regional District, Metro Vancouver Housing Corporation, Greater Vancouver Water District and Greater Vancouver Sewerage and Drainage District).

On April 8, 2021 a Metro Vancouver Board Budget Workshop was held with the objective to seek direction for the preparation of the 2022 - 2026 Financial Plan. The workshop outlined the principles that guide the work of Metro Vancouver as an organization, the current 2021 - 2025 Financial Plan, the implications of the COVID-19 pandemic, the tools that can be used to make budget adjustments, and a proposed approach for the 2022 - 2026 Financial Plan.

Staff proposed leveraging the supported tools to create a short-term action plan that would lessen the upward pressure on household impact for 1-3 years. A short-term action plan would enable strategic goals and objectives to be maintained. If larger or more long-term adjustments are desired, a re-evaluation of long-term plans such as the *Metro Vancouver Housing Plan*, *Climate 2050*, or the *Liquid Waste Management Plan* would be required. Since an annual budget is approved, this approach will allow for adjustments to be made each year as conditions change based on market changes and other factors. The use of the tools will aim to avoid making severe changes that cannot be easily corrected in the short-term. Overall, the short-term action plan approach was supported.

This report focuses on the Liquid Waste Services function and presents the 2022 annual budget and the updated five-year plan for the years 2022 to 2026 for committee consideration.

LIQUID WASTE SERVICES

The Liquid Waste Services function is comprised of 19 member jurisdictions within Metro Vancouver, serving a population of approximately 2.7 million residents. The wastewater collection and treatment system consists of over 530 kilometers of trunk sewers, 33 pump stations, two storage tanks and 5 treatment plants that transport and treat an average of 1.2 billion litres of wastewater per day. The urban drainage function is comprised of the Still Creek/Brunette, Port Moody/Coquitlam and University Drainage Areas.

Liquid Waste Services initiatives planned over the next five years are guided by direction provided in the *2019-2022 Board Strategic Plan*, and the *2010 Integrated Liquid Waste and Resource Management Plan*, specifically:

Board Strategic Plan:

- Enhance the management of the liquid waste system with a commitment to innovative approaches to protect the health of the public and the environment.
- Ensure the long-term resilience of the regional sewerage and drainage system to withstand natural hazards, climate change and other significant disruptions.
- Develop and implement financial plans and policies that reflect a commitment to sound financial management and long-term planning, in consideration of current and future ratepayers.
- Strengthen awareness and engagement with the public, members, other orders of government, and key stakeholders on a range of initiatives that will ensure that the regional liquid waste system protects public health and the environment, now and into the future.

Integrated Liquid Waste and Resource Management Plan:

- Protect public health and the environment
- Use liquid waste as a resource
- Effective, affordable and collaborative management

Metro Vancouver also recognizes the history of Indigenous Peoples and aims to build meaningful and enduring relationships with First Nations. As part of its work, Liquid Waste Services is committed to engaging First Nation communities through information sharing, engagement and ongoing communication.

WORK PLAN PERFORMANCE INDICATORS

High level performance indicators have been developed across the organization to evaluate trends, determine key actions for the coming year, and to assist in long-term planning. The 2022 Work Plans for Liquid Waste Services are presented in this report. Within the Liquid Waste Services Work Plans, 23 performance indicators have been developed and are being tracked. These include:

- Operating cost per million litres collected and treated;
- Compliance with treatment plant Operational Certificates;
- Annual combined sewage overflow (CSO) volume;
- Annual number of wet-weather related sanitary sewer overflows (SSO);
- Percentage of assets not meeting capacity or regulation within 10 years;
- Percent of biosolids beneficially used;
- Energy use in the collection and treatment of liquid waste per million litres processed;
- Percentage of digester gas used at the Wastewater Treatment Plants (WWTP); and
- Number of days swimming advisories posted by Health Authorities.

The trend in these performance measures indicates that the regional Liquid Waste system treatment plants have performed well in complying with existing treatment plant operational certificates, although the North Shore Sewerage Area has been out of compliance with Federal regulations since January 1, 2021 and will remain so until the North Shore WWTP commences secondary treatment of wastewater flows from the North Shore municipalities. Wet weather sanitary sewer overflows continue to occur, primarily as a result of excessive inflow and infiltration into the system through municipal systems and private laterals. Progress on key projects must continue to ensure that needed infrastructure is delivered to comply with regulatory requirements, meet demands resulting from growth and to allow progress on climate change mitigation actions.

CONTINUOUS IMPROVEMENT

Several continuous improvement initiatives have resulted in the following achievements:

- In-sourcing foam injection pipe repair technology. Projected savings of \$100,000 per year.
- Increased use of reclaimed water for processes at the Iona Island WWTP's Screening and Grit Management Facility. Projected savings of \$200,000 per year through reduced potable water purchases.
- Maintenance optimization in the wastewater treatment plants. Savings of \$130,000 per year.
- Review and optimization of sewer flushing program. Cost avoidance of \$175,000 per year.
- In-house development of Effluent mixing models. Net reduction in costs of \$150,000 per year as a result of reduced reliance on consulting services for modelling work.

For 2022 the following activities will continue, resulting in future improvements:

- Effluent Heat Recovery at Lulu Island WWTP, resulting in higher volume of digester gas available for conversion to Renewable Natural Gas. Projected \$415,000 per year increase of revenue and additional regional GHG reductions of 1,000 tonnes per year.

- Design optimization will result in the elimination of one pump station on the Gleneagles system, resulting in reduced operating costs of \$150,000 per year.
- Introduction of wet weather cost allocation to create incentives for municipal action on Inflow and Infiltration into municipal sewers.
- Amalgamation of marine and freshwater environmental monitoring programs and bringing some monitoring program components in-house.
- Ongoing review of operations and maintenance work practices.
- Ongoing exploration of markets for alternate biosolids beneficial use opportunities.
- Energy efficiencies through the optimization of treatment process and pump stations operating strategies, implementation of new technologies and optimization of maintenance practices.
- Identification and development of additional opportunities for green biomethane generation.
- Identification and development of sewer heat and effluent heat recovery opportunities in collaboration with member jurisdictions.
- Development of advanced solids handling processes focused on increased biogas generation.
- Development of advanced technologies to increase options for wastewater solids beneficial use and increased resource recovery.
- Continued development and implementation of an ISO 14001 compliant environmental management system.

2022 BUDGET AND 2022 - 2026 FINANCIAL PLAN

The five-year financial plans for this cycle have been updated to address five central themes identified by the Metro Vancouver Board in its Strategic Plan to guide the development of plans and budgets.

The five themes are as follows:

- Financial Sustainability
- Environmental Sustainability
- System Stewardship
- Regulatory and Legislative Environment
- Regional Growth

Attached are the 2022 - 2026 Liquid Waste Services Financial Plan Operating Budget Summary (Attachment 1) and the 2022 - 2026 Liquid Waste Services Capital Budget Summary (Attachment 2).

Each Metro Vancouver function has Annual Work Plans that include strategic directions, performance indicators and key actions to guide the work for the coming year. Each function also has a “What’s Happening” summary that highlights the program highlights for the next five years. The 2022 Annual Work Plans for the Liquid Waste Services budget presented in this report are included in Attachment 3 and the “What’s Happening” highlights for Liquid Waste Services for the years 2022 – 2026 are included in Attachment 4.

Operating Budget Highlights

The Liquid Waste Services operating budget is separated into operating programs and funding required to support the expanding capital program (debt service and contribution to capital). It is proposed to increase by \$36.8 million in 2022 for a total budget of \$391.2 million (Attachment 1). This increase can essentially be attributed to increasing operating costs (close to \$15.2 million) due to increasing operating requirements. A significant portion of the increase can be attributed to

increased debt service costs of \$25.3 million due to an accelerating capital program, offset slightly by a decrease in contributions to capital of \$3.7 million, supporting infrastructure investments required to meet service requirements and growth demands.

The 2022 operating budget includes the following key actions:

- Collaboration with GVS&DD members on reduction of Inflow and Infiltration (I&I) of rainwater into separated sewers including the introduction of a wet weather pricing structure designed to incentivize action on I&I management and management of combined sewers.
- Develop and bring forward for Board consideration sewer heat recovery capital projects to support district energy systems in partnership with member municipalities to support Climate 2050 goals.
- Commencement of operation of the Iona Island WWTP Dewatering Facility and continue decommissioning the Iona Island WWTP sludge lagoons and complete the removal of biosolids stockpile and grit dump material.
- Support a coordinated regional initiative in estuary environmental management planning.
- Commencement of operation of the new Production Way Work Yard.
- Continue review and update of the *Integrated Liquid Waste and Resource Management Plan* in accordance with a provincially-approved review strategy.
- Complete the development of updated sewer system models.
- Update of servicing agreements and initiate the Rawn Report Amendment process associated with planned WWTP catchment changes.
- Increased focus on addressing Constituents of Environmental Concern (CEC) through source control initiatives including public awareness and behavior change programs and the GVS&DD Sewer Use Bylaw.
- Collaborate with the corporate Digital Strategies group to identify business process inefficiencies for maintenance and operations work groups and identify actions to increase work efficiency.
- Adapt to new work processes to address risks identified in new provincial legislation for engineering work, process safety initiative being developed in collaboration with WorkSafe BC and audit of high risk operating and maintenance procedures.
- Produce a baseline State of the Assets report for Liquid Waste system assets.
- Increase continuous improvement efforts in the delivery of projects in collaboration with the Project Management Office.
- Advance Emergency Management Mutual Aid agreement for the benefit of all member municipalities.

Highlights of contracts and consulting assignments anticipated to be undertaken in 2022 to respond to work plan requirements within the operating budget include the following:

- Biosolids hauling and beneficial use projects.
- Sewer modelling/analytics and data collection services directed at updating system models.
- Technical support and community engagement services for the review and update of the Liquid Waste Management Plan.
- Combined sewer separation and Inflow and Infiltration reduction studies and support.
- Source control studies and support primarily focused on strategies to address compounds of environmental concern.
- Projects funded from the Sustainability Innovation Fund including Advanced Resource

Recovery from Sludge and Handheld Microbial DNA Monitor.

- Facilitation of a regional estuary management program.
- Monitoring programs for Iona Island WWTP and Strait of Georgia; Lions Gate WWTP and Burrard Inlet; Fraser River and the Fraser River WWTPs.
- Additional assignments that are regularly contracted for highly specialized functions, including: effluent toxicity testing, combined sewer overflow characterization and risk assessments, wastewater and biosolids characterization for CECs and toxics, development of environmental management system, maintenance hole monitoring and assessment.

Over the next five years, the Liquid Waste Services budget is expected to increase an average of \$77.1 million or 15.9% per year. Of this overall increase, funding related to the expanding capital program (debt servicing and contribution to the capital) is increasing \$65.3 million on average over the next five years. The operating programs expenditures are increasing by \$11.8 million per year on average, or slightly higher than the rate of inflation, to address core operating and facility commissioning requirements.

Capital Budget Highlights

The Liquid Waste Services capital budget for 2022 approval is \$6.5 billion (Attachment 2). This amount includes all capital projects underway or planned in 2022. The capital program is funded by a combination of long-term debt, contributions from the operating budget, some external (interagency and senior level government grant) contributions and development cost charges (DCCs).

Highlights of capital projects planned or ongoing for 2022 include the following:

- Complete construction and commissioning of the Iona Island WWTP Sludge Dewatering facility;
- Complete construction of the First Narrows Pump Station;
- Initiate tunneled section of the Burnaby Lake North Interceptor - Winston Section;
- Continue construction of the Fraser River Crossing portion of the Northwest Langley WWTP Expansion projects;
- Commence construction of the Jervis and Chilco Pump Station Backup Power facilities;
- Commence construction of Gleneagles Pump Stations 4 and 5;
- Complete construction of the Crescent Beach Forcemain Replacement Project;
- Continue construction of the Annacis Island WWTP Outfall System;
- Complete the refurbishment of the third of four Trickling Filters at Annacis Island WWTP;
- Complete the conceptual design for the Iona Island WWTP and commence design for ground improvements and ecological projects.

The projected capital cash flow for 2022 - 2026 totals \$4.6 billion, an average of \$925.6 million per year. The largest ten projects (\$50 million and greater) make up approximately 83% of the capital spending over the next five years. These ten projects also represent 30% of the expenditures planned for the 2027 – 2031 period. In addition to the ten projects, there are a further 130 projects on the plan.

Capital program increases over the next five years are largely driven by system expansion to meet the needs of a growing population, upgrades to improve wastewater discharge quality and meet regulations along with maintenance of aging infrastructure. The following capital projects, which are

being managed by the Project Delivery Department, are the largest projects included in the five-year plan:

- North Shore WWTP Advanced Treatment Upgrade
- Northwest Langley WWTP Expansion
- Iona Island WWTP Advanced Treatment Upgrade
- Annacis Island WWTP Stage 5 Expansion and Outfall System (transitioning to Project Delivery in 2022)

Reserve Funds

The application of reserve funding in Liquid Waste Services is primarily made through the Operating Reserve, Biosolids Inventory Reserve, the Sustainability Innovation Fund Reserve, Drainage Area General Reserve and the Laboratory Equipment Reserve. In 2022, the financial plan includes \$3.33 million from operating reserves for rate stabilization, a \$7.58 million net application from the Biosolids Inventory Reserve for removal of the stockpile at the Iona Island Wastewater Treatment Plant and \$130,000 for several Drainage Area initiatives. In addition, a total of close to \$0.95 million is planned to be used from the Liquid Waste Sustainability Innovation Fund for several Board approved sustainability initiatives during 2022 (plus another \$1.14 million of funding in 2023-2024 period for Board approved sustainability initiative projects.)

In addition to the operating budget reserve applications noted above, approximately \$14.4 million will be applied from the Liquid Waste Sustainability Innovation Fund Reserve over the period 2021 - 2024 to offset funding requirements for a Hydrothermal Processing demonstration scale project at the Annacis Island Wastewater Treatment Plant along with a project to increase efficiency of biogas production.

The 2022 – 2026 Projected Reserves for Liquid Waste Services is included in Attachment 5.

Wet Weather Cost Allocation

To address the increasing challenge of managing I&I of rainwater into the regional sewer systems and to ensure that costs for services are equitably allocated, a shift towards wet weather pricing for liquid waste collection, transportation and treatment is recommended. The current cost apportionment process divides the cost for services between members solely on the basis of dry weather flow. The introduction of an apportionment that also reflects wet weather flow, improves the fairness of the distribution of costs and provides incentive for municipal action to address I&I.

Details of the method of apportionment will be defined in 2022 in coordination with the GVS&DD members. At this time, changes to the Cost Apportionment By-law is recommended to allow the GVS&DD levy to be split into a dry weather component and a wet weather component. This will allow a staged transition from the current dry weather apportionment to a wet weather based model. The change will not result in increased revenue for the GVS&DD, but will reward municipalities that better manage wet weather flows into the regional system. Extensive consultation with the Regional Engineers Advisory Committee (REAC) Liquid Waste Sub-Committee, REAC and the Regional Administrators Advisory Committee will occur in 2022 to confirm the overall cost apportionment methodology. Enabling the Cost Apportionment By-law is the first important step.

APPROVAL PROCESS

The proposed 2022 - 2026 Financial Plan and Annual Work Plan is presented for consideration and endorsement before being forwarded to the Board for consideration.

The next steps of the process are:

- The 2022 - 2026 Financial Plan and Annual Work Plan will be presented for consideration at the Metro Vancouver Board Budget Workshop on October 20, 2021.
- The Board will consider adoption of the 2022 Budget and endorsement of the 2022 - 2026 Financial Plan on October 29, 2021.

ALTERNATIVES

1. That the Liquid Waste Committee:
 - a) endorse the 2022 - 2026 Financial Plan for Liquid Waste Services as presented in the report dated October 7, 2021, titled “2022 - 2026 Financial Plan – Liquid Waste Services”, and forward it to the Metro Vancouver Board Budget Workshop on October 20, 2021 for consideration; and
 - b) endorse amendments to the Cost Apportionment Bylaw to enable the division of the GVS&DD levy into separate dry and wet weather components and issue a separate requisition for each component.
2. That the Liquid Waste Committee make recommendations and endorse an amended 2022 - 2026 Financial Plan for Liquid Waste Services and forward the amended Financial Plan to the Metro Vancouver Board Budget Workshop on October 20, 2021 for consideration.

FINANCIAL IMPLICATIONS

If the GVS&DD Board approves the 2022 Budget and endorses the 2022 - 2026 Financial Plan for Liquid Waste Services, as presented under Alternative 1, in 2022 the revenue from the annual levy for the system will increase by \$13.2 million (4.6%) to \$301.4 million which will generate the majority of the \$391.2 million in total revenue required to offset total expenditures. The increase in the levy represents an \$8 increase in the cost to the average regional household to \$281 (2021 forecast for 2022: \$298.)

Over the term of the five-year Financial Plan, the Liquid Waste Services annual levy is projected to increase by an average of \$67.5 million per year to provide the required revenue to offset projected expenditures. It is anticipated that the cost to the average regional household over the next five years will rise from \$281 in 2022 to \$543 in 2026 representing an average annual increase of \$54.

Under Alternative 2, the Committee may wish to consider recommending amendments to the 2022 Budget and Five-Year Financial Plan for consideration at the Metro Vancouver Board Budget Workshop. Any changes to the plan may have an impact on the Liquid Waste Services Financial Plan.

SUMMARY / CONCLUSION

The Liquid Waste Services 2022 Budget and Five-Year Financial Plan was prepared following direction received at the April 8, 2021 Metro Vancouver Board Budget Workshop and to respond to direction provided in the *Board Strategic Plan*. It is presented to Committee and Board members to provide overview information on activities and financial impacts for the years 2022 to 2026 for Liquid Waste Services.

The presentation of the 2022 Budget and Five-Year Financial Plan for Liquid Waste Services provides the opportunity for Metro Vancouver to share with its member jurisdictions the proposed capital projects and operating programs, and the financial impact of these projects, over the next five years. The financial plan illustrates how Metro Vancouver proposes to pay for Liquid Waste investments that will be required to maintain our assets and to respond to our region's growing population. It is intended to be used as a guiding document for member jurisdictions in the development of their five-year financial plans and includes projections on household impact to demonstrate how the plan will remain affordable for Metro Vancouver residents while keeping pace with our critical infrastructure requirements.

Staff recommend endorsing the 2022 - 2026 Financial Plan and Annual Work Plans for Liquid Waste Services as presented under Alternative 1, which includes direction to introduce changes to allow the staged introduction of wet weather costing into the apportionment of the levy.

Attachments:

1. 2022 - 2026 Liquid Waste Services Financial Plan
2. 2022 - 2026 Liquid Waste Services Capital Budget Summary
3. 2022 Liquid Waste Services Work Plans
4. 2022 - 2026 "What's Happening"
5. 2022 - 2026 Projected Reserves – Liquid Waste Services

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
LIQUID WASTE
2022 BUDGET REVIEW
2022-2026 FINANCIAL PLAN

	2021 BUDGET	2022 BUDGET	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE	2025 FORECAST	% CHANGE	2026 FORECAST	% CHANGE
REVENUES											
Liquid Waste Services Levy	\$ 288,225,540	\$ 301,424,687	4.6%	\$ 354,996,628	17.8%	\$ 424,243,103	19.5%	\$ 513,355,412	21.0%	\$ 625,975,409	21.9%
User Fees	2,562,238	3,370,229		4,300,637		5,230,547		6,161,956		6,278,447	
Transfer from DCC Reserves	43,145,119	60,751,328		65,014,135		78,051,107		99,223,872		91,952,659	
BOD/TSS Industrial Charges	11,756,424	12,262,636		12,495,626		12,733,043		12,974,971		13,221,495	
Other External Revenues	1,400,000	1,414,821		1,426,909		1,438,999		1,451,091		1,463,185	
Transfer from Sustainability Innovation Fund Reserves	2,206,676	947,001		697,001		442,001		-		-	
Transfer from Reserves	5,109,789	11,045,508		3,915,545		2,185,340		646,998		946,997	
TOTAL REVENUES	\$ 354,405,786	\$ 391,216,210	10.4%	\$ 442,846,481	13.2%	\$ 524,324,140	18.4%	\$ 633,814,300	20.9%	\$ 739,838,192	16.7%
EXPENDITURES											
Operating Programs:											
Policy Planning and Analysis											
Contribution to Sustainability Innovation Fund Reserve	\$ 1,127,000	\$ 1,127,000		\$ 1,127,000		\$ 1,127,000		\$ 1,127,000		\$ 1,127,000	
Utility Analysis and Infrastructure	3,233,331	2,977,326		3,478,875		4,129,706		4,532,735		4,636,901	
Utility Policy and Planning	3,063,269	3,563,541		3,909,584		4,072,069		3,941,132		4,010,604	
Wastewater Research and Innovation	3,031,617	2,161,469		1,933,555		1,869,651		1,459,182		1,495,155	
	10,455,217	9,829,336	(6.0%)	10,449,014	6.3%	11,198,426	7.2%	11,060,049	(1.2%)	11,269,660	1.9%
Support Services and Strategic Initiatives											
Annacis Research Centre	489,001	492,843		492,921		493,012		493,111		510,703	
Dispatch	137,689	145,550		148,436		151,851		155,345		158,805	
Energy Management	285,649	210,568		273,267		285,992		294,751		303,334	
Engineers in Training	499,947	666,857		679,264		694,478		710,042		725,975	
Management Systems Utility Services	989,560	1,013,613		1,021,553		1,031,400		1,041,372		1,061,258	
Records Management	115,862	123,383		125,839		128,810		131,851		134,960	
Utility Voice Radio	162,808	159,823		161,687		166,099		170,368		173,821	
	2,680,516	2,812,637	4.9%	2,902,967	3.2%	2,951,642	1.7%	2,996,840	1.5%	3,068,856	2.4%
Environmental Management and Quality Control											
Environmental Management and Quality Control	12,290,197	12,823,691		13,769,028		14,212,147		14,700,077		15,389,067	
Source Compliance Monitoring	410,963	419,306		419,984		429,657		439,541		598,349	
Contribution to Reserve	101,285	101,284		104,284		104,951		105,630		108,495	
	12,802,445	13,344,281	4.2%	14,293,296	7.1%	14,746,755	3.2%	15,245,248	3.4%	16,095,911	5.6%
Project Delivery											
Minor Capital Projects	8,915,484	9,225,154		9,508,436		9,707,735		9,927,346		10,088,180	
	8,915,484	9,225,154	3.5%	9,508,436	3.1%	9,707,735	2.1%	9,927,346	2.3%	10,088,180	1.6%
Operations and Maintenance											
Lake City Operations	955,508	966,184		978,113		1,000,613		1,023,633		1,045,320	
Liquid Waste Residuals	33,291,360	34,406,220		30,736,502		31,661,052		32,648,752		33,637,561	
Maintenance	31,165,529	32,496,440		34,653,292		36,216,137		37,423,787		40,590,797	
SCADA Control Systems	1,065,995	1,097,380		1,113,832		1,154,795		1,180,307		1,203,845	
Urban Drainage	1,157,299	1,263,704		1,292,675		1,326,264		1,374,402		1,430,033	
Wastewater Collection	15,896,966	16,800,336		17,205,107		17,611,590		18,371,413		19,535,286	
Wastewater Treatment	45,473,059	49,626,692		54,187,765		58,271,004		60,390,427		64,871,578	
	129,005,716	136,656,956	5.9%	140,167,286	2.6%	147,241,455	5.0%	152,412,721	3.5%	162,314,420	6.5%
Administration and Department Support											
	2,156,200	2,674,487	24.0%	2,709,336	1.3%	2,762,325	2.0%	2,840,662	2.8%	2,892,858	1.8%
Communications Program											
	450,000	475,001	5.6%	475,001	0.0%	480,000	1.1%	490,000	2.1%	500,000	2.0%
Environmental Regulation and Enforcement											
	2,041,164	2,169,508	6.3%	2,235,376	3.0%	2,287,842	2.3%	2,341,912	2.4%	2,396,896	2.3%
Allocation of Centralized Support Costs											
	27,044,682	31,092,091	15.0%	32,262,255	3.8%	34,566,515	7.1%	37,178,681	7.6%	40,440,659	8.8%
Total Operating Programs	195,551,424	208,279,451	6.5%	215,002,967	3.2%	225,942,695	5.1%	234,493,459	3.8%	249,067,440	6.2%
Allocation of Project Delivery Cost	5,082,413	7,590,456	49.3%	10,092,313	33.0%	10,529,706	4.3%	10,599,309	0.7%	10,622,075	0.2%
Debt Service	73,703,813	98,990,808	34.3%	135,577,497	37.0%	197,720,347	45.8%	273,362,275	38.3%	348,504,796	27.5%
Contribution to Capital	80,068,136	76,355,495	(4.6%)	82,173,704	7.6%	90,131,392	9.7%	115,359,257	28.0%	131,643,881	14.1%
TOTAL EXPENDITURES	\$ 354,405,786	\$ 391,216,210	10.4%	\$ 442,846,481	13.2%	\$ 524,324,140	18.4%	\$ 633,814,300	20.9%	\$ 739,838,192	16.7%

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
LIQUID WASTE
2022 BUDGET REVIEW
2022-2026 FINANCIAL PLAN
VANCOUVER SEWERAGE AREA

	2021 BUDGET	2022 BUDGET	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE	2025 FORECAST	% CHANGE	2026 FORECAST	% CHANGE
REVENUES											
Liquid Waste Services Levy	\$ 90,044,826	\$ 94,622,596	5.1%	\$ 107,124,159	13.2%	\$ 128,245,948	19.7%	\$ 162,786,879	26.9%	\$ 191,711,312	17.8%
User Fees	652,388	914,177		1,187,010		1,459,593		1,732,490		1,764,534	
Transfer from DCC Reserves	5,094,257	6,320,559		7,324,049		7,238,665		7,239,251		7,174,705	
BOD/TSS Industrial Charges	3,148,010	3,135,617		3,195,194		3,255,903		3,317,765		3,380,803	
Other External Revenues	154,282	154,282		154,282		154,282		154,282		154,282	
Transfer from Sustainability Innovation Fund Reserves	845,377	358,250		263,675		167,209		-		-	
Transfer from Reserves	5,029,789	8,293,508		3,785,545		1,960,711		516,998		627,739	
TOTAL REVENUES	\$ 104,968,929	\$ 113,798,989	8.4%	\$ 123,033,914	8.1%	\$ 142,482,311	15.8%	\$ 175,747,665	23.3%	\$ 204,813,375	16.5%

EXPENDITURES											
Operating Programs:											
Policy Planning and Analysis											
Contribution to Sustainability Innovation Fund Reserve	\$ 431,754	\$ 426,344		\$ 426,344		\$ 426,344		\$ 426,344		\$ 426,344	
Utility Analysis and Infrastructure	1,213,810	1,097,950		1,223,548		1,468,214		1,619,100		1,656,890	
Utility Policy and Planning	1,146,347	1,320,993		1,451,776		1,513,090		1,463,398		1,489,518	
Wastewater Research and Innovation	1,161,412	817,684		731,464		707,289		552,009		565,617	
	3,953,323	3,662,971	(7.3%)	3,833,132	4.6%	4,114,937	7.4%	4,060,851	(1.3%)	4,138,369	1.9%
Support Services and Strategic Initiatives											
Annacis Research Centre	194,622	186,443		186,472		186,507		186,544		193,199	
Department Technical Training	-										
Dispatch	41,173	42,945		43,797		44,804		45,835		46,856	
Energy Management	85,417	62,129		80,630		84,385		86,969		89,502	
Engineers in Training	191,526	252,274		256,967		262,723		268,611		274,638	
Management Systems Utility Services	295,908	299,117		301,460		304,366		307,309		313,177	
Records Management	34,646	36,404		37,129		38,006		38,903		39,820	
Utility Voice Radio	58,456	57,383		58,054		59,638		61,171		62,411	
	901,748	936,695	3.9%	964,509	3.0%	980,429	1.7%	995,342	1.5%	1,019,603	2.4%
Environmental Management and Quality Control											
Environmental Management and Quality Control	4,529,371	4,679,095		5,036,956		5,197,163		5,379,378		5,630,811	
Source Compliance Monitoring	163,563	158,623		158,880		162,539		166,278		226,355	
Contribution to Reserve	37,327	37,388		38,496		38,742		38,992		40,050	
	4,730,261	4,875,106	3.1%	5,234,332	7.4%	5,398,444	3.1%	5,584,648	3.4%	5,897,216	5.6%
Project Delivery											
Minor Capital Projects	2,869,331	3,625,573		3,744,094		3,822,118		3,906,741		3,966,721	
	2,869,331	3,625,573	26.4%	3,744,094	3.3%	3,822,118	2.1%	3,906,741	2.2%	3,966,721	1.5%
Operations and Maintenance											
Lake City Operations	366,055	365,508		370,020		378,533		387,241		395,445	
Liquid Waste Residuals	19,784,445	19,977,101		17,990,162		18,362,311		18,620,296		19,430,769	
Maintenance	8,157,588	8,842,743		9,239,101		9,559,248		9,850,145		10,278,115	
SCADA Control Systems	293,653	315,205		319,931		331,696		339,023		345,785	
Wastewater Collection	4,208,255	4,004,729		4,141,669		4,163,889		4,341,629		4,635,253	
Wastewater Treatment	12,958,525	14,465,043		15,334,853		15,884,691		16,233,732		16,740,580	
	45,768,521	47,970,329	4.8%	47,395,736	(1.2%)	48,680,368	2.7%	49,772,066	2.2%	51,825,947	4.1%
Administration and Department Support	644,768	789,241	22.4%	799,525	1.3%	815,162	2.0%	838,279	2.8%	853,682	1.8%
Communications Program	172,395	179,693	4.2%	179,693	0.0%	181,584	1.1%	185,367	2.1%	189,150	2.0%
Environmental Regulation and Enforcement	363,123	382,701	5.4%	394,320	3.0%	403,575	2.3%	413,113	2.4%	422,812	2.3%
Allocation of Centralized Support Costs	8,137,092	9,205,419	13.1%	9,387,267	2.0%	9,603,164	2.3%	10,132,473	5.5%	11,263,759	11.2%
Total Operating Programs	67,540,562	71,627,728	6.1%	71,932,608	0.4%	73,999,781	2.9%	75,888,880	2.6%	79,577,259	4.9%
Allocation of Project Delivery Cost	1,211,306	2,015,337	66.4%	2,679,604	33.0%	2,795,736	4.3%	2,814,216	0.7%	2,820,261	0.2%
Debt Service	9,186,351	10,969,678	19.4%	19,685,918	79.5%	34,855,795	77.1%	52,415,989	50.4%	69,734,705	33.0%
Contribution to Capital	27,030,710	29,186,246	8.0%	28,735,784	(1.5%)	30,830,999	7.3%	44,628,580	44.8%	52,681,150	18.0%
TOTAL EXPENDITURES	\$ 104,968,929	\$ 113,798,989	8.4%	\$ 123,033,914	8.1%	\$ 142,482,311	15.8%	\$ 175,747,665	23.3%	\$ 204,813,375	16.5%

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
LIQUID WASTE
2022 BUDGET REVIEW
2022-2026 FINANCIAL PLAN
NORTH SHORE SEWERAGE AREA

	2021 BUDGET	2022 BUDGET	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE	2025 FORECAST	% CHANGE	2026 FORECAST	% CHANGE
REVENUES											
Liquid Waste Services Levy	\$ 28,616,123	\$ 30,045,674	5.0%	\$ 38,952,335	29.6%	\$ 48,813,747	25.3%	\$ 59,141,748	21.2%	\$ 64,319,205	8.8%
User Fees	71,039	62,515		63,654		64,816		66,001		67,210	
Transfer from DCC Reserves	1,748,354	2,256,693		2,343,337		2,063,417		2,083,514		2,107,118	
BOD/TSS Industrial Charges	861,405	907,707		924,953		942,527		960,435		978,683	
Other External Revenues	14,872	18,693		18,781		18,871		18,963		19,057	
Transfer from Sustainability Innovation Fund Reserves	149,171	65,817		48,442		30,719		-		-	
Transfer from Reserves	-	915,000		-		11,253		-		22,506	
TOTAL REVENUES	\$ 31,460,964	\$ 34,272,099	8.9%	\$ 42,351,502	23.6%	\$ 51,945,350	22.7%	\$ 62,270,661	19.9%	\$ 67,513,779	8.4%
EXPENDITURES											
Operating Programs:											
Policy Planning and Analysis											
Contribution to Sustainability Innovation Fund Reserve	\$ 76,185	\$ 78,327		\$ 78,327		\$ 78,327		\$ 78,327		\$ 78,327	
Utility Analysis and Infrastructure	214,183	201,712		224,786		269,735		297,456		304,398	
Utility Policy and Planning	202,279	242,688		266,715		277,980		268,851		273,649	
Wastewater Research and Innovation	204,937	150,222		134,382		129,941		101,413		103,913	
	697,584	672,949	(3.5%)	704,210	4.6%	755,983	7.4%	746,047	(1.3%)	760,287	1.9%
Support Services and Strategic Initiatives											
Annacis Research Centre	32,421	34,253		34,258		34,264		34,271		35,494	
Dispatch	12,017	12,968		13,224		13,529		13,841		14,149	
Energy Management	24,929	18,762		24,348		25,482		26,262		27,027	
Engineers in Training	33,799	46,354		47,217		48,274		49,356		50,464	
Management Systems Utility Services	86,359	90,313		91,020		91,898		92,786		94,558	
Records Management	10,112	10,993		11,212		11,476		11,747		12,024	
Utility Voice Radio	15,497	15,213		15,390		15,810		16,216		16,545	
	215,134	228,856	6.4%	236,669	3.4%	240,733	1.7%	244,479	1.6%	250,261	2.4%
Environmental Management and Quality Control											
Environmental Management and Quality Control	925,963	984,044		1,049,652		1,084,527		1,119,706		1,172,576	
Source Compliance Monitoring	27,247	29,142		29,189		29,861		30,548		41,585	
Contribution to Reserve	7,631	7,598		7,823		7,873		7,924		8,139	
	960,841	1,020,784	6.2%	1,086,664	6.5%	1,122,261	3.3%	1,158,178	3.2%	1,222,300	5.5%
Project Delivery											
Minor Capital Projects	545,939	114,978		117,422		120,273		124,191		125,431	
	545,939	114,978	(78.9%)	117,422	2.1%	120,273	2.4%	124,191	3.3%	125,431	1.0%
Operations and Maintenance											
Lake City Operations	64,593	67,150		67,979		69,543		71,143		72,650	
Liquid Waste Residuals	849,489	949,148		1,550,283		1,856,060		1,938,054		1,933,365	
Maintenance	3,281,647	3,505,038		4,426,764		4,598,134		4,738,424		4,945,435	
SCADA Control Systems	152,669	153,686		155,989		161,726		165,299		168,596	
Wastewater Collection	2,552,254	2,775,013		2,823,247		2,963,165		3,065,770		3,238,559	
Wastewater Treatment	6,221,673	6,519,751		6,989,377		8,639,819		11,073,159		11,394,136	
	13,122,325	13,969,786	6.5%	16,013,639	14.6%	18,288,447	14.2%	21,051,849	15.1%	21,752,741	3.3%
Administration and Department Support											
	188,171	238,297	26.6%	241,402	1.3%	246,123	2.0%	253,103	2.8%	257,754	1.8%
Communications Program											
	30,420	33,013	8.5%	33,013	0.0%	33,360	1.1%	34,055	2.1%	34,750	2.0%
Environmental Regulation and Enforcement											
	119,816	118,238	(1.3%)	121,828	3.0%	124,687	2.3%	127,634	2.4%	130,631	2.3%
Allocation of Centralized Support Costs											
	2,352,724	2,751,915	17.0%	2,829,191	2.8%	3,323,195	17.5%	3,681,409	10.8%	3,961,554	7.6%
Total Operating Programs	18,232,954	19,148,816	5.0%	21,384,038	11.7%	24,255,062	13.4%	27,420,945	13.1%	28,495,709	3.9%
Allocation of Project Delivery Cost											
	643,067	662,773	3.1%	881,226	33.0%	919,418	4.3%	925,495	0.7%	927,483	0.2%
Debt Service											
	4,913,012	5,689,202	15.8%	12,782,355	120.0%	19,530,862	52.8%	25,098,120	28.5%	28,229,918	12.5%
Contribution to Capital											
	7,671,931	8,771,308	14.3%	7,303,883	(16.7%)	7,240,008	(0.9%)	8,826,101	21.9%	9,860,669	11.7%
TOTAL EXPENDITURES	\$ 31,460,964	\$ 34,272,099	8.9%	\$ 42,351,502	23.6%	\$ 51,945,350	22.7%	\$ 62,270,661	19.9%	\$ 67,513,779	8.4%

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
LIQUID WASTE
2022 BUDGET REVIEW
2022-2026 FINANCIAL PLAN
LULU ISLAND WEST SEWERAGE AREA

