
To: Climate Action Committee

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

Date: October 8, 2022

Meeting Date: October 14, 2022

Subject: **2023 - 2027 Financial Plan – Air Quality**

RECOMMENDATION

That the Climate Action Committee endorse the 2023 - 2027 Financial Plan for Air Quality as presented in the report dated October 8, 2022, titled “2023 - 2027 Financial Plan – Air Quality”, and forward it to the Metro Vancouver Board Budget Workshop on October 19, 2022 for consideration.

EXECUTIVE SUMMARY

The 2023 - 2027 Metro Vancouver Financial Plan has been prepared following direction received at the April 14, 2022 Metro Vancouver Board Budget Workshop. This has resulted in a plan that maintains the goals and objectives of Metro Vancouver while removing the use of financial levers that were put in place during the COVID-19 pandemic. Further, this budget represents a pause to assess the implications of the rapidly evolving macro economic environment and to undertake strategic planning with the incoming Board of Directors. The increase in Metro Vancouver’s overall consolidated household impact for 2023 is projected to be 4.5%, down from the 10.1% projected for 2023 in the prior financial planning cycle.

The Air Quality operating budget for 2023 is proposed to be \$14.2 million, a decrease of 0.6% from 2022. The regulatory fee system is based on a principle of polluter pay, with the costs of developing and administering permits and regulations recovered from authorized dischargers of air contaminants. The Board adopted amendments to the air quality fees bylaw in 2022, resulting in increased fee revenues in 2023, and decreased use of tax requisition, which is increasing by only 3.2%.

Implementation of the *Clean Air Plan* and *Climate 2050* roadmaps continues to be a key priority in 2023, which is also resulting in climate action projects being budgeted across the organization. The Sustainability Innovation Funds (SIF) will also supplement climate action projects, as will leveraging and collaboration with external partners. The Climate Action Committee will make recommendations to the Board on SIF projects early in the new year, and some of these will be funded from SIF reserves within 2023. 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 2023 - 2027 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 51857109

Vancouver Regional District, Metro Vancouver Housing Corporation, Greater Vancouver Water District and Greater Vancouver Sewerage and Drainage District).

On April 14, 2022 a Metro Vancouver Board Budget Workshop was held with the objective to seek direction for the preparation of the 2023 - 2027 Financial Plan. The workshop outlined the principles that guide the work of Metro Vancouver as an organization, the current 2022 - 2026 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 2023 - 2027 Financial Plan.

Given the challenges being observed coming out of the Covid-19 pandemic, this budget represents a pause for Metro Vancouver and focuses on maintaining the existing goals and objectives of Metro Vancouver and Liquid Waste Services. Staff will undertake strategic planning with the incoming Board of Directors, re-evaluate current plans under this leadership, and assess the implications of the rapidly evolving macro environment.

Key highlights of the overall Metro Vancouver 2023 proposed budget are as follows:

- A reduction of \$22 million of the total 2023 Metro Vancouver proposed operating budget compared to that previously projected for 2023
- Maintained or increased contribution to capital and reserves for key functions
- Reduced capital cash flow for 2023 and 2024
- Real reduction of HHI, \$33 less than that previously projected for 2023

This report focuses on the Air Quality function and presents the 2023 annual budget and the updated five-year plan for the years 2023 to 2027 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 and regulation 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 2023 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:

- Regional GHG emissions annually (tonnes of CO₂e per capita);
- Net corporate GHG emissions annually (tonnes of carbon dioxide equivalent, CO₂e);
- 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);
- 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 2023 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;
- Development of processes to integrate greenhouse gas emission reduction requirements into regulations and permits;
- Develop capacity and procedures to use more advanced technology to enhance inspection capabilities and efficiency; and
- Develop procedures and guidance for the issuance of administrative penalties.

2023 BUDGET AND 2023 - 2027 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 2023 - 2027 Air Quality Financial Plan is included as Attachment 1. The 2023 Annual Work Plan for Air Quality presented in this report is included in Attachment 2 and the “What’s Happening” highlights for the years 2023 - 2027 are included in Attachment 3.

Operating Budget Highlights

The Air Quality 2023 operating budget is proposed to decrease by \$81,505 for a total budget of \$14,193,563 (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 some will be funded out of the SIF reserve funds in 2023. It is expected that 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 2023 operating budget includes the following key actions:

- Continue to implement the *Climate 2050 Strategy* and the issue area roadmaps;
- Continue to implement 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, cost recovery from regulated sources, and integration of greenhouse gas requirements;
- Implementation of new and amended bylaws, for further reductions in harmful emissions from non-road diesel engines, boilers and process heaters, residential wood burning and open burning of vegetative debris;
- 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 \$1,081,870, or an average of 1.5% per year.

Communications Program

The 2023 Air Quality Communications Program of \$270,000 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 2023 - 2027 Projected Reserves for Air Quality are included in Attachment 4.

APPROVAL PROCESS

The proposed 2023 - 2027 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 2023 - 2027 Financial Plan and Annual Work Plan will be presented for consideration at the Metro Vancouver Board Budget Workshop on October 19, 2022.
- The Board will consider adoption of the 2023 Budget and endorsement of the 2023 - 2027 Financial Plan on October 28, 2022.

ALTERNATIVES

1. That the Climate Action Committee endorse the 2023 - 2027 Financial Plan for Air Quality as presented in the report dated October 8, 2022, titled “2023 - 2027 Financial Plan – Air Quality”, and forward it to the Metro Vancouver Board Budget Workshop on October 19, 2022 for consideration.

2. That the Climate Action Committee make recommendations and endorse an amended 2023 - 2027 Financial Plan for Air Quality and forward the amended Financial Plan to the Metro Vancouver Board Budget Workshop on October 19, 2022 for consideration.

FINANCIAL IMPLICATIONS

If the MVRD Board endorses the 2023 - 2027 Financial Plan for Air Quality, as presented under Alternative 1, in 2023 the Air Quality requisition will increase by \$235,155 (3.2%) for a total requisition of \$7,627,421. The review of the system of regulatory fees was completed in 2021, with Board adoption of a new air quality fees bylaw. Implementation of the new bylaw has resulted in increases in polluter pay fee revenues of 57% and 12% from permits and regulations, and non-road diesel engines, respectively, compared to 2022.

Over the term of the five-year plan, the annual Air Quality requisition is projected to decrease by an average of \$104,263 per year (1.3%) 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 above \$6 in 2023 and will drop under \$6 in 2027.

Under Alternative 2, the Committee may wish to consider recommending amendments to the 2023 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 2023 Budget and Five-Year Financial Plan for Air Quality was prepared following direction received at the April 14, 2022 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 2023 to 2027 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 2023 - 2027 Financial Plan and Annual Work Plan for Air Quality as presented under Alternative one.

Attachments:

1. 2023 - 2027 Financial Plan – Air Quality
2. 2023 Work Plans
 - a. Air Quality
 - b. Environmental Regulation and Enforcement – Air Quality
3. 2023 - 2027 “What’s Happening”
4. 2023 - 2027 Projected Reserves – Air Quality

METRO VANCOUVER REGIONAL DISTRICT
AIR QUALITY
2023 BUDGET REVIEW
2023-2027 FINANCIAL PLAN

	2022 BUDGET	2023 BUDGET	% CHANGE	2024 FORECAST	% CHANGE	2025 FORECAST	% CHANGE	2026 FORECAST	% CHANGE	2027 FORECAST	% CHANGE
REVENUES											
Metro Vancouver Regional District Requisitions	\$ 7,392,266	\$ 7,627,421	3.2%	\$ 7,937,095	4.1%	\$ 7,498,228	(5.5%)	\$ 7,595,119	1.3%	\$ 6,870,953	(9.5%)
User Fees	1,715,000	2,687,400		3,068,600		3,438,000		3,816,700		4,195,400	
Non-Road Diesel Fees	1,070,000	1,197,500		1,656,250		2,410,000		2,692,500		3,315,000	
Other External Revenues	439,986	709,242		685,319		681,729		693,481		705,585	
Transfer from Sustainability Innovation Fund Reserves	2,176,816	745,000		400,000		-		-		-	
Transfer from Reserves	1,481,000	1,227,000		1,172,451		643,027		615,000		270,000	
TOTAL REVENUES	\$ 14,275,068	\$ 14,193,563	(0.6%)	\$ 14,919,715	5.1%	\$ 14,670,984	(1.7%)	\$ 15,412,800	5.1%	\$ 15,356,938	(0.4%)
EXPENDITURES											
Operating Programs:											
Ambient Air Quality Monitoring	\$ 2,377,133	\$ 2,500,761		\$ 2,522,805		\$ 2,497,126		\$ 2,916,064		\$ 2,616,986	
Air Quality and Climate Change Policy	2,638,554	3,381,648		3,810,829		3,722,156		3,848,550		3,932,405	
Air Quality Bylaw and Regulation Development	1,161,145	1,388,362		1,401,450		1,422,480		1,454,274		1,494,009	
Engineers in Training	46,525	35,279		36,317		37,292		38,290		39,316	
Regional Sustainability Initiatives	2,176,816	745,000		400,000		-		-		-	
Administration and Department Support	541,721	592,548		612,078		628,533		645,261		662,414	
	8,941,894	8,643,598	(3.3%)	8,783,479	1.6%	8,307,587	(5.4%)	8,902,439	7.2%	8,745,130	(1.8%)
Communications Program	150,000	270,000	80.0%	295,000	9.3%	320,000	8.5%	345,000	7.8%	350,000	1.4%
Environmental Regulation and Enforcement	3,993,324	4,215,776		4,638,590		4,906,612		5,170,179		5,317,244	
Contribution to Non-Road Diesel Reserve	-	-		-		-		-		-	
	3,993,324	4,215,776	5.6%	4,638,590	10.0%	4,906,612	5.8%	5,170,179	5.4%	5,317,244	2.8%
Allocation of Centralized Support Costs	1,189,850	1,064,189	(10.6%)	1,202,646	13.0%	1,136,785	(5.5%)	995,182	(12.5%)	944,564	(5.1%)
TOTAL EXPENDITURES	\$ 14,275,068	\$ 14,193,563	(0.6%)	\$ 14,919,715	5.1%	\$ 14,670,984	(1.7%)	\$ 15,412,800	5.1%	\$ 15,356,938	(0.4%)

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 and regulating 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	2023 performance objective
Net corporate greenhouse gas emissions (tonnes of carbon dioxide equivalent, CO ₂ e)	1997: 13,900 2016: 3,321 (60% carbon neutral) 2019, 2020: 0 (carbon neutral)	2021: 0 (carbon neutral)	0 (carbon neutral)
Regional greenhouse gas emissions (tonnes of CO ₂ e per capita)	2010: 6.3 2020: 5.3	2022: 5.2	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	2022: 6	0
Reliability of air quality monitoring network (% of annual hours with monitoring data available for priority pollutants)	2020: 97%	2021: 97%	> 95%

2023 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;
 - implement key actions and big moves set out in the roadmaps;
 - 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.
- Continue to implement the regional air quality and greenhouse gas management plan, the Clean Air Plan.
- 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.
- New air quality bylaws, regulations and standards, towards goals for protection of human health and environment and continuous improvement in air quality, including:
 - consultation on new emission regulation bylaws for prioritized sources, including integration of greenhouse gas requirements;
 - implement new system of permit and regulatory fees adopted in 2021, to recover costs of developing regulations, monitoring compliance, and enforcement, while ensuring that fees provide incentives to reduce emissions and impacts;
 - implement amended non-road diesel engine emission regulation, addressing additional engines and utilizing partnerships with other levels of government; and
 - new ambient air quality standards.
- 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, the Clean Air Plan, and Climate 2050:

- Improve air quality by mitigating threats to public health and the environment
- Identify air contaminants in the region and pursue effective actions to reduce pollutants
- Accelerate emission reductions from industrial facilities
- Reduce non-road diesel emissions and support early adoption of zero-emission non-road equipment
- Implement requirements for higher-emitting wood-burning appliances
- Reduce open-air burning

Performance Indicators

Air Quality Indicator	Historical and/or Industry Benchmark (2021)	Current Performance (2022 YTD – May 30)	2023 Performance Objective
Respond to complaints – number of complaints	2200	559	1500
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	1899	2291	2450
Promote compliance with authorizations - Total number of permits and approvals	152	147	159

2023 Key Actions

Air Quality

- 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
- Promote awareness of and compliance with the expansion of Non-Road Diesel Engine Emission Regulation Bylaw 1329
- Increase awareness of non-road diesel engine retirement rebates
- Promote awareness of and compliance with Residential Indoor Wood Burning Emission Regulation Bylaw 1303, 2020
- Promote awareness of and compliance with Open Burning Emission Regulation Bylaw
- Support development of bylaw regulating greenhouse gas emissions from large buildings
- Support development of processes to integrate greenhouse gas reduction requirements into regulations and permits

LIQUID WASTE

Description of Services

The Liquid Waste Regulatory Program enables economic activity while advancing Metro Vancouver's liquid waste management goals through the issuance of authorizations and promoting compliance with those authorizations and Metro Vancouver liquid waste bylaws.

Strategic Directions and High-Level Goals Supported

The Liquid Waste Regulatory Program supports Metro Vancouver's Integrated Liquid Waste and Resource Management Plan by:

- Issuing authorizations that limit the discharge of non-domestic waste to sewer
- Promoting compliance with liquid waste authorizations and regulations.