	2021	2022	%	2023	%	2024	%	2025	%	2026	%
	BUDGET	BUDGET	CHANGE	FORECAST	CHANGE	FORECAST	CHANGE	FORECAST	CHANGE	FORECAST	CHANGE
REVENUES											
Liquid Waste Services Levy	\$ 25,620,747	\$ 26,919,245	5.1%	\$ 30,416,699	13.0%	\$ 37,618,578	23.7%	\$ 43,590,946	15.9%	\$ 48,088,300	10.3%
User Fees	136,691	150,695		153,597		156,557		159,576		162,656	
Transfer from DCC Reserves	1,630,909	2,391,566		2,455,209		2,414,964		2,426,447		2,438,066	
BOD/TSS Industrial Charges	755,482	918,747		936,203		953,991		972,117		990,587	
Other External Revenues	655,268	666,268		678,268		690,268		702,268		714,268	
Transfer from Sustainability Innovation Fund Reserves	153,143	66,101		48,651		30,852		-		-	
Transfer from Reserves	-	1,000,000		-		10,967		-		21,933	
TOTAL REVENUES	\$ 28,952,240	\$ 32,112,622	10.9%	\$ 34,688,627	8.0%	\$ 41,876,177	20.7%	\$ 47,851,354	14.3%	\$ 52,415,810	9.5%
EXPENDITURES											
Operating Programs:											
Policy Planning and Analysis											
Contribution to Sustainability Innovation Fund Reserve	\$ 78,214	\$ 78,665		\$ 78,665		\$ 78,665		\$ 78,665		\$ 78,665	
Utility Analysis and Infrastructure	219,886	202,582		225,756		270,900		298,740		305,712	
Utility Policy and Planning	207,665	243,736		267,867		279,180		270,011		274,830	
Wastewater Research and Innovation	210,394	150,871		134,962		130,502		101,851		104,362	
	716,159	675,854	(5.6%)	707,250	4.6%	759,247	7.4%	749,267	(1.3%)	763,569	1.9%
Support Services and Strategic Initiatives											
Annacis Research Centre	34,426	34,400		34,406		34,412		34,419		35,647	
Dispatch	11,538	11,882		12,118		12,397		12,682		12,964	
Energy Management	23,933	17,191		22,310		23,348		24,064		24,764	
Engineers in Training	34,694	46,540		47,406		48,468		49,554		50,666	
Management Systems Utility Services	82,915	82,711		83,359		84,162		84,976		86,599	
Records Management	9,709	10,073		10,273		10,516		10,764		11,018	
Utility Voice Radio	13,639	13,389		13,545		13,914		14,272		14,561	
	210,854	216,186	2.5%	223,417	3.3%	227,217	1.7%	230,731	1.5%	236,219	2.4%
Environmental Management and Quality Control											
Environmental Management and Quality Control	900,489	942,577		1,008,547		1,041,624		1,076,330		1,126,975	
Source Compliance Monitoring	28,932	29,268		29,315		29,990		30,680		41,765	
Contribution to Reserve	7,421	7,405		7,624		7,673		7,723		7,932	
	936,842	979,250	4.5%	1,045,486	6.8%	1,079,287	3.2%	1,114,733	3.3%	1,176,672	5.6%
Project Delivery											
Minor Capital Projects	1,147,833	1,739,157		1,778,062		1,814,097		1,852,343		1,881,167	
	1,147,833	1,739,157	51.5%	1,778,062	2.2%	1,814,097	2.0%	1,852,343	2.1%	1,881,167	1.6%
Operations and Maintenance											
Lake City Operations	66,312	67,439		68,272		69,840		71,448		72,962	
Liquid Waste Residuals	1,736,066	1,826,052		1,548,123		1,594,632		1,674,661		1,693,655	
Maintenance	2,702,049	2,732,955		2,826,651		3,067,169		3,147,426		3,212,106	
SCADA Control Systems	31,880	31,358		31,827		32,999		33,727		34,400	
Wastewater Collection	641,766	532,955		541,726		562,411		582,102		644,561	
Wastewater Treatment	5,410,890	5,915,085		6,035,802		6,384,882		6,517,367		6,776,524	
	10,588,963	11,105,844	4.9%	11,052,401	(0.5%)	11,711,933	6.0%	12,026,731	2.7%	12,434,208	3.4%
Administration and Department Support											
	180,668	218,238	20.8%	221,082	1.3%	225,406	2.0%	231,798	2.8%	236,057	1.8%
Communications Program											
	31,230	33,155	6.2%	33,155	0.0%	33,504	1.1%	34,202	2.1%	34,900	2.0%
Environmental Regulation and Enforcement											
	190,849	217,168	13.8%	223,761	3.0%	229,013	2.3%	234,425	2.4%	239,929	2.3%
Allocation of Centralized Support Costs											
	2,260,778	2,550,425	12.8%	2,665,491	4.5%	2,721,959	2.1%	2,995,104	10.0%	3,067,870	2.4%
Total Operating Programs	16,264,176	17,735,277	9.0%	17,950,105	1.2%	18,801,663	4.7%	19,469,334	3.6%	20,070,591	3.1%
Allocation of Project Delivery Cost											
	275,720	426,312	54.6%	566,826	33.0%	591,392	4.3%	595,301	0.7%	596,580	0.2%
Debt Service											
	5,110,522	6,268,165	22.7%	9,407,161	50.1%	14,678,024	56.0%	17,403,179	18.6%	20,331,494	16.8%
Contribution to Capital											
	7,301,822	7,682,868	5.2%	6,764,535	(12.0%)	7,805,098	15.4%	10,383,540	33.0%	11,417,145	10.0%
TOTAL EXPENDITURES	\$ 28,952,240	\$ 32,112,622	10.9%	\$ 34,688,627	8.0%	\$ 41,876,177	20.7%	\$ 47,851,354	14.3%	\$ 52,415,810	9.5%

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
LIQUID WASTE
2022 BUDGET REVIEW
2022-2026 FINANCIAL PLAN
FRASER SEWERAGE AREA

	2021 BUDGET	2022 BUDGET	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE	2025 FORECAST	% CHANGE	2026 FORECAST	% CHANGE
REVENUES											
Liquid Waste Services Levy	\$ 141,736,027	\$ 147,917,479	4.4%	\$ 176,395,242	19.3%	\$ 207,394,914	17.6%	\$ 245,613,080	18.4%	\$ 319,569,236	30.1%
User Fees	1,702,120	2,242,842		2,896,376		3,549,581		4,203,889		4,284,047	
Transfer from DCC Reserves	34,671,599	49,782,510		52,891,540		66,334,061		87,474,660		80,232,770	
BOD/TSS Industrial Charges	6,991,527	7,300,565		7,439,276		7,580,622		7,724,654		7,871,422	
Other External Revenues	575,578	575,578		575,578		575,578		575,578		575,578	
Transfer from Sustainability Innovation Fund Reserves	1,058,985	456,833		336,233		213,221		-		-	
Transfer from Reserves	-	707,000		-		72,410		-		144,819	
TOTAL REVENUES	\$ 186,735,836	\$ 208,982,807	11.9%	\$ 240,534,245	15.1%	\$ 285,720,387	18.8%	\$ 345,591,861	21.0%	\$ 412,677,872	19.4%
EXPENDITURES											
Operating Programs:											
Policy Planning and Analysis											
Contribution to Sustainability Innovation Fund Reserve	\$ 540,847	\$ 543,664		\$ 543,664		\$ 543,664		\$ 543,664		\$ 543,664	
Utility Analysis and Infrastructure	1,520,510	1,400,082		1,560,242		1,872,234		2,064,641		2,112,830	
Utility Policy and Planning	1,436,002	1,684,502		1,851,274		1,929,459		1,866,094		1,899,401	
Wastewater Research and Innovation	1,454,874	1,042,692		932,747		901,919		703,909		721,263	
	4,952,233	4,670,940	(5.7%)	4,887,927	4.6%	5,247,276	7.4%	5,178,308	(1.3%)	5,277,158	1.9%
Support Services and Strategic Initiatives											
Annacis Research Centre	227,532	237,747		237,785		237,829		237,877		246,363	
Dispatch	71,880	76,846		78,370		80,173		82,018		83,845	
Energy Management	149,125	111,168		144,269		150,987		155,611		160,142	
Engineers in Training	239,928	321,689		327,674		335,013		342,521		350,207	
Management Systems Utility Services	516,610	535,187		539,380		544,580		549,845		560,344	
Records Management	60,485	65,143		66,440		68,008		69,614		71,256	
Utility Voice Radio	75,216	73,838		74,698		76,737		78,709		80,304	
	1,340,776	1,421,618	6.0%	1,468,616	3.3%	1,493,327	1.7%	1,516,195	1.5%	1,552,461	2.4%
Environmental Management and Quality Control											
Environmental Management and Quality Control	5,934,374	6,217,975		6,673,873		6,888,834		7,124,663		7,458,705	
Source Compliance Monitoring	191,221	202,273		202,600		207,267		212,035		288,644	
Contribution to Reserve	48,906	48,893		50,341		50,663		50,991		52,374	
	6,174,501	6,469,141	4.8%	6,926,814	7.1%	7,146,764	3.2%	7,387,689	3.4%	7,799,723	5.6%
Project Delivery											
Minor Capital Projects	3,872,930	3,520,446		3,639,583		3,717,616		3,806,001		3,872,268	
	3,872,930	3,520,446	(9.1%)	3,639,583	3.4%	3,717,616	2.1%	3,806,001	2.4%	3,872,268	1.7%
Operations and Maintenance											
Lake City Operations	458,548	466,087		471,842		482,697		493,801		504,263	
Liquid Waste Residuals	10,921,360	11,653,919		9,647,934		9,848,049		10,415,741		10,579,772	
Maintenance	16,858,101	17,256,083		17,985,249		18,807,607		19,496,945		21,953,374	
SCADA Control Systems	566,287	576,324		584,967		606,479		619,879		632,239	
Wastewater Collection	8,375,543	9,487,639		9,698,465		9,922,125		10,381,912		11,016,913	
Wastewater Treatment	20,881,971	22,726,813		25,827,733		27,361,612		26,566,169		29,960,338	
	58,061,810	62,166,865	7.1%	64,216,190	3.3%	67,028,569	4.4%	67,974,447	1.4%	74,646,899	9.8%
Administration and Department Support											
	1,125,667	1,412,129	25.4%	1,430,530	1.3%	1,458,507	2.0%	1,499,869	2.8%	1,527,429	1.8%
Communications Program											
	215,955	229,140	6.1%	229,140	0.0%	231,552	1.1%	236,376	2.1%	241,200	2.0%
Environmental Regulation and Enforcement											
	1,367,376	1,451,401	6.1%	1,495,467	3.0%	1,530,567	2.3%	1,566,740	2.4%	1,603,524	2.3%
Allocation of Centralized Support Costs											
	14,114,667	16,380,193	16.1%	17,208,990	5.1%	18,737,557	8.9%	20,201,413	7.8%	21,991,371	8.9%
Total Operating Programs	91,225,915	97,721,873	7.1%	101,503,257	3.9%	106,591,735	5.0%	109,367,038	2.6%	118,512,033	8.4%
Allocation of Project Delivery Cost											
	2,952,320	4,482,098	51.8%	5,959,423	33.0%	6,217,699	4.3%	6,258,800	0.7%	6,272,243	0.2%
Debt Service											
	54,493,928	76,063,763	39.6%	93,702,063	23.2%	128,655,666	37.3%	178,444,987	38.7%	230,208,679	29.0%
Contribution to Capital											
	38,063,673	30,715,073	(19.3%)	39,369,502	28.2%	44,255,287	12.4%	51,521,036	16.4%	57,684,917	12.0%
TOTAL EXPENDITURES	\$ 186,735,836	\$ 208,982,807	11.9%	\$ 240,534,245	15.1%	\$ 285,720,387	18.8%	\$ 345,591,861	21.0%	\$ 412,677,872	19.4%

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
LIQUID WASTE
2022 BUDGET REVIEW
2022-2026 FINANCIAL PLAN
DRAINAGE

	2021 BUDGET	2022 BUDGET	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE	2025 FORECAST	% CHANGE	2026 FORECAST	% CHANGE
REVENUES											
Liquid Waste Services Levy	\$ 2,207,817	\$ 1,919,693	(13.1%)	\$ 2,108,193	9.8%	\$ 2,169,916	2.9%	\$ 2,222,759	2.4%	\$ 2,287,356	2.9%
Transfer from Reserves	80,000	130,000		130,000		130,000		130,000		130,000	
TOTAL REVENUES	\$ 2,287,817	\$ 2,049,693	(10.4%)	\$ 2,238,193	9.2%	\$ 2,299,916	2.8%	\$ 2,352,759	2.3%	\$ 2,417,356	2.7%
EXPENDITURES											
Operating Programs:											
Policy Planning and Analysis											
Utility Analysis and Infrastructure	\$ 64,942	\$ 75,000		\$ 244,543		\$ 248,623		\$ 252,798		\$ 257,071	
Utility Policy and Planning	70,976	71,622		71,952		72,360		72,778		73,206	
	135,918	146,622	7.9%	316,495	120.0%	320,983	1.4%	325,576	1.4%	330,277	1.4%
Support Services and Strategic Initiatives											
Dispatch	1,081	909		927		948		969		991	
Energy Management	2,245	1,318		1,710		1,790		1,845		1,899	
Management Systems Utility Services	7,768	6,285		6,334		6,394		6,456		6,580	
Records Management	910	770		785		804		823		842	
	12,004	9,282	(22.7%)	9,756	5.1%	9,936	1.8%	10,093	1.6%	10,312	2.2%
Project Delivery											
Minor Capital Projects	479,451	225,000		229,275		233,631		238,070		242,593	
	479,451	225,000	(53.1%)	229,275	1.9%	233,631	1.9%	238,070	1.9%	242,593	1.9%
Operations and Maintenance											
Maintenance	166,144	159,621		175,527		183,979		190,847		201,767	
SCADA Control Systems	21,506	20,807		21,118		21,895		22,379		22,825	
Urban Drainage	1,157,299	1,263,704		1,292,675		1,326,264		1,374,402		1,430,033	
Wastewater Collection	119,148	-		-		-		-		-	
	1,464,097	1,444,132	(1.4%)	1,489,320	3.1%	1,532,138	2.9%	1,587,628	3.6%	1,654,625	4.2%
Administration and Department Support											
	16,926	16,582	(2.0%)	16,797	1.3%	17,127	2.0%	17,613	2.8%	17,936	1.8%
Allocation of Centralized Support Costs											
	179,421	204,139	13.8%	171,316	(16.1%)	180,640	5.4%	168,282	(6.8%)	156,105	(7.2%)
Total Operating Programs	2,287,817	2,045,757	(10.6%)	2,232,959	9.2%	2,294,455	2.8%	2,347,262	2.3%	2,411,848	2.8%
Allocation of Project Delivery Cost											
	-	3,936	100.0%	5,234	33.0%	5,461	4.3%	5,497	0.7%	5,508	0.2%
TOTAL EXPENDITURES	\$ 2,287,817	\$ 2,049,693	(10.4%)	\$ 2,238,193	9.2%	\$ 2,299,916	2.8%	\$ 2,352,759	2.3%	\$ 2,417,356	2.7%

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
CAPITAL PORTFOLIO
LIQUID WASTE SERVICES
2022 CAPITAL BUDGET AND 2022-2026 CAPITAL PLAN

	CAPITAL BUDGET FOR APPROVAL	2022 CAPITAL CASH FLOW	2023 CAPITAL CASH FLOW	2024 CAPITAL CASH FLOW	2025 CAPITAL CASH FLOW	2026 CAPITAL CASH FLOW	2022 TO 2026 TOTAL CAPITAL CASH FLOW	ACTIVE PHASE	PRIMARY DRIVER
CAPITAL EXPENDITURES									
Collections									
8th Avenue Interceptor Air Treatment Facilities	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ 500,000	\$ 500,000	Definition	Upgrade
Albert Street Trunk Sewer	10,250,000	255,000	-	-	-	-	255,000	Construction	Growth
Big Bend Forcemain - Gate Replacement	180,000	-	-	600,000	650,000	650,000	1,900,000	Design	Maintenance
Burnaby Lake North Interceptor Cariboo Section	-	-	100,000	600,000	1,700,000	11,200,000	13,600,000	Not started	Growth
Burnaby Lake North Interceptor Winston Section	116,950,000	20,050,000	59,300,000	12,000,000	-	-	91,350,000	Construction	Growth
Burnaby South Slope Interceptor	500,000	50,000	200,000	750,000	650,000	3,500,000	5,150,000	Multiple	Growth
Cloverdale Pump Station Capacity Upgrade	700,000	350,000	900,000	900,000	900,000	15,000,000	18,050,000	Design	Growth
Cloverdale Trunk Sewer Capacity Upgrade	1,200,000	100,000	200,000	1,050,000	1,150,000	950,000	3,450,000	Design	Growth
Combined Sewer Overflow Sampling Station Enhancements	1,900,000	450,000	350,000	250,000	-	-	1,050,000	Construction	Maintenance
Glen Eagles Pump Stations Phase 2	-	-	-	5,000,000	-	-	5,000,000	Not started	Maintenance
Crescent Beach FM - Replacement	26,820,000	15,000,000	4,550,000	-	-	-	19,550,000	Construction	Maintenance
Eagle Creek (Lower Section) Channel Restoration	750,000	750,000	-	-	-	-	750,000	Construction	Resilience
Lozells Sanitary Trunk Golf Course Section	-	-	-	-	50,000	400,000	450,000	Not started	Growth
Manitoba Street Combined Trunk Sewer Separation	-	-	-	-	-	100,000	100,000	Not started	Upgrade
EMQC Chemistry Laboratory and Environmental Field Services	3,500,000	2,000,000	1,000,000	500,000	-	-	3,500,000	Construction	Upgrade
Fraser Sewerage Area Integrated Resource Recovery (IRR) Study	1,200,000	100,000	500,000	438,000	-	-	1,038,000	Design	Opportunity
Front Street Pressure Sewer Access Hatches Reinforcement	5,000,000	3,500,000	1,500,000	-	-	-	5,000,000	Construction	Maintenance
FSA Flow Metering Program	3,500,000	600,000	300,000	500,000	450,000	-	1,850,000	Multiple	Maintenance
FSA River Crossing Scour Protection Program - Phase 1	4,200,000	830,000	3,330,000	1,550,000	630,000	-	6,340,000	Construction	Maintenance
FSA Sewer Relocations and Protections	32,750,000	16,300,000	5,250,000	-	-	-	21,550,000	Multiple	Maintenance
FSA Statutory Right of Way Acquisitions Phase 1	35,100,000	9,000,000	9,000,000	8,100,000	-	-	26,100,000	Design	Maintenance
Gilbert/Brighthouse Trunk Pressure Sewer	169,601,000	10,150,000	60,200,000	10,150,000	600,000	2,400,000	83,500,000	Multiple	Maintenance
Glen Eagles Forcemain Replacement	10,234,000	600,000	4,000,000	2,250,000	-	-	6,850,000	Multiple	Maintenance
Glen Eagles Pump Stations Phase 1	22,500,000	4,150,000	7,201,000	7,000,000	2,400,000	-	20,751,000	Construction	Maintenance
Glenbrook Combined Trunk Kingsway Sanitary Section	7,200,000	100,000	4,900,000	1,500,000	-	-	6,500,000	Construction	Growth
Harbour Pump Station Discharge Header Repair and Valve Replacements	2,500,000	1,000,000	1,400,000	-	-	-	2,400,000	Construction	Maintenance
Harbour Pump Station Power Distribution Equipment Replacement	1,600,000	300,000	2,200,000	400,000	-	-	2,900,000	Design	Maintenance
Hastings-Cassiar Intake Connection	2,350,000	2,450,000	1,050,000	-	-	-	3,500,000	Construction	Growth
Highbury Interceptor Diversion Junction Chamber Wall Rehabilitation	500,000	250,000	5,500,000	-	-	-	5,750,000	Design	Maintenance
Highbury Interceptor North Arm Crossing - Upgrade of Siphons	12,500,000	500,000	-	-	-	-	500,000	Construction	Resilience
Jervis Pump Station 25kV Voltage Conversion	1,300,000	750,000	300,000	-	-	-	1,050,000	Construction	Maintenance
Kent Pump Station High Voltage Switchgear Replacement	1,150,000	650,000	1,000,000	350,000	-	-	2,000,000	Design	Maintenance
Surrey Central Valley Capacity Upgrade	-	-	-	-	-	150,000	150,000	Not started	Growth
Lake City Access and Parking Improvements	2,850,000	2,710,000	100,000	-	-	-	2,810,000	Construction	Maintenance
LSA Flow Metering Program	300,000	50,000	50,000	50,000	-	-	150,000	Construction	Maintenance
Marshend Pump Station	10,125,000	1,875,000	2,300,000	10,800,000	3,700,000	-	18,675,000	Multiple	Growth
New CSO Management Gates for New Westminster Interceptor	5,925,000	300,000	2,300,000	1,200,000	-	-	3,800,000	Construction	Upgrade
New West Interceptor - Annacis Section 2	45,000,000	4,800,000	8,350,000	5,700,000	6,600,000	6,600,000	32,050,000	Construction	Maintenance
New West Interceptor Grit Chamber	9,300,000	1,000,000	3,800,000	4,000,000	-	-	8,800,000	Construction	Maintenance
New Westminster Interceptor Repair Columbia St. Section	35,752,000	12,500,000	1,450,000	50,000	-	-	14,000,000	Construction	Maintenance
New Westminster Interceptor West Branch and Columbia Extension Rehabilitation	1,900,000	750,000	2,300,000	13,850,000	7,200,000	4,200,000	28,300,000	Design	Maintenance
North Road Trunk Sewer	11,675,000	300,000	3,500,000	1,200,000	-	-	5,000,000	Construction	Growth
North Road Trunk Sewer Phase 2	8,450,000	1,020,000	4,000,000	2,500,000	-	-	7,520,000	Construction	Growth
North Surrey Interceptor - Port Mann Section - Odour Control	7,500,000	500,000	1,150,000	4,500,000	1,000,000	-	7,150,000	Construction	Upgrade
North Surrey Interceptor Anniesville Channel Crossing Scour Protection	4,350,000	2,378,000	1,082,000	-	-	-	3,460,000	Construction	Maintenance
North Surrey Interceptor Roebuck Section Rehabilitation - Phase 1	2,750,000	1,048,000	803,000	4,450,000	4,157,000	847,000	11,305,000	Design	Maintenance

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
CAPITAL PORTFOLIO
LIQUID WASTE SERVICES
2022 CAPITAL BUDGET AND 2022-2026 CAPITAL PLAN

	CAPITAL BUDGET FOR APPROVAL	2022 CAPITAL CASH FLOW	2023 CAPITAL CASH FLOW	2024 CAPITAL CASH FLOW	2025 CAPITAL CASH FLOW	2026 CAPITAL CASH FLOW	2022 TO 2026 TOTAL CAPITAL CASH FLOW	ACTIVE PHASE	PRIMARY DRIVER
NSA Flow Metering Program	900,000	100,000	150,000	100,000	50,000	-	400,000	Multiple	Maintenance
NSA Scour Protection Upgrades	2,250,000	1,250,000	1,000,000	-	-	-	2,250,000	Construction	Maintenance
NSI 104th Ave Extension	12,950,000	-	-	6,500,000	1,500,000	-	8,000,000	Construction	Growth
NSI Flow Management	11,500,000	2,650,000	2,450,000	20,000,000	30,000,000	30,000,000	85,100,000	Multiple	Upgrade
NSI Rehab or Replacement	16,450,000	2,000,000	4,400,000	13,000,000	11,500,000	5,000,000	35,900,000	Construction	Maintenance
Ocean Park Trunk Manholes Lining	1,200,000	1,050,000	150,000	-	-	-	1,200,000	Construction	Maintenance
Ocean Park Trunk Sewer - Air Management Facility	2,750,000	1,750,000	500,000	2,500,000	2,500,000	-	7,250,000	Design	Upgrade
Port Coquitlam Pump Station Refurbishment	2,300,000	1,300,000	1,100,000	11,600,000	22,300,000	14,800,000	51,100,000	Design	Maintenance
Port Moody Pump Station Capacity Upgrade	2,300,000	800,000	550,000	4,950,000	3,100,000	-	9,400,000	Design	Growth
Port Moody South Interceptor Capacity Upgrade	-	-	150,000	350,000	1,000,000	1,000,000	2,500,000	Not started	Growth
Port Moody Storm Drain Rehabilitation	200,000	50,000	400,000	600,000	600,000	-	1,650,000	Design	Maintenance
Rosemary Heights Pressure Sewer Capacity Upgrade	-	-	150,000	300,000	400,000	650,000	1,500,000	Not started	Growth
Royal Ave PS Rehabilitation	8,238,000	3,100,000	2,700,000	400,000	-	-	6,200,000	Construction	Maintenance
Sapperton Pump Station	94,815,000	1,000,000	950,000	-	-	-	1,950,000	Multiple	Growth
Sapperton Pump Station Emergency Backup Power	5,000,000	1,500,000	3,000,000	500,000	-	-	5,000,000	Construction	Resilience
Sewer Heat Projects	18,800,000	1,300,000	2,700,000	5,200,000	7,800,000	9,000,000	26,000,000	Construction	Opportunity
South Surrey Interceptor Johnston Section	84,026,000	1,800,000	10,500,000	13,000,000	7,000,000	-	32,300,000	Construction	Growth
SSI - King George Section - Odor Control Facility (OCF) and Grit C	19,550,000	1,700,000	500,000	-	-	-	2,200,000	Construction	Growth
SSI Influent Control Chamber Repair and Replace Gates	1,285,000	700,000	440,000	-	-	-	1,140,000	Construction	Maintenance
SSI Sulfide Odour and Corrosion Control	9,200,000	7,800,000	100,000	-	-	-	7,900,000	Construction	Upgrade
Stoney Creek Sanitary Trunk	700,000	350,000	450,000	1,500,000	1,500,000	3,900,000	7,700,000	Design	Growth
Surrey Corrosion Control Facility Replacement	7,250,000	3,051,000	2,901,000	-	-	-	5,952,000	Construction	Maintenance
VSA Emergency Backup Power	24,310,000	1,000,000	5,000,000	4,000,000	1,250,000	-	11,250,000	Construction	Resilience
VSA Flow Metering Program	5,800,000	600,000	600,000	1,000,000	1,000,000	1,000,000	4,200,000	Multiple	Maintenance
VSA Grit Chamber Access Improvements	900,000	900,000	-	-	-	-	900,000	Construction	Maintenance
VSA Sewer Relocations and Protections	30,650,000	20,250,000	4,300,000	-	-	-	24,550,000	Multiple	Maintenance
Westridge FM Replacement	3,650,000	2,550,000	-	-	-	-	2,550,000	Construction	Maintenance
Westridge Pump Stations 1 & 2 Refurbishment	5,790,000	4,420,000	5,400,000	5,000,000	450,000	-	15,270,000	Multiple	Maintenance
White Rock Forcemain Rehabilitation	1,200,000	500,000	600,000	10,300,000	3,300,000	-	14,700,000	Design	Maintenance
Works Yard	32,000,000	4,400,000	900,000	-	-	-	5,300,000	Construction	Maintenance
Total Collections	\$ 1,028,276,000	\$ 187,337,000	\$ 257,457,000	\$ 202,988,000	\$ 127,087,000	\$ 111,847,000	\$ 886,716,000		
Treatment Plants									
AIWWTP Ammonia Removal – Sidestream	\$ 900,000	\$ 150,000	\$ -	\$ -	\$ -	\$ -	150,000	Design	Upgrade
AIWWTP Chemical Lab UPS System Replacement	600,000	200,000	-	-	-	-	200,000	Construction	Maintenance
AIWWTP Cogen Building Refurbishment	1,500,000	600,000	800,000	-	-	-	1,400,000	Construction	Maintenance
AIWWTP Cogeneration Backup Power	80,503,000	2,650,000	770,000	-	-	-	3,420,000	Multiple	Resilience
AIWWTP Electrical Distribution System Protection Control and Monitoring	2,650,000	650,000	500,000	400,000	-	-	1,550,000	Construction	Upgrade
AIWWTP Digester No. 5	-	-	300,000	2,500,000	2,800,000	5,500,000	11,100,000	Not started	Growth
AIWWTP Fibre Optic Infrastructure	1,500,000	400,000	-	-	-	-	400,000	Construction	Maintenance
AIWWTP Hydrothermal Processing Pilot	19,450,000	2,550,000	7,500,000	3,800,000	2,500,000	1,925,961	18,275,961	Construction	Opportunity
AIWWTP ICS Replacement Program	14,350,000	500,000	1,500,000	2,500,000	2,500,000	2,500,000	9,500,000	Construction	Maintenance
AIWWTP Influent System Remediation	2,400,000	500,000	1,850,000	14,500,000	20,700,000	1,000,000	38,550,000	Design	Maintenance
AIWWTP IPS Gates Replacements	100,000	100,000	200,000	400,000	-	-	700,000	Design	Maintenance
AIWWTP IPS Pump Building Roof Replacement Phase 2	-	-	-	100,000	500,000	200,000	800,000	Not started	Maintenance
AIWWTP Outfall Repair	-	-	800,000	750,000	-	-	1,550,000	Not started	Maintenance
AIWWTP Replacement of ICS Equipment	4,445,000	150,000	-	-	-	-	150,000	Multiple	Maintenance
AIWWTP Replacement of Protective Relays	3,308,000	150,000	200,000	600,000	-	-	950,000	Construction	Maintenance

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
CAPITAL PORTFOLIO
LIQUID WASTE SERVICES
2022 CAPITAL BUDGET AND 2022-2026 CAPITAL PLAN

	CAPITAL BUDGET FOR APPROVAL	2022 CAPITAL CASH FLOW	2023 CAPITAL CASH FLOW	2024 CAPITAL CASH FLOW	2025 CAPITAL CASH FLOW	2026 CAPITAL CASH FLOW	2022 TO 2026 TOTAL CAPITAL CASH FLOW	ACTIVE PHASE	PRIMARY DRIVER
AIWWTP Scheduled 64kV Potential & Current Transformer Replacements	800,000	150,000	250,000	250,000	-	-	650,000	Construction	Maintenance
AIWWTP Scum Pump Replacement	-	-	-	200,000	150,000	500,000	850,000	Not started	Maintenance
AIWWTP Secondary Clarifier Corrosion Repair	58,484,000	1,050,000	1,950,000	3,200,000	1,535,000	1,100,000	8,835,000	Multiple	Maintenance
AIWWTP Secondary Effluent Discharge Flowmeter Replacement	400,000	200,000	100,000	-	-	-	300,000	Construction	Maintenance
AIWWTP Spare Trickling Filter Pump & Motor Purchase	1,950,000	1,080,000	90,000	-	-	-	1,170,000	Construction	Maintenance
AIWWTP Stage 5 Expansion & Outfall System	1,191,500,000	62,800,000	62,486,000	91,000,000	108,000,000	111,165,000	435,451,000	Multiple	Growth
AIWWTP Station Battery Replacement	1,207,000	100,000	100,000	-	-	-	200,000	Multiple	Maintenance
AIWWTP Trickling Filter Media & Distributor Arms & Ducting Replacement	90,700,000	20,800,000	18,050,000	16,400,000	-	-	55,250,000	Construction	Maintenance
AIWWTP UPS Condition Monitoring System	-	-	400,000	150,000	-	-	550,000	Not started	Resilience
All WWTPs Power Quality Monitoring & Outage Alarming Network	2,870,000	100,000	-	-	-	-	100,000	Construction	Upgrade
Annacis Influent System Surge Control Refurbishment	22,000,000	4,400,000	4,400,000	1,000,000	8,398,000	-	18,198,000	Construction	Growth
Annacis MCC 80 051, 80 070, 80 071 Replacement	2,850,000	200,000	-	-	-	-	200,000	Construction	Maintenance
Biosolids Dryer	22,700,000	500,000	2,500,000	11,000,000	40,000,000	76,500,000	130,500,000	Design	Opportunity
Ferguson Road Paving Refurbishment	1,100,000	1,100,000	-	-	-	-	1,100,000	Construction	Upgrade
IIWWTP - Biogas Lines Relocation	5,780,000	600,000	-	-	-	-	600,000	Construction	Resilience
IIWWTP Biosolids Dewatering Facility	61,300,000	620,000	1,050,000	-	-	-	1,670,000	Construction	Upgrade
IIWWTP CEPT Winterization	750,000	750,000	-	-	-	-	750,000	Construction	Maintenance
IIWWTP ICS IPS Control Replacement	1,750,000	900,000	150,000	-	-	-	1,050,000	Construction	Maintenance
IIWWTP ICS Replacement Program	750,000	100,000	200,000	200,000	200,000	-	700,000	Construction	Maintenance
IIWWTP Influent Gate Refurbishment	1,350,000	300,000	350,000	-	-	-	650,000	Construction	Maintenance
IIWWTP IPS Drive Remediation	1,400,000	400,000	550,000	200,000	-	-	1,150,000	Construction	Maintenance
IIWWTP MCC/Power Distribution Assess/Replace - Phase 2	1,000,000	50,000	300,000	-	-	-	350,000	Construction	Maintenance
IIWWTP Outfall Refurbishment	20,000,000	500,000	1,500,000	2,000,000	3,000,000	3,000,000	10,000,000	Design	Maintenance
IIWWTP PA-Sed Tank & Gallery Wall Refurbishment	750,000	50,000	100,000	150,000	140,000	-	440,000	Construction	Maintenance
IIWWTP Replacement of CoGen Control System	2,500,000	150,000	300,000	-	-	-	450,000	Construction	Maintenance
IIWWTP Siphon Chamber Refurbishment	2,150,000	60,000	800,000	960,000	330,000	-	2,150,000	Construction	Maintenance
IIWWTP Sludge Lagoons Dewatering Facility	4,000,000	700,000	319,550	-	-	-	1,019,550	Construction	Upgrade
IIWWTP Solids Handling Refurbishment	65,400,000	1,245,000	1,400,000	500,000	500,000	2,500,000	6,145,000	Multiple	Maintenance
IIWWTP Standby Diesel Generators	2,000,000	650,000	1,050,000	1,300,000	1,300,000	500,000	4,800,000	Design	Resilience
Iona Island Control & Instrumentation Replacement 2011	2,750,000	100,000	-	-	-	-	100,000	Construction	Maintenance
Iona Secondary Wastewater Treatment - Phase 1	1,060,000,000	57,500,000	198,500,000	219,500,000	249,000,000	294,000,000	1,018,500,000	Definition	Upgrade
LIWWTP Admin Dewatering Building Roof Repair	100,000	10,000	90,000	700,000	-	-	800,000	Design	Maintenance
LIWWTP Biogas Clean-up Project	13,800,000	500,000	1,800,000	-	-	-	2,300,000	Construction	Opportunity
LIWWTP CCT Isolation Gates	2,050,000	150,000	900,000	-	-	-	1,050,000	Construction	Maintenance
LIWWTP Effluent Heat Recovery Project	10,000,000	100,000	3,000,000	4,000,000	2,000,000	900,000	10,000,000	Construction	Opportunity
LIWWTP Ground Fault Detection System Replacement	1,550,000	400,000	900,000	250,000	-	-	1,550,000	Construction	Maintenance
LIWWTP High Efficiency Boiler	1,300,000	70,000	509,633	300,000	300,000	-	1,179,633	Construction	Maintenance
LIWWTP ICS Replacement Program	6,750,000	2,000,000	1,500,000	1,100,000	350,000	-	4,950,000	Construction	Maintenance
LIWWTP PA-Sed Tank Refurbishment	4,115,000	1,000,000	1,000,000	1,000,000	400,000	-	3,400,000	Construction	Maintenance
LIWWTP Pilot Digestion Optimization Facility	2,850,000	900,000	390,336	-	-	-	1,290,336	Construction	Opportunity
LIWWTP Power Reliability	8,202,000	3,000,000	2,000,000	-	-	-	5,000,000	Construction	Resilience
LIWWTP SCL Refurbishment	850,000	100,000	1,250,000	1,600,000	900,000	4,000,000	7,850,000	Design	Maintenance
LIWWTP Trickling Filter Refurbishment	500,000	500,000	1,000,000	2,000,000	10,500,000	12,500,000	26,500,000	Design	Maintenance
NLWWTP Screw Pump Replacement	1,550,000	100,000	300,000	-	-	-	400,000	Construction	Maintenance
NLWWTP Standby Diesel Generator	400,000	200,000	400,000	400,000	-	-	1,000,000	Design	Resilience
North Shore WWTP Secondary Upgrade, Conveyance and Decommissioning	1,057,867,000	267,030,000	132,440,000	97,350,000	17,400,000	53,670,000	567,890,000	Construction	Upgrade
Northwest Langley Wastewater Treatment Program	1,629,700,000	150,600,000	182,650,000	394,350,000	432,300,000	150,200,000	1,310,100,000	Multiple	Growth
NWL WWTP 25 kV Substation Replacement	10,050,000	350,000	400,000	950,000	-	-	1,700,000	Construction	Maintenance
WWTPs Electrical System Studies & Upgrades	750,000	350,000	450,000	300,000	400,000	250,000	1,750,000	Design	Resilience

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
CAPITAL PORTFOLIO
LIQUID WASTE SERVICES
2022 CAPITAL BUDGET AND 2022-2026 CAPITAL PLAN

	CAPITAL BUDGET FOR APPROVAL	2022 CAPITAL CASH FLOW	2023 CAPITAL CASH FLOW	2024 CAPITAL CASH FLOW	2025 CAPITAL CASH FLOW	2026 CAPITAL CASH FLOW	2022 TO 2026 TOTAL CAPITAL CASH FLOW	ACTIVE PHASE	PRIMARY DRIVER
Total Treatment Plants	\$ 5,514,281,000	\$ 593,115,000	\$ 642,295,519	\$ 877,860,000	\$ 906,103,000	\$ 721,910,961	\$ 3,741,284,480		
TOTAL CAPITAL EXPENDITURES	\$ 6,542,557,000	\$ 780,452,000	\$ 899,752,519	\$ 1,080,848,000	\$ 1,033,190,000	\$ 833,757,961	\$ 4,628,000,480		
CAPITAL FUNDING									
New External Borrowing funded by Levy	\$ 4,122,492,000	\$ 493,249,000	\$ 497,908,519	\$ 496,296,000	\$ 833,073,000	\$ 595,593,961	\$ 2,916,120,480		
New Borrowing funded by DCC	926,980,000	53,754,000	234,961,000	367,002,000	-	-	655,717,000		
DCCs	253,811,000	42,329,000	64,268,000	60,445,000	11,347,000	1,149,000	179,538,000		
Contribution to Capital from LWS Levy	700,713,000	76,355,000	82,174,000	90,131,000	115,359,000	131,644,000	495,663,000		
Reserve	58,314,000	8,350,000	12,900,000	9,400,000	5,600,000	5,000,000	41,250,000		
External Funding - Interagency	480,247,000	106,415,000	7,541,000	57,574,000	67,811,000	100,371,000	339,712,000		
Total	\$ 6,542,557,000	\$ 780,452,000	\$ 899,752,519	\$ 1,080,848,000	\$ 1,033,190,000	\$ 833,757,961	\$ 4,628,000,480		
SUMMARY BY DRIVER									
Growth	\$ 3,226,941,000	\$ 250,000,000	\$ 339,536,000	\$ 546,750,000	\$ 574,148,000	\$ 303,615,000	\$ 2,014,049,000		
Maintenance	855,059,000	170,452,000	188,446,633	157,060,000	103,892,000	62,797,000	682,647,633		
Resilience	140,195,000	11,200,000	13,070,000	6,650,000	2,950,000	750,000	34,620,000		
Upgrade	2,231,562,000	342,850,000	340,309,550	345,950,000	299,900,000	378,270,000	1,707,279,550		
Opportunity	88,800,000	5,950,000	18,390,336	24,438,000	52,300,000	88,325,961	189,404,297		
Total	\$ 6,542,557,000	\$ 780,452,000	\$ 899,752,519	\$ 1,080,848,000	\$ 1,033,190,000	\$ 833,757,961	\$ 4,628,000,480		

LIQUID WASTE SERVICES

Policy, Planning and Analysis

Description of services

Liquid Waste Services provide wastewater collection and treatment services through the Liquid Waste function under the Greater Vancouver Sewerage & Drainage District (GVS&DD). The Policy, Planning and Analysis Division provides utility planning, policy and resiliency management to comply with provincial and federal legislation, including development of management plans and progress reporting; strategic planning of utility infrastructure that meets long-term resiliency and climate change requirements; and policy development for regional infrastructure. In addition, it provides source control strategies that protect receiving environments, ensure health and safety and protect infrastructure; maintain liquid waste regulatory bylaws; expand public awareness and education; and develops strategic actions for emerging contaminants. The division also undertakes utility infrastructure analysis to service growth planning with municipalities, facilities modeling, scenario analysis, scope development for capital projects, and facility analysis and planning. It also provides innovation management including technology evaluations, resource recovery assessments, innovative business modelling and enhancing value via Sustainability Innovation Fund projects.