Performance Indicators

Liquid Waste Indicator	Historical and/or Industry Benchmark (2021)	Current Performance (2022 YTD – June 2)	2023 Performance Objective
Total number of permits for discharges to sanitary sewers that must be managed and monitored*	240	270	275
Total number of regulated fermentation operations under the Fermentation Operations Bylaw*	119	119	119
Total number of regulated facilities under the Bylaw to Regulate the Discharge of Waste from Hospitals	19	19	19
Total number of regulated sani-dumps under the Sani-dump bylaw	13	11	11

*These numbers include sites that are actively regulated by City of Vancouver staff

2023 Key Actions

Liquid Waste

- Continue to support efforts by Liquid Waste Services to update the Food Sector Grease Interceptor Bylaw and to conduct a comprehensive review of the Sewer Use Bylaw.
- Identify and pursue unauthorized discharges posing threats to the liquid waste management system and infrastructure, workers, biosolids quality and the environment.
- Work with the hospital sector on submission and review of pollution prevention plans and required updates to comply with the Hospital Pollution Prevention Plan Bylaw requirements. Inspect these facilities to verify compliance.
- Continue implementation of the Trucked Liquid Waste and Sani-dump Bylaws by issuing authorizations, conducting compliance inspections and addressing requests for authorizations to bring out-of-region waste to Metro Vancouver facilities.

- Identify and assess emerging regional issues that may require regulatory attention such as the discharge of wastewater from municipal swimming pools and methods for efficiently regulating these types of activities.

SOLID WASTE

The Solid Waste Regulatory Program enables economic activity while advancing Metro Vancouver's solid waste management goals through the issuance of licences and promoting compliance with those licences and Metro Vancouver solid waste bylaws.

Strategic Directions and High-Level Goals Supported

The Solid Waste Regulatory Program supports Metro Vancouver's Integrated Solid Waste and Resource Management Plan by:

- Issuing licences to private municipal solid waste and recyclable materials facilities
- Ensuring compliance with the licences and solid waste regulatory bylaws

Performance Indicators

Solid Waste Indicator	Historical and/or Industry Benchmark (2021)	Current Performance (2022 YTD)	2023 Performance Objective
Total number of licences issued to private facilities managing municipal solid waste and recyclable materials that must be monitored	42	40	42

2023 Key Actions

Solid Waste

- Bring unauthorized facilities into compliance with the GVS&DD Solid Waste and Recyclable Material Regulatory Bylaw No. 181, 1996.
- Promote awareness of and compliance with the generator levy and record keeping requirements for waste haulers of the GVS&DD Tipping Fee and Solid Waste Regulation Bylaw No. 306, 2017
- Promote compliance with solid waste licences.

Air Quality

2023 to 2027 – 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
2023		
Climate 2050	Complete initial Climate 2050 roadmaps and proceed with implementation. Second round of annual reporting on performance towards targets.	Environmental Sustainability
Clean Air Plan	Ongoing 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"> • open burning of vegetative debris; • enhanced non-road diesel engine regulation; • compliance promotion on residential wood burning bylaw; Development of new and amended regulations: <ul style="list-style-type: none"> • cannabis production and processing; • reducing GHG emissions from large buildings; • amendment of the boilers and heaters emission regulation; Promote continuous improvement and emissions reduction by large emitters.	Regulatory and Legislative Environment Financial Sustainability Continuous Improvement
Environmental Monitoring and Indicators	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 and other projects in regional district, 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	<ul style="list-style-type: none"> • Ongoing development of new and amended air quality regulations: <ul style="list-style-type: none"> ○ small non-road two stroke engines • Continuous improvement through enhanced ambient air quality objectives. • Ongoing implementation of permit and regulatory fees to recover costs and provide incentives to reduce emissions and impacts. 	Regulatory and Legislative Environment
Sustainability Innovation Fund	Fund applications for climate action and other projects in regional district, liquid waste and water.	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
Bylaws and Regulations	Ongoing development and implementation of new and amended air quality regulations.	Regulatory and Legislative Environment
Sustainability Innovation Fund	Fund applications for climate action and other 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
Clean Air Plan	Mid-point progress report on Clean Air Plan	Environmental Sustainability
Bylaws and Regulations	Ongoing development and implementation 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 and other projects in regional district, liquid waste and water.	Environmental Sustainability
2027		
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 and implementation of new and amended air quality regulations.	Regulatory and Legislative Environment
Sustainability Innovation Fund	Fund applications for climate action and other projects in regional district, liquid waste and water.	Environmental Sustainability

ATTACHMENT 4

METRO VANCOUVER DISTRICTS 2023-2027 PROJECTED RESERVES - AIR QUALITY

OPERATING RESERVES

	2022	2023	2023	2023	2023	2023	2024	2025	2026	2027
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Air Quality	\$ 615,159	\$ 615,159	\$ -	\$ -	\$ 12,303	\$ 627,463	\$ 640,012	\$ 652,812	\$ 665,868	\$ 679,186

DISCRETIONARY RESERVES

	2022	2023	2023	2023	2023	2023	2024	2025	2026	2027
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Air Quality General Reserve	\$ 2,166,882	\$ 2,166,882	\$ -	\$ (1,227,000)	\$ 31,068	\$ 970,950	\$ 311,193	\$ 172,960	\$ 60,269	\$ 293,775

To: Electoral Area Committee

From: Sean Galloway, Director, Regional Planning and Housing Services

Date: September 21, 2022 Meeting Date: October 5, 2022

Subject: **2023 - 2027 Financial Plan – Electoral Area Service**

RECOMMENDATION

That the Electoral Area Committee endorse the 2023 - 2027 Financial Plan for the Electoral Area Service as presented in the report dated September 21, 2022, titled “2023 - 2027 Financial Plan – Electoral Area Service”, and forward it to the Board Budget Workshop on October 19, 2022 for consideration.

EXECUTIVE SUMMARY

The 2023 - 2027 Metro Vancouver Financial Plan has been prepared following direction received at the April 14, 2022 Metro Vancouver Board Budget Workshop. This has resulted in a plan that maintains the goals and objectives of Metro Vancouver while removing the use of financial levers that were put in place during the COVID-19 pandemic. Further, this budget represents a pause to assess the implications of the rapidly evolving macro economic environment and to undertake strategic planning with the incoming Board of Directors. The increase in Metro Vancouver’s overall consolidated household impact for 2023 is projected to be 4.5%, down from the 10.1% projected for 2023 in the prior financial planning cycle.

The Electoral Area Service provides local government administration, planning, building inspection and emergency services to residents of Electoral Area A. The 2023 Work Plan focuses on completion of ongoing initiatives such as the zoning bylaw review and bringing forward recommendations from 2021 studies.

The 2023 - 2027 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 decreasing by (\$55,169) or an average of (1.1%) per year.

PURPOSE

To present the 2023 - 2027 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 14, 2022 a Metro Vancouver Board Budget Workshop was held with the objective to seek direction for the preparation of the 2023 - 2027 Financial Plan. The workshop outlined the principles that guide the work of Metro Vancouver as an organization, the current 2022 - 2026 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 2023 - 2027 Financial Plan.

Given the challenges being observed coming out of the Covid-19 pandemic, this budget represents a pause for Metro Vancouver and focuses on maintaining the existing goals and objectives of Metro Vancouver and Liquid Waste Services. Staff will undertake strategic planning with the incoming Board of Directors, re-evaluate current plans under this leadership, and assess the implications of the rapidly evolving macro environment.