Strategic directions and high level goals supported

Board Strategic Plan:

- Enhance the management of the liquid waste system with a commitment to innovative approaches to protect the health of the public and the environment.
- Ensure the long-term resilience of the regional sewage and drainage system to withstand natural hazards, climate change and other significant disruptions.
- Develop and implement financial plans and policies that reflect a commitment to sound financial management and long-term planning, in consideration of current and future ratepayers.
- Strengthen awareness and engagement with the public, members, other orders of government, and key stakeholders on a range of initiatives that will ensure that the regional liquid waste system protects public health and the environment, now and into the future.

Integrated Liquid Waste and Resource Management Plan:

- Goal 1 - Protect public health and the environment
- Goal 2 - Use liquid waste as a resource
- Goal 3 - Effective, affordable and collaborative management

Performance indicators

Indicator	Historical and/or industry benchmark	Current performance	2022 Performance objective
Annual number of wet-weather related sanitary sewer overflow (SSO) events from Metro Vancouver sewers	MV 3-year average: 41 2020: 40 2019: 29 2018: 53	10	0

Indicator	Historical and/or industry benchmark	Current performance	2022 Performance objective
Annual CSO Volume (ML)	MV 3-year average: 33,400 2020: 36,900 2019: 22,100 2018: 41,300	20,000	33,400
Percentage of Assets not Meeting Capacity or Regulation within 10 Years	MV 3-year average: 28% 2020: 34% 2019: 25% 2018: 25%	34%	33%

2022 Key actions

- Continue to progress on a comprehensive review and update of the Integrated Liquid Waste and Resource Management Plan in accordance with the provincially-approved review strategy.
- Develop regional financial projections for remaining sewer separation requirements in coordination with the Cities of Burnaby, New Westminster and Vancouver to eliminate combined sewer overflows.
- Complete a policy for Board consideration addressing a wet weather pricing framework.
- Develop a Compounds of Environmental Concern (CEC) management strategy to pursue source control as a primary line of defense.
- Initiate a comprehensive review and update of the Sewer Use Bylaw, with a focus on fee structures and bylaw limits in 2022.
- Complete the High-Efficiency Aeration and Genomics Approach to Digestion Optimization Sustainability Innovation Fund (SIF) projects; initiate the Biorock Capture of CO2 for Infrastructure Protection SIF project.
- Coordinate with member jurisdictions to implement Still Creek Brunette River Drainage Area Flood Management Strategy.



LIQUID WASTE SERVICES

Engineering, Design and Construction

Description of services

Liquid Waste Services provides wastewater collection and treatment services to the region through the Liquid Waste function under the authority of the Greater Vancouver Sewerage and Drainage District (GVS&DD). The Engineering, Design and Construction (EDC) Division is responsible for the delivery of the core major and minor capital projects, including trunk sewers, pump stations, SSO storage and wastewater treatment facilities identified in the GVS&DD long range plan and minor operating projects.

Strategic directions and high level goals supported

Board Strategic Plan

- Enhance the management of the liquid waste system with a commitment to innovative approaches to protect the health of the public and the environment.
- Ensure the long-term resilience of the regional sewage and drainage system to withstand natural hazards, climate change and other significant disruptions.
- Develop and implement financial plans and policies that reflect a commitment to sound financial management and long-term planning, in consideration of current and future ratepayers.
- Strengthen awareness and engagement with the public, members, other orders of government including First Nations, and key stakeholders on a range of initiatives that will ensure that the regional liquid waste system protects public health and the environment, now and into the future.

Integrated Liquid Waste and Resource Management Plan

- Goal 1 - Protect public health and the environment
- Goal 2 - Use liquid waste as a resource
- Goal 3 - Effective, affordable and collaborative management

Performance indicators ¹

Indicator	Historical and/or industry Benchmark	Current performance	2022 Performance objective
Percent of Capital Program Expenditures Achieved (Projects >\$90M) (4 PROJECTS – \$44M)	3-year average: 79% 2020: 62% 2019: 82% 2018: 93%	35%	95%
Percent of Capital Program Expenditures Achieved (Projects \$20M - \$90M) (23 PROJECTS – \$125M)	3-year average: 79% 2020: 73% 2019: 64% 2018: 100%	63%	90%
Percent of Capital Program Expenditures Achieved (Projects \$5M - \$20M) (36 Projects – \$56M)	3-year average: 39% 2020: 36% 2019: 41% 2018: 40%	54%	75%

Indicator	Historical and/or industry Benchmark	Current performance	2022 Performance objective
Percent of Capital Program Expenditures Achieved Projects < \$5M (55 Projects – \$31M)	3-year average: 39% 2020: 36% 2019: 41% 2018: 40%	62%	75%
Percent of Minor Capital Program Expenditures	3-year average: 63% 2020: 72% 2019: 58% 2018: 59%	70%	90%

¹ The Performance Indicators include projects being completed by other LWS divisions, such as utility relocates and Industrial Control System upgrades, but excluded projects being completed by the Project Delivery department

2022 Key Actions

- In conjunction with the PMO (as appropriate), improve, develop and / or implement division wide project management improvements, targeting the following areas: cost estimating framework; risk management; schedule development and adherence; scope control; change control.
- Building off the success of the Annacis projects, develop a Project Portfolio Coordination Process for the LIWWTP suite of construction projects, including program support, technical review, project controls, and construction coordination
- Fully implement changes to the MCR delivery program – namely rolling project assignments, scoping and definition of future projects, and a dedicated project coordination team
- Initiate approximately 24 new capital projects with a projected value of \$310M
- Substantially complete the following construction projects: New Westminster Interceptor - Columbia Section Rehabilitation; Albert Street Trunk Sewer - Phase 2; Crescent Beach Forcemain; Iona Island WWTP Biosolids Dewatering Facility; Hastings Cassiar Intake Connection; Lulu Island WWTP Power Reliability - Phase 1; Lulu Island WWTP Pilot Digestion Optimization Facility.
- Initiate construction activities of the following projects: Scour Protection of the Fraser River crossings of the Maple Ridge Forcemain and Annacis Main No.3 / NSI South Crossing; Scour Protection of the North Vancouver Interceptor Crossing of the Seymour River and Hollyburn Interceptor of the Capilano River; Burnaby Lake North Interceptor - Winston Section Phase 2 (Trenchless); Gilbert Trunk Sewer No. 2 - South and Central Sections; Surrey Ferrous Chloride Dosing System; Glen Eagles Force Main - Phase 2; Glen Eagles Pump Station #4 and #5; North Road Trunk Sewer Phase 2 and BNSF Railway Crossing; South Surrey Interceptor (Delta Section) Air Management Facility; Royal Avenue Pump Station Upgrade; Chilco Pump Station Temporary Emergency Backup Power System; Annacis Island WWTP Trickling Filter #2 Refurbishment.

LIQUID WASTE SERVICES

Operations and Maintenance - Wastewater Collections and Drainage

Description of Services

Liquid Waste Services provides wastewater collection and treatment services to the region through the Liquid Waste function under the authority of the Greater Vancouver Sewerage and Drainage District (GVS&DD). The Wastewater Collection and Drainage Division is responsible for managing the operations and maintenance of the sewer collection network and providing maintenance services to Greater Vancouver Water District (GVWD) as a shared service provider. This includes day-to-day management of the infrastructure assets and supporting infrastructure. This business area is also responsible for managing the operations and maintenance of Urban Drainage areas including the Still Creek/Brunette, Port Moody/Coquitlam and UBC Drainage areas.

Alignment of Strategic Directions and High Level Goals

Board Strategic Plan

- Enhance the management of the liquid waste system with a commitment to innovative approaches to protect the health of the public and the environment.
- Ensure the long-term resilience of the regional sewage and drainage system to withstand natural hazards, climate change and other significant disruptions.
- Develop and implement financial plans and policies that reflect a commitment to sound financial management and long-term planning, in consideration of current and future ratepayers.
- Strengthen awareness and engagement with the public, members, other orders of government, and key stakeholders on a range of initiatives that will ensure that the regional liquid waste system protects public health and the environment, now and into the future.

Integrated Liquid Waste and Resource Management Plan

- Goal 1 - Protect public health and the environment
- Goal 2 - Use liquid waste as a resource
- Goal 3 - Effective, affordable and collaborative management

Performance Indicators

Indicator	Historical and/or Industry Benchmark	Current Performance	2022 Performance Objective
Number of reported events of sanitary sewer overflows (SSOs): non-weather related	MV 3-year average: 17.3 2019: 11 2018: 24 2017: 17	26	0
Number of odour complaints received	MV 3-year average: 16 2019: 14 2018: 12 2017: 21	16	10

2022 Key Actions

- Complete Electrical Safety Program Review of work practices, systems, and training in accordance with applicable regulations and industry standards.
- Commence review of lockout and isolation procedures for operation and maintenance work tasks.
- Formalize the Maintenance Program including predictive and preventative maintenance and defining scope and service levels for reliability centered maintenance.
- Prepare Production Way Operations Center to enable relocation.
- Develop a construction team capable of mid-sized civil capital construction work.
- Review operating strategy, operations and maintenance practices for Cariboo Dam.
- Plan comprehensive emergency response exercise focused on system outages.
- Progress asset condition and performance work by inspecting and condition rating:
 - 15% of pump station inventory
 - 5% of sewer system inventory
 - 3.5% of the manhole inventory
- Extend access to MV flow monitoring data for external municipal partners.

LIQUID WASTE SERVICES

Operations & Maintenance - Wastewater Treatment & Residuals Management

Description of Services

Liquid Waste Services provides wastewater collection and treatment services to the region through the Liquid Waste function under the authority of the Greater Vancouver Sewerage and Drainage District (GVS&DD). The Wastewater Treatment & Residuals Management division is responsible for managing the operations and maintenance of the five regional wastewater treatment plants (WWTPs). This includes long-range facility planning and day-to-day management of the infrastructure assets and supporting infrastructure with the objective of complying with provincial and federal regulations and recovering as much resources from the wastewater as economically feasible. This business area is also responsible for the beneficial use of biosolids and other residuals produced.

Strategic Directions and High Level Goals Supported

Board Strategic Plan

- Enhance the management of the liquid waste system with a commitment to innovative approaches to protect the health of the public and the environment.
- Ensure the long-term resilience of the regional sewage and drainage system to withstand natural hazards, climate change and other significant disruptions.
- Develop and implement financial plans and policies that reflect a commitment to sound financial management and long-term planning, in consideration of current and future ratepayers.
- Strengthen awareness and engagement with the public, members, other orders of government, and key stakeholders on a range of initiatives that will ensure that the regional liquid waste system protects public health and the environment, now and into the future.

Integrated Liquid Waste and Resource Management Plan

- Goal 1 - Protect public health and the environment
- Goal 2 - Use liquid waste as a resource
- Goal 3 - Effective, affordable and collaborative management

Performance Indicators

Indicator	Historical and/or industry benchmark	Current performance	2022 Performance objective
Volume treated per year (ML)	MV 3-year average: 449,710 2020: 459,118 2019: 434,465 2018: 455,545	436,400	470,600
Percent of digester gas used at the Wastewater Treatment Plants	MV 3-year average: 55% 2020: 61% 2019: 52% 2018: 51%	54%	60%

Indicator	Historical and/or industry benchmark	Current performance	2022 Performance objective
Compliance with treatment plant Operational Certificates (%)	MV 3-year average: 99.89% 2020: 99.83% 2019: 99.91% 2018: 99.94%	99.99%	100%
Percent of biosolids beneficially used	MV 3-year average: 97.8% 2020: 99.5% 2019: 96.1% 2018: 97.9%	99%	97%
Percentage of Biosolids beneficially used in Metro Vancouver Region	MV 3-year average: 16.4% 2020: 17.6% 2019: 13.5% 2018: 18.1%	15%	13%

2022 Key Actions

- Review and update critical operations, maintenance and safety documents related to plant process, operating and maintenance procedures for the wastewater treatment plants.
- Implement and integrate Project Management Guidelines that pertain to wastewater treatment operations and maintenance work processes.
- Fully implement the new Project Management reporting system for the plant's controls systems together with the preparation of associated documentation required.
- Work in close coordination with the WWT Safety Representative, Supervisory Staff and Planners to establish processes that ensures continued compliance with regulatory agency requirements for high risk maintenance activities.
- Continue optimization of the renewable natural gas system at Lulu Island WWTP.
- Test and commission the primary effluent reuse water reclamation system at Iona Island WWTP.
- Complete removal of land-dried biosolids stockpile and grit dump and begin operation of the lagoon dewatering facility at Iona Island WWTP, in preparation for the new plant construction.
- Support procurement of a regional biosolids drying facility.

LIQUID WASTE SERVICES

Environmental Management & Quality Control

Description of services

This business area is responsible for management of environmental programs and initiatives for GVS&DD, analytical services for liquid waste, water and solid waste regulatory, quality control, source control and process control purposes, and federal and provincial regulatory reporting of environmental and wastewater quality and treatment. The work includes environmental investigations, laboratory analyses, modeling, forecasting, simulations, monitoring, risk assessments, support for management of stormwater and urban drainage, development of an Environmental Management System for Liquid Waste Services, implementation of selected source control programs, and liaison with senior governments, academia and environmental stakeholders.

Strategic directions and high level goals supported

Board Strategic Plan:

- Enhance the management of the liquid waste system with a commitment to innovative approaches to protect the health of the public and the environment.
- Ensure the long-term resilience of the regional sewage and drainage system to withstand natural hazards, climate change and other significant disruptions.
- Develop and implement financial plans and policies that reflect a commitment to sound financial management and long-term planning, in consideration of current and future ratepayers.
- Strengthen awareness and engagement with the public, members, other orders of government, and key stakeholders on a range of initiatives that will ensure that the regional liquid waste system protects public health and the environment, now and into the future.

Integrated Liquid Waste and Resource Management Plan:

- Goal 1 - Protect public health and the environment
- Goal 2 - Use liquid waste as a resource
- Goal 3 - Effective, affordable and collaborative management

Performance indicators

Indicator	Historical and/or industry benchmark	Current performance	2022 Performance objective
Number of days between May 1 st and September 30 th swimming advisories posted by the Health Authorities (combined totals for all beaches in region)	MV 3-year average: 45 2020: 42 2019: 39 2018: 53	26 ¹	28

Indicator	Historical and/or industry benchmark	Current performance	2022 Performance objective
Fraser River water quality index ²	MV 3-year average: 86 2019: 88 2018: 88 2017: 81	77	77
Burrard Inlet water quality index	MV 3-year average: 88 2018: 87 2017: 90 2016: 87	82	82
Sturgeon Bank water quality index	MV 3-year average: 92 2018: 92 2017: 92 2016: 92	96	96

¹ As of September 21, 2021

² Water Quality Index (WQI) ranking of water quality: Excellent (WQI value 95-100), Good (80-94), Fair (65-79), Marginal (45-64), Poor (0-44)

2022 Key actions

- Produce the 2021 GVS&DD Environmental Management & Quality Control Annual Report.
- Complete and submit 2021 National Pollution Release Inventory (NPRI) and Greenhouse Gas (GHG) Reports to Environment Canada and the BC Ministry of Environment, respectively.
- Continue the collaborative work on advancing the use of wastewater based epidemiology for the protection of public health.
- Initiate addressing recommendations from the Major Water Body Environmental Program Reviews for Fraser River, Burrard Inlet and Strait of Georgia.
- Perform monitoring of environmental quality of sediments in the Fraser River in the vicinity of the Lulu Island Wastewater Treatment Plant (WWTP) outfall.
- Complete a review of sanitary sewer overflows (SSOs) that took place between 2017 and 2021 using a rapid risk-ranking tool.
- Continue the development of the Environmental Management System (EMS) for the Liquid Waste Utility and prepare a handbook for the management of solid and hazardous waste at the Liquid Waste Services field sites.
- Validate the replacement instruments for the analysis of Biochemical Oxygen Demand at Annacis Island WWTP lab.
- Perform the analyses of drinking water sources for determination of microcystins using Liquid Chromatography Mass Spectrometry (LCMSMS).
- Increase the efficiency and safety of the drinking water testing for determination of Halo Acetic Acid (HAA) by transferring to the Liquid Chromatography methodology.
- Initiate in-house testing of wastewater for the selected Perfluoroalkyl and Polyfluoroalkyl (PFAS) substances.
- Develop the analytical method for testing of UV Transmittance at the future North Shore WWTP.

LIQUID WASTE SERVICES

Support Services and Strategic Initiatives

Description of services

Liquid Waste Services provides wastewater collection and treatment services to the region through the Liquid Waste function under the authority of the Greater Vancouver Sewerage and Drainage District (GVS&DD). The Support Services and Strategic Initiatives division is responsible for the following Liquid Waste Services functions: business and financial planning and management; capital budget planning; asset management; performance management; energy management and the Annacis Research Centre.

Strategic directions and high level goals supported

Board Strategic Plan

- Enhance the management of the liquid waste system with a commitment to innovative approaches to protect the health of the public and the environment.
- Ensure the long-term resilience of the regional sewage and drainage system to withstand natural hazards, climate change and other significant disruptions.
- Develop and implement financial plans and policies that reflect a commitment to sound financial management and long-term planning, in consideration of current and future ratepayers.
- Strengthen awareness and engagement with the public, members, other orders of government, and key stakeholders on a range of initiatives that will ensure that the regional liquid waste system protects public health and the environment, now and into the future.

Integrated Liquid Waste and Resource Management Plan

- Goal 1 - Protect public health and the environment
- Goal 2 - Use liquid waste as a resource
- Goal 3 - Effective, affordable and collaborative management

Performance indicators

Indicator	Historical and/or industry benchmark	Current performance	2022 Performance objective
Operating cost per million litres collected and treated (\$/ML)	MV 3-year average: \$375 2020: \$395 2019: \$381 2018: \$349	\$446	\$480
Net energy use in the collection and treatment of liquid waste (GJ/ML)	MV 3-year average: 1.13 2020: 1.05 2019: 1.18 2018: 1.15	1.13	1.13
Net Greenhouse gas emissions from energy and direct emissions (Kg GHG/ML)	MV 3-year average: 18.1 2020: 16.2 2019: 19.4 2018: 18.7	18.1	16.0

Indicator	Historical and/or industry benchmark	Current performance	2022 Performance objective
Energy Savings Realized (kWh/y)	MV 3-year average: 418,870 2020: 137,861 2019: 511,343 2018: 607,407	100,000	590,000

2021 Key actions

- Establish 5-year energy targets at the facility level (WWTPs, Pump Stations) for all LWS facilities and Commence regular facility level energy reporting to monitor progress toward meeting targets.
- Complete investigation of models for a single sewerage area for the Liquid Waste Services and recommend a proposed model and strategy for implementation.
- Implement formal Risk Management Assessment processes for Liquid Waste Services as a component of our continuous improvement actions.
- Complete the assessment of biogas recovery at Annacis Island WWTP, develop agreements with energy utility for the sale of Renewable Natural Gas and initiate a capital project to generate Renewable Natural Gas at the plant.
- Promote and pursue partnerships with municipalities, utilities and the property development community to implement opportunities for resource recovery from liquid waste with emphasis on projects that achieve regional greenhouse gas emissions reductions.
- Development Business model for public involvement / education goals for North Shore WWTP.
- Update Hazard, Risk and Vulnerability Assessment for LWS, integrated with Enterprise Risk Management processes and update emergency management plans.

PROJECT DELIVERY

Liquid Waste Projects

Description of services

The Liquid Waste Projects function within Project Delivery provides support to Liquid Waste by achieving excellence in the delivery of the organization's largest and most complex capital projects.

Working alongside owner departments, Project Delivery brings together best practice skills and resources from multiple disciplines and departments while ensuring projects are adequately resourced and have high level of engagement with both internal and external stakeholders. This support has allowed for Liquid Waste Services to focus resources and planning on service provision and ensure that the highest value, risk and consequence projects are given improved oversight.

Strategic directions and high level goals supported

Support the goals of the Liquid Waste Department in the delivery of liquid waste services through the projects delivered:

- Support the management of Metro Vancouver's liquid waste systems.
- Support the long-term resilience goals of the regional sewerage and drainage system to withstand natural hazards, climate change and other significant disruptions.
- Develop and implement financial plans and policies that reflect a commitment to sound financial management and long-term planning.
- Strengthen awareness and engagement with the public, GVS&DD members, other orders of government, and key stakeholders on a range of initiatives that will ensure that the projects delivered meet the regional liquid waste goals of protecting public health and the environment.

Ensure value for money in providing major infrastructure delivery services:

- Achieve excellence in the delivery of high-value, high-risk and complex capital projects.
- Implement project controls and robust monitoring on Metro Vancouver's most complex infrastructure projects.
- Ensure complex project risks are adequately identified, quantified and mitigated.

Performance indicators

(based on percentage of overall project expenditure, as a proxy for project progress)

Indicator	Historical benchmark (2020)	Current performance (as at July, 2021)	2022 performance objective
North Shore WWTP & Conveyance			
• Treatment Plan Construction	17%	36%	TBD
• Conveyance Construction	35%	72%	85%
Northwest Langley WWTP Projects			
• Treatment Plant	4%	9%	10%
• Forcemain & River Crossing	6%	6%	70%
• Pump Station & SSO Tank	14%	40%	70%
• Outfall	1%	1%	3%

Indicator	Historical benchmark (2020)	Current performance (as at July, 2021)	2022 performance objective
Iona Island WWTP Upgrade			
• Project Definition Report	75%	90%	Complete
• Design	Not Started	Not Started	10%
• Construction	Not Started	Not Started	<1%

2022 key actions

North Shore WWTP Project

- Continue project management staff resourcing
- Continue monitoring of WWTP Design-Build contract for both cost and schedule
- Achieve Acceptance for Conveyance Pump Station, (Final Works for Conveyance piping deferred to 2023 to align with WWTP)

Northwest Langley WWTP Projects

- Continued construction of ground improvements on the WWTP site, new pump station and sanitary sewage overflow tank in Maple Ridge and new dual forcemain river crossing underneath the Fraser River
- Completion of risk, schedule and cost review of the first stage of the Northwest Langley wastewater treatment plant upgrade
- Outfall location finalization in consultation with First Nations and regulatory stakeholders

Iona Island WWTP Project

- Complete Project Definition Report addressing identified cost and other challenges
 - Procure a Program Management Consultant to support the Metro Vancouver delivery team
 - Geotechnical and environmental investigations, including remediation where required
 - Technical studies for ecological restoration projects
 - Design of a temporary wharf for materials transportation to accelerate the schedule and mitigate traffic impacts
 - Design and construction for access road upgrades in partnership with YVR
 - Continue addressing land tenure issues and critical permitting requirements
 - Procurement of design consultants for the WWTP upgrades
- Continue development of an agreement with Musqueam Indian Band for ongoing collaboration and engagement throughout the projects, as well as future economic development opportunities

2022 to 2026 – WHAT'S HAPPENING

Below is a summary of the significant initiatives to be undertaken by Liquid Waste Services over the next 5 years.

Initiative	Description	Theme
2022		
Iona Island WWTP	Finalize project definition, commence design of Phase 1 work including ground improvements and ecological projects, award of Program Management Consultant, commencement of WWTP pilot studies, commence procurement of detailed design consultant.	Regulatory and Legislative / Environmental Sustainability
Iona Island WWTP Biosolids Dewatering Facility	Commence mechanical dewatering of digester sludge to allow the completion of decommissioning of the existing sludge lagoons and sludge drying beds.	Regulatory and Legislative / Environmental Sustainability
Iona Island WWTP Biosolids Stockpile Removal	Completion of the removal of the land dried biosolids stockpile and grit stockpile.	Regulatory and Legislative Environment
Development Cost Charge Review	Update the GVS&DD Development Cost Charges to reflect system growth projections.	Financial Sustainability
Wet Weather Management	Work with members to develop a policy framework for a regionally revenue-neutral sewer levy split into dry and wet weather components. To provide incentives in mitigating I&I and separating sewers.	Environmental Sustainability / Financial Sustainability
Sewer Heat Recovery	Bring forward for Board consideration sewer heat recovery capital projects to supply district energy systems with low GHG energy to support Climate 2050 goals.	Environmental Sustainability
Reclaimed Water Policy	Create a policy, pricing structure and other tools needed to enable the distribution of reclaimed water for suitable uses within the region.	Environmental Sustainability
Estuary Management Programs	Establishment of a Task Force to Consider a Holistic Model of Collaborative Environmental Management for the Burrard Inlet, Fraser River Estuary and Boundary Bay and Implementation of the Estuary Management Program Initiatives (2023-2026)	Environmental Sustainability
Energy and GHG Emissions Targeting and Reporting	Establish and implement a formal target-setting process and supporting reporting for each WWTP, Collections, and the utility as a whole.	Environmental Sustainability / Financial Sustainability
2023		
Annacis Island WWTP Hydrothermal Processing Demonstration Facility	Commencement of operation of the HTP facility and initial production of biocrude oil at demonstration scale.	Environmental Sustainability
Burnaby Lake North Interceptor	Completion of construction of the Burnaby Lake North Interceptor – Winston Road Section.	Regional Growth

Initiative	Description	Theme
Integrated Liquid Waste and Resource Management Plan	Submission of the updated Integrated Liquid Waste and Resource Management Plan to the Province.	Regulatory and Legislative Environment
Iona Island WWTP	Commence detailed design of WWTP and commence enabling projects, site preparation and remediation projects	Regulatory and Legislative Environment
Northwest Langley WWTP	Completion of ground improvements for the WWTP. Completion of construction of the Golden Ears Pump Station, the forcemain river crossing and the Sanitary Sewage Overflow Storage Facility. Commence construction of the WWTP	Regional Growth / Environmental Sustainability
Annacis Island WWTP Trickling Filters	Completion of replacement of media, distributor arms and foul air ducting.	System Stewardship
Iona Island WWTP Resource Recovery	Develop a business model for an effluent loop from Iona Island WWTP, providing heat and reclaimed water to nearby users	Environmental Sustainability
2024		
Gilbert Trunk Sewer	Completion of the twinning of the Gilbert Trunk Sewer to improve system reliability and resiliency.	System Stewardship
North Shore WWTP	Completion of construction conveyance piping 300mm forcemain from the First Narrows Pump Station to the new Treatment Plant	Regulatory and Legislative Environment
Iona Island WWTP	Commence construction of WWTP ground improvement works	Regulatory and Legislative Environment
South Surrey Interceptor	Completion of Construction of the South Surrey Interceptor – Johnson Road Section, the last part of the system to be twinned.	Regional Growth
Northwest Langley WWTP	Commence construction of new outfall	Regional Growth
2025		
North Surrey Interceptor Odour Control	Completion of construction of odor control system.	System Stewardship
Liquid Waste Services Comprehensive Long-Range Plan	Complete Comprehensive Regional Liquid Waste System Plan, identifying a strategy for long-term infrastructure needs that aligns with the approved Liquid Waste Management Plan.	Environmental Sustainability
2026		
Port Coquitlam Pump Station	Completion of replacement of the pump station to meet current safety and seismic regulations.	System Stewardship
Cloverdale Pump Station	Completion of construction project to expand the capacity of the pump station.	Regional Growth
Iona Island WWTP	Completion of detailed design of WWTP, completion of ground improvements and Phase 1 ecological projects.	Regulatory and Legislative Environment
Iona Island WWTP Biosolids Stockpile Removal	Completion of the removal of all biosolids sludge lagoons in preparation for the construction of the secondary treatment plant.	Regulatory and Legislative Environment
Annacis Island WWTP Outfall	Completion of construction of the outfall system.	Regional Growth

METRO VANCOUVER DISTRICTS
2022-2026 PROJECTED RESERVES - LIQUID WASTE

OPERATING RESERVES

	2021	2022				2022	2023	2024	2025	2026
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Liquid Waste Services	\$ 21,578,707	\$ 21,578,707	\$ -	\$ (3,331,000)	\$ 398,264	\$ 18,645,971	\$ 19,018,890	\$ 19,399,268	\$ 19,787,253	\$ 20,182,998

DISCRETIONARY RESERVES

	2021	2022				2022	2023	2024	2025	2026
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Liquid Waste Services										
Biosolids Inventory Reserve	\$ 29,132,886	\$ 29,132,886	13,443,321	(21,027,829)	\$ 506,813	\$ 22,055,190	\$ 18,672,894	\$ 17,121,958	\$ 16,942,229	\$ 16,758,907
Liquid Waste General Debt Reserve Fund	2,140,673	2,140,673	-	-	42,813	2,183,486	2,227,156	2,271,699	2,317,133	2,363,476
Lions Gate Contingency	1,502,328	1,502,328	-	-	30,047	1,532,375	1,563,022	1,594,283	1,626,169	1,658,692
Drainage General Reserve	5,949,571	5,949,571	-	(930,000)	109,691	5,129,263	4,696,548	4,053,179	3,396,943	3,333,581
Total	\$ 38,725,458	\$ 38,725,458	\$ 13,443,321	\$ (21,957,829)	\$ 689,364	\$ 30,900,315	\$ 27,159,620	\$ 25,041,119	\$ 24,282,474	\$ 24,114,656

STATUTORY RESERVES

	2021	2022				2022	2023	2024	2025	2026
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Liquid Waste Services										
Liquid Waste Laboratory Equipment Reserve	\$ 612,565	\$ 612,565	\$ 101,284	\$ -	\$ 13,264	\$ 727,113	\$ 846,982	\$ 818,422	\$ 941,477	\$ 766,887
Liquid Waste Sustainability Innovation Fund Reserve	18,338,658	18,338,658	1,127,000	(3,497,001)	343,073	16,311,730	9,497,264	6,541,058	7,810,149	9,104,622
Total	\$ 18,951,223	\$ 18,951,223	\$ 1,228,284	\$ (3,497,001)	\$ 356,337	\$ 17,038,843	\$ 10,344,246	\$ 7,359,480	\$ 8,751,626	\$ 9,871,509

To: Regional Parks Committee

From: Neal Carley, General Manager, Parks and Environment
Mike Redpath, Director, Regional Parks

Date: October 6, 2021 Meeting Date: October 13, 2021

Subject: **2022 - 2026 Financial Plan – Regional Parks**

RECOMMENDATION

That the Regional Parks Committee endorse the 2022 - 2026 Financial Plan for Regional Parks as presented in the report dated October 6, 2021, titled “2022 - 2026 Financial Plan – Regional Parks”, and forward it to the Metro Vancouver Board Budget Workshop on October 20, 2021 for consideration.

EXECUTIVE SUMMARY

The 2022 – 2026 Metro Vancouver Financial Plan has been prepared following direction received at the April 8, 2021 Metro Vancouver Board Budget Workshop. This has resulted in a plan that maintains the goals and objectives of Metro Vancouver while using key financial tools to minimize the impact on the ratepayers of the region in 2022. The increase in Metro Vancouver’s overall consolidated household impact for 2022 is projected to be 3.5%, down from the 6.4% projected for 2022 in the prior financial planning cycle.

Over the next five years, the Regional Parks budget is expected to increase an average of \$5,384,949 or 7.9% per year. This is a result of pressures for new service levels, land acquisition and accelerated park and greenway development.

Before 2020, Regional Parks visitation was growing at roughly 4% year, or roughly twice the rate of regional population growth. In 2020, Regional Parks saw 16.5 million visits – an increase of 38% from 2019, when there were 11.9 million visits. High levels of visitation have continued through 2021. Parks are essential to support community resilience, are vital to the physical and mental health and well-being of residents and play a key role in regional climate action.

PURPOSE

To present the 2022 - 2026 Financial Plan for Regional Parks for consideration by the Committee.

BACKGROUND

Metro Vancouver’s annual budget process includes the development of detailed annual budgets and the updating of five-year financial plans for each of the four Metro Vancouver legal entities (Metro Vancouver Regional District, Metro Vancouver Housing Corporation, Greater Vancouver Water District and Greater Vancouver Sewerage and Drainage District).

On April 8, 2021, a Metro Vancouver Board Budget Workshop was held with the objective to seek direction for the preparation of the 2022 - 2026 Financial Plan. The workshop outlined the principles that guide the work of Metro Vancouver as an organization, and a proposed approach for the 2022 - 2026 Financial Plan.

This report focuses on the Regional Parks Service and presents the 2022 provisional annual budget and the updated five-year plan for the years 2022 to 2026 for Committee consideration.

REGIONAL PARKS SERVICE

Regional Parks contribute to a livable region by conserving natural assets and connecting to nature. Regional Parks manages 13,743 ha of land for 23 regional parks, 5 regional greenways, 2 Regional Park reserves and 2 ecological conservation areas through:

- Stewardship of the Regional Parks' ecosystems and natural areas
- Safe and secure parks and facilities to connect people with nature
- Park maintenance and bylaw enforcement/regulation
- Park system visitation, programs and services
- Indigenous cooperation, consultation and engagement
- Public education, interpretation, events and cultural engagement
- Park planning and management of built and natural assets
- Capital construction and asset management
- Acquisition of new park land to complete existing parks and create new parks

Regional Parks' initiatives planned over the next five years are guided by direction provided in the *Board Strategic Plan*, and *Regional Parks Plan*, specifically:

Board Strategic Plan:

- Provide opportunities for residents and visitors to explore and enjoy a diversity of natural spaces, from beaches to mountains, from bogs to lakes, in the region.
- Strengthen awareness and engagement with the public, members, other orders of government, and key stakeholders on a range of initiatives regarding the role and value of regional parks.
- Build a system of regional parks that are resilient to the impacts of climate change, land use change, and growing visitation.
- Facilitate a Regional Greenway System that connects natural areas and promotes access to them.

Regional Parks Plan:

- Goal 1 - Protect important natural areas to contribute to the regional livability and enhance connections.
- Goal 2 - Within the context of natural area protection, provide opportunities for people to connect with, enjoy, be active and learn about the environment.

Metro Vancouver also recognizes the history of Indigenous Peoples and aims to build meaningful and enduring relationships with First Nations. As part of our work, Regional Parks is committed to engaging First Nation communities through information sharing, engagement and ongoing communication.

WORK PLAN PERFORMANCE INDICATORS

High level performance indicators have been developed across the organization to evaluate trends, determine key actions for the coming year and to assist in long-term planning. The 2022 Work Plan for Regional Parks is presented in this report. Within the Regional Parks Work Plan, four performance indicators have been developed and are being tracked. These include:

- Annual number of visits to Regional Parks
- Annual number of participants in Regional Park public programming
- Annual number of volunteer hours through stewardship, partnership and visitor services programs
- Total hectares of Regional Park lands

The trends in these performance measures suggests that Regional Parks will continue to have an increase in the annual number of visits to Regional Parks, and will see a reduction in the annual number of participants in Regional Parks programming and number of volunteer hours due to the COVID-19 pandemic. Modest increases in the amount of sensitive ecosystems located within regional parks are expected.

CONTINUOUS IMPROVEMENT

Regional Parks continues to explore, evaluate and implement continuous improvement opportunities. The 2022 continuous improvement opportunities include the following:

- Implementation of pay parking as part of a parking visitor management strategy for Belcarra and Lynn Headwaters Regional Parks. Revenues from the parking program will offset parking and traffic and/or transit infrastructure to improve the visitor experience.
- Continued implementation with the *Tsleil-Waututh Nation Cultural Planning and Cooperation Agreement*. Development of new agreements with additional First Nations in 2021/2022.
- Positioning capital projects for funding from other levels of government and partnering with local municipalities and others.
- Creation of the First Nations Guardians Program with the Tsleil-Waututh Nation at Belcarra Regional Park. Guardian Programs have shown to result in tangible increases in biodiversity from a rise in habitat monitoring, awareness, and conservation that fish and wildlife depend on. Investments in Guardian Watchmen programs enable First Nations to hire and train community members, safeguard Traditional Territories.
- The development of a methodology and decision making framework for establishing Regional Parks program pricing. Consideration will be specifically given to regional-wide benefits and equity. The creation of a cost recovery and subsidy allocation philosophy and policy is a key component to maintaining financial control, equitably pricing offerings, and helping to identify core services including programs and facilities.
- Promotion of Peatland Recovery in areas affected by wildfire in Burns Bog Ecological Conservancy Area. This project will contribute to restoring desired ecological conditions on 37 ha of peatland affected by wildfire. Research will contribute to knowledge on peatland function and potential for long-term carbon benefits. The results will guide future management of other similarly affected peatlands across the region.

- Continuation of the eDNA study. Phase 2 of the study will examine 6 new parks for at least 10 species. A new primer is also under development for Fairy shrimp. A primer is what provides the clue to if a species has ever occupied the study area. The study allows for the potential identification of the presence of animals that are otherwise difficult to detect or capture, and reduces the need to handle wildlife. If a species-at-risk is identified it can help staff best manage areas to reduce negative impacts to wildlife.
- Efficiency improvements in procurement of capital works and establishment of integrated project delivery team for project delivery

2022 BUDGET AND 2022 - 2026 FINANCIAL PLAN

The five-year financial plans for this cycle have been updated to address five central themes identified by the Metro Vancouver Board in its Strategic Plan to guide the development of plans and budgets. The five themes are as follows:

- Financial Sustainability
- Environmental Sustainability
- System Stewardship
- Regulatory and Legislative Environment
- Regional Growth

Each Metro Vancouver function has an Annual Work Plan that includes strategic directions, performance indicators and key actions to guide the work for the coming year. Each function also has a “What’s Happening” summary that highlights the program highlights for the next five years.

The 2022 - 2026 Regional Parks Financial Plan is included as Attachment 1. The 2022 Annual Work Plan for the Regional Parks function presented in this report is included in Attachment 3 and the “What’s Happening” highlights for the years 2022 – 2026 are included in Attachment 4.

Operating Budget Highlights

The Regional Parks 2022 operating budget is proposed to increase by \$9,802,487 for a total budget of \$68,717,860 (Attachment 1). This is a result of pressures for new service levels, land acquisition and accelerated park and greenway development.

The 2022 operating budget includes the following key actions:

- Continued recovery of Regional Parks revenue streams: filming, public programming and facility rentals.
- Participation in the Metro Vancouver activation at the Pacific National Exhibition (PNE) including provision of outreach nature based programming for visitors to the exhibit.
- Continued implementation of *Public Programming Strategy* (2020) including adoption of cost recovery model and program pricing philosophy as well as completion of a marketing plan.
- Continue to consider additional opportunities for pay parking to help manage parking demand.
- Continue the implementation of measures to support visitor demand management strategies for the Regional Park system.
- Enhance working relationships with First Nations.
- Alignment of the five-year capital budget with the recommendations of the Asset Management Plan and Buildings Strategy and begin implementation.

- Pursue the acquisition of new lands for Regional Parks and greenways in support of the *Regional Parks Land Acquisition 2050* strategy.
- Completion and commencement of implementation of the Community Relationships Strategy.
- Continued implementation of *Tsleil-Waututh Nation Cultural Planning and Cooperation Agreement* and engagement for Belcarra Regional Park.
- Advancement of the development of cultural planning and cooperative agreements with Katzie and Kwikwetlem First Nation.
- Initiation of Phase 1 park development at Widgeon Marsh Regional Park.
- Investigation of the feasibility of an indigenous framework to be included in the *Regional Parks Plan*.
- Renewal of the Burnaby Lake Regional Park lease with the City of Burnaby.
- Continued implementation of the Grouse Mountain Trail and Amenity Improvement Project, funded by the Investing in Canada Infrastructure Grant Program.
- Initiation of Phase 1 of the *Campbell Valley Management Plan* Implementation Project.

Over the next five years, the Regional Parks budget is expected to increase an average of \$5,384,949 or 7.9% per year. Adjusting for the additional increases in the contribution to the Regional Parks Land Acquisition and Development Reserve in 2022 to 2026, the average increase per year is 4.7%.

Capital Budget Highlights

The Regional Parks capital budget for 2022 approval is \$64.0M (Attachment 2). The capital program is funded primarily by reserve funds. The Regional Parks capital program includes major park development and land acquisition.

Highlights of capital projects planned or ongoing in 2022 include the following:

1. Widgeon Marsh Park Development (*multiyear, \$19.1M*)
2. *Campbell Valley Management Plan* Implementation (*multiyear, \$8.1M*)
3. Grouse Mountain Trail and Amenity Improvements (*multiyear, \$3.5M*)
4. Derby Reach Washroom Building (*multiyear, \$2.0M*)
5. Burnaby Lake Service Yard Building (*multiyear, \$1M*)
6. Capilano River Service Yard (*multiyear, \$2.0M*)
7. IWWTP - Iona Beach Regional Park (Liquid Waste Services lead, integrated team)
8. System-wide Asset Management/Minor Capital Implementation
9. Ongoing Land Acquisition

The projected capital cash flows for 2022 - 2026 totals to \$156.5M and is largely driven by new regional park developments, land acquisition and required infrastructure replacements. These include:

- Construction and opening of Widgeon Marsh Regional Park
- Construction of Crippen Regional Park-Davies Orchard Day Use Area and Dorman Point
- Construction of the Belcarra Regional Park South Picnic Area
- Campbell Valley Regional Park Trail and open space improvements
- Implementation of Investing in Canada Grant (Grouse Mountain Regional Park)

- Implementation of the Regional Greenways 2050 strategy including the Delta South Surrey Greenway and Burnaby Lake Greenway improvements
- Development of Burns Bog Ecological Conservancy Area - Delta Nature Reserve
- Trail developments at Aldergrove, Tynehead, Campbell Valley and Pacific Spirit Regional Parks
- Land acquisition in support of *Regional Parks Land Acquisition 2050*

Reserve Funds

The application of reserve funding in Regional Parks includes several operating initiatives which are delivered through consulting or contract services as well as capital maintenance. In 2022, \$264,000 of operating initiatives, \$2.3 M of litigation costs/legal fees and \$5.2M of asset maintenance costs are funded from reserves, which is in accordance with the Board *Operating, Statutory and Discretionary Reserves Policy*. The capital program for Regional Parks is funded primarily from reserves. In 2022, \$27.3M in reserve funding will be applied for capital development projects and land acquisition. The 2022 - 2026 projected reserves for Regional Parks is included in Attachment 5.

APPROVAL PROCESS

The proposed 2022 - 2026 Financial Plan and Annual Work Plan is presented for consideration and endorsement before being forwarded to the Board for consideration.

The next steps of the process are:

- The 2022 – 2026 Financial Plan and Annual Work Plan will be presented for consideration at the Metro Vancouver Board Budget Workshop on October 20, 2021.
- The Board will consider adoption of the 2022 Budget and endorsement of the 2022 - 2026 Financial Plan on October 29, 2021.

ALTERNATIVES

1. That the Regional Parks Committee endorse the 2022 - 2026 Financial Plan for Regional Parks as presented in the report “2022 - 2026 Financial Plan – Regional Parks” dated October 6, 2021 and forward it to the Metro Vancouver Board Budget Workshop on October 20, 2021 for consideration.
2. That the Regional Parks Committee make recommendations and endorse an amended 2022 - 2026 Financial Plan for the Regional Parks function and forward the amended Financial Plan to the to the Metro Vancouver Board Budget Workshop on October 20, 2021 for consideration.

FINANCIAL IMPLICATIONS

If the MVRD Board endorses the 2022 - 2026 Financial Plan for Regional Parks, as presented under Alternative 1, in 2022 the Regional Parks requisition will increase by \$5,192,761 (10.0%) for a total requisition of \$57,062,296.

Over the term of the five-year plan, the annual Regional Parks requisition is projected to increase by an average of \$4,598,005 per year (7.7%) to provide the required revenue to offset projected expenditures. It is anticipated that the cost to the average regional household for the Regional Parks function will rise from \$49 in 2022 to just over \$59 in 2026.

Under Alternative 2, the Committee may wish to consider recommending amendments to the 2022 Budget and Five-Year Financial Plan for consideration at the Metro Vancouver Board Budget Workshop. Any changes to the plan may have an impact on the MVRD Financial Plan.

SUMMARY / CONCLUSION

The Regional Parks 2022 Budget and five-year financial plan has been prepared following direction received at the April 8, 2021 Metro Vancouver Board Budget Workshop and to respond to direction provided in the *Board Strategic Plan*. It is presented to Committee and Board members to provide overview information on activities and financial impacts for the years 2022 to 2026 for Regional Parks.

The presentation of this year's five-year financial plan for Regional Parks provides the opportunity for Metro Vancouver to share with its member jurisdictions the proposed service related initiatives over the next five years. It is intended to be used as a guiding document for member jurisdictions in the development of their five-year financial plans and includes projections on household impact to demonstrate how the plan will remain sustainable for residents while keeping pace with our critical requirements.

Staff recommends endorsing the 2022 - 2026 Financial Plan and Annual Work Plan for Regional Parks as presented under Alternative 1.

Attachments (48129163)

1. 2022 - 2026 Financial Plan
2. 2022 - 2026 Capital Portfolio – Regional Parks
3. 2022 Work Plan
4. 2022 - 2026 “What’s Happening”
5. 2022 - 2026 Projected Reserves – Regional Parks

METRO VANCOUVER REGIONAL DISTRICT
REGIONAL PARKS
2022 BUDGET REVIEW
2022-2026 FINANCIAL PLAN

	2021 BUDGET	2022 BUDGET	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE	2025 FORECAST	% CHANGE	2026 FORECAST	% CHANGE
REVENUES											
Metro Vancouver Regional District Requisitions	\$ 51,869,535	\$ 57,062,296	10.0%	\$ 64,294,830	12.7%	\$ 69,476,703	8.1%	\$ 71,677,544	3.2%	\$ 74,859,561	4.4%
User Fees	897,708	881,314		864,543		884,280		904,112		924,042	
Other External Revenues	1,525,860	1,855,250		1,580,314		1,599,879		1,649,945		1,675,515	
Transfer from Sustainability Innovation Fund Reserves	338,410	264,000		-		-		-		-	
Transfer from Reserves	4,283,860	8,655,000		7,181,000		7,156,000		7,866,000		8,381,000	
TOTAL REVENUES	\$ 58,915,373	\$ 68,717,860	16.6%	\$ 73,920,687	7.6%	\$ 79,116,862	7.0%	\$ 82,097,601	3.8%	\$ 85,840,118	4.6%
EXPENDITURES											
Operating Programs:											
Systems Planning, Design and Development Services											
Planning and Resource Management	\$ 2,365,197	\$ 2,660,418		\$ 2,245,397		\$ 2,320,760		\$ 2,344,053		\$ 2,392,517	
Design and Development	1,357,013	1,539,521		1,565,096		1,605,593		1,633,720		1,668,137	
Engineers in Training	11,627	15,508		15,797		16,151		16,513		16,883	
	3,733,837	4,215,447	12.9%	3,826,290	(9.2%)	3,942,504	3.0%	3,994,286	1.3%	4,077,537	2.1%
Systems Visitor and Operations Services											
Visitor Services	1,388,491	1,523,534		1,534,519		1,562,702		1,581,265		1,600,212	
Operations Services	1,810,639	1,802,557		1,805,232		1,838,849		1,873,297		1,907,321	
	3,199,130	3,326,091	4.0%	3,339,751	0.4%	3,401,551	1.9%	3,454,562	1.6%	3,507,533	1.5%
Central Area Services											
Operations and Maintenance	6,066,609	6,753,942		6,673,787		7,012,835		7,196,357		7,361,683	
Area Visitor Services	576,457	612,709		653,595		691,803		723,844		739,299	
Area Management and Administration	2,888,763	3,422,093		633,589		649,342		664,563		680,776	
Area Planning	156,801	161,774		164,334		168,657		171,874		175,166	
Burns Bog Ecological Conservancy Area	421,863	471,440		476,410		506,593		513,170		519,900	
Contribution to Reserve	23,000	223,000		223,000		223,000		223,000		223,000	
	10,133,493	11,644,958	14.9%	8,824,715	(24.2%)	9,252,230	4.8%	9,492,808	2.6%	9,699,824	2.2%
East Area Services											
Operations and Maintenance	4,435,927	4,846,934		5,034,757		5,157,126		5,352,906		5,472,127	
Area Visitor Services	557,073	635,817		644,463		657,562		670,965		706,727	
Area Management and Administration	673,451	626,506		637,689		653,354		668,362		683,723	
Area Planning	153,370	165,881		169,160		173,036		177,000		181,053	
	5,819,821	6,275,138	7.8%	6,486,069	3.4%	6,641,078	2.4%	6,869,233	3.4%	7,043,630	2.5%
West Area Services											
Operations and Maintenance	4,268,606	4,756,383		4,861,520		4,993,418		5,173,103		5,419,226	
Area Visitor Services	579,319	626,892		637,799		651,169		682,983		697,413	
Area Management and Administration	929,561	963,755		977,029		993,319		1,009,988		1,027,050	
Area Planning	152,592	157,565		160,125		163,269		166,486		169,778	
	5,930,078	6,504,595	9.7%	6,636,473	2.0%	6,801,175	2.5%	7,032,560	3.4%	7,313,467	4.0%
Administration and Department Support	1,398,761	1,451,781	3.8%	1,473,389	1.5%	1,528,171	3.7%	1,553,576	1.7%	1,579,534	1.7%
Communications Program	110,000	110,000	0.0%	110,000	0.0%	110,000	0.0%	110,000	0.0%	110,000	0.0%
Utility Voice Radio	84,060	82,520	(1.8%)	83,482	1.2%	85,760	2.7%	87,965	2.6%	89,747	2.0%
Quality Control Allocated	53,591	54,406	1.5%	54,422	0.0%	56,296	3.4%	57,648	2.4%	59,338	2.9%
Allocation of Centralized Support Costs	3,503,795	4,115,924	17.5%	4,279,744	4.0%	4,008,972	(6.3%)	3,744,601	(6.6%)	3,543,742	(5.4%)
Total Operating Programs	33,966,566	37,780,860	11.2%	35,114,335	(7.1%)	35,827,737	2.0%	36,397,239	1.6%	37,024,352	1.7%
Allocation of Project Delivery Cost	166,807	-	(100.0%)	179,352	0.0%	187,125	4.3%	188,362	0.7%	188,766	0.2%
Asset Maintenance	4,030,000	5,185,000	28.7%	7,125,000	37.4%	7,100,000	(0.4%)	7,810,000	10.0%	8,325,000	6.6%
Contribution to Capital Infrastructure Reserve	5,182,000	6,182,000	19.3%	7,932,000	28.3%	8,432,000	6.3%	10,132,000	20.2%	12,732,000	25.7%
Contribution to Parkland Acquisition and Development Reserve	15,570,000	19,570,000	25.7%	23,570,000	20.4%	27,570,000	17.0%	27,570,000	0.0%	27,570,000	0.0%
TOTAL EXPENDITURES	\$ 58,915,373	\$ 68,717,860	16.6%	\$ 73,920,687	7.6%	\$ 79,116,862	7.0%	\$ 82,097,601	3.8%	\$ 85,840,118	4.6%

METRO VANCOUVER REGIONAL DISTRICT
CAPITAL PORTFOLIO
REGIONAL PARKS
2022 CAPITAL BUDGET AND 2022-2026 CAPITAL PLAN

	2022 CAPITAL BUDGET	2022 CAPITAL CASH FLOW	2023 CAPITAL CASH FLOW	2024 CAPITAL CASH FLOW	2025 CAPITAL CASH FLOW	2026 CAPITAL CASH FLOW	2022 TO 2026 TOTAL CAPITAL CASH FLOW	ACTIVE PHASE	PRIMARY DRIVER
CAPITAL EXPENDITURES									
Major Projects									
Grouse Mountain - Regional Park Trail and Amenity Improvements	\$ 3,075,000	\$ 725,000	\$ 1,000,000	\$ 1,000,000	\$ -	\$ -	\$ 2,725,000	Construction	Capacity, Growth & Ecological Resilience
Widgeon Marsh - Regional Park Development	19,100,000	7,520,000	6,580,000	-	-	-	14,100,000	Construction	Capacity, Growth & Ecological Resilience
Campbell Valley - Management Plan Implementation	8,100,000	1,000,000	2,000,000	2,500,000	2,000,000	-	7,500,000	Construction	Capacity, Growth & Ecological Resilience
Belcarra - South Day Use Area	-	-	250,000	2,200,000	3,500,000	-	5,950,000	Planned	Capacity, Growth & Ecological Resilience
Codd Wetland - Park Development	-	-	-	900,000	2,500,000	4,500,000	7,900,000	Planned	Capacity, Growth & Ecological Resilience
West Creek Wetlands - Park Development	-	-	300,000	750,000	1,000,000	750,000	2,800,000	Planned	Capacity, Growth & Ecological Resilience
Burns Bog - Fire Restoration	-	-	-	-	-	500,000	500,000	Planned	Capacity, Growth & Ecological Resilience
Total Major Projects Program	\$ 30,275,000	\$ 9,245,000	\$ 10,130,000	\$ 7,350,000	\$ 9,000,000	\$ 5,750,000	\$ 41,475,000		
Greenways									
Aldergrove - Rock'n Horse Trail Connector	\$ 400,000	\$ 400,000	\$ -	\$ -	\$ -	\$ -	\$ 400,000	Planned	Connected Network
DNR/DSSG Management Plan Implementation	-	-	600,000	3,500,000	3,500,000	2,500,000	10,100,000	Planned	Connected Network
Boundry Bay - Perimeter Trail	-	-	150,000	1,500,000	-	-	1,650,000	Planned	Connected Network
Tynehead - Perimeter Trail	-	-	1,000,000	1,500,000	-	-	2,500,000	Planned	Connected Network
Other Greenways Upgrades	-	-	3,500,000	1,000,000	100,000	200,000	4,800,000	Planned	Connected Network
Total Greenways Program	\$ 400,000	\$ 400,000	\$ 5,250,000	\$ 7,500,000	\$ 3,600,000	\$ 2,700,000	\$ 19,450,000		
Service Facilities									
Burnaby Lake - Service Yard Building Replacement	\$ 1,000,000	\$ 200,000	\$ 50,000	\$ 500,000	\$ -	\$ -	\$ 750,000	Construction	Facility Replacement & Asset Management
Capilano - New Service Yard	943,000	150,000	-	-	-	-	150,000	Construction	Facility Replacement & Asset Management
Total Service Facilities Program	\$ 1,943,000	\$ 350,000	\$ 50,000	\$ 500,000	\$ -	\$ -	\$ 900,000		
Park Development									
Crippen - Davies Orchard	\$ 1,750,000	\$ 1,000,000	\$ 750,000	\$ -	\$ -	\$ -	\$ 1,750,000	Planned	Capacity, Growth & Ecological Resilience
Derby Reach - Full Service Washroom	2,014,000	1,560,000	-	-	-	-	1,560,000	Construction	Capacity, Growth & Ecological Resilience
Crippen - Dorman Point Acces and Amenities	500,000	500,000	-	-	-	-	500,000	Planned	Facility Replacement & Asset Management
Colony Farm - TMX Agreement Projects	1,000,000	100,000	300,000	300,000	300,000	-	1,000,000	Planned	Capacity, Growth & Ecological Resilience
Belcarra - Admiralty Heights Trail Decomissioning	-	-	250,000	500,000	250,000	-	1,000,000	Planned	Capacity, Growth & Ecological Resilience
Belcarra - White Pine Redevelopment & Improvements	-	-	-	-	150,000	1,600,000	1,750,000	Planned	Capacity, Growth & Ecological Resilience
Campbell Valley - Little River Loop Boardwalk	-	-	800,000	-	-	-	800,000	Planned	Facility Replacement & Asset Manaqement
Pacific Spirit - Beach Access & Trail Improvments	-	-	50,000	100,000	500,000	1,000,000	1,650,000	Planned	Facility Replacement & Asset Manaqement
Advanced Design Work for Future Projects	1,300,000	1,300,000	-	-	-	-	1,300,000	Planned	Capacity, Growth & Ecological Resilience
Park Amenities and Visitor Experience	4,500,000	750,000	750,000	1,000,000	1,000,000	1,000,000	4,500,000	Planned	Capacity, Growth & Ecological Resilience
Other Replacement, Restoration & Upgrade Projects	4,610,000	300,000	275,000	1,005,000	1,700,000	1,330,000	4,610,000	Planned	Facility Replacement & Asset Management
Total Park Development Program	\$ 15,674,000	\$ 5,510,000	\$ 3,175,000	\$ 2,905,000	\$ 3,900,000	\$ 4,930,000	\$ 20,420,000		

Regional Parks Land Acquisition															
Regional Parks Land Acquisition	\$	15,750,000	\$	15,750,000	\$	15,000,000	\$	14,000,000	\$	12,500,000	\$	17,000,000	\$	74,250,000	Land Acquisition
Total Land Acquisition Program	\$	15,750,000	\$	15,750,000	\$	15,000,000	\$	14,000,000	\$	12,500,000	\$	17,000,000	\$	74,250,000	
TOTAL CAPITAL EXPENDITURES	\$	64,042,000	\$	31,255,000	\$	33,605,000	\$	32,255,000	\$	29,000,000	\$	30,380,000	\$	156,495,000	

CAPITAL FUNDING														
Reserve	\$	57,352,060	\$	27,347,000	\$	32,491,780	\$	31,141,780	\$	28,700,000	\$	30,380,000	\$	150,060,560
Grants		6,689,940		3,908,000		1,113,220		1,113,220		300,000				6,434,440
Total	\$	64,042,000	\$	31,255,000	\$	33,605,000	\$	32,255,000	\$	29,000,000	\$	30,380,000	\$	156,495,000

SUMMARY BY DRIVER														
Capacity, Growth & Ecological Resilience	\$	40,839,000	\$	13,955,000	\$	12,180,000	\$	9,150,000	\$	10,700,000	\$	8,350,000	\$	54,335,000
Facility Replacement & Asset Management		7,053,000		1,150,000		1,175,000		1,605,000		2,200,000		2,330,000		8,460,000
Connected Network		400,000		400,000		5,250,000		7,500,000		3,600,000		2,700,000		19,450,000
Land Acquisition		15,750,000		15,750,000		15,000,000		14,000,000		12,500,000		17,000,000		74,250,000
Total	\$	64,042,000	\$	31,255,000	\$	33,605,000	\$	32,255,000	\$	29,000,000	\$	30,380,000	\$	156,495,000

**METRO VANCOUVER REGIONAL DISTRICT
CAPITAL PORTFOLIO
REGIONAL PARKS
ESTIMATED TOTAL PROJECT COST**

	ESTIMATED TOTAL PROJECT COST	ACTIVE PHASE	PRIMARY DRIVER
CAPITAL EXPENDITURES			
Major Projects			
Grouse Mountain - Regional Park Trail and Amenity Improvements	\$ 3,075,000	Construction	Capacity, Growth & Ecological Resilience
Widgeon Marsh - Regional Park Development	19,100,000	Construction	Capacity, Growth & Ecological Resilience
Campbell Valley - Management Plan Implementation	8,100,000	Construction	Capacity, Growth & Ecological Resilience
Belcarra - South Day Use Area	5,950,000	Planned	Capacity, Growth & Ecological Resilience
Codd Wetland - Park Development	9,900,000	Planned	Capacity, Growth & Ecological Resilience
West Creek Wetlands - Park Development	2,800,000	Planned	Capacity, Growth & Ecological Resilience
Burns Bog - Fire Restoration	4,500,000	Planned	Capacity, Growth & Ecological Resilience
Total Major Projects Program	\$ 53,425,000		
Greenways			
Aldergrove - Rock'n Horse Trail Connector	\$ 400,000	Planned	Connected Network
DNR/DSSG Management Plan Implementation	10,100,000	Planned	Connected Network
Boundry Bay - Perimeter Trail	1,650,000	Planned	Connected Network
Tynehead - Perimeter Trail	2,500,000	Planned	Connected Network
Other Greenways Upgrades	4,800,000	Planned	Connected Network
Total Greenways Program	\$ 19,450,000		
Service Facilities			
Burnaby Lake - Service Yard Building Replacement	\$ 1,000,000	Construction	Facility Replacement & Asset Management
Capilano - New Service Yard	943,000	Construction	Facility Replacement & Asset Management
Total Service Facilities Program	\$ 1,943,000		
Park Development			
Crippen - Davies Orchard	\$ 1,750,000	Planned	Capacity, Growth & Ecological Resilience
Derby Reach - Full Service Washroom	2,014,000	Construction	Capacity, Growth & Ecological Resilience

Crippen - Dorman Point Acces and Amenities	500,000	Planned	Facility Replacement & Asset Management
Colony Farm - TMX Agreement Projects	1,000,000	Planned	Capacity, Growth & Ecological Resilience
Belcarra - Admiralty Heights Trail Decomissioning	1,000,000	Planned	Capacity, Growth & Ecological Resilience
Belcarra - White Pine Redevelopment & Improvements	1,750,000	Planned	Capacity, Growth & Ecological Resilience
Campbell Valley - Little River Loop Boardwalk	800,000	Planned	Facility Replacement & Asset Management
Pacific Spirit - Beach Access & Trail Improvments	1,650,000	Planned	Facility Replacement & Asset Management
Advanced Design Work for Future Projects	1,300,000	Planned	Capacity, Growth & Ecological Resilience
Park Amenities and Visitor Experience	4,500,000	Planned	Capacity, Growth & Ecological Resilience
Other Replacement, Restoration & Upgrade Projects	4,610,000	Planned	Facility Replacement & Asset Management
Total Park Development Program	\$ 20,874,000		
Regional Parks Land Acquisition			
Regional Parks Land Acquisition	\$ 15,750,000		Land Acquisition
Total Land Acquisition Program	\$ 15,750,000		
TOTAL CAPITAL EXPENDITURES	\$ 111,442,000		

CAPITAL FUNDING			
Reserve	\$	104,752,060	
Grants		6,689,940	
Total	\$	111,442,000	

SUMMARY BY DRIVER			
Capacity, Growth & Ecological Resilience	\$	66,739,000	
Facility Replacement & Asset Management		9,503,000	
Connected Network		19,450,000	
Land Acquisition		15,750,000	
Total	\$	111,442,000	

REGIONAL PARKS

Description of Services

The Regional Parks service is a function of Metro Vancouver that exists to protect a range of diverse natural landscapes and habitats and to connect residents with nature. The Service operates 23 regional parks, 2 ecological conservancy areas, 2 Regional Park reserves and 5 regional greenways. Protecting over 13,743 hectares of natural lands throughout the region, with 16.5 million visits in 2020, Regional Parks provides planning, operations, development, property acquisition, natural resource management, park maintenance, capital construction, bylaw enforcement, public relations, community stewardship, visitor services, nature education, interpretive programs and events.

Strategic directions and Board Strategic Plan goals supported:

- Provide opportunities for residents and visitors to explore and enjoy a diversity of natural spaces, from beaches to mountains, from bogs to lakes, in the region.
- Strengthen awareness and engagement with the public, members, other orders of government, and key stakeholders on a range of initiatives regarding the role and value of regional parks.
- Build a system of regional parks that are resilient to the impacts of climate change, land use change, and growing visitation.
- Facilitate a Regional Greenway System that connects natural areas and promotes access to them.

Performance indicators

Indicators reflect an assumption that the restrictions due to the COVID-19 pandemic will substantially remain in place for 2022.

Indicator	Historical and/or Industry Benchmark	2020 Performance	2022 performance objective
Annual number of visits to Regional Parks	3-year average: 13,390,000 2020: 16,497,000 2019: 11,935,000 2018: 11,738,000	16,497,000	15,000,000
Annual number of participants in Regional Park public programming	3-year average: 42,708 2020: 5,629 2019: 61,876 2018: 60,619	5,629	50,000

Indicator	Historical and/or Industry Benchmark	2020 Performance	2022 performance objective
Annual number of volunteer hours through stewardship, partnership and visitor services programs	3-year average: 13,613 2020: 8,237 2019: 22,026 2018: 25,938	8,237	15,000
Total hectares of Regional Parks land	2020: 13,743 ha 2019: 13,632 ha 2018: 13,557 ha	13,743 ha	13,850 ha

2022 Key Actions

Advancing Our Mission to “Protect & Connect”

- Continued COVID-19 response/recovery and leadership to member municipalities.
- Continued recovery of Regional Parks revenue streams: filming, public programming and facility rentals.
- Re-introduce Regional Parks events commencing with Night Quest in March.
- Continued implementation of *Public Programming Strategy* (2020) including adoption of cost recovery model and program pricing philosophy as well as completion of a marketing plan.
- Continue to consider additional opportunities for pay parking to help manage parking demand.
- Complete investigation of a paid parking reservation system as part of visitor demand management strategy for Boundary Bay Regional Park, and implement if recommended.
- Enhance working relationships with First Nations.
- Align the five-year capital budget with the recommendations of the Asset Management Plan and *Buildings Strategy* and begin implementation.
- Pursue the acquisition of new lands for regional parks and greenways in support of the *Regional Parks Land Acquisition 2050* strategy.
- Complete and commence implementation of the Community Relationships Strategy.
- Continue implementation of *Tsleil-Waututh Nation Cultural Planning and Cooperation agreement* and engagement for Belcarra Regional Park.
- Advance the development of cultural planning and cooperative agreements with local first nations.
- Initiate Phase 1 park development at Widgeon Marsh Regional Park.
- Investigate development of an indigenous framework as an action in the update of the Regional Parks Plan.
- Renew the Burnaby Lake Regional Park lease with the City of Burnaby.
- Continue implementation of the Grouse Mountain Trail and Amenity Improvement Project, funded by the Investing in Canada Infrastructure Grant Program.
- Initiate Phase 1 of the Campbell Valley Management Plan Implementation Project.
- Complete construction of the Derby Reach Full Service Washroom Facility.
- Support corporate initiatives including Regional Growth Strategy, Iona Beach Regional Park planning with the wastewater treatment plan, Climate 2050, PNE and new tree management policy and arboricultural procedures.

- Initiate advanced design for park development projects including Belcarra South Day Use Area, admiralty Heights Trail Decommissioning, and Campbell Valley Little River Loop Boardwalk and Dorman Point.
- Continued implementation of the Regional Greenways Plan 2050. Initiate advanced design for greenway projects including the Delta Nature Reserve / Delta South Surrey Greenway, Glencarin to Avalon Central Valley Greenway Connection, Aldergrove South Slopes Greenway and Boundary Park Perimeter Trail.
- Complete update to the Regional Parks Plan.
- Continue preparation of a Regional Parks Development Cost Charge Program.
- Begin implementation of the Regional Park Asset Management Plan.
- Complete implementation of Davies Orchard Revitalization Project – Phase 1, funded by Community Economic Recovery Infrastructure Program.
- Develop and test a methodology for capturing Regional Parks natural assets.
- Procurement of contracted film liaison services.
- Begin implementation of the *Regional Parks Building Strategy*.
- Update the Terrestrial Ecosystem Mapping and Wildfire Risk Mapping.
- Complete the park management plan for the Delta Nature Reserve and Delta South Surrey Greenway.
- Complete year two of three-year pilot project to develop a real-time parking lot/stall monitoring platform for select regional park(s) as a Sustainability Innovation Fund (SIF) project.
- Implement new corporate Hazard Tree Inventory Management System in Regional Parks guided by new corporate policy and procedures for managing hazard trees on Metro Vancouver lands.
- Develop public policy to address electric personal transportation in Regional Parks (e-bikes and other forms of electric mobility).
- Increase Park Ranger response, efficiency and effectiveness by centralizing the function and deploying enforcement resources based on priority and seasonal trends.
- Support on-going litigation.
- Continued identification of opportunities to collaborate with the Pacific Parklands Foundation.

Regional Parks

2022 to 2026 – WHAT’S HAPPENING

Below is a summary of the significant initiatives to be undertaken by Regional Parks over the next 5 years.

Initiative	Description	Theme
2022		
Capital Development Program	<ul style="list-style-type: none"> • Widgeon Marsh new park development • Construction of full service washrooms at the Derby Reach day use area • <i>Campbell Valley Management Plan</i> Implementation • Grouse Mountain Regional Park Grant Implementation (Grouse Grind) • Delta Nature Reserve and Delta/South Surrey Greenway Design Initiation 	System Stewardship/ Regional Growth/ Environmental Sustainability
Land Acquisition	<ul style="list-style-type: none"> • Pursue park land acquisition opportunities in support of <i>Regional Parks Land Acquisition 2050</i> strategies 	Regional Growth
Outreach and Engagement	<ul style="list-style-type: none"> • Completion of the Regional Parks Plan 2050 • Covid19 Pandemic Response • Continued engagement with local First Nations on Regional Parks initiatives • Implementation of system-wide initiatives to enhance natural areas and connect with local communities 	System Stewardship
2023		
Capital Development Program	<ul style="list-style-type: none"> • Phase 1 Construction of Delta South Surrey Greenway and Delta Nature Reserve • Grouse Mountain Regional Park Grant Implementation • Completion and opening of Widgeon Marsh Regional Park. • <i>Delta Nature Reserve/South Surrey Greenway Management Plan</i> Implementation • Campbell Valley Regional Park Management Plan Implementation 	System Stewardship Regional Growth
Land Acquisition	<ul style="list-style-type: none"> • Pursue park land acquisition opportunities in support of <i>Regional Parks Land Acquisition 2050</i> strategies 	Regional Growth

Outreach and Engagement	<ul style="list-style-type: none"> Regional Parks Plan 2050 Implementation Explore opportunities for working with local First Nations on Regional Parks initiatives Implementation of system-wide initiatives to enhance natural areas and connect with local communities 	System Stewardship
2024		
Capital Development Program	<ul style="list-style-type: none"> Phase 1 Construction of Davies Orchard Precinct at Crippen Regional Park. Phase 1 Construction of Belcarra South at Belcarra Regional Park Grouse Mountain Regional Park Grant Implementation <i>Delta Nature Reserve/South Surrey Greenway Management Plan</i> Implementation <i>Campbell Valley Regional Park Management Plan</i> Implementation 	System Stewardship Regional Growth
Land Acquisition	<ul style="list-style-type: none"> Pursue park land acquisition opportunities in support of <i>Regional Parks Land Acquisition 2050</i> strategies 	Regional Growth
Outreach and Engagement	<ul style="list-style-type: none"> Explore opportunities for working with local First Nations on Regional Parks initiatives Implementation of system-wide initiatives to enhance natural areas and connect with local communities 	System Stewardship
2025		
Capital Development Program	<ul style="list-style-type: none"> Campbell Valley Nature Centre Design Belcarra South Park Development Crippen Regional Park- Davies Orchard Development Supporting Iona Beach Regional Park redevelopment as part of Iona waste Water Treatment Plant construction Codd Wetland Regional Park Design Pacific Spirit Regional Park Beach Access Improvements 	System Stewardship Regional Growth
Land Acquisition	<ul style="list-style-type: none"> Pursue park land acquisition opportunities in support of Regional Parks Land Acquisition 2050 strategies 	Regional Growth
Outreach and Engagement	<ul style="list-style-type: none"> Explore opportunities for working with local First Nations on Regional Parks initiatives Implementation of system-wide initiatives to enhance natural areas and connect with local communities 	System Stewardship

2026		
Capital Development Program	<ul style="list-style-type: none"> • Major asset management replacement and deferred capital maintenance initiative implementation • Pacific Spirit Beach and Trail Improvements • Belcarra/White Pine and Admiralty Heights Improvements • Park Amenity and Visitor Experience Improvements 	System Stewardship Regional Growth
Land Acquisition	<ul style="list-style-type: none"> • Pursue park land acquisition opportunities in support of Regional Parks Land Acquisition 2050 strategies. 	Regional Growth
Outreach and Engagement	<ul style="list-style-type: none"> • Explore opportunities for working with local First Nations on Regional Parks initiatives • Implementation of system-wide initiatives to enhance natural areas and connect with local communities 	System Stewardship

METRO VANCOUVER DISTRICTS
2022-2026 PROJECTED RESERVES - REGIONAL PARKS

OPERATING RESERVES

	2021	2022				2022	2023	2024	2025	2026
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Regional Parks	\$ 2,829,915	\$ 2,829,915	\$ -	\$ (1,300,000)	\$ 43,598	\$ 1,573,514	\$ 1,604,984	\$ 1,637,084	\$ 1,669,825	\$ 1,703,222

DISCRETIONARY RESERVES

	2021	2022				2022	2023	2024	2025	2026
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Regional Parks General Reserve	\$ 2,036,734	\$ 2,036,734	\$ -	\$ (1,945,000)	\$ 21,285	\$ 113,019	\$ 115,279	\$ 117,585	\$ 119,937	\$ 122,335

STATUTORY RESERVES

	2021	2022				2022	2023	2024	2025	2026
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Regional Parks										
Regional Parks Infrastructure Reserve	\$ 6,738,059	\$ 6,738,059	\$ 6,432,000	\$ (10,865,750)	\$ 90,424	\$ 2,394,733	\$ 2,404,247	\$ 3,317,902	\$ 5,779,980	\$ 5,165,350
Regional Parkland Acquisition Reserve Fund	9,556,197	9,556,197	-	-	191,124	9,747,321	4,892,268	2,970,113	2,019,515	2,059,905
Regional Parkland Acquisition and Development Reserve Fund	6,338,942	6,338,942	19,570,000	(21,750,000)	104,979	4,263,920	1,389,899	478,397	558,665	3,165,538
Delta Airpark Reserve	175,785	175,785	23,000	-	3,746	202,531	229,812	257,638	286,021	314,971
Regional Parks Legacy Fund	2,694,275	2,694,275	-	(50,000)	53,385	2,697,660	2,695,053	2,692,395	2,689,682	2,686,916
Total	\$ 25,503,258	\$ 25,503,258	\$ 26,025,000	\$ (32,665,750)	\$ 443,658	\$ 19,306,166	\$ 11,611,279	\$ 9,716,444	\$ 11,333,863	\$ 13,392,681

To: Regional Planning Committee

From: Heather McNell, General Manager, Regional Planning and Housing Services

Date: October 1, 2021

Meeting Date: October 8, 2021

Subject: **2022 - 2026 Financial Plan – Regional Planning**

RECOMMENDATION

That the Regional Planning Committee endorse the 2022 - 2026 Financial Plan for Regional Planning as presented in the report dated October 1, 2021, titled “2022 - 2026 Financial Plan – Regional Planning”, and forward it to the Metro Vancouver Board Budget Workshop on October 20, 2021 for consideration.