Key highlights of the overall Metro Vancouver 2023 proposed budget are as follows:

- A reduction of \$22 million of the total 2023 Metro Vancouver proposed operating budget compared to that previously projected for 2023
- Maintained or increased contribution to capital and reserves for key functions
- Reduced capital cash flow for 2023 and 2024
- Real reduction of HHI, \$33 less than that previously projected for 2023

This report focuses on the Electoral Area Service and presents the 2023 annual budget and the updated five-year plan for the years 2023 to 2027 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; and
- 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 2023 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 (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 (2022-2027)*: Engage with Electoral Area A communities to identify and implement projects to benefit local residents
- *Bylaw and policy updates (2022-2026)*: Results in updated and improved clarity of regulations and policies, and better alignment between fees and service costs.

2022 BUDGET AND 2023 - 2027 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 2023 - 2027 Electoral Area Service Financial Plan is included as Attachment 1. The 2023 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 2023 - 2027 are included in Attachment 3.

Operating Budget Highlights

The Electoral Area Service 2023 operating budget is proposed to decrease by \$(68,515) for a total budget of \$729,126 (Attachment 1). This decrease is largely because the previous year (2022) included local government election-related costs.

The 2023 operating budget includes the following key actions:

- receive and consider next steps related to Phase 2 of the geotechnical study of the rural and remote portions of Electoral Area A;
- receive and consider the Electoral Area A Community Wildfire Risk Reduction Plan;
- consider Community Works Fund projects identified by the UEL community;
- 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, and participate in the Province's UEL Governance Study
- continue to offer staff support to the Electoral Area Board Director; and
- facilitate emergency management education for residents.

Over the next five years, operating programs are decreasing by (\$55,169), or an average of (1.1%) 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 2023 - 2027 Projected Reserves for Electoral Area is included in Attachment 4.

APPROVAL PROCESS

The proposed 2023 - 2027 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 2023 - 2027 Financial Plan and Annual Work Plan will be presented for consideration at the Metro Vancouver Board Budget Workshop on October 19, 2022.
- The Board will consider adoption of the 2023 Budget and endorsement of the 2023 - 2027 Financial Plan on October 28, 2022.

ALTERNATIVES

1. That the Electoral Area Committee endorse the 2023 - 2027 Financial Plan for the Electoral Area Service as presented in the report dated September 21, 2022, titled "2023 - 2027 Financial Plan – Electoral Area Service", and forward it to the Metro Vancouver Board Budget Workshop on October 19, 2022 for consideration.

2. That the Electoral Area Committee make recommendations and endorse an amended 2023 - 2027 Financial Plan for the Electoral Area Service and forward the amended Financial Plan to the Finance Committee on October 13, 2022 and to the Metro Vancouver Board Budget Workshop on October 19, 2022 for consideration.

FINANCIAL IMPLICATIONS

If the MVRD Board endorses the 2023-2027 Financial Plan for the Electoral Area Service, as presented under Alternative 1, in 2023 the Electoral Area requisition will increase by \$6,485 (1.6%) for a total requisition of \$407,458. The increase in the Electoral Area requisition represents a \$1 increase in the cost to the average Electoral Area household to \$59.

Over the term of the five-year plan, the annual Electoral Area requisition is projected to increase by an average of \$56,416 per year (2.7%) 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 \$58 in 2023 to \$67 in 2027 representing an approximate average annual increase of \$2 (3.0%).

Under Alternative 2, the Committee may wish to consider recommending amendments to the 2023 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 2023 Budget and Five-year Financial Plan has been prepared following direction received at the April 14, 2022 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 2023 to 2027 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 2023 - 2027 Financial Plan and Annual Work Plan for Electoral Area A Service as presented under alternative one.

Attachments

1. 2023 - 2027 Financial Plan
2. 2023 Work Plan
3. 2023 - 2027 "What's Happening"
4. 2023 - 2027 Projected Reserves – Electoral Area Service

METRO VANCOUVER REGIONAL DISTRICT
ELECTORAL AREA SERVICE
2023 BUDGET REVIEW
2023-2027 FINANCIAL PLAN

	2022 BUDGET	2023 BUDGET	% CHANGE	2024 FORECAST	% CHANGE	2025 FORECAST	% CHANGE	2026 FORECAST	% CHANGE	2027 FORECAST	% CHANGE
REVENUES											
Electoral Area Requisition	\$ 400,973	\$ 407,458	1.6%	\$ 430,053	5.5%	\$ 446,108	3.7%	\$ 456,376	2.3%	\$ 457,389	0.2%
User Fees	11,000	11,000		12,000		12,000		12,000		12,000	
Other External Revenues	186,668	186,668		193,083		193,083		193,083		193,083	
Transfer from Reserves	199,000	124,000		92,000		80,000		170,000		80,000	
TOTAL REVENUES	\$ 797,641	\$ 729,126	(8.6%)	\$ 727,136	(0.3%)	\$ 731,191	0.6%	\$ 831,459	13.7%	\$ 742,472	(10.7%)
EXPENDITURES											
Operating Programs:											
Community Planning	\$ 410,791	\$ 427,750		\$ 416,704		\$ 425,148		\$ 433,816		\$ 442,713	
Building Inspections	18,049	21,250		22,135		22,692		23,264		23,221	
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	20,000		20,000		20,000		20,000		20,000	
	571,473	471,067	(17.6%)	460,906	(2.2%)	469,907	2.0%	603,823	28.5%	488,001	(19.2%)
Contribution to Election Reserve	-	30,000		30,000		30,000		-		30,000	
Contribution to Reserve	186,668	186,668	0.0%	193,083	3.4%	193,083	0.0%	193,083	0.0%	193,083	0.0%
	186,668	216,668	16.1%	223,083	3.0%	223,083	0.0%	193,083	(13.4%)	223,083	15.5%
Allocation of Centralized Support	39,500	41,391	4.8%	43,147	4.2%	38,201	(11.5%)	34,553	(9.5%)	31,388	(9.2%)
TOTAL EXPENDITURES	\$ 797,641	\$ 729,126	(8.6%)	\$ 727,136	(0.3%)	\$ 731,191	0.6%	\$ 831,459	13.7%	\$ 742,472	(10.7%)

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

2020-2023 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	2023 Performance Objective
Number of public meetings and engagement events	2019: 9 2020: 9 2021: 11	Projected 2022: 8	9
Number of visits to the Electoral Area A Website	2019: 14,596 2020: 12,606 2021: 12,468	Projected 2022: 12,000	12,000

2023 key actions

- Receive and consider next steps related to Phase 2 of the Geotechnical Study of the rural and remote portions of Electoral Area A
- Receive and consider the Electoral Area A Community Wildfire Risk Reduction Plan
- Consider Community Works Fund projects identified by the UEL community
- 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, and participate in the Province's UEL Governance Study
- Continue to offer staff support to the Electoral Area Board Director
- Facilitate emergency management education for residents

Electoral Area Services

2023 to 2027 – WHAT’S HAPPENING

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

Initiative	Description	Theme
2023		
Geotechnical Study (Phase 2)	Tailor building permit-related requirements based on geotechnical hazards of local area and type of proposed development	Regulatory and Legislative Environment
Community Wildfire Risk Reduction Plan	Plan will create guidelines to allow residents to burn small amounts of debris (common and necessary in EA A) without needing to apply for an approval	Regulatory and Legislative Environment
Community Works Fund	Consider priority projects in UEL for funding through the Community Works Fund	Regional Growth Financial Sustainability
2024		
Emergency Preparedness	Support resident-preparedness for fires & earthquake (hands-on training, equipment)	Regional Growth System Stewardship
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
Community Works Fund	Consider priority projects in UNA/UBC for funding through the Community Works Fund	Regional Growth Financial Sustainability
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
2027		
Emergency Preparedness	Support resident-preparedness for fires & earthquake (hands-on training, equipment)	Regional Growth System Stewardship