EXECUTIVE SUMMARY

The 2022 - 2026 Metro Vancouver Financial Plan has been prepared following direction received at the April 8, 2021 Metro Vancouver Board Budget Workshop. This has resulted in a plan that maintains the goals and objectives of Metro Vancouver while using key financial tools to minimize the impact on the ratepayers of the region for 2022. The increase in Metro Vancouver’s overall consolidated household impact for 2022 is projected to be 3.5%, down from the 6.4% projected for 2022 in the prior financial planning cycle.

Regional Planning supports planning throughout the region including for utilities, member jurisdictions, TransLink and other regional agencies through the provision of projections and data, policy research, convening stakeholders on issues of regional interest, providing a planning resource and leadership and innovation. The group provides a long range, cross-boundary, interdisciplinary perspective and the main function is developing, administering, monitoring and stewarding *Metro 2040*, the regional federation’s regional growth strategy.

The 2022 - 2026 Financial Plan for Regional Planning reflects an increase in Land Use Policy projects and work relating to *Metro 2050* while continuing to reduce long-term reliance on reserve funds to smooth the tax requisition rate. Over the next five years, operating programs are to increase by \$583,749, or an average of 2.7% per year.

PURPOSE

To present the 2022 - 2026 Financial Plan for Regional Planning for consideration by the Committee.

BACKGROUND

Metro Vancouver’s annual budget process includes the development of detailed annual budgets and the updating of five-year financial plans for each of the four Metro Vancouver legal entities (Metro Vancouver Regional District, Metro Vancouver Housing Corporation, Greater Vancouver Water District and Greater Vancouver Sewerage and Drainage District).

On April 8, 2021 a Metro Vancouver Board Budget Workshop was held with the objective to seek direction for the preparation of the 2022 - 2026 Financial Plan. The workshop outlined the principles that guide the work of Metro Vancouver as an organization, and a proposed approach for the 2022 - 2026 Financial Plan.

This report focuses on the Regional Planning Service and presents the 2022 provisional annual budget and the updated five-year plan for the years 2022 to 2026 for Committee consideration.

REGIONAL PLANNING SERVICE

Regional Planning services within the Metro Vancouver Regional District (MVRD) represent functions that include 22 members and provides policy research, projections, and data in support of a prosperous, resilient and livable region. The primary responsibility is to develop, administer, implement and monitor *Metro Vancouver 2040: Shaping our Future* (Metro 2040), the regional growth strategy. There are three programs within the Regional Planning Division: Regional Land Use Policy, Planning Analytics and Implementation Services.

The Regional Planning initiatives planned over the next five years are guided by direction provided in the *Board Strategic Plan*, specifically:

- Undertake a comprehensive update to *Metro 2040* to prioritize climate action, align with the update to the Regional Transportation Strategy and extend the timeframe to 2050.
- Continue to develop and implement effective and adaptive tools and processes for achieving the goals in the regional growth strategy;
- Continue to support the efforts of members in developing complete, livable and healthy communities;
- Guide the development of policies, plans, tools and creative solutions for managing competing demands on land in the region; and
- Strengthen awareness and engagement with the public, members, other orders of government, and key stakeholders on a range of initiatives regarding the role and value of land use planning at the regional scale and the objectives of the regional growth strategy.

WORK PLAN PERFORMANCE INDICATORS

High level performance indicators have been developed across the organization to evaluate trends, determine key actions for the coming year, and to assist in long-term planning. The 2022 Work Plan for Regional Planning is presented in this report. Within the Regional Planning Work Plan, five performance indicators have been developed and are being tracked. These include:

- Percentage of residential growth occurring within the Urban Containment Boundary (UCB);
- Percentage of new dwelling units located within Urban Centres;
- Number of hectares of land with the *Metro 2040* Agricultural Designation;
- Number of hectares of land with the *Metro 2040* Industrial Designation; and
- Number of hectares of land with the *Metro 2040* Mixed Employment Designation.

The trend in these performance measures suggests that the region is on target with regards to meeting the goals laid out in the regional growth strategy. *Metro 2040* sets a target to contain 98% of growth within the Urban Containment Boundary. Since the strategy's adoption in 2011, this target has been met. *Metro 2040* also strives to direct 40% of dwelling unit growth and 50% of employment

growth to a network of 26 Urban Centres. Between the strategy's adoption and 2016, 39% of dwelling unit growth occurred in Urban Centres. Data will be updated following the release of the 2021 Census.

CONTINUOUS IMPROVEMENT

The comprehensive update to *Metro 2040* is a significant opportunity to improve the plan, building on its strengths. The update is being undertaken to:

- better integrate significant drivers of change that have risen in importance in the region, namely social equity, resilience and climate change impacts, rapid changes in technology / automation, and equity;
- improve the integration of land use and transportation planning as TransLink is concurrently updating the Regional Transportation Strategy; and
- implement policy improvements identified through a series of policy reviews.

Based on this work, improvements will continue as Regional Planning undertakes projects related to developing a new Growth Management and Investment Model and a Land Use Inventory/Land Budget; both activities will support land use and transportation decisions within the Region.

Further improvement initiatives include:

- Developing a new Regional Growth Management and Investment Model with an aim to improved population, housing, employment and land use projections, more accurate municipal distribution by traffic zone, and improved ability to model the land use implications of significant infrastructure investments and policy portfolios. It will provide an improved platform for integrating with the Regional Travel Model and utility modelling through Mike Urban model.
- Undertaking a Regional Land Use Inventory, in partnership with the Province. This inventory will assist in providing knowledge surrounding land use capacities for each designation with the Regional Growth Strategy. These capacities will ensure a more robust model and provide improved analytics for decision making.
- Creating an Implementation Services group, which will be focused on services related to implementation including: member jurisdiction liaisons, processing proposed regional growth strategy amendments and regional context statements, developing implementation guidelines and coordinating Metro Vancouver comments on large capital projects in the region that have impacts on Metro Vancouver interests and assets.

2022 BUDGET AND 2022 - 2026 FINANCIAL PLAN

The five-year financial plans for this cycle have been updated to address five central themes identified by the Metro Vancouver Board in its Strategic Plan to guide the development of plans and budgets.

The five themes are as follows:

- Financial Sustainability
- Environmental Sustainability
- System Stewardship
- Regulatory and Legislative Environment
- Regional Growth

Regional Planning is also guided by direction provided in *Metro 2040*, specifically to support the goals, strategies and policy actions in the plan to:

- Goal 1 - Create a compact urban area
- Goal 2 - Support a sustainable economy
- Goal 3 - Protect the environment and respond to climate change impacts
- Goal 4 - Develop complete communities
- Goal 5 - Support sustainable transportation choices

Each Metro Vancouver function has an Annual Work Plan that includes strategic directions, performance indicators and key actions to guide the work for the coming year. Each function also has a “What’s Happening” summary that highlights the program highlights for the next five years.

The 2022 - 2026 Regional Planning Financial Plan is included as Attachment 1. The 2021 Annual Work Plan for Regional Planning presented in this report is included in Attachment 2 and the “What’s Happening” highlights for the years 2022 - 2026 are included in Attachment 3.

Operating Budget Highlights

The Regional Planning 2022 operating budget is proposed to increase by \$163,027 for a total budget of \$4,302,565. This increase is primarily due to an increase in Regional Land Use Policy projects, required advertising for *Metro 2050*’s public hearing and additional resources to support the development regional growth strategy policy related to economic development. The increase is partially offset by a reduction in consulting funds for studies and research funded by the Sustainability Innovation Fund.

The 2022 operating budget includes the following key actions:

- Complete *Metro 2050*
- Conduct Urban Centres and FTDA’s Policy Research
- Implement the Regional Industrial Land Strategy
- Conduct a Regional Land Use Assessment (Land Budget)
- Participate in policy research in health and social equity
- Update the Housing + Transportation Cost Burden Study
- Support Province in the Fraser Valley Integrated Transportation and Development Plan
- Support TransLink on works related to transit infrastructure investment/expansion

Over the next five years, expenditures are increasing by a total of \$583,749, or an average of 2.7% per year.

Communications Program

The 2022 Regional Planning Communications Program of \$50,000 is framed around the following initiatives:

- Multimedia support for the development of *Metro 2050*, Transit Oriented Affordable Housing Study, and implementation of the Regional Industrial Lands Strategy
- Engagement activities on *Metro 2050* including venues, catering, speakers, etc.
- Engagement and/or public opinion support/media for *Metro 2050* communications and Regional Planning initiatives.

Reserve Funds

The financial plan for Regional Planning includes the utilization of reserves to annually fund one-time initiatives. This is consistent with the *Operating, Statutory and Discretionary Reserves Policy*. The 2022 - 2026 Projected Reserves for Regional Planning are included in Attachment 4.

APPROVAL PROCESS

The proposed 2022 - 2026 Financial Plan and Annual Work Plan is presented for consideration and endorsement before being forwarded to the Board for consideration.

The next steps of the process are:

- The 2022 - 2026 Financial Plan and Annual Work Plan will be presented for consideration at the Metro Vancouver Board Budget Workshop on October 20, 2021.
- The Board will consider adoption of the 2021 Budget and endorsement of the 2022 - 2026 Financial Plan on October 29, 2021.

ALTERNATIVES

1. That the Regional Planning Committee endorse the 2022 - 2026 Financial Plan for Regional Planning as presented in the report dated October 1, 2021, titled “2022 - 2026 Financial Plan - Regional Planning”, and forward it to the Metro Vancouver Board Budget Workshop on October 20, 2021 for consideration.
2. That the Regional Planning Committee make recommendations and endorse an amended 2022 - 2026 Financial Plan for Regional Planning and forward the amended Financial Plan to the Finance and Intergovernment Committee on October 13, 2021 and to the Metro Vancouver Board Budget Workshop on October 20, 2021 for consideration.

FINANCIAL IMPLICATIONS

If the MVRD Board endorses the 2022 - 2026 Financial Plan for Regional Planning, as presented under Alternative 1, in 2022 the Regional Planning requisition will increase by \$411,797 (11.7%) for a total requisition of \$3,922,565.

Over the term of the five-year plan, the annual Regional Planning requisition is projected to increase by an average of \$209,504 per year (5.4%) to provide the required revenue to offset projected expenditures. It is anticipated that the cost to the average regional household over the next five years for the Regional Planning function will rise from \$3 in 2022 to slightly over \$4 in 2026.

Under Alternative 2, the Committee may wish to consider recommending amendments to the 2022 Budget and Five-Year Financial Plan for consideration at the Metro Vancouver Board Budget Workshop. Any changes to the plan may have an impact on the MVRD Financial Plan.

SUMMARY / CONCLUSION

The Regional Planning 2022 Budget and Five-Year Financial Plan has been prepared following direction received at the April 8, 2021 Board Budget Workshop and to respond to direction provided in the *Board Strategic Plan*. It is presented to Committee and Board members to provide overview information on activities and financial impacts for the years 2022 to 2026 for Regional Planning.

The presentation of this year's five-year financial plan for Regional Planning provides the opportunity for Metro Vancouver to share with its member jurisdictions the proposed service related initiatives over the next five years. It is intended to be used as a guiding document for member jurisdictions in the development of their five-year financial plans and includes projections on household impact to demonstrate how the plan will remain affordable for residents while keeping pace with our critical requirements.

Staff recommends endorsing the 2022 - 2026 Financial Plan and Annual Work Plan for Regional Planning as presented under Alternative one.

Attachments (47996522)

1. 2022 - 2026 Financial Plan
2. 2022 Work Plan
3. 2022 - 2026 "What's Happening"
4. 2022 - 2026 Projected Reserves – Regional Planning

METRO VANCOUVER REGIONAL DISTRICT
REGIONAL PLANNING
2022 BUDGET REVIEW
2022-2026 FINANCIAL PLAN

	2021 BUDGET	2022 BUDGET	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE	2025 FORECAST	% CHANGE	2026 FORECAST	% CHANGE
REVENUES											
Metro Vancouver Regional District Requisitions	\$ 3,510,768	\$ 3,922,565	11.7%	\$ 4,140,797	5.6%	\$ 4,187,402	1.1%	\$ 4,413,700	5.4%	\$ 4,558,287	3.3%
Transfer from Sustainability Innovation Fund Reserves	348,770	100,000		-		-		-		-	
Transfer from Reserves	280,000	280,000		275,000		265,000		175,000		165,000	
TOTAL REVENUES	\$ 4,139,538	\$ 4,302,565	3.9%	\$ 4,415,797	2.6%	\$ 4,452,402	0.8%	\$ 4,588,700	3.1%	\$ 4,723,287	2.9%
EXPENDITURES											
Operating Programs:											
Environment	\$ 915,136	\$ -		\$ -		\$ -		\$ -		\$ -	
Implementation Services	-	765,946		768,228		783,259		788,637		799,369	
Regional Land Use Policy	1,073,916	1,522,102		1,555,599		1,557,844		1,577,231		1,593,394	
Planning Analytics	774,503	797,335		941,627		951,183		1,074,329		1,184,669	
Regional Sustainability Initiatives	348,770	100,000		-		-		-		-	
Administration and Department Support	674,767	744,590		759,474		777,525		796,299		815,184	
	3,787,092	3,929,973	3.8%	4,024,928	2.4%	4,069,811	1.1%	4,236,496	4.1%	4,392,616	3.7%
Communications Program	60,000	50,000	(16.7%)	50,000	0.0%	50,000	0.0%	50,000	0.0%	50,000	0.0%
Allocation of Centralized Support Costs	292,446	322,592	10.3%	340,869	5.7%	332,591	(2.4%)	302,204	(9.1%)	280,671	(7.1%)
TOTAL EXPENDITURES	\$ 4,139,538	\$ 4,302,565	3.9%	\$ 4,415,797	2.6%	\$ 4,452,402	0.8%	\$ 4,588,700	3.1%	\$ 4,723,287	2.9%

REGIONAL PLANNING

Description of services

Regional Planning is a Metro Vancouver Regional District function established to provide data, policy research, convene on issues of regional interest, and support local planning in support of a prosperous, resilient and livable region. The primary responsibility is to develop, administer, implement and monitor *Metro Vancouver 2040: Shaping our Future (Metro 2040)*, the regional growth strategy. There are three programs within the Regional Planning Division: Regional Land Use Policy, Implementation Services and Planning Analytics.

Regional Land Use Policy

Regional Land Use Policy is primarily responsible for developing policy for the regional growth strategy, providing policy interpretation and support for implementation services (local level interactions and amendments) and undertaking applied policy research, and development of best practices in collaboration with member jurisdictions, the Province, TransLink and other agencies. There are a number of portfolios within this group including: complete communities; industrial and employment lands; structuring growth – centres and corridors, providing affordable and diverse housing near transit, protecting the environment and agriculture

Planning Analytics

Planning Analytics collects and analyzes data for Regional Planning as well as other regional functions including utilities and transportation planning. Primary roles include the provision of population, dwelling unit and employment projections, *Metro 2040* performance monitoring, and the completion of numerous regional inventories.

Implementation Services

Implementation Services prepares, maintains and assists with implementing regional growth strategy Implementation Guidelines. It has the core function of maintaining strong relationships with member jurisdictions, First Nations, the Province, TransLink and other community organizations as it relates to Regional Planning activities. This group also leads the administration of the regional growth strategy including proposed amendments and regional context statements and coordinates corporation wide responses to environmental assessments and other large capital projects that impact Metro Vancouver interests and assets.

Strategic directions and high level goals supported

Board Strategic Plan

- Continue to develop and implement effective and adaptive tools and processes for achieving the goals in *Metro 2040* along with the update to Metro 2050;
- Continue to support the efforts of members in developing equitable, complete, livable and resilient communities;
- Develop policies, plans, tools and creative solutions for managing competing demands on land in the region;
- Advocate the merits of integrating regional land use and transportation planning; and
- Support integration of the regional growth strategy with other long range planning activities within the region.

Metro Vancouver 2040: Shaping our Future

- Goal 1 - Create a compact urban area
- Goal 2 - Support a sustainable economy
- Goal 3 - Protect the environment and respond to climate change impacts
- Goal 4 - Develop complete communities
- Goal 5 - Support sustainable transportation choices

Goals

- Update Metro 2040 (Metro 2050) to ensure policies support responsible regional growth, an improved environment and financial sustainability for both the organization and the region.
- Ensure regional planning policies are prepared and monitored with a focus towards a system of equity, fairness, access and affordability.
- Build modelling and data systems to support regional planning activities and policy creation/monitoring.
- Ensure an equitable and resilient region through responsible growth and financial sustainability
- Protect agricultural lands and the environment
- Build strong connections with neighbouring regional districts and other regional agencies to support infrastructure investment for responsible growth.

Performance indicators

Indicator	Historical and/or industry	Current Performance	2021 Performance Objective
Percentage of residential growth occurring within the Urban Containment Boundary (UCB)	2011 baseline: 97% 2014 review: 98% 2015 review: 99%	98%	98%
Percentage of new dwelling units located within Urban Centres	2011 target 40% of growth to Centres 2011 baseline: 26% located in Centres	39% of growth to Centres; 28% located in Centres	40%
Number of hectares of land with a Metro 2040 Agricultural Designation	2011 baseline: 55,313	55,200	No net loss
Number of hectares of land with a Metro 2040 Industrial Designation	2011 baseline: 10,195	10,160	No net loss
Number of hectares of land with a Metro 2040 Mixed Employment Designation	2011 baseline: 3,415	3,395	No net loss

2022 key actions

Regional Land Use Policy

- Complete Metro 2050
- Urban Centres and FTDA Policy Research
- Regional Industrial Lands Strategy Implementation
- Regional Land Use Assessment (Land Budget)
- Applied policy research in health and social equity
- Climate and environment research
- Update the Housing and Transportation Cost Burden Study
- Ecosystem Services from Agricultural Land
- Frequent Transit Development Area – Transit Corridor Study
- Support Province in the Fraser Valley Integrated Transportation and Development Plan
- Support TransLink on works related to transit infrastructure investment/expansion

Implementation Services

- Metro 2050 Implementation Guidelines
- Municipal Liaison Service Strategic Review
- Coordinate comments on major infrastructure projects in the region and impacts on Metro Vancouver interests and assets

Planning Analytics

- Land Use Model Preparation
- Data/Projections Validation
- Social and Community Data Model
- Sensitive Ecosystem Inventory
- Regional Data Book

Regional Planning

2022 to 2026 – WHAT’S HAPPENING

Below is a summary of the significant initiatives to be undertaken by Regional Planning over the next 5 years.

Initiative	Description	Theme
2022		
Comprehensive update to Metro 2040	Metro 2050 approved and collaboration with member jurisdictions on implementation.	Regional Growth
Sensitive Ecosystem Inventory	Complete the six-year update to this critical regional resource.	Environmental Sustainability
Growth Management and Investment Model	Land Use Component. To improve population, dwelling unit, employment and land use projections and municipal distribution, and improve the ability to model land use implications of infrastructure investments and policy portfolios.	Regional Growth and Financial Sustainability
Regional Land Use Assessment	Begin a Regional Land Use Assessment as part of the implementation of the Regional Growth and Industrial Lands strategies.	Regional Growth
Regional Industrial Lands Strategy Implementation	Prepare recommended overlays and buffers to support the implementation of the Regional Industrial Lands Strategy.	Regional Growth
Housing and Transportation Cost Burden Study	Complete a five-year update to this critical study on transportation and housing costs for a more complete picture of affordability. In 2015, region-wide, homeowners with mortgages paid 40% of their pre-tax income for H+T while renters paid 49%.	Regional Growth
Equity in Regional Planning	Enhance equity mapping from initial phase of work and explore opportunities for equity outcomes in green spaces and improved mental health in the built environment.	Regional Growth
Agricultural Land Use Inventory	The Inventory identifies changes in land use and land cover in agricultural areas. This project generally undertaken every 5 years.	Regional Growth
Regional Parking Study	Analyze regional parking utilization rates within different urban forms	Regional Growth
2023		
Growth Management and Investment Model	Phase 2 – Integrate the Demographics Component to support updated population, dwelling unit, employment and land use projections.	Regional Growth and Financial Sustainability
Metro 2050 Implementation Tools	Begin Preparing Implementation Guidelines and data tools to assist member jurisdictions	Regional Growth
Regional Land Use Assessment	Complete a Regional Land Use Assessment	Regional Growth
Community and Social Data Model	Undertake phase 2 of the model to build assumption on how people choose the neighbourhoods and places that they live in.	Regional Growth

Census Bulletins	Prepare bulletins outlining information/data from the most recent census	Regional Growth
Office In Centres Inventory	Analysis of available office supply within urban centres and associated trends – this project is updated every 5 years.	Regional Growth
2024		
Regional Employment Survey	Complete survey work to understand current trends and land use	Regional Growth
Frequent Transit Corridor Study	Undertake a land use and transportation study for a frequent transit corridor in the region to support member jurisdiction initiatives related to planning and transportation.	Regional Growth
Metro 2050 Implementation Tools	Prepare Implementation Guidelines and data tools to assist member jurisdictions	Regional Growth
2025		
Regional Industrial Lands Inventory	Complete the 5th Regional Inventory of Industrial Lands in the region.	Regional Growth
Growth Management and Investment Model	Develop data tool and calibrate information. Large component of this phase will include survey and demographic work.	Regional Growth
Urban Forestry Implementation Tools	Undertake further work related to zoning tools and urban forest support	Regional Growth
Ecosystem Protection and Connectivity	Further work that supports the Regional Green Infrastructure Network and the Sensitive Ecosystem Inventory	Regional Growth
2026		
Frequent Transit Corridor Study	Undertake a land use and transportation study for a frequent transit corridor in the region to support member jurisdictions and TransLink.	Regional Growth
Growth Management and Investment Model	Develop data tool and calibrate information. Begin to prepare scenario modelling for the region.	Regional Growth

METRO VANCOUVER DISTRICTS
2022-2026 PROJECTED RESERVES - REGIONAL PLANNING

OPERATING RESERVES

	2021	2022				2022	2023	2024	2025	2026
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Regional Planning	\$ 195,669	\$ 195,669	\$ -	\$ -	\$ 3,913	\$ 199,583	\$ 203,574	\$ 207,646	\$ 211,799	\$ 216,035

DISCRETIONARY RESERVES

	2021	2022				2022	2023	2024	2025	2026
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Regional Planning General Reserve	\$ 2,774,387	\$ 2,774,387	\$ -	\$ (280,000)	\$ 52,688	\$ 2,547,075	\$ 2,320,267	\$ 2,099,022	\$ 1,964,252	\$ 1,836,887

¹To: Water Committee

From: Marilyn Towill, General Manager, Water Services

Date: October 7, 2021 Meeting Date: October 14, 2021

Subject: **2022 - 2026 Financial Plan – Water Services**

RECOMMENDATION

That the Water Committee endorse the 2022 - 2026 Financial Plan for Water Services as presented in the report dated October 7, 2021, titled “2022 - 2026 Financial Plan – Water Services”, and forward it to the Metro Vancouver Board Budget Workshop on October 20, 2021 for consideration.

EXECUTIVE SUMMARY

The 2022 - 2026 Metro Vancouver Financial Plan has been prepared following direction received from the April 8, 2021 Metro Vancouver Board Budget Workshop. This has resulted in a plan that maintains the goals and objectives of Metro Vancouver while using key financial tools to minimize the impact on the ratepayers of the region. The increase in Metro Vancouver’s overall consolidated household impact for 2022 is projected to be 3.5%, down from the 6.4% projected for 2022 in the prior financial planning cycle.

In 2022, the average water rate will increase by 4.1% to \$0.8444 per cubic metre (/m³) (2021 forecast for 2022: \$0.8534/m³). This represents a \$4 (2.3%) increase in the cost to the average regional household to \$175 (2021 forecast for 2022: \$177).

Metro Vancouver, through the GVWD, continues to provide a reliable source of uninterrupted, clean, safe drinking water to support the growing region and its economic prosperity. Growing demand for drinking water, system resilience, and infrastructure maintenance are met through robust, proactive capital and operating programs supported by long term planning and monitoring.

PURPOSE

To present the 2022 - 2026 Financial Plan for Water Services for consideration by the Committee.

BACKGROUND

Metro Vancouver’s annual budget process includes the development of detailed annual budgets and the updating of five-year financial plans for each of the four Metro Vancouver legal entities (Metro Vancouver Regional District, Metro Vancouver Housing Corporation, Greater Vancouver Water District and Greater Vancouver Sewerage and Drainage District).

On April 8, 2021 a Metro Vancouver Board Budget Workshop was held with the objective to seek direction for the preparation of the 2022 - 2026 Financial Plan. The workshop outlined the principles that guide the work of Metro Vancouver as an organization, the current 2021 - 2025 Financial Plan, the

implications of the COVID-19 pandemic, the tools that can be used to make budget adjustments, and a proposed approach for the 2022 - 2026 Financial Plan.

Staff proposed to continue leveraging the supported tools to create a short-term action plan that would, beginning in 2021, lessen the upward pressure on household impact for 1-3 years. A short-term action plan would enable strategic goals and objectives to be maintained. If larger or more long-term adjustments are desired, a re-evaluation of long-term plans such as the *Metro Vancouver Housing Plan*, *Climate 2050*, or the *Liquid Waste Management Plan* would be required. Since an annual budget is approved, this approach will allow for adjustments to be made each year as conditions change based on market changes and other factors. The use of the tools will aim to avoid making severe changes that cannot be easily corrected in the short-term. Overall, the short-term action plan approach was supported.

This report focuses on Water Services and presents the 2022 annual budget and the updated five-year plan for the years 2022 to 2026 for committee consideration.

WATER SERVICES PROGRAM

The Water Services function comprises 18 member municipalities, one electoral area and one treaty First Nation within Metro Vancouver, serving a population of approximately 2.7 million. Drinking water is collected from within three protected mountain watersheds covering an area of approximately 60,000 hectares. The system itself comprises six mountain storage lakes, five dams, two major water treatment facilities, over 520 km of large diameter transmission mains, 27 storage reservoirs, 19 pump stations and 8 rechlorination stations. The system treats and distributes an average of 1.0 billion litres of water per day with summer time peak demands increasing to over 1.5 billion litres per day.

Water Services initiatives planned over the next five years are guided by direction provided in the *Board Strategic Plan* and in the *2011 Drinking Water Management Plan*, specifically:

Board Strategic Plan:

- Maintain Metro Vancouver's world-class water system that provides safe, clean drinking water and ensure its capacity to meet future needs;
- Ensure the long-term resilience of the regional drinking water system to withstand natural hazards, climate change and other significant disruptions;
- Develop and implement financial plans and policies that reflect a commitment to sound financial management and long-term planning, in consideration of current and future ratepayers; and
- Strengthen awareness and engagement with the public, members, other orders of government, and key stakeholders on a range of initiatives that will ensure the delivery of clean, safe drinking water, now and into the future.

Drinking Water Management Plan:

- Provide clean, safe drinking water;
- Ensure the sustainable use of water resources; and
- Ensure the efficient supply of water.

Metro Vancouver also recognizes the history of Indigenous Peoples and aims to build meaningful and enduring relationships with First Nations. As part of its work, Water Services is committed to engaging First Nation communities through information sharing, engagement and ongoing communication.

WORK PLAN PERFORMANCE INDICATORS

High level performance indicators have been developed across the organization to evaluate trends, determine key actions for the coming year, and to assist in long-term planning. The 2022 Work Plans for Water Services are presented in this report. Within the Water Services Work Plans, 23 performance indicators have been developed and are being tracked. These include:

- Per capita water use;
- Progress on major and minor capital projects;
- Volume of water treated and delivered;
- Energy use per unit volume of water treated;
- Compliance with treatment operating permit criteria;
- Water transmission system leak repairs;
- Water samples collected and analyzed;
- Number of major interagency projects coordinated; and
- Smolt capture in the Capilano Watershed.

The region's population continues to grow and the total water demand will only increase in the future, and the anticipated impacts of climate change will put pressure on the regional water supply. The region expects to see an additional influx of one million people over the next 30 years and careful planning is required to meet increased demands on drinking water supplies and infrastructure. Metro Vancouver is taking a two-pronged approach to planning for the future: the first is to continue promoting water conservation through various plans and campaigns to reduce growth in demand for drinking water. The second is ensuring adequate water supply and appropriate infrastructure are in place to meet future drinking water demands. Large scale projects take many years to plan, design and construct, including effective engagement with First Nations, municipal, provincial and federal governments, and other stakeholders, so a long term approach is needed to ensure regional infrastructure is in place before it is needed.

Significant progress continues to be made on implementation of the Water Services capital plan, keeping pace with growth, improving system resiliency, and maintaining/upgrading aging infrastructure. Treated water quality and compliance with operating permit criteria continues to be excellent as Water Services is realizing the benefits of having state-of-the-art facilities with robust water treatment processes operated by highly-skilled and certified operations staff.

CONTINUOUS IMPROVEMENT

Water Services continues to explore, evaluate and implement continuous improvement opportunities. The department identified numerous opportunities in 2021 and has made progress on many of them including:

- Reduction in leak repairs and environmental management with commissioning of new South Delta Main #1;
- Pilot system implemented for Earthquake Early Warning;
- Updating the laboratory information management system (completion in early 2022); and
- Ozone optimization at Coquitlam Water Treatment Plant, generating cost savings.

For 2022, some opportunities for continuous improvement have been carried forward from 2021 and new ones have been added including:

- Increasing in-house Project Management and Field Quality Control / Assurance, reducing reliance on external consultants and reducing costs;
- Moving pipe storage from U.S. facility to GVS&DD space near Coquitlam Landfill to reduce costs;
- Continuing watershed protection improvements, including camera monitoring, fencing enhancements and staff presence;
- Increasing and optimizing monitoring to improve SCFP Filter Performance; and
- Coordinating the provincial audit of the microbiological testing laboratory methods and systems by the Enhanced Water Quality Assurance Group to ensure best practices are maintained.

2022 BUDGET AND 2022 - 2026 FINANCIAL PLAN

The five-year financial plans for this cycle have been updated to address five central themes identified by the Metro Vancouver Board in its Strategic Plan to guide the development of plans and budgets. The five themes are as follows:

- Financial Sustainability;
- Environmental Sustainability;
- System Stewardship;
- Regulatory and Legislative Environment; and
- Regional Growth.

Each Metro Vancouver function has an Annual Work Plan that includes strategic directions, performance indicators and key actions to guide the work for the coming year. Each function also has a “What’s Happening” summary that highlights the program activities for the next five years.

The 2022 - 2026 Water Services Financial Plan is included as Attachment 1. The 2022 Annual Work Plans for Water Services presented in this report are included in Attachment 3 and the “What’s Happening” highlights for the years 2022 - 2026 are included in Attachment 4.

Operating Budget Highlights

The Water Services operating budget is separated into operating programs and funding required to support the expanding capital program (debt service and contribution to capital). In the previous budget cycle it was proposed that the budget would increase by \$14.8 million to \$334.9 million for 2022. It is now proposed to increase by \$15.3 million in 2022 for a total budget of \$335.4 million (Attachment 1). This increase can be attributed to net contribution to capital and debt servicing increases (close to \$5.6 million or about 37% of Water Services total operating budget increase in 2022) supporting infrastructure investments required to maintain existing levels of service, accommodate growth demands, and improve system resilience along with increases in core (\$5.7 million) operating and centralized support and other allocated resources (\$4 million) supporting key operational requirements. To minimize the household impacts, excess operating reserves of \$3.4 million are being applied in 2022.

The 2022 financial plan includes increased water sales revenues of approximately \$13.0 million, based on higher summer rates (\$1.0371/m³) for June through September and the lower rate of \$0.7119/m³ applying for the rest of the year (equating to an overall average water rate of \$0.8444/m³ compared to 2021 forecast for 2022 of \$0.8534/m³). The differential rates are intended to incentivize conservation efforts in the region and reduce long term pressures on the Capital Budget.

The 2022 operating budget includes the following key actions:

- Continue collaboration with GVWD members to strengthen regional drinking water conservation and enforcement, reducing pressures on infrastructure development to support population growth;
- Establish baseline State of the Assets Report (SOAR) for Water System assets;
- Implement Building Information Modeling Phase I to enable collaborative 3D design and design conflicts management;
- Develop an Integrated Emergency Management / Response Practice for Water Services;
- Improve remote and mobile access to technical information including engineering drawings;
- Complete Phase 2 of the Next Generation Snow Pack Monitoring Sustainable Innovation Fund Project;
- Conduct bench, pilot plant, and full scale testing of various dry polymers to select chemicals for optimal treatment performance for new SCFP Dry Polymer System; and
- Coordinate interagency work for key projects such as the DFO Capilano River Salmon Hatchery, MOTI Broadway Subway, and Trans Mountain Expansion.

Highlights of contracts and consulting projects anticipated to be undertaken in 2022 to respond to work plan requirements within the operating budget include the following:

- Updates to Drinking Water Management Plan and development of Drinking Water Conservation App;
- Earthquake Early Warning Pilot applications development;
- Cleveland Dam East Abutment replacement piezometers;
- Cleveland Dam and Seymour Falls Dam earthquake monitoring instruments;
- Environmental Consulting related to planned and unplanned potable water releases;
- Development and implementation of an ISO 14001 compliant Environmental Management System in collaboration with Liquid Waste Services;
- Reservoir Limnology Program to monitor the chemical, physical and biological parameters of the Capilano, Seymour and Coquitlam source water supply;
- Tree assessments and site treatments associated with the Water Services Hazard Tree Program; and
- Specialized and emergency water sample analysis requiring external laboratory services.

Over the next 2 years (2022 through 2023), using the financial tools requested by the Board, the operating budget increases were limited to an average of \$15.7 million or 4.8% per year. However, over the following 3 years (2024 through 2026), the budget increase rises to an average of \$45.6 million or 11.6% per year, subject to further reviews and conservation efforts to reduce projected increases.

Capital Budget Highlights

The Water Services capital budget for 2022 approval is \$2.7 billion (Attachment 2). The capital program is funded by a combination of long-term debt, contributions from the operating budget, external (interagency) contributions and projected, future development cost charges (DCCs) funding growth.

Capital program expenditures over the next five years are largely driven by system expansion to meet the needs of a growing population, upgrades to improve system resiliency, and maintenance of aging infrastructure. Highlights of capital projects planned or ongoing for 2022, as managed by the Water Services Department, include the following:

- Continue construction of Central Park Main No. 2 Phase 1;

- Continue construction of Douglas Road Main No. 2 (Still Creek Section);
- Continue construction of Capilano Raw Water Pump Station back-up power;
- Continue construction of Pebble Hill Reservoir Units 1 & 2 Seismic Upgrade;
- Continue detailed design of Seymour Main No. 5 North;
- Continue construction of Fleetwood Reservoir;
- Continue construction of Kennedy-Newton Main;
- Continue detailed design of Cape Horn Pump Station 3;
- Commence construction of Newton Pump Station No. 2;
- Design of Cleveland Dam Public Warning System and Enhancements; and
- Commence design of Rechlorination Station Upgrades.

The following eight projects are the largest projects included in the 5-year capital plan. These High Value, Risk and Consequence projects are managed by the Project Delivery Department and are at various stages of development and delivery for 2022:

- Commence Coquitlam Lake Water Supply permitting and regulatory phase;
- Complete Cambie-Richmond Water Supply Tunnel preliminary design;
- Commence construction of the Annacis Water Supply Tunnel;
- Continue construction of the Second Narrows Water Supply Tunnel;
- Continue Coquitlam Water Main (Central Section) detailed design;
- Commence Coquitlam Water Main (South Section) prebuild construction;
- Commence Haney Water Supply Tunnel conceptual design;
- Lulu Island-Delta Water Supply Tunnel (2023 commence design); and
- Complete Stanley Park Water Supply Tunnel detailed design.

The projected capital cash flow for 2022 - 2026 totals \$2.5 billion, an average of \$496.7 million per year. There are 142 projects on the five-year capital plan. The largest 9 projects make up approximately 66% of the capital spending over the next five years. These nine projects also represent 33% of the expenditures planned for the 2027-2031 period.

Reserve Funds

The application of reserve funding in Water Services comes from the Operating, Sustainability Innovation Fund and the Laboratory Equipment reserves. In 2022, the financial plan includes \$3.4 million from operating reserves for rate stabilization, \$900,000 in funding from the Water Sustainability Innovation Fund for several sustainability initiatives and \$96,000 from the Laboratory Equipment Reserve for equipment purchases. The 2022 - 2026 Projected Reserves for Water Services is included in Attachment 5.

APPROVAL PROCESS

The proposed 2022 - 2026 Financial Plan and Annual Work Plans are presented for consideration and endorsement before being forwarded to the Board for consideration.

The next steps of the process are:

- The 2022 - 2026 Financial Plan and Annual Work Plans for Water Services will be presented for consideration at the Metro Vancouver Board Budget Workshop on October 20, 2021.
- The Greater Vancouver Water District Board will consider adoption of the 2021 Budget and endorsement of the 2022 - 2026 Financial Plan on October 30, 2021.

ALTERNATIVES

1. That the Water Committee endorse the 2022 - 2026 Financial Plan for Water Services as presented in the report dated October 7, 2021, titled “2022 - 2026 Financial Plan – Water Services”, and forward it to the Metro Vancouver Board Budget Workshop on October 20, 2021 for consideration.
2. That the Water Committee make recommendations and endorse an amended 2022 - 2026 Financial Plan for Water Services and forward the amended Financial Plan to the Metro Vancouver Board Budget Workshop on October 20, 2021 for consideration.

FINANCIAL IMPLICATIONS

If the Greater Vancouver Water District Board approves the 2022 Budget and endorses the Five-Year Financial Plan for Water Services, as presented under Alternative 1, in 2022, with the increase applied 100% to the Water Rate for June to September, the projected Water Rates would be \$1.0371/m³ for June through September and remain at \$0.7119/m³ for January through May and October through December (average water rate of \$0.8444/m³ compared to 2021 forecast for 2022 of \$0.8534/m³). Revenue from the sale of water is projected to increase by \$13.0 million (4.1%) to \$329.4 million which will generate the majority of the \$335.4 million in total revenue required to offset projected expenditures. The increase in the average water rate represents a \$4 increase in the cost to the average regional household to \$175 (2021 forecast for 2022: \$177). The application of the proposed increase to the peak water rate does not have bearing on the budget or financial plan.

Over the term of the five-year plan, the water rate is projected to increase by an average of \$0.0847/m³ with water sales increasing by an average of \$34.0 million per year to provide the required revenue to offset projected expenditures. It is anticipated that the cost to the average regional household over the next five years will rise from \$175 in 2022 to \$244 in 2026 representing an average annual increase of \$15. Future budgets will be adjusted based on the success of conservation efforts across the region.

Under Alternative 2, the Committee may wish to consider recommending amendments to the 2022 Budget and Five-Year Financial Plan for Water Services for consideration at the Metro Vancouver Board Budget Workshop. Any changes to the plan may have an impact on the Water Services Financial Plan.

CONCLUSION

The 2022 Budget and Five-Year Financial Plan for Water Services have been prepared following direction received at the April 8, 2021 Metro Vancouver Board Budget Workshop and to respond to direction provided in the *Board Strategic Plan* and to support the 2011 *Drinking Water Management Plan*. It is presented to Committee and Board members to provide overview information on activities and financial impacts for the years 2022 to 2026 for Water Services.

The presentation of the 2022 budget and five-year financial plan for Water Services provides the opportunity for Metro Vancouver to share with its member jurisdictions the proposed capital projects and operating programs, and the financial impact of these projects, over the next five years. The financial plan illustrates how Metro Vancouver proposes to pay for Water investments, notwithstanding additional successes in regional water conservation efforts, that will be required to maintain our assets and to respond to our region's growing population. It is intended to be used as a guiding document for member jurisdictions in the development of their five-year financial plans and includes projections on household impact to demonstrate how the plan will remain affordable for Metro Vancouver residents while keeping pace with our critical infrastructure requirements.

Staff recommend endorsing the 2022 - 2026 Budget and Five-Year Financial Plan and Annual Work Plans for Water Services as presented under Alternative 1.

Attachments:

1. 2022 - 2026 Water Services Financial Plan ([48054090](#))
2. 2022 - 2026 Capital Programs - Water Services ([48043563](#))
3. 2022 Water Services Work Plans ([46550846](#); [46552469](#); [44946640](#); [46543771](#); [46547494](#); [46550760](#); [48132094](#))
4. 2022 - 2026 “What’s Happening” ([47970595](#))
5. 2022 - 2026 Projected Reserves – Water ([48056092](#))

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GREATER VANCOUVER WATER DISTRICT
WATER SERVICES
2022 BUDGET REVIEW
2022-2026 FINANCIAL PLAN

ATTACHMENT 1

	2021 BUDGET	2022 BUDGET	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE	2025 FORECAST	% CHANGE	2026 FORECAST	% CHANGE
REVENUES											
Water Sales	\$ 316,341,192	\$ 329,365,517	4.1%	\$ 349,671,026	6.2%	\$ 389,568,205	11.4%	\$ 435,512,851	11.8%	\$ 486,439,366	11.7%
Other External Revenues	1,674,556	1,657,055		1,878,418		1,946,961		1,860,997		1,760,250	
Transfer from Sustainability Innovation Fund Reserves	2,006,934	900,000		-		-		-		-	
Transfer from Reserves	96,000	3,496,000		96,000		96,000		96,000		96,000	
TOTAL REVENUES	<u>\$ 320,118,682</u>	<u>\$ 335,418,572</u>	<u>4.8%</u>	<u>\$ 351,645,444</u>	<u>4.8%</u>	<u>\$ 391,611,166</u>	<u>11.4%</u>	<u>\$ 437,469,848</u>	<u>11.7%</u>	<u>\$ 488,295,616</u>	<u>11.6%</u>
EXPENDITURES											
Operating Programs:											
Policy Planning and Analysis											
Contribution to Sustainability Innovation Reserve	\$ 723,000	\$ 723,000		\$ 723,000		\$ 723,000		\$ 723,000		\$ 723,000	
Research and Innovation	588,600	588,445		589,580		602,319		626,435		632,230	
Utility Modeling and Data Analytics	1,626,994	2,101,727		2,113,657		2,179,661		2,229,587		2,278,452	
Utility Policy and Planning	1,357,556	1,601,001		1,509,808		1,523,153		1,560,467		1,595,395	
	<u>4,296,150</u>	<u>5,014,173</u>	<u>16.7%</u>	<u>4,936,045</u>	<u>(1.6%)</u>	<u>5,028,133</u>	<u>1.9%</u>	<u>5,139,489</u>	<u>2.2%</u>	<u>5,229,077</u>	<u>1.7%</u>
Engineering and Construction											
Minor Capital Projects	8,542,892	9,416,652		9,795,046		10,193,664		10,615,180		10,872,264	
Infrastructure Operations Support	1,462,536	2,025,714		2,053,668		2,137,784		2,174,998		2,232,360	
Dispatch	129,772	131,424		134,031		137,114		140,269		143,392	
	<u>10,135,200</u>	<u>11,573,790</u>	<u>14.2%</u>	<u>11,982,745</u>	<u>3.5%</u>	<u>12,468,562</u>	<u>4.1%</u>	<u>12,930,447</u>	<u>3.7%</u>	<u>13,248,016</u>	<u>2.5%</u>
Shared and Support Services											
Engineers in Training	325,547	434,233		442,311		452,219		462,354		472,728	
Business & Shared Services Support	751,910	732,088		746,253		763,465		781,078		799,094	
Shared & Utility Services	-	656,000		159,520		163,907		168,303		172,802	
Minor Capital Projects	812,108	1,016,387		1,057,229		1,100,253		1,145,750		1,173,498	
Records Management	109,200	111,408		113,626		116,308		119,054		121,863	
	<u>1,998,765</u>	<u>2,950,116</u>	<u>47.6%</u>	<u>2,518,939</u>	<u>(14.6%)</u>	<u>2,596,152</u>	<u>3.1%</u>	<u>2,676,539</u>	<u>3.1%</u>	<u>2,739,985</u>	<u>2.4%</u>
Watershed and Environmental Management											
Watershed and Environmental Management	12,644,885	12,855,271		12,645,688		12,921,311		13,177,550		13,734,765	
	<u>12,644,885</u>	<u>12,855,271</u>	<u>1.7%</u>	<u>12,645,688</u>	<u>(1.6%)</u>	<u>12,921,311</u>	<u>2.2%</u>	<u>13,177,550</u>	<u>2.0%</u>	<u>13,734,765</u>	<u>4.2%</u>
Operations and Maintenance											
Drinking Water Residuals	1,002,120	1,108,925		1,132,417		1,158,811		1,185,934		1,213,811	
Lake City Operations	955,508	966,185		978,113		1,000,616		1,023,633		1,045,321	
Maintenance	9,173,510	9,263,780		10,004,767		10,608,148		10,964,987		11,628,872	
SCADA Control Systems	5,487,404	5,873,474		5,970,169		6,160,652		6,376,736		6,600,226	
Secondary Disinfection	1,438,767	1,225,831		1,277,907		1,351,678		1,430,400		1,640,091	
Seymour Capilano Filtration Plant	9,621,163	9,712,427		9,925,006		10,194,044		10,471,911		10,893,383	
Coquitlam Water Treatment Plant	6,580,751	6,584,655		6,727,731		7,012,601		7,303,176		7,501,952	
Energy Management	122,421	210,569		273,267		285,992		294,752		303,334	
Utility Voice Radio	124,754	122,467		123,894		127,275		130,547		133,193	
Water Supply	19,278,229	21,016,987		20,144,464		21,046,997		21,644,617		22,438,646	
	<u>53,784,627</u>	<u>56,085,300</u>	<u>4.3%</u>	<u>56,557,735</u>	<u>0.8%</u>	<u>58,946,814</u>	<u>4.2%</u>	<u>60,826,693</u>	<u>3.2%</u>	<u>63,398,829</u>	<u>4.2%</u>
Interagency Projects and Quality Control											
Drinking Water Quality Control	2,866,332	2,879,943		2,898,162		2,965,429		3,067,980		3,204,930	
Interagency Projects	552,535	562,330		562,524		769,688		786,922		831,616	
	<u>3,418,867</u>	<u>3,442,273</u>	<u>0.7%</u>	<u>3,460,686</u>	<u>0.5%</u>	<u>3,735,117</u>	<u>7.9%</u>	<u>3,854,902</u>	<u>3.2%</u>	<u>4,036,546</u>	<u>4.7%</u>
Administration and Department Support	2,158,078	2,207,260	2.3%	2,314,202	4.8%	2,369,363	2.4%	2,425,822	2.4%	2,482,762	2.3%
Communications Program	440,000	448,360	1.9%	456,879	1.9%	465,560	1.9%	474,406	1.9%	483,420	1.9%
Allocation of Centralized Support Costs	26,052,630	28,824,858	10.6%	28,281,238	(1.9%)	28,363,072	0.3%	28,677,338	1.1%	28,882,147	0.7%
Total Operating Programs	<u>114,929,202</u>	<u>123,401,401</u>	<u>7.4%</u>	<u>123,154,157</u>	<u>(0.2%)</u>	<u>126,894,084</u>	<u>3.0%</u>	<u>130,183,186</u>	<u>2.6%</u>	<u>134,235,547</u>	<u>3.1%</u>
Allocation of Project Delivery Cost	2,889,566	4,073,330	41.0%	5,415,922	33.0%	5,650,644	4.3%	5,687,996	0.7%	5,700,215	0.2%
Debt Service	71,324,155	84,174,697	18.0%	94,759,076	12.6%	118,622,866	25.2%	137,751,307	16.1%	156,267,438	13.4%
Contribution to Capital	130,975,759	123,769,144	(5.5%)	128,316,289	3.7%	140,443,572	9.5%	163,847,359	16.7%	192,092,416	17.2%
TOTAL EXPENDITURES	<u>\$ 320,118,682</u>	<u>\$ 335,418,572</u>	<u>4.8%</u>	<u>\$ 351,645,444</u>	<u>4.8%</u>	<u>\$ 391,611,166</u>	<u>11.4%</u>	<u>\$ 437,469,848</u>	<u>11.7%</u>	<u>\$ 488,295,616</u>	<u>11.6%</u>
Blended Water Rate (\$/m3)	\$ 0.8110	\$ 0.8444	4.1%	\$ 0.8958	6.1%	\$ 0.9912	10.6%	\$ 1.1072	11.7%	\$ 1.2345	11.5%

GREATER VANCOUVER WATER DISTRICT
CAPITAL PORTFOLIO
WATER SERVICES
2022 CAPITAL BUDGET AND 2022-2026 CAPITAL PLAN

ATTACHMENT 2

	CAPITAL BUDGET FOR APPROVAL	2022 CAPITAL CASH FLOW	2023 CAPITAL CASH FLOW	2024 CAPITAL CASH FLOW	2025 CAPITAL CASH FLOW	2026 CAPITAL CASH FLOW	2022 TO 2026 TOTAL CAPITAL CASH FLOW	ACTIVE PHASE	PRIMARY DRIVER
CAPITAL EXPENDITURES									
Water Mains									
Angus Drive Main	\$ 30,700,000	\$ 50,000	\$ -	\$ -	\$ -	\$ -	50,000	Construction	Growth
Annacis Main No. 2 - Queensborough Crossover Improvement	900,000	500,000	-	-	-	-	500,000	Construction	Maintenance
Annacis Main No. 2 and Barnston Island Main Online Chlorine and pH Analyzers	750,000	450,000	300,000	-	-	-	750,000	Construction	Upgrade
Annacis Main No. 3 Annieville Channel Crossing Scour Protection	850,000	500,000	-	-	-	-	500,000	Construction	Maintenance
Annacis Main No. 3 BHP Potash Facility Pipe Protection	600,000	300,000	-	-	-	-	300,000	Construction	Maintenance
Annacis Main No. 5 (North)	60,600,000	1,600,000	16,500,000	15,000,000	5,500,000	20,000,000	58,600,000	Construction	Growth
Annacis Main No. 5 (South)	11,100,000	1,100,000	1,000,000	14,000,000	14,000,000	16,800,000	46,900,000	Construction	Growth
Annacis Water Supply Tunnel	488,000,000	66,000,000	70,000,000	80,000,000	70,000,000	65,000,000	351,000,000	Construction	Growth
Boundary Road Main No. 2 & No. 3 Decommissioning	1,500,000	750,000	-	-	-	-	750,000	Construction	Maintenance
Burnaby Mountain Main No. 2	-	-	300,000	1,600,000	400,000	-	2,300,000	Not started	Maintenance
Cambie-Richmond Water Supply Tunnel	55,250,000	18,200,000	2,000,000	8,000,000	8,500,000	3,500,000	40,200,000	Design	Resilience
Central Park Main No. 2 (10th Ave to Westburnco)	2,750,000	900,000	1,200,000	5,500,000	6,000,000	8,000,000	21,600,000	Design	Maintenance
Central Park Main No. 2 (Patterson to 10th Ave)	91,900,000	19,700,000	17,500,000	13,000,000	-	-	50,200,000	Construction	Maintenance
Clayton Langley Main No. 2	700,000	400,000	600,000	700,000	200,000	3,000,000	4,900,000	Design	Resilience
Coquitlam Water Main	118,220,000	31,500,000	65,600,000	76,300,000	90,400,000	157,000,000	420,800,000	Multiple	Growth
Douglas Road Main No. 2 - Kincaid Section	12,300,000	1,000,000	1,000,000	500,000	-	-	2,500,000	Construction	Maintenance
Douglas Road Main No. 2 (Flow Meter 169) Replacement	1,000,000	500,000	500,000	-	-	-	1,000,000	Construction	Maintenance
Douglas Road Main No. 2 (Vancouver Heights Section)	21,486,000	300,000	-	-	-	-	300,000	Construction	Maintenance
Douglas Road Main No. 2 Still Creek	63,100,000	14,600,000	16,000,000	13,500,000	6,000,000	-	50,100,000	Construction	Maintenance
Douglas Road Main Protection	1,500,000	550,000	500,000	400,000	-	-	1,450,000	Construction	Maintenance
First Narrows Tunnel Isolation Chamber Improvements	7,000,000	100,000	-	-	-	-	100,000	Construction	Maintenance
Haney Main No. 4 (West Section)	1,900,000	400,000	350,000	-	-	-	750,000	Multiple	Growth
Haney Water Supply Tunnel	25,250,000	5,000,000	15,000,000	5,000,000	5,000,000	10,000,000	40,000,000	Definition	Resilience
Improvements to Capilano Mains No. 4 and 5	1,700,000	1,000,000	550,000	-	-	-	1,550,000	Construction	Maintenance
Kennedy Newton Main	122,300,000	23,850,000	13,000,000	9,500,000	-	-	46,350,000	Construction	Growth
Lulu Island - Delta Main - Scour Protection Phase 2	3,550,000	2,650,000	800,000	-	-	-	3,450,000	Construction	Maintenance
Lulu-Delta Water Supply Tunnel	-	-	4,000,000	5,500,000	7,500,000	8,000,000	25,000,000	Not started	Maintenance
Maple Ridge Main West Lining Repairs	3,500,000	-	500,000	1,500,000	1,300,000	-	3,300,000	Construction	Maintenance
Newton Reservoir Connection	-	-	450,000	1,100,000	4,500,000	-	6,050,000	Not started	Growth
Online Chlorine Monitoring Stations	-	-	-	-	450,000	1,000,000	1,450,000	Not started	Upgrade
Port Mann Main No. 2 (South)	36,800,000	500,000	-	-	-	-	500,000	Multiple	Growth
Port Mann No. 1 South Section Decommissioning	200,000	100,000	750,000	-	-	-	850,000	Design	Maintenance
Port Moody Main No. 1 Christmas Way Relocation	2,350,000	1,900,000	400,000	-	-	-	2,300,000	Construction	Maintenance
Port Moody Main No. 3 Dewdney Trunk Rd Relocation	2,700,000	100,000	-	-	-	-	100,000	Construction	Maintenance
Port Moody Main No. 3 Scott Creek Section	1,000,000	550,000	1,000,000	2,500,000	2,000,000	2,000,000	8,050,000	Design	Maintenance
Queensborough Main Royal Avenue Relocation	7,500,000	2,300,000	2,200,000	700,000	-	-	5,200,000	Construction	Maintenance
Rehabilitation of AN2 on Queensborough Bridge	2,500,000	1,700,000	-	-	-	-	1,700,000	Construction	Maintenance
Relocation and Protection for MOTI Expansion Project Broadway	8,900,000	650,000	500,000	1,500,000	1,500,000	3,500,000	7,650,000	Construction	Maintenance
Relocation and Protection for MOTI George Massey Crossing Replacement	450,000	25,000	25,000	-	-	700,000	750,000	Design	Maintenance
Relocation and Protection for Translink Expansion Project Surrey Langley SkyTrain	600,000	25,000	-	1,100,000	2,200,000	2,200,000	5,525,000	Design	Maintenance
Sapperton Main No. 1 New Line Valve and Chamber	3,800,000	1,100,000	1,500,000	-	-	-	2,600,000	Construction	Upgrade
Sapperton Main No. 2 North Road Relocation and Protection	6,500,000	4,550,000	1,600,000	-	-	-	6,150,000	Construction	Maintenance
Scour Protection Assessments and Construction General	4,000,000	1,300,000	-	150,000	1,000,000	-	2,450,000	Construction	Resilience
Second Narrows Crossing 1 & 2 (Burrard Inlet Crossing Removal)	2,000,000	500,000	1,000,000	500,000	1,000,000	12,000,000	15,000,000	Design	Maintenance
Second Narrows Water Supply Tunnel	468,550,000	75,000,000	70,000,000	30,000,000	20,600,000	-	195,600,000	Construction	Resilience
Seymour Main No. 2 Joint Improvements	3,252,000	750,000	1,000,000	-	1,000,000	1,000,000	3,750,000	Construction	Resilience
Seymour Main No. 5 III (North)	8,000,000	250,000	-	-	-	100,000	350,000	Design	Resilience
South Delta Main No. 1 - 28 Ave to 34B Ave	22,650,000	100,000	-	-	-	-	100,000	Construction	Upgrade

**GREATER VANCOUVER WATER DISTRICT
CAPITAL PORTFOLIO
WATER SERVICES
2022 CAPITAL BUDGET AND 2022-2026 CAPITAL PLAN**

	CAPITAL BUDGET FOR APPROVAL	2022 CAPITAL CASH FLOW	2023 CAPITAL CASH FLOW	2024 CAPITAL CASH FLOW	2025 CAPITAL CASH FLOW	2026 CAPITAL CASH FLOW	2022 TO 2026 TOTAL CAPITAL CASH FLOW	ACTIVE PHASE	PRIMARY DRIVER
South Delta Main No. 1 - Ferry Road Check Valve Replacement	600,000	500,000	-	-	-	-	500,000	Construction	Maintenance
South Delta Mains - 28 Ave Crossover	10,500,000	50,000	-	-	-	-	50,000	Construction	Upgrade
South Surrey Main No. 1 Nickomekl Dam Relocation	7,100,000	1,700,000	3,000,000	2,100,000	-	-	6,800,000	Construction	Maintenance
South Surrey Main No. 2	2,000,000	1,100,000	500,000	500,000	1,000,000	3,500,000	6,600,000	Design	Growth
South Surrey Main No. 2 Nickomekl Dam Prebuild	2,000,000	500,000	1,000,000	500,000	-	-	2,000,000	Construction	Growth
South Surrey Supply Main (Serpentine River) Bridge Support Modification	1,350,000	950,000	-	-	-	-	950,000	Construction	Maintenance
Stanley Park Water Supply Tunnel	340,000,000	38,900,000	50,000,000	70,000,000	50,000,000	55,000,000	263,900,000	Construction	Maintenance
Tilbury Junction Chamber Valves Replacement with Actuators	5,600,000	300,000	-	-	-	-	300,000	Construction	Upgrade
Tilbury Main North Fraser Way Valve Addition	3,100,000	800,000	1,400,000	450,000	-	-	2,650,000	Construction	Maintenance
Water Chamber Improvements and Repairs	2,000,000	1,000,000	-	-	-	-	1,000,000	Construction	Maintenance
Water Meter Upgrades	22,400,000	2,700,000	3,950,000	3,500,000	3,500,000	3,600,000	17,250,000	Construction	Upgrade
Water Optimization - Flow Meters (Non-billing) Phase 1	-	-	1,500,000	2,000,000	3,000,000	4,000,000	10,500,000	Not started	Upgrade
Water Optimization - Flow Meters (Non-billing) Phase 2	3,000,000	250,000	1,500,000	750,000	2,000,000	3,000,000	7,500,000	Design	Upgrade
Water Optimization - Instrumentation	1,500,000	750,000	2,100,000	2,500,000	2,500,000	2,500,000	10,350,000	Design	Upgrade
Water Optimization Automation & Instrumentation	9,550,000	850,000	900,000	-	-	-	1,750,000	Construction	Upgrade
Whalley Kennedy Main No. 2	-	-	1,000,000	1,300,000	1,300,000	2,000,000	5,600,000	Not started	Growth
Whalley Main	31,800,000	150,000	-	-	-	-	150,000	Construction	Growth
Total Water Mains	\$ 2,152,658,000	\$ 333,800,000	\$ 374,475,000	\$ 371,150,000	\$ 312,350,000	\$ 387,400,000	\$ 1,779,175,000		
Pump Stations									
Barnston/Maple Ridge Pump Station - Back-up Power	\$ 14,000,000	\$ 8,700,000	\$ 4,500,000	\$ 600,000	\$ 2,000,000	\$ 2,700,000	\$ 18,500,000	Construction	Resilience
Burnaby Mountain Pump Station No. 2	1,300,000	100,000	900,000	1,100,000	700,000	9,000,000	11,800,000	Design	Maintenance
Cape Horn Pump Station No. 3	6,800,000	1,500,000	2,250,000	4,500,000	22,000,000	59,000,000	89,250,000	Design	Growth
Capilano Raw Water Pump Station - Back-up Power	42,000,000	13,050,000	13,000,000	1,000,000	-	-	27,050,000	Construction	Resilience
Capilano Raw Water Pump Station Bypass PRV Upgrades	1,700,000	700,000	500,000	200,000	-	-	1,400,000	Construction	Maintenance
Central Park WPS Starters Replacement	8,000,000	4,500,000	1,550,000	-	-	-	6,050,000	Construction	Maintenance
Grandview Pump Station Improvements	2,600,000	1,550,000	100,000	-	-	-	1,650,000	Construction	Resilience
Newton Pump Station No. 2	50,500,000	5,400,000	20,400,000	13,500,000	5,000,000	-	44,300,000	Construction	Growth
Pebble Hill Pump Station Seismic Upgrade	-	-	-	150,000	650,000	1,000,000	1,800,000	Not started	Resilience
Westburnco Pump Station - Back-up Power	23,500,000	1,900,000	2,950,000	5,500,000	4,500,000	7,000,000	21,850,000	Construction	Resilience
Westburnco Pump Station No. 2 VFD Replacements	2,550,000	1,650,000	300,000	-	-	-	1,950,000	Construction	Maintenance
Total Pump Stations	\$ 152,950,000	\$ 39,050,000	\$ 46,450,000	\$ 26,550,000	\$ 34,850,000	\$ 78,700,000	\$ 225,600,000		
Reservoirs									
Burnaby Mountain Tank No. 2	\$ 3,350,000	\$ 1,249,000	\$ 1,700,000	\$ 7,000,000	\$ 7,000,000	\$ 4,000,000	\$ 20,949,000	Design	Resilience
Burnaby Mountain Tank No. 3	3,400,000	800,000	1,700,000	500,000	7,000,000	7,000,000	17,000,000	Design	Resilience
Cape Horn Reservoir Condition Assessment and Structural Repair	-	-	250,000	250,000	1,200,000	-	1,700,000	Not started	Maintenance
Capilano Energy Recovery Facility 66" PRV Replacement	-	-	-	1,500,000	-	3,500,000	5,000,000	Not started	Maintenance
Central Park Reservoir Structural Improvements	-	-	-	300,000	200,000	1,100,000	1,600,000	Not started	Maintenance
Clayton Reservoir	27,600,000	550,000	-	-	-	-	550,000	Construction	Resilience
Dechlorination for Reservoir Overflow and Underdrain Discharges	2,700,000	1,050,000	1,000,000	300,000	-	-	2,350,000	Construction	Maintenance
Fleetwood Reservoir	56,367,000	23,000,000	15,350,000	2,150,000	-	-	40,500,000	Construction	Growth
Grandview Reservoir Unit No. 2	-	-	-	400,000	800,000	1,400,000	2,600,000	Not started	Growth
Hellings Tank No. 2	43,911,000	4,500,000	6,000,000	11,500,000	9,800,000	5,700,000	37,500,000	Construction	Growth
Kersland Reservoir No. 1 Structural Improvements	6,250,000	4,000,000	-	-	-	-	4,000,000	Construction	Maintenance
Little Mountain Reservoir Roof Upgrades	3,450,000	150,000	-	-	-	-	150,000	Construction	Maintenance
Pebble Hill Reservoir No. 3 Seismic Upgrade	500,000	50,000	25,000	-	5,000,000	4,000,000	9,075,000	Design	Resilience
Pebble Hill Reservoir Seismic Upgrade	13,600,000	5,545,000	2,500,000	-	-	-	8,045,000	Construction	Resilience
Reservoir Isolation Valve Automation	6,450,000	500,000	1,000,000	1,000,000	1,250,000	1,150,000	4,900,000	Construction	Resilience
Reservoir Sampling Kiosks - Multi Location	-	-	500,000	500,000	300,000	-	1,300,000	Not started	Upgrade
Sunnyside Reservoir Units 1 and 2 Seismic Upgrade	9,100,000	60,000	3,000,000	7,200,000	-	-	10,260,000	Design	Resilience

**GREATER VANCOUVER WATER DISTRICT
CAPITAL PORTFOLIO
WATER SERVICES
2022 CAPITAL BUDGET AND 2022-2026 CAPITAL PLAN**

	CAPITAL BUDGET FOR APPROVAL	2022 CAPITAL CASH FLOW	2023 CAPITAL CASH FLOW	2024 CAPITAL CASH FLOW	2025 CAPITAL CASH FLOW	2026 CAPITAL CASH FLOW	2022 TO 2026 TOTAL CAPITAL CASH FLOW	ACTIVE PHASE	PRIMARY DRIVER
Vancouver Heights System Resiliency Improvements	500,000	150,000	500,000	500,000	-	-	1,150,000	Design	Resilience
Whalley Reservoir Condition Assessment and Repairs	2,500,000	2,400,000	100,000	-	-	-	2,500,000	Construction	Maintenance
Total Reservoirs	\$ 179,678,000	\$ 44,004,000	\$ 33,625,000	\$ 33,100,000	\$ 32,550,000	\$ 27,850,000	\$ 171,129,000		
Treatment Plants									
Coquitlam Intake Tower Seismic Upgrade	\$ 2,000,000	\$ 400,000	\$ -	\$ 5,000,000	\$ 14,000,000	\$ 5,000,000	\$ 24,400,000	Design	Resilience
Coquitlam Lake Water Supply	160,730,000	14,000,000	33,000,000	30,000,000	39,000,000	45,000,000	161,000,000	Multiple	Growth
Critical Control Sites - Back-Up Power	-	-	-	200,000	300,000	400,000	900,000	Not started	Resilience
CWTP CO2 System Improvements	-	-	500,000	1,750,000	1,500,000	-	3,750,000	Not started	Maintenance
CWTP Mobile Disinfection System	-	-	750,000	2,000,000	-	-	2,750,000	Not started	Upgrade
CWTP Ozone Back-up Power	-	-	500,000	1,450,000	4,000,000	1,500,000	7,450,000	Not started	Resilience
CWTP Ozone Generation Upgrades for Units 2 & 3	7,000,000	2,050,000	100,000	-	-	-	2,150,000	Construction	Upgrade
CWTP Ozone Sidestream Pipe Heat Trace and Insulation	900,000	200,000	-	-	-	-	200,000	Construction	Maintenance
CWTP Ozone Sidestream Pump VFD Replacement	1,400,000	850,000	250,000	-	-	-	1,100,000	Construction	Maintenance
CWTP Temporary Water Supply	500,000	500,000	1,250,000	250,000	-	-	2,000,000	Design	Maintenance
Online Chlorine and pH Analyzers	-	-	600,000	1,200,000	1,200,000	1,500,000	4,500,000	Not started	Upgrade
SCFP Additional Pre-Treatment	-	-	-	-	-	1,000,000	1,000,000	Not started	Upgrade
SCFP Centralized Compressed Air System	900,000	575,000	150,000	-	-	-	725,000	Construction	Maintenance
SCFP Clearwell Baffle Replacement	-	-	450,000	1,300,000	250,000	-	2,000,000	Not started	Maintenance
SCFP Clearwell Membrane Replacement	-	-	200,000	1,200,000	-	5,500,000	6,900,000	Not started	Maintenance
SCFP OMC Building Expansion	150,000	50,000	50,000	350,000	1,600,000	500,000	2,550,000	Design	Maintenance
SCFP Polymer System Upgrade	4,650,000	3,400,000	500,000	-	-	-	3,900,000	Construction	Maintenance
SCFP SCADA/ICS Controller Upgrade	-	-	700,000	700,000	-	-	1,400,000	Not started	Maintenance
Total Treatment Plants	\$ 178,230,000	\$ 22,025,000	\$ 39,000,000	\$ 45,400,000	\$ 61,850,000	\$ 60,400,000	\$ 228,675,000		
Others									
Beach Yard Facility - Site Redevelopment	-	\$ -	\$ -	\$ -	\$ 500,000	\$ 1,000,000	\$ 1,500,000	Not started	Maintenance
Burwell Alpine Reservoir Valve Improvements	\$ 650,000	100,000	-	-	-	-	100,000	Construction	Upgrade
Capilano Hydropower	4,250,000	1,000,000	1,750,000	-	-	-	2,750,000	Definition	Opportunity
Capilano Mid-Lake Debris Boom	750,000	50,000	-	-	-	-	50,000	Construction	Resilience
Capilano Reservoir and Seymour Reservoir Dam Safety Boom Replacement	200,000	200,000	3,000,000	500,000	-	-	3,700,000	Design	Maintenance
Capilano Reservoir Boat Wharf	850,000	50,000	-	-	-	-	50,000	Construction	Resilience
Capilano Watershed Bridge Replacements - Crown Creek and Capilano River	-	-	-	-	-	95,000	95,000	Not started	Maintenance
Capilano Watershed Security Gatehouse	3,350,000	1,450,000	1,150,000	-	-	-	2,600,000	Construction	Maintenance
CLD & SFD Fasteners Replacement & Coating Repairs	2,100,000	350,000	600,000	-	-	-	950,000	Construction	Maintenance
Cleveland Dam - Lower Outlet HBV Rehabilitation	4,900,000	200,000	1,200,000	-	-	-	1,400,000	Construction	Maintenance
Cleveland Dam Drungate Seal Replacement	250,000	-	-	500,000	500,000	-	1,000,000	Design	Maintenance
Cleveland Dam East Abutment Additional GV Series Pump Wells	750,000	50,000	-	-	-	-	50,000	Construction	Upgrade
Cleveland Dam Lower Outlet Trashrack Replacement and Debris Removal	-	-	-	-	-	500,000	500,000	Not started	Maintenance
Cleveland Dam Power Resiliency Improvements	1,700,000	1,389,000	-	-	-	-	1,389,000	Construction	Resilience
Cleveland Dam Public Warning System and Enhancements	10,000,000	3,000,000	7,000,000	-	-	-	10,000,000	Construction	Maintenance
Cleveland Dam Seismic Stability Evaluation	800,000	600,000	-	-	-	-	600,000	Design	Resilience
Cleveland Dam Spillway Resurfacing	-	-	-	-	-	400,000	400,000	Not started	Maintenance
Lower Seymour Conservation Reserve Learning Lodge Replacement	5,000,000	1,900,000	100,000	-	-	-	2,000,000	Construction	Upgrade
Newton Rechlorination Station No. 2	-	-	400,000	600,000	1,500,000	1,500,000	4,000,000	Not started	Maintenance
Pitt River Rechlorination Station Reconstruction	-	-	-	-	500,000	1,000,000	1,500,000	Not started	Maintenance
Rechlorination Station SHS Storage Tank Replacement	1,200,000	250,000	-	-	-	-	250,000	Construction	Maintenance
Rechlorination Station Upgrades	1,300,000	600,000	1,500,000	1,500,000	1,000,000	6,000,000	10,600,000	Design	Maintenance
Scour Protection - General	2,000,000	55,000	-	-	-	-	55,000	Construction	Maintenance
Seymour Falls Boat Wharf	800,000	50,000	-	-	-	-	50,000	Construction	Resilience
Seymour Falls Dam Public Warning System	-	-	1,000,000	4,000,000	5,000,000	-	10,000,000	Not started	Maintenance

GREATER VANCOUVER WATER DISTRICT
CAPITAL PORTFOLIO
WATER SERVICES
2022 CAPITAL BUDGET AND 2022-2026 CAPITAL PLAN

	CAPITAL BUDGET FOR APPROVAL	2022 CAPITAL CASH FLOW	2023 CAPITAL CASH FLOW	2024 CAPITAL CASH FLOW	2025 CAPITAL CASH FLOW	2026 CAPITAL CASH FLOW	2022 TO 2026 TOTAL CAPITAL CASH FLOW	ACTIVE PHASE	PRIMARY DRIVER
Seymour Falls Dam Seismic Stability Assessment	1,800,000	1,000,000	800,000	-	-	-	1,800,000	Construction	Resilience
Seymour Lake Debris Boom	800,000	50,000	-	-	-	-	50,000	Construction	Resilience
Seymour Reservoir Mid-Lake Debris Boom	2,300,000	50,000	-	-	-	-	50,000	Construction	Resilience
South Fraser Works Yard	32,000,000	20,000,000	1,500,000	-	-	-	21,500,000	Design	Maintenance
Total Others	\$ 77,750,000	\$ 32,394,000	\$ 20,000,000	\$ 7,100,000	\$ 9,000,000	\$ 10,495,000	\$ 78,989,000		
TOTAL CAPITAL EXPENDITURES	\$ 2,741,266,000	\$ 471,273,000	\$ 513,550,000	\$ 483,300,000	\$ 450,600,000	\$ 564,845,000	\$ 2,483,568,000		

CAPITAL FUNDING									
New External Borrowing	\$ 1,804,866,000	\$ 332,133,000	\$ 373,790,000	\$ 309,100,000	\$ 261,420,000	\$ 343,945,000	\$ 1,620,388,000		
DCCs	46,080,000	-	-	24,010,000	16,370,000	16,170,000	56,550,000		
Contribution to Capital	826,130,000	123,770,000	128,320,000	140,440,000	163,850,000	192,090,000	748,470,000		
Reserve	27,590,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	25,000,000		
External Funding - Interagency	36,600,000	10,370,000	6,440,000	4,750,000	3,960,000	7,640,000	33,160,000		
Total	\$ 2,741,266,000	\$ 471,273,000	\$ 513,550,000	\$ 483,300,000	\$ 450,600,000	\$ 564,845,000	\$ 2,483,568,000		

SUMMARY BY DRIVER									
Growth	\$ 1,223,728,000	\$ 175,150,000	\$ 246,400,000	\$ 260,250,000	\$ 263,300,000	\$ 375,400,000	\$ 1,320,500,000		
Maintenance	696,736,000	145,830,000	130,725,000	136,650,000	92,350,000	121,495,000	627,050,000		
Resilience	723,402,000	138,643,000	120,875,000	73,950,000	82,000,000	51,350,000	466,818,000		
Upgrade	93,150,000	10,650,000	13,800,000	12,450,000	12,950,000	16,600,000	66,450,000		
Opportunity	4,250,000	1,000,000	1,750,000	-	-	-	2,750,000		
Total	\$ 2,741,266,000	\$ 471,273,000	\$ 513,550,000	\$ 483,300,000	\$ 450,600,000	\$ 564,845,000	\$ 2,483,568,000		

Water Services

Watershed & Environment

Description of Services

Water Services provides safe drinking water to the Metro Vancouver region through the Greater Vancouver Water District. The Watershed & Environment Division protects and maintains 60,000 hectares of GVWD watershed lands and associated infrastructure surrounding the three primary source reservoirs of Capilano, Seymour and Coquitlam. The division also oversees the Environmental Management System and various environmental programs and initiatives for the Water Services utility. Technical and field staff in this area undertake a breadth of work ranging from collection of reservoir and potable water samples, fisheries management, environmental protection and updating and watershed management activities including security, road and infrastructure maintenance, fire protection and public education on the Region's water supply.