METRO VANCOUVER DISTRICTS
2023-2027 PROJECTED RESERVES - ELECTORAL AREA

OPERATING RESERVES

	2022	2023				2023	2024	2025	2026	2027
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Electoral Area Service	\$ 23,202	\$ 23,202	\$ -	\$ -	\$ 464	\$ 23,666	\$ 24,139	\$ 24,622	\$ 25,114	\$ 25,617

DISCRETIONARY RESERVES

	2022	2023				2023	2024	2025	2026	2027
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Electoral Area General Reserve	\$ 1,661,987	\$ 1,661,987	\$ 50,000	\$ (124,000)	\$ 32,500	\$ 1,620,487	\$ 1,610,476	\$ 1,612,386	\$ 1,584,034	\$ 1,585,414

STATUTORY RESERVES

	2022	2023				2023	2024	2025	2026	2027
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Electoral Area Service										
Community Works Reserve	\$ 712,688	\$ 712,688	\$ 136,668	\$ -	\$ 15,620	\$ 864,977	\$ 1,026,790	\$ 1,191,840	\$ 1,360,190	\$ 1,531,908
Electoral Area Election Reserve	971	971	30,000	-	319	31,291	62,217	93,761	35,036	66,037
Total	\$ 713,660	\$ 713,660	\$ 166,668	\$ -	\$ 15,940	\$ 896,268	\$ 1,089,007	\$ 1,285,601	\$ 1,395,227	\$ 1,597,945

To: Housing Committee

From: Heather McNell, Deputy Chief Administrative Officer, Policy and Planning

Date: September 28, 2022

Meeting Date: October 6, 2022

Subject: **2023 - 2027 Financial Plan – Housing Planning and Policy**

RECOMMENDATION

That the Housing Committee endorse the 2023 - 2027 Financial Plan for Housing Planning and Policy as presented in the report dated September 28, 2022, titled “2023 - 2027 Financial Plan – Housing Planning and Policy”, and forward it to the Metro Vancouver Board Budget Workshop on October 19, 2022 for consideration.

EXECUTIVE SUMMARY

The 2023 - 2027 Metro Vancouver Financial Plan has been prepared following direction received at the April 14, 2022 Metro Vancouver Board Budget Workshop. This has resulted in a plan that maintains the goals and objectives of Metro Vancouver while removing the use of financial levers that were put in place during the COVID-19 pandemic. Further, this budget represents a pause to assess the implications of the rapidly evolving macro economic environment and to undertake strategic planning with the incoming Board of Directors. The increase in Metro Vancouver’s overall consolidated household impact for 2023 is projected to be 4.5%, down from the 10.1% projected for 2023 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 \$1,755,529 or an average of 5.5% per year. The increase is due to a planned additional \$2.0M for the Contribution to Affordable Housing Development Reserve beginning in 2024.

PURPOSE

To present the 2023 - 2027 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 14, 2022 a Metro Vancouver Board Budget Workshop was held with the objective to seek direction for the preparation of the 2023 - 2027 Financial Plan. The workshop outlined the principles that guide the work of Metro Vancouver as an organization, the current 2022 - 2026 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 2023 - 2027 Financial Plan.

Given the challenges being observed coming out of the Covid-19 pandemic, this budget represents a pause for Metro Vancouver and focuses on maintaining the existing goals and objectives of Metro Vancouver and Liquid Waste Services. Staff will undertake strategic planning with the incoming Board of Directors, re-evaluate current plans under this leadership, and assess the implications of the rapidly evolving macro environment.

Key highlights of the overall Metro Vancouver 2023 proposed budget are as follows:

- A reduction of \$22 million of the total 2023 Metro Vancouver proposed operating budget compared to that previously projected for 2023
- Maintained or increased contribution to capital and reserves for key functions
- Reduced capital cash flow for 2023 and 2024
- Real reduction of HHI, \$33 less than that previously projected for 2023

This report focuses on the Housing Planning and Policy Service and presents the 2023 provisional annual budget and the updated five-year plan for the years 2023 to 2027 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, supports the development of affordable housing projects through implementation of the *Metro Vancouver Housing 10-Year Plan* and *Metro 2050*, coordinates the Regional Planning Advisory Committee – Housing Subcommittee and works to secure funding and vacant lands owned by local governments for new affordable housing.

The Housing Planning and Policy 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:

- Implement 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; and
- 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 2023 Work Plan for Housing Planning and Policy is presented in this report. Within the Housing Planning and Policy Work Plan, a number of performance indicators have been developed and are being tracked. These include:

- New Development - Southwynde (Burnaby): 90% of design completed;
- New Development - Civic Centre Site (Pitt Meadows): 100% of design completed;
- New Expression of Interest site: 55% of design completed (ie., concept study);
- 600 redevelopment units initiated; and
- 300 new development units initiated.

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 creation of a Housing Naming Framework to guide the naming or renaming of housing sites with a process involving research, interviews, and engagement with tenants, staff, and where appropriate, community or cultural groups. Metro Vancouver Housing currently has four housing developments in the design/construction stage that need names and recognizes this opportunity to celebrate the unique history and diversity of the region through naming recognition. This represents an opportunity to engage tenants and create excitement for their new homes, and provide a more meaningful connection to the local context and community.

Further improvement initiatives include:

- Conducting best practice research to explore issues related to planning and policy for affordable housing across the region (e.g., Attainable Homeownership, Inclusionary Housing Policy review) to support member jurisdictions and other housing stakeholders.
- 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);
- Creating new materials, templates, and procedures to support key activities such as tenant relocation and rent up of newly completed buildings. By standardizing processes, this will support staff with clear direction to ensure efficiency and consistency, and support tenants with clear, easy to understand information to better understand processes, what's required of them, and how they will be supported.
- Reviewing Housing Agreement best practices to create a standard template and key objectives to help support shared understanding of each party's goals and streamline negotiations and legal reviews for Housing Agreements for MVHC development projects.
- Reviewing and updating internal finance and operational policies, procedures, and documentation to ensure clear and consistent documentation, identify opportunities to update and streamline procedures, and ensure standard application across different teams.

- 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 implementing new policies/procedures to introduce income testing for new Low End of Market tenants.

2023 BUDGET AND 2023 - 2027 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 2023 - 2027 Housing Planning and Policy Financial Plan is included as Attachment 1. The 2023 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 2023 - 2027 are included in Attachment 3.

Operating Budget Highlights

The Housing Planning and Policy 2023 operating budget is proposed to decrease by \$462,633 for a total budget of \$6.3 million (Attachment 1). This decrease is due to the completion of projects funded by the Sustainability Innovation Fund.