Strategic Directions and High Level Goals Supported

Board Strategic Plan

- Maintain Metro Vancouver's world-class water system that provides clean, safe drinking water and ensure its capacity to meet future needs.
- Ensure the long-term resilience of the regional drinking water system to withstand natural hazards, climate change and other significant disruptions.
- Develop and implement financial plans and policies that reflect a commitment to sound financial management and long-term planning, in consideration of current and future ratepayers.
- Strengthen awareness and engagement with the public, members, other orders of government, and key stakeholders on a range of initiatives that will ensure the delivery of clean, safe drinking water, now and into the future.

Drinking Water Management Plan

- Goal 1 - Provide clean, safe drinking water
- Goal 2 - Ensure the sustainable use of water resources

Performance Indicators

Indicator	Historical and/or Industry Benchmark	Current Performance	2022 Performance Objective
Annual number participants in watershed tours and K-12 school programs conducted within the LSCR, watersheds and virtually.	MV 3-year average (2018-2020): 5,760 2018: 5,378 2019: 5,904 2020: 3802	2021 YTD (June): 4255 Objective 3,000	6,000
Number of water samples collected from source reservoirs and the distribution system.	MV 3-year average (2018-2020): 22,848 2018: 21,906 2019: 22,283 2020: 20,576	2021 YTD (May): 6,716 Objective 22,500	22,500
Smolt capture in the Capilano Watershed. *2020 program cancelled due to COVID	MV 3-year average (2017-2019)*: 18,143 2017: 18,727 2018: 16,460 2019: 19,242	2021 YTD (June): 43,293 Objective: 25,000	25,000
Re-establish fish access through road network infrastructure (culverts, bridges) into critical fish habitat.	72% (BC Forest Practices Board study)	2021 YTD (June): 94% Objective: 95%	95%

2022 Key Actions

- Continue year 4 of 5 in the development and implementation of the Water Services Environmental Management System to address prioritized regulatory compliance and environmental risks.
- Complete construction of a multi-purpose building (staff/public) in the Lower Seymour Conservation Reserve.
- Commence construction of Capilano Watershed Protection Field Office in conjunction with the Capilano Raw Water Pump Station Back-up Power project.
- Complete Phase 2 of the Next Generation Snow Pack Monitoring Sustainable Innovation Fund Project.
- Complete Natural Capital / Asset scoping assessment for the Water Supply Lands.
- Complete design of replacement dam safety booms for Capilano and Seymour.
- Complete update of Watershed (Crown Land) Management Plan.

WATER SERVICES

Policy, Planning and Analysis

Description of services

Water Services provides safe drinking water to the Metro Vancouver region through the Greater Vancouver Water District. The Policy, Planning and Analysis division provides policy development and coordination; infrastructure analysis and planning; implementation of the Drinking Water Management Plan (DWMP); lead regional water conservation efforts; implementation of key components of the Joint Water Use Plan (JWUP) for the Capilano and Seymour Watersheds; supports the water metering network; ensure QA/QC on water billing and issues monthly bills; and leads the implementation of projects identified in the Water Supply Outlook 2120.

Strategic directions and high level goals supported

Board Strategic Plan

- Maintain Metro Vancouver's world-class water system that provides clean, safe drinking water and ensure its capacity to meet future needs.
- Ensure the long-term resilience of the regional drinking water system to withstand natural hazards, climate change and other significant disruptions.
- Develop and implement financial plans and policies that reflect a commitment to sound financial management and long-term planning, in consideration of current and future ratepayers.
- Strengthen awareness and engagement with the public, members, other orders of government, and key stakeholders on a range of initiatives that will ensure the delivery of clean, safe drinking water, now and into the future.

Drinking Water Management Plan

- Goal 1 - Provide clean, safe drinking water
- Goal 2 - Ensure the sustainable use of water resources
- Goal 3 - Ensure the efficient supply of water

Performance indicators

Indicator	Historical and/or Industry Benchmark	Current Performance	2022 Performance Objective
Peak day per capita water use (litres)	MV 3-year average (2017 - 2019): 620 2017: 620 2018: 664 2019: 577 2020: 609 ⁺	2021 Objective: 593	583 [*]
Average day per capita water use (litres)	MV 3-year average (2017-2019): 432 2017: 439 2018: 433 2019: 424 2020: 411 ⁺	2021 Objective: 408	402 [*]

- +2020 was not included in the analysis as water consumption might have been impacted by the pandemic
- * Based on a 5-year trend

2022 key actions

- Continue to collaborate with GVWD members to implement the new Region-wide Guide for Enforcement of Metro Vancouver's Drinking Water Conservation Plan.
- Complete updates to Drinking Water Conservation Plan to incorporate lawn watering bans during drought years.
- Continue to look for ways to reduce regional water consumption to potentially defer growth related projects.
- Continue development of a Facility Master Plan that aligns with Metro Vancouver's Water Supply Outlook 2120.
- Continue development of an updated Drinking Water Management Plan.
- Continue to implement the Joint Water Use Plan for the Capilano and Seymour Watersheds, including coordination of monitoring and reporting to the regulatory agencies.
- Complete analysis on the impacts of the changing industrial landscape in the Region and the impacts on the water system demands.
- Continue with the Meter Replacement Program.
- Complete project on the potential presence of microplastics in Metro Vancouver watersheds.

WATER SERVICES

Engineering and Construction

Description of services

Water Services provides safe drinking water to the Metro Vancouver region through the Greater Vancouver Water District. The Engineering and Construction division provides delivery of all core water infrastructure projects, including water mains, reservoirs, pump stations and water treatment facilities and also provides shared construction and dispatch services.

Strategic directions and high level goals supported

Board Strategic Plan

- Maintain Metro Vancouver's world-class water system that provides clean, safe drinking water and ensure its capacity to meet future needs.
- Ensure the long-term resilience of the regional drinking water system to withstand natural hazards, climate change and other significant disruptions.
- Develop and implement financial plans and policies that reflect a commitment to sound financial management and long-term planning, in consideration of current and future ratepayers.
- Strengthen awareness and engagement with the public, members, other orders of government, and key stakeholders on a range of initiatives that will ensure the delivery of clean, safe drinking water, now and into the future.

Drinking Water Management Plan

- Goal 1 - Provide clean, safe drinking water
- Goal 2 - Ensure the sustainable use of water resources
- Goal 3 - Ensure the efficient supply of water

Performance indicators

Indicator	Historical and/or Industry Benchmark	Current Performance	2022 Performance Objective
Percent of GVWD Capital Program Expenditures Achieved:	3 yr average (2018 – 2020): 68% 2018: 35% 2019: 105% 2020: 63%	(as of end of April 2021) YTD: 18% Objective: 85%	(2022) 85%
Percent of Minor Capital Program Expenditures Achieved:	3 yr average (2018 – 2020): 87% 2018: 87% 2019: 116% 2020: 57%	(as of May 2021) YTD: 35% Objective: 95%	(2022) 95%

Indicator	Historical and/or Industry Benchmark	Current Performance	2022 Performance Objective
Percent of project complete:			
Kennedy-Newton Main (Phase 2) – Construction	n/a	60%	100%
Annacis Main No. 5 (North) – Design	n/a	20%	100%
Capilano Raw Water Pump Station Backup Power – Construction	n/a	5%	35%
Fleetwood Reservoir – Construction	n/a	0%	50%
Pebble Hill Reservoir Seismic upgrade Units 1 & 2 - Construction	n/a	0%	55%
Central Park Main No. 2 (Phase 1) – Construction	n/a	60%	100%
Douglas Road Main No. 2 (Still Creek Section) – Construction	n/a	0%	65%
Cape Horn Pump Station No. 3 – Design	n/a	10%	40%

2022 Key Actions

- Continue construction of Kennedy-Newton Main (Phase 2).
- Complete design of Annacis Main No. 5 (North).
- Continue construction of Capilano Raw Water Pump Station Backup Power.
- Commence construction of Fleetwood Reservoir.
- Commence construction of Pebble Hill Reservoir Seismic Upgrade Units 1 & 2.
- Complete construction of Central Park Main No. 2 (Phase 1).
- Commence construction of Douglas Road Main No. 2 (Still Creek).
- Continue design of Cape Horn Pump Station No. 3.

WATER SERVICES

Operations and Maintenance

Description of services

Water Services delivers clean, safe drinking water to the Metro Vancouver region through the Greater Vancouver Water District.

The Operations and Maintenance (O&M) division provides management of the source water reservoirs and dams, treatment of source water, operation and control of the water transmission system, secondary disinfection of treated water and maintenance of all water treatment and transmission infrastructure and associated supporting infrastructure (works yards, communications systems, and control systems).

The nature of O&M's work involves close collaboration with other Water Services divisions to ensure the safe, efficient and cost effective operation of the water system. In addition, the O&M teams provide support from design through commissioning for major and minor capital projects.

Strategic directions and high level goals supported

Board Strategic Plan

- Maintain Metro Vancouver's world-class water system that provides clean, safe drinking water and ensure its capacity to meet future needs.
- Ensure the long-term resilience of the regional drinking water system to withstand natural hazards, climate change and other significant disruptions.
- Develop and implement financial plans and policies that reflect a commitment to sound financial management and long-term planning, in consideration of current and future ratepayers.
- Strengthen awareness and engagement with the public, members, other orders of government, and key stakeholders on a range of initiatives that will ensure the delivery of clean, safe drinking water, now and into the future.

Drinking Water Management Plan

- Goal 1 – Provide clean, safe drinking water
- Goal 2 – Ensure the sustainable use of water resources
- Goal 3 – Ensure the efficient supply of water

Performance indicators

Indicator	Historical and/or Industry Benchmark	Current Performance	2022 Performance Objective
Annual volume of drinking water treated, delivered (in million litres)	MV 3-year average (2018-20): 383,978 2018: 389,800 2019: 383,400 2020: 378,734	2021 YTD Mar: 81,356 Objective: 389,000	389,000
Energy use in the treatment and delivery of drinking water (amount of gigajoules (GJ) used per ML of water)	MV 3-year average (2018-20): 0.49 2018: 0.49 2019: 0.53 2020: 0.44	Rolling Average Mar/20 - Feb/21 0.46 Objective: 0.55	0.50
Compliance with treatment operating permit criteria	MV 3-year average (2018-20): 100% 2018: 100% 2019: 100% 2020: 100%	2021 YTD Mar: 100% Objective: 100%	100%
Number of leak repairs in water transmission system piping per 100 kilometers of pipe ¹	MV 3-year average (2018-20): 3.21 2018: 3.30 2019: 4.08 2020: 2.25	2021 YTD Mar: 0.75 Objective: < 3.1	< 3.1
Number of remote monitoring and control points to ensure system resiliency	MV 3-year average (2018-20): 30,806 2018: 30,349 2019: 30,687 2020: 31,382	2021 YTD March: 31,480 Objective: 31,800	32,300

Note 1: AWWA Partnership for Safe Water Distribution System Optimization Program goal: 9 breaks/100 km/year

2022 Key Actions

- Maintenance Construction Scheduler Improvements – application improvements to add functionality that identifies risks and mitigation measures
- Water Services Energy Management Program – identify major power usage for treatment and transmission, for energy savings and potential BC Hydro grant funding
- Enhancement of Transmission Procedures and Work Processes – develop detailed work procedures and incorporate into comprehensive records database
- Improvements to Transmission Utility Regional Emergency Response – Integrating the new South Fraser Works Yard with additional resources and expanded standby response
- SCFP Dry Polymer System Optimization – conduct bench, pilot plant, and full scale testing of various dry polymers to select chemicals for optimal treatment performance

WATER SERVICES

Interagency Projects and Quality Control

Description of services

Water Services provides clean, safe drinking water to the Metro Vancouver region through the Greater Vancouver Water District. The Interagency Projects and Quality Control division provides the coordination of major interagency projects impacting Metro Vancouver's water utility infrastructure. The Division is responsible for ensuring federal guidelines and provincial regulatory standards for the region's drinking water are met and liaising with local health authorities for Water Services. Quality Control is performed by technical and scientific staff undertaking a breadth of activities including field support, laboratory analysis of drinking water for Metro Vancouver and member jurisdictions, as well as system water quality data review, ensuring compliance with quality control standards for the region's drinking water.

Strategic directions and high level goals supported

Board Strategic Plan

- Maintain Metro Vancouver's world-class water system that provides clean, safe drinking water and ensure its capacity to meet future needs.
- Ensure the long-term resilience of the regional drinking water system to withstand natural hazards, climate change and other significant disruptions.
- Develop and implement financial plans and policies that reflect a commitment to sound financial management and long-term planning, in consideration of current and future ratepayers.
- Strengthen awareness and engagement with the public, members, other orders of government, and key stakeholders on a range of initiatives that will ensure the delivery of clean, safe drinking water, now and into the future.

Drinking Water Management Plan

- Goal 1 - Provide clean, safe drinking water
- Goal 2 - Ensure the sustainable use of water resources
- Goal 3 - Ensure the efficient supply of water

Performance indicators

Indicator	Historical and/or Industry Benchmark	Current Performance	2022 Performance Objective
Number of water tests completed on samples collected from the source reservoirs, water treatment plants and distribution system	MV 3-year average (2018-2020): 161,316 2020: 161,564 2019: 161,465 2018: 160,919	2021 YTD May 20: 63,711 Projected 2021: 162,000	162,000
Number of major interagency projects coordinated	2020: 12 2019: 10 2018: 10 2017: 10	YTD: 12 Projected 2021: 12	12

2022 key actions

- Coordinate interagency work for key projects such as the DFO Capilano River Salmon Hatchery, MOTI Broadway Subway, and Trans Mountain Expansion.
- Conduct a provincial laboratory accreditation Enhanced Water Quality Assurance (EWQA) audit required for the continued operation of the microbiology laboratory.
- Perform an internal audit of the Quality Management System for Drinking Water (QMSDW) and issue formal audit report and conduct management review.
- Continue to support the corrosion control program by monitoring/testing of pH and alkalinity levels throughout the region.
- Continue to install improved in-system reservoir sampling equipment at high priority reservoir sites.
- Install online chlorine analyzers on Annacis Main No.2 and Barnston Island Main to assess real-time water quality.

WATER SERVICES

Shared and Support Services

Description of Services

Water Services provides safe drinking water to the Metro Vancouver region through the Greater Vancouver Water District. Shared and Support Services (SSS) provides: Survey, Inspection and Drafting Services to WS, LWS and PDE departments through its Shared Utility Services (SUS) Division; oversees shared WS Maintenance services as provided by LWS to WS; provides Administrative Support services to WS; operates the Regional GPS program; and provides oversight and coordination to WS on business planning, financial management, capital planning, safety and emergency planning/response, asset management, performance management and continuous improvement, and utility benchmarking, in collaboration with Finance, PDE and Corporate Safety and Emergency Management.

Strategic Directions and High Level Goals Supported

Board Strategic Plan

- Maintain Metro Vancouver's world-class water system that provides clean, safe drinking water and ensure its capacity to meet future needs.
- Ensure the long-term resilience of the regional drinking water system to withstand natural hazards, climate change and other significant disruptions.
- Develop and implement financial plans and policies that reflect a commitment to sound financial management and long-term planning, in consideration of current and future ratepayers.
- Strengthen awareness and engagement with the public, members, other orders of government, and key stakeholders on a range of initiatives that will ensure the delivery of clean, safe drinking water, now and into the future.

Drinking Water Management Plan

- Goal 1 - Provide clean, safe drinking water
- Goal 2 - Ensure the sustainable use of water resources
- Goal 3 - Ensure the efficient supply of water

Performance Indicators

Indicator	Historical and/or Industry Benchmark	Current Performance	2022 Performance Objective
Percent of GVWD Capital Program Expenditures Achieved:	3 yr average (2018 – 2020): 68% 2018: 35% 2019: 105% 2020: 63%	(as of June 2021) YTD: 18% Objective: 85%	(2022) 85%
Percent of Minor Capital Program Expenditures Achieved:	3 yr average (2018 – 2020): 87% 2018: 87% 2019: 116% 2020: 57%	(as of June 2021) YTD: 35% Objective: 95%	(2022) 95%

2022 Key Actions

- Introduce Lean processes, work methods and tools based on DMAIC principles (Define- Measure- Analyze-Improve-Control)
- Create pilot areas to showcase Lean practices and share knowledge
- Introduce Lean methods to business planning and budgeting process by identifying what is critical to Capital and Operating, defining the criticality and determining measurement and data gathering.
- Develop Capital Projects and Minor Capital (MCR) projects tracking tools, including creating live dash boards for performance monitoring.
- In collaboration with PDE department, establish baseline State of the Assets Report (SOAR)
- Establish guidelines for different levels of condition inspections and assessment priorities
- Complete priority condition assessments and collaborate with the PDE and IT departments on the Integrated Asset Management strategy, including the replacement of the Enterprise Asset Management (EAM) system
- Complete the implementation of Building Information Modeling (BIM) Phase I, enabling greater utility of collaborative 3D design and design conflicts management. Prepare business case for BIM Phase 2 of 3 approvals for 2023-24 implementation.
- Pilot at least two applications of the earthquake early warning system within the Water Supply system.
- Develop and Implement an Integrated Emergency Management / Response Practice for Water Services
- Improve field, mobile access to engineering drawings and tablet use for construction quality assurance inspections
- Implement engineering drawings digital workflows and dashboard for status reporting of drawings lifecycle status

PROJECT DELIVERY

Water Projects

Description of services

The Water Projects function within Project Delivery provides support to Water Services by achieving excellence in the delivery of the organization's largest and most complex capital projects.

Working alongside owner departments, Project Delivery brings together best practice skills and resources from multiple disciplines and departments while ensuring projects are adequately resourced and have high level of engagement with both internal and external stakeholders. This helps ensure the successful completion of the highest value, risk, and consequence projects for the regional water utility.

Strategic directions and high level goals supported

Support the goals of the Water Services Department in the delivery of world class water services through the projects delivered:

- Support the management of Metro Vancouver's world-class water system.
- Support the long-term resilience goals of the regional drinking water system to withstand natural hazards, climate change and other significant disruptions.
- Develop and implement financial plans and policies that reflect a commitment to sound financial management and long-term planning.
- Strengthen awareness and engagement with the public, GVWD members, other orders of government, and key stakeholders on a range of initiatives that will ensure that the projects delivered meet the regional water goals of protecting public health and the environment.

Ensure value for money in providing major infrastructure delivery services:

- Achieve excellence in the delivery of high-value, high-risk and complex capital projects.
- Implement project controls and robust monitoring on Metro Vancouver's most complex infrastructure projects.
- Ensure complex project risks are adequately identified, quantified and mitigated.

Performance indicators

(based on percentage of overall project expenditure, as a proxy for project progress)

Indicator	Historical benchmark (2020)	Current performance (as at July, 2021)	2022 performance objective
Coquitlam Water Supply Projects			
<ul style="list-style-type: none"> • Coquitlam Lake Water Supply (Coquitlam Intake No. 2) Project Definition 			
<ul style="list-style-type: none"> • Coquitlam Water Main (Coquitlam Main No. 4) South Section Detailed Design 	75%	95%	Complete
	30%	60%	100%
Second Narrows Water Supply Tunnel			
<ul style="list-style-type: none"> • Construction 	40%	50%	70%

Indicator	Historical benchmark (2020)	Current performance (as at July, 2021)	2022 performance objective
Annacis Water Supply Tunnel <ul style="list-style-type: none"> Detailed Design Construction 	75% Not started	90% 1%	Complete 15%
Cambie Richmond Water Supply Tunnel <ul style="list-style-type: none"> Conceptual Design Preliminary Design 	15% Not Started	50% Not Started	Complete 60%
Stanley Park Water Supply Tunnel <ul style="list-style-type: none"> Detailed Design Construction 	50% Not Started	80% Not Started	Complete 2%

2022 key actions

Coquitlam Lake Water Supply (Coquitlam Intake No. 2)

- Commence Permitting and Regulatory Phase
- Commence Phase 2 site investigation work in the Watershed and treatment plant site
- Continue stakeholder and First Nations engagement
- Participate in City of Coquitlam's Upper Pipeline Road Overview planning exercise

Coquitlam Water Main (Coquitlam Main No. 4)

- Commence construction of the first section of the project (South Section) on Pipeline Road between Robson Drive and Guildford Way
- Procurement of long delivery items including steel pipe and large diameter valves for the South Section construction;
- Undertake Preliminary Design of the City Centre Tunnel Section to determine the locations of the entry and exit shafts; and
- Continue Detailed Design of the Central and Cape Horn Sections

Tunneling Projects

- Complete project management staff resourcing and establishment of Tunnel Group B
- Continue construction of the Second Narrows Water Supply Tunnel
 - Commencement of pipe installation and valve chamber construction
- Commence construction of the Annacis Water Supply Tunnel
 - Entry shaft excavation for TBM
- Commence conceptual design for Haney Water Supply Tunnel
 - Prepare RFP for conceptual design
- Commence construction for Stanley Park Water Supply Tunnel
 - Construction procurement early to late 2022
 - Start of construction late 2022, including preparation of work sites, and construction of by-passes
- Commence preliminary design for Cambie-Richmond Water Supply Tunnel
 - Prepare RFP for preliminary design
- Review of feasibility study for Lulu-Delta Water Supply Tunnel

2022 to 2026 – WHAT’S HAPPENING

Below is a summary of the significant initiatives to be undertaken by Water Services over the next five years. Includes water-related projects delivered through the Project Delivery Department.

Initiative	Description	Theme
2022		
Dam Safety Review for Seymour Falls Dam	Complete the next Dam Safety Review for Seymour Falls Dam in accordance with the provincial Dam Safety Regulations which require Dam Safety Reviews at 7-year intervals for extreme consequence dams.	Regulatory and Legislative Environment
Corrosion Control Monitoring	Monitoring of the pH and alkalinity adjustments to help reduce corrosion in premise plumbing systems.	Regulatory and Legislative Environment
Coquitlam Water Treatment Plant Control System Upgrade	Programming and design to upgrade the controls at the Coquitlam Water Treatment Plant Ozone Generation, Corrosion Control, and Chlorination facilities.	System Stewardship
Transmission System Online Chlorine Analyzers Additions	Installation of additional online chlorine analyzers within the transmission system to provide real time chlorine residual data.	System Stewardship
Drinking Water Conservation Plan Update	Update the Drinking Water Conservation Plan to promote further conservation of seasonal water demand.	Regional growth and System Stewardship
Water system predictive analysis tool introduction	Incorporate predictive analysis for short term forecasting and transparent performance tracking.	System Stewardship
New Watershed Center - Construction	Complete construction of a new multi-use public educational and office building in the Lower Seymour Conservation Reserve	System Stewardship & Environmental Sustainability
Enhanced Water Quality Assurance Audit	Conduct a provincial laboratory accreditation audit required for continued operation of the microbiology laboratory	Regulatory and Legislative Environment
Capilano Raw Water PS Backup Power Facility - Construction	Construction of the Capilano Raw Water PS Backup Power Facility, providing backup power to 4 x 2,000 HP pumps during power outages.	System Stewardship
Newton Pump Station No. 2 - Construction	Construction of the Newton Pump Station No. 2, required to meet growing water demand in the City of Surrey. Will replace the existing Newton Pump Station and include full back-up power redundancy and new connections to the existing Newton Reservoir.	Regional Growth

Hellings Tank No. 2 - Construction	Commence construction of the new Hellings Tank No. 2, a 11.4 ML reservoir that will provide in system storage to meet the growing demands for drinking water in Delta.	Regional Growth
Building Information Modeling (BIM) Phase I implementation	Standards, protocols and training implemented for 3D design processes for Utilities, in collaboration with WS, LWS, PDE PMO and Corporate Digital Strategy	System Stewardship & Environmental Sustainability
Pilot Earthquake Early Warning applications	With SCFP, CWTP and LCOC network of sensors, begin experimenting with water supply applications for staff safety and saving water / infrastructure, emulating large earthquake	System Stewardship & Environmental Sustainability
Stanley Park Water Supply Tunnel – Construction	Commence Construction of the 1.4 km long water supply tunnel under Stanley Park	System Stewardship
Annacis Water Supply Tunnel - Construction	Commence Construction of a 2.3 km long water supply tunnel under the Fraser River	System Stewardship
Coquitlam Water Main South Section – Construction	Commence Construction of the section on Pipeline Road from Robson Drive to Guildford Way	Regional Growth
2023		
Coquitlam Water Treatment Plant Control System Upgrade	Completion and commissioning of the Control System upgrade for Ozone Generation and Corrosion Control and Chlorination at the Coquitlam Water Treatment Plant.	System Stewardship
Dam Safety Review for Cleveland Dam	Complete the next Dam Safety Review for Cleveland Dam in accordance with the provincial Dam Safety Regulations which require Dam Safety Reviews at 7-year intervals for extreme consequence dams.	Regulatory and Legislative Environment
'Smart Water Network' concept	Proceed with digital transformation of the Water Utility and establish a digital foundation to enable enhanced data management and accessibility.	System Stewardship
BC Hydro Coquitlam Water Use Plan Update	Participate in BC Hydro's review and update of the Coquitlam Water Use Plan	Environmental Sustainability
Barnston/Maple Ridge PS Backup Power - Design	Complete design of Barnston/Maple Ridge PS Backup Power, as part of ongoing program to provide backup power for key infrastructure to address power outages and major storm events.	System Stewardship
Fleetwood Reservoir - Construction	Complete construction of Fleetwood Reservoir, a 13.6 ML Reservoir, and 1.1 km feeder main that will increase water supply to meet growing demand in the City of Surrey.	Regional Growth

Cape Horn Pump Station No. 3 - Construction	Commence construction of Cape Horn Pump Station No. 3, required to meet growing water demand south of the Fraser River. The new pump station will be located at the existing pump station site and will include full back-up power redundancy.	Regional Growth
2024		
CWTP Ozone Backup Power - Construction	Ongoing program to provide backup power for key infrastructure so it will operate during power outages and major storm events.	System Stewardship
North Shore Works Yard - Planning	Plan for redevelopment of Beach Yard Works Yard, after Second Narrows Water Supply Tunnel project completion.	System Stewardship
Environmental Management System	Complete ISO 14001 certification process for the water utilities Environmental Management System.	Environmental Sustainability & Regulatory and Legislative Environment
Douglas Road Main No. 2 (Still Creek Section) - Construction	Complete Douglas Road Main No. 2 (Still Creek Section), the last remaining 2.5km section (1.5m diameter steel pipe) to be installed for the overall Douglas Road Main No.2 watermain project.	System Stewardship
Kennedy-Newton Main - Construction	Complete construction of the Kennedy-Newton Main, required to convey water from the Kennedy Reservoir to the Newton Reservoir in the City of Surrey. The project consists of 9 km of 1.8 m diameter steel watermain.	Regional Growth
Coquitlam Water Main Central Section – Construction	Commence Construction of the northern section of Coquitlam Water Main.	Regional Growth
Coquitlam Water Main Cape Horn Section – Construction	Commence Construction of the southernmost section of Coquitlam Water Main.	Regional Growth
Dam Safety Review for Rice Lake Dams	Carry out scheduled dam safety review for Rice Lake Dams	Regulatory and Legislative Environment
2025		
Newton Pump Station No. 2 - Construction	Complete construction of the replacement Newton Pump Station No. 2, required to meet growing water demand in the City of Surrey.	Regional Growth
Dam Safety Review for Alpine Lake Dams	Carry out next dam safety reviews for Palisade, Burwell and Loch Lomond Dams	Regulatory and Legislative Environment
Lulu-Delta Tunnel – Preliminary Design	Complete preliminary design of new water supply tunnel under the Fraser River.	System Stewardship

Haney Water Supply Tunnel – Preliminary Design	Commence preliminary design of new water tunnel under the Pitt River.	System Stewardship
Coquitlam Water Main Tunnel Section – Construction	Commence Construction of the tunnel portion of Coquitlam Water Main from Guildford Way to Dewdney Trunk Road	Regional Growth
2026		
Annacis Main No. 5 (North) - Construction	Complete construction of Annacis Main No. 5 (North), required to convey water from the existing system within the City of Burnaby to the north shaft of the Annacis Water Supply Tunnel in the City of New Westminster. The project consists of 2.5 km of 1.8 m diameter steel watermain.	Regional Growth
Central Park Main No. 2 - Construction	Complete Construction of Central Park Main No. 2, required to replace the existing Central Park Main in the City of Burnaby which has been in service since 1931 and is nearing the end of its service life. The proposed 7.0 km-long CPM2 will enhance system reliability and provide increased capacity to meet future water demands.	System Stewardship
Next Generation SCADA - Planning	Planning for the next generation SCADA. The existing SCADA System went online in 2007/2008. With technology and cyber-security rapidly evolving, there is a need to migrate to the best-in-class technology.	System Stewardship
Annacis Water Supply Tunnel – Construction	Complete Construction of the Annacis Water Supply Tunnel	Regional Growth

METRO VANCOUVER DISTRICTS
2022-2026 PROJECTED RESERVES - WATER

ATTACHMENT 5

OPERATING RESERVES

	2021 ENDING BALANCE	2022 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2022 ENDING BALANCE	2023 ENDING BALANCE	2024 ENDING BALANCE	2025 ENDING BALANCE	2026 ENDING BALANCE
Water Services	\$ 20,308,376	\$ 20,308,376	\$ -	\$ (3,400,000)	\$ 372,168	\$ 17,280,543	\$ 17,626,154	\$ 17,978,677	\$ 18,338,251	\$ 18,705,016

STATUTORY RESERVES

	2021 ENDING BALANCE	2022 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2022 ENDING BALANCE	2023 ENDING BALANCE	2024 ENDING BALANCE	2025 ENDING BALANCE	2026 ENDING BALANCE
Water Services										
Water Laboratory Equipment Reserve	\$ 1,612,437	\$ 1,612,437	\$ -	\$ (96,000)	\$ 31,289	\$ 1,547,726	\$ 1,481,720	\$ 1,414,395	\$ 1,345,723	\$ 1,275,677
Water Sustainability Innovation Fund Reserve	15,502,764	15,502,764	723,000	(900,000)	308,285	15,634,050	16,676,961	17,740,730	18,825,774	19,932,520
Total	\$ 17,115,201	\$ 17,115,201	\$ 723,000	\$ (996,000)	\$ 339,574	\$ 17,181,775	\$ 18,158,681	\$ 19,155,125	\$ 20,171,497	\$ 21,208,197

To: Zero Waste Committee

From: Paul Henderson, General Manager, Solid Waste Services

Date: October 7, 2021 Meeting Date: October 15, 2021

Subject: **2022 – 2026 Financial Plan – Solid Waste Services**

RECOMMENDATION

That the Zero Waste Committee endorse the 2022 – 2026 Financial Plan for Solid Waste Services as presented in the report dated October 7, 2021, titled “2022 – 2026 Financial Plan – Solid Waste Services”, and forward it to the Metro Vancouver Board Budget Workshop on October 20, 2021 for consideration.

EXECUTIVE SUMMARY

The 2022 – 2026 Metro Vancouver Financial Plan has been prepared following direction received at the April 8, 2021 Metro Vancouver Board Budget Workshop. This has resulted in a plan that maintains the goals and objectives of Metro Vancouver while using key financial tools to minimize the impact on the ratepayers of the region for 2022. The increase in Metro Vancouver’s overall consolidated household impact for 2022 is projected to be 3.5%, down from the 6.4% projected for 2022 in the prior financial planning cycle.

2022 Tipping fees increase \$4 per tonne, the same per tonne increase as the prior budget cycle projection. Per household cost is \$63 per household, up \$3 from 2021. Key budget drivers for 2022 include new debt and operating costs associated with the completion of United Boulevard and Central Surrey recycling and waste centres.

Priorities for the Solid Waste function include the solid waste management plan update as well as continued progress towards zero waste and a circular economy, greenhouse gas emission reduction, and customer service enhancement and monitoring.

PURPOSE

To present the 2022 – 2026 Financial Plan for Solid Waste Services for consideration by the Committee.

BACKGROUND

Metro Vancouver’s annual budget process includes the development of detailed annual budgets and the updating of five-year financial plans for each of the four Metro Vancouver legal entities (Metro Vancouver Regional District, Metro Vancouver Housing Corporation, Greater Vancouver Water District and Greater Vancouver Sewerage and Drainage District).

On April 8, 2021, a Metro Vancouver Board Budget Workshop was held with the objective to seek direction for the preparation of the 2022 – 2026 Financial Plan. The workshop outlined the principles that guide the work of Metro Vancouver as an organization, the current 2021 – 2025 Financial Plan,

the implications of the COVID-19 pandemic, the tools that can be used to make budget adjustments, and a proposed approach for the 2022 – 2026 Financial Plan.

Staff proposed leveraging the supported tools to create a short-term action plan that would lessen the upward pressure on household impact for 1-3 years. A short-term action plan would enable strategic goals and objectives to be maintained. If larger or more long-term adjustments are desired, a re-evaluation of long-term plans such as the *Metro Vancouver Housing Plan*, *Climate 2050*, or the *Liquid Waste Management Plan* would be required. Since an annual budget is approved, this approach will allow for adjustments to be made each year as conditions change based on market changes and other factors. The use of the tools will aim to avoid making severe changes that cannot be easily corrected in the short term. Overall, the short-term action plan approach was supported.

This report focuses on Solid Waste Services and presents the 2022 annual budget and the updated five-year plan for the years 2022 to 2026 for Committee consideration.

SOLID WASTE SERVICES PROGRAM

Solid Waste Services, within the Greater Vancouver Sewerage and Drainage District (GVS&DD), provides solid waste management planning, zero waste implementation, and recycling and waste centre and disposal facility operations.

Solid Waste Services works collaboratively with member municipalities to provide waste management services to the region's 2.7 million people. The system is comprised of recycling and waste centres and a waste-to-energy facility that handles approximately 900,000 metric tonnes of waste annually.