The 2023 operating budget includes the following key actions:

- Support the implementation of the Metro Vancouver Housing 10-Year Plan
 - Progress a concept design for potential new site to schematic design and development approvals, if feasible
 - 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
 - Continue to review and update internal procedures surrounding tenant subsidies
 - Best practice research to support MVHC development standards
 - Continue to update tenant policies as required (e.g., periodic income testing for low end of market tenants, new baseline affordability option)
 - Continue to explore the feasibility of tenancy management service to take on management of inclusionary housing opportunities from private developers
 - Continue to develop materials and communications to support tenant relocation

- Support the implementation of the Metro Vancouver Housing Redevelopment Plan to advance the redevelopment of 7 redevelopment projects
- Support Regional Planning implementation of policies related to housing for Metro 2050, the updated 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
- Continue to implement the strategy to update existing MVHC leases with municipal members

Over the next five years, operating programs increase by \$1,755,529 or an average of 5.5% per year. The increase is due to a planned additional \$2.0M for the Contribution to Affordable Housing Development Reserve beginning in 2024 to support the development of new affordable housing on member jurisdiction and/or regional lands.

Communications Program

The 2023 Housing Planning and Policy Communications Program of \$25,000 is focused on outreach to build better understanding and awareness of the Metro Vancouver Housing 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 2023 - 2027 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, increasing to \$6.0 million annual contribution in 2024, 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 2023 - 2027 Projected Reserves for Housing Planning and Policy is included in Attachment 4.

APPROVAL PROCESS

The proposed 2023 - 2027 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 2023 - 2027 Financial Plan and Annual Work Plan will be presented for consideration at the Metro Vancouver Board Budget Workshop on October 19, 2022.
- The Board will consider adoption of the 2023 Budget and endorsement of the 2023 - 2027 Financial Plan on October 28, 2022.

ALTERNATIVES

1. That the Housing Committee endorse the 2023 - 2027 Financial Plan for Housing Planning and Policy as presented in the report dated September 28, 2022, titled “2023 - 2027 Financial Plan – Housing Planning and Policy”, and forward it to the Metro Vancouver Board Budget Workshop on October 19, 2022 for consideration.
2. That the Housing Committee make recommendations and endorse an amended 2023 - 2027 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 19, 2022 for consideration.

FINANCIAL IMPLICATIONS

If the MVRD Board endorses the 2023 - 2027 Financial Plan for the Housing Planning and Policy Service, as presented under Alternative 1, in 2023 the Housing Planning and Policy requisition will increase by \$27,367 (0.4%) 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 \$449,106 per year (7.0%) 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 current amount of \$5 per household in 2023, then increase to \$7 from 2024 through to 2027.

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 2023 Budget and Five-Year Financial Plan has been prepared following direction received at the April 14, 2022 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 2023 to 2027 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 2023 - 2027 Financial Plan and Annual Work Plan for Housing Planning and Policy as presented under alternative one.

Attachments:

1. 2023 - 2027 Financial Plan
2. 2023 - Work Plan
3. 2023 - 2027 “What’s Happening”
4. 2023 - 2027 Projected Reserves – Housing Planning and Policy Service

51863092

METRO VANCOUVER REGIONAL DISTRICT
HOUSING PLANNING AND POLICY
2023 BUDGET REVIEW
2023-2027 FINANCIAL PLAN

	2022 BUDGET	2023 BUDGET	% CHANGE	2024 FORECAST	% CHANGE	2025 FORECAST	% CHANGE	2026 FORECAST	% CHANGE	2027 FORECAST	% CHANGE
REVENUES											
Metro Vancouver Regional District Requisitions	\$ 6,253,628	\$ 6,280,995	0.4%	\$ 8,330,722	32.6%	\$ 8,361,356	0.4%	\$ 8,385,720	0.3%	\$ 8,499,157	1.4%
Transfer from Sustainability Innovation Fund Reserves	490,000	-		-		-		-		-	
TOTAL REVENUES	<u>\$ 6,743,628</u>	<u>\$ 6,280,995</u>	(6.9%)	<u>\$ 8,330,722</u>	32.6%	<u>\$ 8,361,356</u>	0.4%	<u>\$ 8,385,720</u>	0.3%	<u>\$ 8,499,157</u>	1.4%
EXPENDITURES											
Operating Programs:											
Housing Planning and Policy	\$ 1,631,092	\$ 1,139,260		\$ 1,199,075		\$ 1,234,911		\$ 1,268,079		\$ 1,389,442	
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	
	6,631,092	6,139,260	(7.4%)	8,199,075	33.6%	8,234,911	0.4%	8,268,079	0.4%	8,389,442	1.5%
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	87,536	116,735	33.4%	106,647	(8.6%)	101,445	(4.9%)	92,641	(8.7%)	84,715	(8.6%)
TOTAL EXPENDITURES	<u>\$ 6,743,628</u>	<u>\$ 6,280,995</u>	(6.9%)	<u>\$ 8,330,722</u>	32.6%	<u>\$ 8,361,356</u>	0.4%	<u>\$ 8,385,720</u>	0.3%	<u>\$ 8,499,157</u>	1.4%

HOUSING PLANNING AND POLICY

Description of Services

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 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 and 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; and
- 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 implementation of housing related policy for Metro 2050, the update to the regional growth strategy.

Performance indicators

Indicator (% of design completed)	Historical and/or Industry Benchmark (2021)	Current Performance (2022)	2023 Performance Objective
Southwynde (Burnaby) – New development	Design 20%	Design 50%	Design 90%
Civic Centre Site (Pitt Meadows) - New development	Design 20%	Design 75%	Design 100%
Feasibility study and concept planning for <i>potential</i> new site: District of North Vancouver	0%	Design 5% (complete concept in 2022)	Design 55% (feasibility to be confirmed through concept study)

**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.*

2023 Key Actions

Policy & Planning

- Support the implementation of the Metro Vancouver Housing 10-Year Plan
 - Progress concept for potential new site to schematic design and development approvals, if feasible
 - 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
 - Continue to review and update internal procedures surrounding tenant subsidies
 - Best practice research to support MVHC development standards
 - Continue to update tenant policies as required (e.g., periodic income testing for low end of market tenants, new baseline affordability option)
 - Continue to explore the feasibility of tenancy management service to take on management of inclusionary housing opportunities from private developers
 - Continue to develop materials and communications to support tenant relocation

- 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
 - Support planning for an additional housing site, if proved feasible
 - Continue further study of sites identified for potential development partnerships
 - Coordinate requirements for funding programs
 - Work with Operations to create Rent Up Strategies for projects nearing completion
- Support Metro Vancouver Regional Planning implementation of policies related to housing for Metro 2050, the update to the regional growth strategy
- Convene the Regional Planning Advisory Committee's Housing Subcommittee to support members around regional housing issues and development of best practice research and advocacy
- Continue to implement the strategy to update existing MVHC leases with municipal members.

Communications Program

- Work to build a better understanding and awareness of MVHC among key stakeholders through further branding work including multimedia support where needed.
- Work with Operations and External Relations to continue to update tenant-facing materials to improve clarity and understanding
- Continue to engage existing tenants to collect and analyze demographic and user experience data to guide development and operational planning.
- Continue to 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

2023 to 2027 – 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
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 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 new housing sites on member lands	Progress concept plan for potential new housing site (DNV) to schematic design and development approvals, if feasible.	Regional growth
Strategic planning and policy for MVHC	Continue to develop and implement new policies and procedures to support periodic income testing for low end of market tenants and new baseline affordability options	Financial sustainability
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 pursue partnerships with development partnerships or deals on specific sites	Regional growth
Expand housing portfolio through management partnerships	Continue to 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
Update existing MVHC leases	Continue planning for upcoming renewal of existing MVHC leases with member jurisdictions	Regulatory and Legislative Environment

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 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 or deals 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
Update existing MVHC leases	Support upcoming renewal of existing MVHC leases with member jurisdictions	Regulatory and Legislative environment
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 or deals 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

Update existing MVHC leases	Support upcoming renewal of existing MVHC leases with member jurisdictions	Regulatory and Legislative environment
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
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 or deals 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
Update existing MVHC leases	Support upcoming renewal of existing MVHC leases with member jurisdictions	Regulatory and Legislative environment
2027		
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 or deals 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
2023-2027 PROJECTED RESERVES - HOUSING PLANNING AND POLICY

OPERATING RESERVES

	2022	2023				2023	2024	2025	2026	2027
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Housing Planning and Policy	\$ 201,539	\$ 201,539	\$ -	\$ -	\$ 4,031	\$ 205,570	\$ 209,681	\$ 213,875	\$ 218,152	\$ 222,515

STATUTORY RESERVES

	2022	2023				2023	2024	2025	2026	2027
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Housing Planning and Policy										
Affordable Housing Re-development Reserve	\$ 5,347,497	\$ 5,347,497	\$ 1,000,000	\$ -	\$ 116,950	\$ 6,464,447	\$ 7,603,736	\$ 2,705,810	\$ 3,769,927	\$ 2,835,325
Affordable Housing Development Reserve	12,247,923	12,247,923	4,000,000	-	284,958	16,532,882	22,923,539	7,222,010	13,426,450	1,574,979
Total	\$ 17,595,420	\$ 17,595,420	\$ 5,000,000	\$ -	\$ 401,908	\$ 22,997,328	\$ 30,527,275	\$ 9,927,820	\$ 17,196,377	\$ 4,410,304

To: Housing Committee

From: Heather McNell, Deputy Chief Administrative Officer, Policy and Planning

Date: September 6, 2022 Meeting Date: October 6, 2022

Subject: **2023 - 2027 Financial Plan – Metro Vancouver Housing Corporation (MVHC)**

RECOMMENDATION

That the Housing Committee endorse the 2023 - 2027 Financial Plan for the Metro Vancouver Housing Corporation as presented in the report dated September 6, 2021, titled “2023 - 2027 Financial Plan – Metro Vancouver Housing Corporation”, and forward it to the Metro Vancouver Board Budget Workshop on October 19, 2022 for consideration.

EXECUTIVE SUMMARY

The 2023 - 2027 Metro Vancouver Financial Plan has been prepared following direction received at the April 14, 2022 Metro Vancouver Board Budget Workshop. This has resulted in a plan that maintains the goals and objectives of Metro Vancouver while removing the use of financial levers that were put in place during the COVID-19 pandemic. Further, this budget represents a pause to assess the implications of the rapidly evolving macro economic environment and to undertake strategic planning with the incoming Board of Directors. The increase in Metro Vancouver’s overall consolidated household impact for 2023 is projected to be 4.5%, down from the 10.1% projected for 2023 in the prior financial planning cycle.

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 budgeted revenue is expected to increase an average of \$5.2 million or 8.3% per year, primarily due to the expansion of the portfolio and acceleration of building rehabilitation work.

PURPOSE

To present the 2023 - 2027 Financial Plan for the Metro Vancouver Housing Corporation (MVHC) for consideration by the Housing 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 14, 2022 a Metro Vancouver Board Budget Workshop was held with the objective to seek direction for the preparation of the 2023 - 2027 Financial Plan. The workshop outlined the principles that guide the work of Metro Vancouver as an organization, the current 2022 - 2026 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 2023 - 2027 Financial Plan.

Given the challenges being observed coming out of the Covid-19 pandemic, this budget represents a pause for Metro Vancouver and focuses on maintaining the existing goals and objectives of Metro Vancouver and Liquid Waste Services. Staff will undertake strategic planning with the incoming Board of Directors, re-evaluate current plans under this leadership, and assess the implications of the rapidly evolving macro environment.

Key highlights of the overall Metro Vancouver 2023 proposed budget are as follows:

- A reduction of \$22 million of the total 2023 Metro Vancouver proposed operating budget compared to that previously projected for 2023
- Maintained or increased contribution to capital and reserves for key functions
- Reduced capital cash flow for 2023 and 2024
- Real reduction of HHI, \$33 less than that previously projected for 2023

This report focuses on the Metro Vancouver Housing Corporation Service and presents the 2023 provisional annual budget and the updated five-year plan for the years 2023 to 2027 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 are primarily financed through the collection of tenant rents and supplemented by BC Housing operating subsidies for nine 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 2023 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 Rent Geared to Income tenants
- Vacancy percentage (based on number of available units)
- Number of Tenant Associations administered throughout the portfolio
- 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), Minato West (Richmond)

The trends in these performance measures suggest that MVHC will continue to provide one third of the tenant portfolio with deeper 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 number of affordable rental homes in MVHC's portfolio. Full building envelope rehabilitation projects at two of our sites demonstrates the commitment to preserve and revitalize existing homes.

CONTINUOUS IMPROVEMENT

MVHC has been reviewing and updating its standards and procedures. Notable updates include *Project Management Standards* and templates that ensure the consistent and efficient delivery of development projects. In addition, a review of Operations is underway.

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 Pembina's 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
 - 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.

2023 BUDGET AND 2023 - 2027 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 2023 - 2027 MVHC Financial Plan is included as Attachment 1. The 2023 Annual Work Plan for the MVHC presented in this report is included in Attachment 3 and the “What’s Happening” highlights for the years 2023 - 2027 are included in Attachment 4.

Operating Budget Highlights

The MVHC 2023 operating budget is proposed to increase by \$5.7 million for a total budget of \$60.5 million (Attachment 1). This increase is primarily due to the acceleration of building rehabilitation projects.

The 2023 operating budget includes the following key actions:

- Continue implementation of the Metro Vancouver Housing 10-Year Plan and Asset Management Plan;
- Ongoing construction for Strathearn Court (Vancouver) and Minato West (Richmond) building envelope renewals and energy improvements;
- Apply for currently available CMHC, FCM and CleanBC grants and other partnerships for our capital maintenance projects that target green building retrofits and the preservation of affordable housing. Any grants received will be applied to increase the scope of projects in the following year;
- The Pembina Reframed initiative 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 through relocation to support redevelopment;
- Develop and begin implementation of a new internal and external work order system;
- Work with BC Housing and CMHC to secure funding partnerships to expand our portfolio and create additional homes;
- Update the Metro Vancouver 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 \$5.2 million or 8.3% per year, primarily due to the expansion of the housing portfolio as more units come on line.