Solid Waste Services initiatives planned over the next five years are guided by direction provided in the *2019 – 2022 Board Strategic Plan*, and the *Integrated Solid Waste and Resource Management Plan*, specifically:

Board Strategic Plan:

- Reduce waste, increase recycling and increase recovery of materials and energy from remaining waste. Dispose of residuals in a cost effective and environmentally sustainable manner.
- Develop and implement financial plans and policies that reflect a commitment to sound financial management and long-term planning, in consideration of current and future ratepayers.
- Strengthen awareness and engagement with the public, members, other orders of government, and key stakeholders on a range of initiatives that will reduce waste generated in the region.

Integrated Solid Waste and Resource Management Plan:

- Goal 1 - Minimize waste generation
- Goal 2 - Maximize reuse, recycling & material recovery
- Goal 3 - Recover energy from waste stream after material recovery
- Goal 4 - Dispose of all waste in landfill after recycling & energy recovery

WORK PLAN PERFORMANCE INDICATORS

High-level performance indicators have been developed across the organization to evaluate trends, determine key actions for the coming year, and to assist in long-term planning. The 2022 Work Plans for Solid Waste Services are presented in this report. Within the Solid Waste Services Work Plans, four performance indicators have been developed and are being tracked. These include:

- Annual solid waste flows in Metro Vancouver system (tonnes);
- Availability of the Waste-to-Energy Facility and recycling and waste centres (percent);
- Recycling rate (percent of solid waste diverted from final disposal); and
- Waste disposed per capita (tonnes/capita).

The trend in these performance measures show a slight increase in waste quantities projected for 2021 compared to 2020 but down slightly from 2019. Metro Vancouver's recycling and waste centres and Waste-to-Energy Facility have high customer availability (>99%). Waste diversion rates have been trending upwards and are currently at 63%. Waste disposed per capita is currently at 0.45 tonnes, compared to the Canadian average of 0.69 tonnes.

CONTINUOUS IMPROVEMENT

Solid Waste Services regularly implements continuous improvement initiatives. Some recent initiatives include:

- Encorp Return-It Express & GO beverage container drop-off and B.C. Used Oil Management Association used oil and antifreeze collection at North Shore Recycling and Waste Centre;
- Recycling depot funding strategy; and
- Organics management contracts.

New or continuing continuous improvement initiatives for 2022 include:

- Bottom ash beneficial use pilot testing;
- Weighscale system software replacement;
- Regional harmonization of municipal single-use bylaws;
- Waste-to-Energy Facility biosolids management; and
- Waste-to-Energy Facility district energy.

2022 BUDGET AND 2022 – 2026 FINANCIAL PLAN

The five-year financial plans for this cycle have been updated to address five central themes identified by the Metro Vancouver Board in its Strategic Plan to guide the development of plans and budgets. The five themes are as follows:

- Financial Sustainability
- Environmental Sustainability
- System Stewardship
- Regulatory and Legislative Environment
- Regional Growth

Each Metro Vancouver function has an Annual Work Plan that includes strategic directions, performance indicators and key actions to guide the work for the coming year. Each function also has a “What’s Happening” summary that highlights the program activities for the next five years.

The 2022 – 2026 Solid Waste Services Financial Plan is included as Attachment 1. The 2022 Annual Work Plan for Solid Waste Services presented in this report is included in Attachment 3 and the “What’s Happening” highlights for the years 2022 – 2026 are included in Attachment 4.

Operating Budget Highlights

The Solid Waste Services operating budget is separated into operating programs and funding required to support the expanding capital program (debt service and contribution to capital). It is proposed to increase by \$4.5 million in 2022 for a total budget of \$123.0 million (Attachment 1). This increase is primarily a result of start-up costs for new recycling and waste centres. Debt service increases, primarily associated with new recycling and waste centres, are partially offset by a reduction in the planned contribution to capital.

The 2022 operating budget includes the following key actions:

- Review and update of the region’s solid waste management plan to advance zero waste and the circular economy;
- Continue to enhance customer service and monitoring including investigating continuous feedback mechanisms;
- Operation of the United Boulevard Recycling and Waste Centre;
- Operation of the Central Surrey Recycling and Waste Centre;
- Alternative fuel and recyclable recovery procurement;
- Asset management program, including data validation and program guideline development;
- Support programs for textiles, single-use items, seasonal wastes, food wastes, illegal dumping, and the Zero Waste Conference; and
- Support the National Zero Waste Council including work on implementing the Circular Economy and Zero Plastics Waste.

Highlights of contracts and consulting projects anticipated to be undertaken in 2022 to respond to work plan requirements within the operating budget include the following:

- Langley Recycling and Waste Centre recycling depot design
- Waste-to-Energy Facility district energy design
- Waste-to-Energy Facility Ambient Air Monitoring review
- Solid waste management plan engagement activities
- Residual garbage management options review
- Alternative fuel and recyclables recovery
- Ashcroft Ranch McLean Lake Dam spillway and ranch fencing replacement
- Waste composition analysis

Over the next five years, the Solid Waste Services budget is expected to increase an average of \$6.6 million or 5.0% per year. Of this overall increase, funding related to the expanding capital program (debt servicing and contribution to the capital) is increasing \$4.0 million per year on average

over the next five years leaving the operating programs which are increasing, on average, by \$2.6 million per year, roughly at the rate of inflation.

Capital Budget Highlights

The Solid Waste Services capital budget for 2022 approval is \$287.1 million (Attachment 2). This amount includes all capital projects underway or planned in 2022. The capital program is funded by long-term debt and contribution to capital from the annual operating budget as available.

The projected capital cash flow for 2022 – 2026 totals \$268.0 million, an average of \$53.6 million per year. The largest six projects (each over \$10 million) make up approximately 68% of the capital spending over the next five years. These six projects also represent 35% of the expenditures planned for the 2027 – 2031 period. There are 40 projects on the 5-year plan.

The capital program over the next five years is largely driven by the need to replace aging Waste-to-Energy Facility infrastructure and enhance recycling services at the recycling and waste centres. The addition of biosolids management at the Waste-to-Energy Facility and the alternative fuel and recyclables recovery project are expected to increase beneficial use of waste materials and reduce greenhouse gas emissions. Waste-to-Energy Facility acid gas reduction upgrades have been deferred consistent with the requirements of the amended Waste-to-Energy Facility Operational Certificate to allow additional ambient air monitoring to compare ambient concentrations to dispersion modelling results and ambient air quality objectives. Data collected to date show ambient concentrations of hydrogen chloride and sulfur dioxide are less than 5% of ambient air quality objectives, and well below modelling results. Work on the development of a new western region recycling and waste centre has been deferred to match current expectations with respect to timing for the construction of that facility.

The following key projects are included in the five-year plan:

- Alternative Fuel and Recyclables Recovery Centre
- North Surrey and Langley Recycling and Waste Centre Recycling Depots
- Waste-to-Energy Facility District Energy
- Waste-to-Energy Facility Biosolids Management
- Waste-to-Energy Facility Acid Gas Reduction

2022 – 2026 Tipping Fee Projections

The following table shows the tipping fee projections based on the required revenue to offset expected expenditures. Tipping fees for 2022 and 2023 are increasing by \$4 and \$7 per tonne respectively. Requirements for 2023 and beyond will be reviewed during future budget processes with the goal of reducing tipping fee increases where possible.

Projected Tipping Fees for Municipal Solid Waste (\$/tonne)	2021	2022	2023	2024	2025	2026
Municipal Tipping Fee	\$117	\$121	\$128	\$135	\$142	\$149
Small Vehicles (0-1t)	\$151	\$155	\$162	\$169	\$176	\$183

Medium Vehicles (1-8t)	\$129	\$133	\$140	\$147	\$154	\$161
Large Vehicles (>8t)	\$103	\$107	\$114	\$121	\$128	\$135

The Solid Waste Services tipping fee projections are identical with those forecast in the prior budget cycle.

Waste Flows

With tipping fees being the primary revenue source for the Solid Waste function, waste flow projections are the key driver for annual budget projections. 2020 total system waste flows were approximately 860,000 tonnes. Projections for 2021 are currently estimated at approximately 940,000 tonnes, slightly higher than 2019 actuals. The increase in tonnage in 2021 is due in part to recovering waste flow subsequent to the impacts of COVID-19 as well as disposal of construction and demolition facility residuals at the Vancouver Landfill, material not typically delivered to the regional system. The waste flow for 2022 is budgeted at 890,000 tonnes.

Reserve Funds

There are no proposed applications of reserve funding in the 2022 – 2026 Financial Plan.

The 2022 – 2026 Projected Reserves for Solid Waste Services is included in Attachment 5.

APPROVAL PROCESS

The proposed 2022 – 2026 Financial Plan and Annual Work Plans for Solid Waste Services are presented for consideration and endorsement before being forwarded to the Board for consideration.

The next steps of the process are:

- The 2022 – 2026 Financial Plan and Annual Work Plan will be presented for consideration at the Metro Vancouver Board Budget Workshop on October 20, 2021.
- The Greater Vancouver Sewerage and Drainage District Board will consider adoption of the 2021 Budget and endorsement of the 2022 – 2026 Financial Plan on October 29, 2021.

ALTERNATIVES

1. That the Zero Waste Committee endorse the 2022 – 2026 Financial Plan for Solid Waste Services as presented in the report dated October 7, 2020, titled “2022 – 2026 Financial Plan – Solid Waste Services”, and forward it to the Metro Vancouver Board Budget Workshop on October 20, 2021 for consideration.
2. That the Zero Waste Committee make recommendations and endorse an amended 2022 – 2026 Financial Plan for Solid Waste Services and forward the amended Financial Plan to the Metro Vancouver Board Budget Workshop on October 20, 2021 for consideration.

FINANCIAL IMPLICATIONS

If the Greater Vancouver Sewerage and Drainage District Board approves the 2022 Budget and endorses the Five-Year Financial Plan for Solid Waste Services, as presented under Alternative 1, in

2022 the revenue from the tipping fees for the system will increase by \$4.4 million (4.0%) to \$112.9 million which will generate the majority of the \$123.0 million in total revenue required to offset projected expenditures. This represents a \$3 or 4.3% increase in the cost to the average regional household to \$63 (2021 \$60).

Over the term of the five-year plan, the annual tipping fee revenue is projected to increase by an average of \$6.0 million per year to provide the required revenue to offset projected expenditures. It is anticipated that the cost to the average regional household over the next five years will rise from \$63 in 2022 to \$74 in 2026 representing an average annual increase of approximately \$3 per household.

Under Alternative 2, the Committee may wish to consider recommending amendments to the 2022 Budget and Five-Year Financial Plan for Solid Waste Services for consideration at the Metro Vancouver Board Budget Workshop. Any changes to the plan may have an impact on the Solid Waste Services Financial Plan.

SUMMARY / CONCLUSION

The 2022 Budget and Five-Year Financial Plan for Solid Waste Services has been prepared following direction received at the April 8, 2021 Metro Vancouver Board Budget Workshop and to respond to direction provided in the *Board Strategic Plan* and support the *Integrated Solid Waste and Resource Management Plan*. It is presented to Committee and Board members to provide overview information on activities and financial impacts for the years 2022 to 2026 for Solid Waste Services.

The presentation of the 2022 Budget and Five-Year Financial Plan for Solid Waste Services provides the opportunity for Metro Vancouver to share with its member jurisdictions the proposed capital projects and operating programs, and the financial impact of these projects, over the next five years. The financial plan illustrates how Metro Vancouver proposes to pay for Solid Waste Services investments that will be required to maintain our assets and to respond to our region's growing population. It is intended to be used as a guiding document for member jurisdictions in the development of their five-year financial plans and includes projections on household impact to demonstrate how the plan will remain affordable for Metro Vancouver residents while keeping pace with our critical infrastructure requirements.

Staff recommend endorsing the 2022 – 2026 Budget and Five-Year Financial Plan and Annual Work Plans for Solid Waste Services as presented under Alternative 1.

Attachments (Orbit: 48386942):

1. 2022 – 2026 Solid Waste Financial Plan
2. 2022 – 2026 Capital Programs and Project Total – Solid Waste Services
3. 2022 Solid Waste Work Plans
4. 2022 – 2026 “What’s Happening”
5. 2022 – 2026 Projected Reserves – Solid Waste

ATTACHMENT 1

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
SOLID WASTE
2022 BUDGET REVIEW
2022-2026 FINANCIAL PLAN

	2021 BUDGET	2022 BUDGET	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE	2025 FORECAST	% CHANGE	2026 FORECAST	% CHANGE
REVENUES											
Solid Waste Tipping Fees	\$ 108,516,645	\$ 112,909,870	4.0%	\$ 118,375,791	4.8%	\$ 124,657,561	5.3%	\$ 131,471,016	5.5%	\$ 138,384,365	5.3%
Energy Sales	6,239,530	6,401,758		6,568,204		6,738,977		6,914,190		7,093,959	
Other External Revenues	3,756,396	3,679,379		4,401,400		5,819,012		5,881,179		5,944,379	
TOTAL REVENUES	\$ 118,512,571	\$ 122,991,007	3.8%	\$ 129,345,395	5.2%	\$ 137,215,550	6.1%	\$ 144,266,385	5.1%	\$ 151,422,703	5.0%
EXPENDITURES											
Operating Programs:											
Solid Waste Operations											
Allocated Quality Control	\$ 18,494	\$ 17,582		\$ 18,312		\$ 18,646		\$ 20,602		\$ 18,076	
Ashcroft Ranch	724,267	862,263		533,011		494,383		555,888		472,829	
Engineers in Training	93,013	124,066		126,375		129,205		132,101		135,065	
Landfills	34,180,437	31,493,726		35,145,899		35,762,756		37,416,672		39,026,143	
Recycling and Waste Centre	37,423,463	39,877,587		39,117,078		40,627,531		41,713,351		42,740,182	
Waste to Energy Facility	24,350,996	24,897,642		25,103,689		26,078,034		26,387,765		26,864,771	
	96,790,670	97,272,866	0.5%	100,044,364	2.8%	103,110,555	3.1%	106,226,379	3.0%	109,257,066	2.9%
Solid Waste Planning											
Policy and Facility Development	700,979	624,289		620,057		658,236		671,723		685,526	
Zero Waste Implementation	2,182,351	2,308,441		2,336,838		2,051,079		1,662,814		1,695,455	
Programs and Public Involvement	803,627	764,836		776,089		789,728		633,681		647,960	
	3,686,957	3,697,566	0.3%	3,732,984	1.0%	3,499,043	(6.3%)	2,968,218	(15.2%)	3,028,941	2.0%
Administration and Department Support	649,291	656,133	1.1%	668,046	1.8%	676,155	1.2%	690,695	2.2%	706,798	2.3%
Environmental Regulation and Enforcement	934,630	1,418,683	51.8%	1,416,740	(0.1%)	1,332,718	(5.9%)	1,364,742	2.4%	1,397,370	2.4%
Allocation of Centralized Support Costs	4,740,158	5,042,360	6.4%	5,169,970	2.5%	5,394,621	4.3%	5,296,354	(1.8%)	5,041,927	(4.8%)
Total Operating Programs	106,801,706	108,087,608	1.2%	111,032,104	2.7%	114,013,092	2.7%	116,546,388	2.2%	119,432,102	2.5%
Allocation of Project Delivery Cost	327,502	439,579	34.2%	584,467	33.0%	609,797	4.3%	613,828	0.7%	615,146	0.2%
Debt Service	6,946,790	10,440,428	50.3%	16,592,377	58.9%	20,357,462	22.7%	23,086,608	13.4%	24,779,128	7.3%
Contribution to Capital	4,436,573	4,023,392	(9.3%)	1,136,447	(71.8%)	2,235,199	96.7%	4,019,561	79.8%	6,596,327	64.1%
TOTAL EXPENDITURES	\$ 118,512,571	\$ 122,991,007	3.8%	\$ 129,345,395	5.2%	\$ 137,215,550	6.1%	\$ 144,266,385	5.1%	\$ 151,422,703	5.0%

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
CAPITAL PORTFOLIO
SOLID WASTE SERVICES
2022 CAPITAL BUDGET AND 2022-2026 CAPITAL PLAN

	CAPITAL BUDGET FOR APPROVAL	2022 CAPITAL CASH FLOW	2023 CAPITAL CASH FLOW	2024 CAPITAL CASH FLOW	2025 CAPITAL CASH FLOW	2026 CAPITAL CASH FLOW	2022 TO 2026 TOTAL CAPITAL CASH FLOW	ACTIVE PHASE	PRIMARY DRIVER
CAPITAL EXPENDITURES									
Landfills									
Alternative Fuel and Recyclables Recovery Centre	\$ -	\$ -	\$ -	\$ -	\$ 1,500,000	\$ 20,000,000	\$ 21,500,000	Feasibility Study	Opportunity
Coquitlam Landfill East Closure	-	-	400,000	3,500,000	1,100,000	-	5,000,000	Not started	Resilience
Coquitlam Landfill Gas Collection Upgrades	7,300,000	1,100,000	-	-	-	-	1,100,000	Construction	Maintenance
Coquitlam Landfill Lot 3 Development	5,000,000	50,000	-	-	-	-	50,000	Feasibility Study	Resilience
Coquitlam Landfill Pump Station Upgrade	1,600,000	1,000,000	-	-	-	-	1,000,000	Construction	Maintenance
Coquitlam Landfill: Leachate Collection System Grade Realignment	200,000	200,000	800,000	-	-	-	1,000,000	Design	Resilience
Total Landfills	\$ 14,100,000	\$ 2,350,000	\$ 1,200,000	\$ 3,500,000	\$ 2,600,000	\$ 20,000,000	\$ 29,650,000		
Recycling and Waste Centres									
Central Surrey Recycling and Waste Centre	\$ 50,300,000	\$ 8,000,000	\$ -	\$ -	\$ -	\$ -	\$ 8,000,000	Construction	Growth
Langley Recycling Depot Development	250,000	250,000	3,000,000	2,250,000	-	-	5,500,000	Design	Upgrade
Maple Ridge Transfer Station Upgrades	2,000,000	200,000	1,800,000	-	-	-	2,000,000	Design	Maintenance
North Shore Recycling and Waste Centre Compactor Replacement	-	-	-	-	2,500,000	-	2,500,000	Not started	Maintenance
North Surrey Recycling and Waste Centre Compactor Replacement	-	-	2,500,000	-	-	-	2,500,000	Not started	Maintenance
North Surrey Recycling Depot Development	20,250,000	20,250,000	3,000,000	2,250,000	-	-	25,500,000	Design	Upgrade
United Boulevard Recycling and Waste Centre	77,600,000	200,000	-	-	-	-	200,000	Construction	Growth
Western Region Recycling and Waste Centre Replacement	-	-	-	-	-	5,000,000	5,000,000	Not started	Resilience
Total Recycling and Waste Centres	\$ 150,400,000	\$ 28,900,000	\$ 10,300,000	\$ 4,500,000	\$ 2,500,000	\$ 5,000,000	\$ 51,200,000		
Waste To Energy Facilities									
Acid Gas Reduction	\$ 2,000,000	\$ -	\$ -	\$ 2,800,000	\$ 7,750,000	\$ 30,000,000	\$ 40,550,000	Preliminary Design	Upgrade
Air System Piping Replacement	-	-	300,000	-	-	-	300,000	Not started	Maintenance
Biosolids Processing	1,750,000	2,250,000	8,000,000	8,000,000	3,700,000	-	21,950,000	Design	Resilience
Boiler and APC Roof Replacement	-	-	100,000	650,000	1,000,000	-	1,750,000	Not started	Maintenance
Bottom Ash Crane Replacement	1,500,000	900,000	500,000	-	-	-	1,400,000	Design	Maintenance
Bottom Ash Processing	6,800,000	450,000	-	-	-	-	450,000	Construction	Opportunity
Compressed Air System Replacement	3,000,000	1,400,000	1,500,000	-	-	-	2,900,000	Design	Maintenance
Electrical Transformers Replacement	5,000,000	200,000	4,500,000	300,000	-	-	5,000,000	Design	Maintenance
Fabric Filter Hopper and Pulse Header Refurbishment	2,250,000	650,000	1,500,000	-	-	-	2,150,000	Design	Maintenance
Feed Hopper/Chute	2,600,000	100,000	-	-	-	-	100,000	Construction	Maintenance
Feedwater Pump Replacement	1,000,000	200,000	-	-	-	-	200,000	Design	Maintenance
Fire Suppression System	1,000,000	500,000	500,000	-	-	-	1,000,000	Design	Maintenance
Fly Ash Silo Refurbishment	1,000,000	100,000	500,000	400,000	-	-	1,000,000	Design	Maintenance
Generation Bank Replacement	-	-	100,000	5,900,000	3,000,000	-	9,000,000	Not started	Maintenance
Primary Economizer Replacement	7,000,000	3,800,000	3,000,000	-	-	-	6,800,000	Construction	Maintenance
Primary Superheaters Replacement	4,000,000	100,000	2,000,000	1,000,000	900,000	-	4,000,000	Design	Maintenance
Programmable Logic Controllers Replacement	2,000,000	500,000	500,000	500,000	500,000	-	2,000,000	Design	Maintenance

**GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
CAPITAL PORTFOLIO
SOLID WASTE SERVICES
2022 CAPITAL BUDGET AND 2022-2026 CAPITAL PLAN**

	CAPITAL BUDGET FOR APPROVAL	2022 CAPITAL CASH FLOW	2023 CAPITAL CASH FLOW	2024 CAPITAL CASH FLOW	2025 CAPITAL CASH FLOW	2026 CAPITAL CASH FLOW	2022 TO 2026 TOTAL CAPITAL CASH FLOW	ACTIVE PHASE	PRIMARY DRIVER
Pug Mill Enclosure Ventilation System Replacement	1,000,000	500,000	500,000	-	-	-	1,000,000	Design	Maintenance
Refuse Crane	16,800,000	3,250,000	9,000,000	4,300,000	-	-	16,550,000	Construction	Maintenance
Refuse Pit Bunker Door Replacement	600,000	600,000	-	-	-	-	600,000	Design	Maintenance
Secondary Economizers Replacement	6,000,000	250,000	1,750,000	3,000,000	1,000,000	-	6,000,000	Design	Maintenance
Soot Blower Piping Replacement	-	-	300,000	-	-	-	300,000	Not started	Maintenance
Special Handle Waste Direct Feed System	-	-	2,500,000	2,500,000	-	-	5,000,000	Not started	Opportunity
Stack Refurbishment	-	-	350,000	-	-	-	350,000	Not started	Maintenance
WTE Facility District Heating	55,000,000	2,000,000	5,000,000	25,000,000	23,000,000	-	55,000,000	Design	Opportunity
Total Waste To Energy Facilities	\$ 120,300,000	\$ 17,750,000	\$ 42,400,000	\$ 54,350,000	\$ 40,850,000	\$ 30,000,000	\$ 185,350,000		
Opportunity									
WTE Facility District Heating Opportunities	\$ 2,310,000	\$ 1,840,000	\$ -	\$ -	\$ -	\$ -	\$ 1,840,000	Design	Opportunity
Total Opportunity	\$ 2,310,000	\$ 1,840,000	\$ -	\$ -	\$ -	\$ -	\$ 1,840,000		
TOTAL CAPITAL EXPENDITURES	\$ 287,110,000	\$ 50,840,000	\$ 53,900,000	\$ 62,350,000	\$ 45,950,000	\$ 55,000,000	\$ 268,040,000		
CAPITAL FUNDING									
New External Borrowing	\$ 193,342,000	\$ 42,816,000	\$ 36,877,000	\$ 28,214,000	\$ 17,015,000	\$ 50,980,000	\$ 175,902,000		
Reserve	16,268,000	3,774,000	4,023,000	1,136,000	2,235,000	4,020,000	15,188,000		
External Funding - Interagency	77,500,000	4,250,000	13,000,000	33,000,000	26,700,000	-	76,950,000		
Total	\$ 287,110,000	\$ 50,840,000	\$ 53,900,000	\$ 62,350,000	\$ 45,950,000	\$ 55,000,000	\$ 268,040,000		
SUMMARY BY DRIVER									
Growth	\$ 127,900,000	\$ 8,200,000	\$ -	\$ -	\$ -	\$ -	\$ 8,200,000		
Maintenance	65,650,000	15,350,000	31,200,000	16,050,000	8,900,000	-	71,500,000		
Resilience	6,950,000	2,500,000	9,200,000	11,500,000	4,800,000	5,000,000	33,000,000		
Upgrade	22,500,000	20,500,000	6,000,000	7,300,000	7,750,000	30,000,000	71,550,000		
Opportunity	64,110,000	4,290,000	7,500,000	27,500,000	24,500,000	20,000,000	83,790,000		
Total	\$ 287,110,000	\$ 50,840,000	\$ 53,900,000	\$ 62,350,000	\$ 45,950,000	\$ 55,000,000	\$ 268,040,000		

SOLID WASTE SERVICES

Solid Waste Operations

Description of services

Solid Waste Services provides waste reduction and recycling planning and solid waste disposal services to the region under the authority of the Greater Vancouver Sewerage and Drainage District (GVS&DD). Solid Waste Operations is responsible for operating an integrated solid waste management system with service delivery focused on achieving Metro Vancouver's zero waste objectives through reliable, cost-effective, safe and environmentally sound operations. The regional solid waste system is a user-pay model, primarily funded through tipping fees.

Metro Vancouver facilities include the North Shore, Coquitlam, Surrey, Maple Ridge, and Langley recycling and waste centres, and Waste-to-Energy Facility. These facilities are managed through several large contracts. Metro Vancouver also manages the closed Matsqui Transfer Station, the closed Coquitlam Landfill, and the Ashcroft Ranch.

Strategic directions and high level goals supported

Board Strategic Plan

- Continue to expand and enhance the disposal ban program
- Continue to expand recycling options at regional recycling and waste centres
- Assess the viability of implementing district heating at the Waste-to-Energy Facility

Integrated Solid Waste and Resource Management Plan

- Goal 1 - Minimize waste generation
- Goal 2 - Maximize reuse, recycling & material recovery
- Goal 3 - Recover energy from waste stream after material recovery
- Goal 4 - Dispose of all waste in landfill after recycling & energy recovery

Performance indicators

Indicator	Historical and/or industry benchmark	Current performance	2022 performance objective
Annual solid waste flows in Metro Vancouver system (tonnes)	2020: 854,000 2019: 921,000 2018: 918,000	projected: 890,000	890,000
Processing Availability of the Waste-to-Energy Facility	2020: 91.6% 2019: 93.1% 2018: 90.4%	projected: 93%	93%
Customer availability for the Waste-to-Energy Facility	2020: 99%	projected: 99%	99%
Customer availability for the recycling and waste centres	2020: 99.9% 2018: 99.9% 2019: 99.9%	projected: 99.9%	99.9%

2022 key actions

General

- Asset management program development, including policy development
- Enhancement of new weigh scale software including new features for improved customer service
- Work with Properties Division on surplus land disposition Matsqui Transfer Station

Recycling and Waste Centres

- United Boulevard Recycling and Waste Centre first full year of operation
- Central Surrey Recycling and Waste Centre commissioning and start of operation
- Recycling depots at Surrey and Langley Transfer stations design
- Initiating procurement for alternative fuel and recyclables recovery facility pilot targeting small vehicle waste
- North Shore organics yard upgrades
- Tipping floor repairs at North Shore and North Surrey
- North Surrey administration building refurbishment

Waste-to-Energy Facility

- Complete feed hopper/feed chute and feedwater pump replacement projects
- Advance refuse crane, bottom ash crane, fabric filter hopper, compressed air, and primary economizer upgrade and replacement projects
- Initiate design for secondary economizer, fly ash silo, programmable logic controllers, pug mill enclosure ventilation system, and electrical transformer upgrade and replacement projects
- Initiate construction of biosolids processing system
- District energy system detailed design
- Bottom ash beneficial use pilot testing
- Continue 2-year study on Waste-to-Energy Facility ambient air monitoring

Landfills

- Mitigating impacts to environmental infrastructure at Coquitlam Landfill due to the Kinder Morgan Trans Mountain Pipeline Expansion project
- Ongoing environmental operations at Coquitlam Landfill (leachate and landfill gas), leachate, landfill gas and groundwater monitoring and reporting for environmental compliance
- Complete procurement process for a new contingency disposal contract
- Complete procurement process for a new five-year contract for groundwater monitoring and reporting and approval-in-principle reporting

Ashcroft Ranch

- McLean Lake Dam spillway upgrades
- Fencing replacement

SOLID WASTE SERVICES

Solid Waste Planning and Public Involvement

Description of services

Solid Waste Services provides waste reduction and recycling planning and solid waste disposal services to the region under the authority of the Greater Vancouver Sewerage and Drainage District (GVS&DD). Solid Waste Planning and Public Involvement is responsible for:

- Technical and audience research and Indigenous and public engagement to develop an updated regional solid waste management plan;
- Regional waste reduction and recycling initiatives in the *Integrated Solid Waste and Resource Management Plan*, including bans, bylaws, regional policies and recycling services, etc.;
- Regional infrastructure planning and development to fulfill future needs for waste recycling, transfer and disposal; and,
- engagement on other solid waste initiatives.

In addition, to support Metro Vancouver's commitment to protect the environment and conserve resources, Environmental Regulation and Enforcement negotiates and issues permits, orders and licenses and then promotes compliance and enforces solid waste bylaws. According to a user-pay principle, these regulatory costs are recovered through fees.

Strategic directions and high level goals supported

Board Strategic Plan

- Expand actions that will reduce the amount of litter and waste that Metro Vancouver members manage, including strategies to reduce single-use items
- Continue to provide technical support to communication campaigns that increase diversion through source reduction, reuse, repurposing or recycling
- Research opportunities to ensure sufficient capacity in the regional recycling and waste diversion system, including assessing opportunities for organics and wood
- Identify future disposal alternatives with full life cycle, cost and greenhouse gas analyses

Integrated Solid Waste and Resource Management Plan

- Goal 1 - Minimize waste generation
- Goal 2 - Maximize reuse, recycling & material recovery
- Goal 3 - Recover energy from waste stream after material recovery
- Goal 4 - Dispose of all waste in landfill after recycling & energy recovery

Performance indicators

Indicator	Historical and/or industry benchmark	Current performance	2022 performance objective
Recycling rate (percent of solid waste diverted from final disposal)	Canadian average*: 27.6% Metro Vancouver historical: 2018: 64% 2017: 63%	63%	65% (Aspirational goal of 80%)

Indicator	Historical and/or industry benchmark	Current performance	2022 performance objective
Waste disposed per capita (tonnes)	Canadian average*: 0.69 Metro Vancouver historical: 2019: 0.48 2018: 0.48 2017: 0.49	0.45	0.45

**Most recent figures (2018) derived from Statistics Canada disposal & diversion tonnages*

2022 key actions

- Regional solid waste system assessment study
- Circular Economy/3Rs best practices study
- Indigenous and public engagement for review and update of the solid waste management plan
- Single-use items reduction strategy
- Disposal Ban Program implementation monitoring
- Textiles, single-use items, seasonal waste, food waste, illegal dumping, and the Zero Waste Conference support
- National Zero Waste Council including work on implementing the Circular Economy and Zero Plastics Waste support
- National Solid Waste Benchmarking Initiative and applied waste research
- Regional waste composition monitoring
- Solid waste initiatives engagement
- Regional Food Recovery Network
- Regional Reuse Repair event

Solid Waste Services

2022 to 2026 – WHAT’S HAPPENING

Below is a summary of the significant initiatives to be undertaken by Solid Waste Services over the next five years.

Initiative	Description	Theme
2022		
Weighscale software replacement	Autoscale software replacement installation	System Stewardship
Asset management planning	Asset management program implementation and plan development	System Stewardship
Biosolids utilization at the Waste-to-Energy Facility	Detailed design/ commence construction of biosolids utilization system at the Waste-to-Energy Facility	Opportunities for Innovation and Enhanced Service
Recycling and Waste Centre system evaluation	Evaluate the recycling and waste centre network and potential improvements	Addressing Regional Growth
Central Surrey Recycling and Waste Centre Operation	Central Surrey Recycling and Waste Centre operations	Addressing Regional Growth
District energy system at the Waste-to-Energy Facility	District energy system detailed design	Environmental Protection and Climate Action
Solid waste management plan review	Review and update of the region’s solid waste management plan	Environmental Protection and Climate Action
Zero waste initiatives	Research on further waste prevention and diversion initiatives, such as new policies, incentives, business models and regulatory measures, to move toward a circular economy	Environmental Protection and Climate Action
Bottom ash beneficial use	Beneficial use of bottom ash procurement	Environmental Protection and Climate Action
Alternative fuel and recyclables recovery	Alternative fuel and recyclables project procurement process	Environmental Protection and Climate Action
United Boulevard Recycling and Waste Centre Operation	United Boulevard Recycling and Waste Centre operations	Addressing Regional Growth
North Surrey Recycling Depot expansion	North Surrey Recycling and Waste Centre Recycling Depot land purchase	Environmental Protection and Climate Action
Langley Recycling Depot expansion	Langley Recycling and Waste Centre Recycling Depot design	Environmental Protection and Climate Action
Capital replacements at the Waste-to-Energy	Continue capital replacements and upgrades, including primary and secondary economizers,	System Stewardship

Facility	generation bank, and bottom ash crane	
Solid waste management plan review	Continue review and update of the region's solid waste management plan	Environmental Protection and Climate Action
Zero waste initiatives	Continued research and development of further waste prevention and diversion initiatives, such as new policies, incentives, business models and regulatory measures, to move toward a circular economy	Environmental Protection and Climate Action
2023		
Capital replacements at the Waste-to-Energy Facility	Continue capital replacements and upgrades, including secondary economizers, generation bank, lime and carbon silos	System Stewardship
Solid waste management plan review	Continue review and update of the region's solid waste management plan	Environmental Protection and Climate Action
Zero waste initiatives	Continued research and development of further waste prevention and diversion initiatives, such as new policies, incentives, business models and regulatory measures, to move toward a circular economy	Environmental Protection and Climate Action
Coquitlam Landfill closure	Close eastern area of landfill	System Stewardship
Recycling and Waste Centre expanded recycling	Recycling depot construction at the Langley and North Surrey facilities	Environmental Protection and Climate Action
North Surrey compactor replacement	Replace North Surrey Recycling and Waste Centre compactor	System Stewardship
2024		
Capital replacements at the Waste-to-Energy Facility	Continue capital replacements and upgrades, including stack refurbishment and the initiation of design for the acid gas reduction system (2 years)	System Stewardship
Solid waste management plan review	Complete review and update of the region's solid waste management plan	Environmental Protection and Climate Action
Zero waste initiatives	Begin to implement and monitor the new waste prevention and diversion initiatives in the new solid waste management plan	Environmental Protection and Climate Action
Alternative fuel and recyclables recovery	Alternative fuel and recyclables recovery facility development	Environmental Protection and Climate Action
Recycling and Waste Centre expanded	New recycling depots operating at the Langley and North Surrey facilities	Environmental Protection and Climate Action

recycling		
2025		
Capital replacements at the Waste-to Energy Facility	Continue capital replacements and upgrades, including boiler grate and feed table supports replacement project	System Stewardship
Zero waste initiatives	Implement and monitor the new waste prevention and diversion initiatives in the new solid waste management plan	Environmental Protection and Climate Action
North Shore compactor replacement	Replace North Shore Recycling and Waste Centre compactor	System Stewardship
Waste-to-Energy Facility operating contract	Procurement for the Waste-to-Energy Facility operating and maintenance contract	System Stewardship
Alternative Fuel and Recyclables Recovery Centre design	Begin design of the full scale Alternative Fuel and Recyclables Recovery Centre	Environmental Protection and Climate Action
2026		
Alternative Fuel and Recyclables Recovery Centre Construction	Begin construction of the full scale Alternative Fuel and Recyclables Recovery Centre	Environmental Protection and Climate Action
Western region recycling and waste centre replacement	Begin design for the western region recycling and waste centre replacement	Addressing Regional Growth
Capital replacements at the Waste-to Energy Facility	Continue capital replacements and upgrades and begin construction of the acid gas reduction system	System Stewardship
Zero waste initiatives	Continue to implement and monitor the new waste prevention and diversion initiatives in the new solid waste management plan	Environmental Protection and Climate Action

METRO VANCOUVER DISTRICTS
2022-2026 PROJECTED RESERVES - SOLID WASTE

OPERATING RESERVES

	2021	2022				2022	2023	2024	2025	2026
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Solid Waste Services	\$ 19,293,542	\$ 19,293,542	\$ -	\$ -	\$ 385,871	\$ 19,679,413	\$ 20,073,002	\$ 20,474,462	\$ 20,883,951	\$ 21,301,630

DISCRETIONARY RESERVES

	2021	2022				2022	2023	2024	2025	2026
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Solid Waste Services										
Solid Waste General Reserve	\$ 18,719,880	\$ 18,719,880	\$ -	\$ -	\$ 374,398	\$ 19,094,277	\$ 19,476,163	\$ 19,865,686	\$ 20,263,000	\$ 20,668,260
Landfill Post Closure Reserve	11,399,522	11,399,522	-	-	227,990	11,627,512	11,860,063	12,097,264	12,339,209	12,585,993
Total	\$ 30,119,402	\$ 30,119,402	\$ -	\$ -	\$ 602,388	\$ 30,721,790	\$ 31,336,226	\$ 31,962,950	\$ 32,602,209	\$ 33,254,253