Communications Program

The 2023 MVHC Communications Program of \$40,000 is focused on tenant and public engagement, video and graphic documentation of new and existing MVHC sites and programs for partner and tenant engagement, and marketing materials to help raise awareness and presence of MVHC as a leading provider of affordable housing in the region.

Capital Budget Highlights

The MVHC capital development cash flow for 2023 is \$62.2M with a total estimated spend of \$387M over the next five years (Attachment 2). The capital program is funded by mortgage financing, reserve funding, and grant funding from various levels of government. The capital projects planned and ongoing for 2023 are the redevelopment and construction of Kingston Gardens - Phase I (Surrey), Welcher Avenue (Port Coquitlam), and Heather Place - Building B (Vancouver). Finalizing detailed design and construction tender for Eastburn Square & Southwynde (Burnaby) and Pitt Meadows Civic Centre (Pitt Meadows) and finalizing detailed design for Malaspina (Coquitlam).

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 2023, the financial plan includes \$9.2 million in reserve usage for significant asset maintenance and replacement, of which \$8.4 million is from the Capital Replacement Reserve and the remaining \$0.8 million is from the Restricted Capital Replacement Reserve. The 2023 - 2027 Projected Reserves for MVHC is included in Attachment 5.

APPROVAL PROCESS

The proposed 2023 - 2027 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 2023 - 2027 Financial Plan and Annual Work Plan will be presented for consideration at the Metro Vancouver Board Budget Workshop on October 19, 2022; and
- The Board will consider adoption of the 2023 Budget and endorsement of the 2023 - 2027 Financial Plan on October 28, 2022.

ALTERNATIVES

1. That the Housing Committee endorse the 2023 - 2027 Financial Plan for the Metro Vancouver Housing Corporation as presented in the report dated September 6, 2022, titled "2023 - 2027 Financial Plan – Metro Vancouver Housing Corporation", and forward it to the Metro Vancouver Board Budget Workshop on October 19, 2022 for consideration.

2. That the Housing Committee make recommendations and endorse an amended 2023 - 2027 Financial Plan for the MVHC, and forward the amended Financial Plan to the to the Metro Vancouver Board Budget Workshop on October 19, 2022 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 2023 - 2027 Financial Plan for the MVHC, as presented under Alternative 1, in 2023 the rental revenues are expected to generate a surplus from operations ranging from \$11.0M in 2023 to \$13.1M in 2027.

The capital plan includes five redevelopment projects: Kingston Gardens – Phase 1 (Surrey) and Welcher Avenue (Port Coquitlam), which are on track for 97% construction completion by the end of 2023, Heather Place – Building B (Vancouver) which will start construction in 2023, Eastburn Avenue (Burnaby) which will see finalized detailed design and construction tender in 2023 and Malaspina Phase 1 (Coquitlam) which will finalize detailed design in 2023. 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 2023 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 2023 Budget and Five-year Financial Plan was prepared following direction received at the April 14, 2022 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 2023 to 2027 for MVHC.

The presentation of the 2023 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 2023 - 2027 Financial Plan and Annual Work Plan for MVHC as presented under alternative one.

Attachments:

1. 2023 - 2027 Financial Plan
2. 2023 - 2027 Capital Portfolio – Housing Development
3. 2023 - Work Plan
4. 2023 - 2027 "What's Happening"
5. 2023 - 2027 Projected Reserves – Metro Vancouver Housing Corporation

METRO VANCOUVER HOUSING CORPORATION
HOUSING
2023 BUDGET REVIEW
2023-2027 FINANCIAL PLAN

	2022 BUDGET	2023 BUDGET	% CHANGE	2024 FORECAST	% CHANGE	2025 FORECAST	% CHANGE	2026 FORECAST	% CHANGE	2027 FORECAST	% CHANGE
REVENUES											
Housing Rents	\$ 42,110,363	\$ 43,776,981	4.0%	\$ 47,786,671	9.2%	\$ 51,169,123	7.1%	\$ 59,741,420	16.8%	\$ 62,385,099	4.4%
Housing Mortgage and Rental Subsidies	1,885,840	1,254,011		1,291,631		1,330,380		1,370,292		1,376,041	
Other External Revenues	884,490	927,600		941,175		954,980		969,021		983,297	
Financing Proceeds	5,820,000	5,325,000		12,600,000		12,725,000		11,000,000		5,000,000	
Transfer from Reserves	4,098,180	9,190,781		9,453,429		9,968,521		10,518,107		10,993,619	
TOTAL REVENUES	\$ 54,798,873	\$ 60,474,373	10.4%	\$ 72,072,906	19.2%	\$ 76,148,004	5.7%	\$ 83,598,840	9.8%	\$ 80,738,056	(3.4%)
EXPENDITURES											
Operating Programs:											
Property Operations	\$ 17,976,727	\$ 19,493,214		\$ 21,004,043		\$ 22,342,287		\$ 25,324,593		\$ 26,320,967	
Maintenance	1,108,815	1,136,393		1,173,908		1,207,051		1,239,443		1,272,914	
Housing Finance Operations	965,411	933,293		959,372		987,242		1,011,398		1,040,269	
Tenant Program and Services	585,086	609,913		628,952		646,531		664,705		683,489	
Site Administration	2,250,084	2,302,527		2,373,339		2,437,838		2,501,237		2,566,037	
Engineers in Training	15,508	7,350		7,566		7,769		7,977		8,191	
Administration and Department Support	1,479,635	1,515,185		1,576,098		1,625,938		1,671,522		1,718,383	
	24,381,266	25,997,875	6.6%	27,723,278	6.6%	29,254,656	5.5%	32,420,875	10.8%	33,610,250	3.7%
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	2,401,739	2,352,769	(2.0%)	2,475,030	5.2%	2,425,419	(2.0%)	2,294,932	(5.4%)	2,321,942	1.2%
Total Operating Programs	26,823,005	28,390,644	5.8%	30,238,308	6.5%	31,720,075	4.9%	34,755,807	9.6%	35,972,192	3.5%
Capital Maintenance	9,918,180	14,303,156	44.2%	21,399,804	49.6%	21,164,348	(1.1%)	18,847,226	(10.9%)	12,364,056	(34.4%)
Allocation of Project Delivery Cost	-	-	0.0%	640,051	0.0%	676,768	5.7%	699,058	3.3%	706,126	1.0%
Debt Service:											
Mortgage Payments	4,799,022	4,698,170	(2.1%)	6,862,059	46.1%	8,049,939	17.3%	12,232,359	52.0%	12,512,017	2.3%
Capital Maintenance Financing	678,428	212,625	(68.7%)	653,625	210.0%	1,529,173	130.0%	2,670,881	74.7%	3,629,563	35.9%
Contribution to Capital Replacement Reserve	1,859,270	1,858,786	0.0%	1,993,890	7.3%	2,071,286	3.9%	2,360,868	14.0%	2,403,373	1.8%
Contribution to Reserve	10,720,968	11,010,992	2.7%	10,285,169	(6.6%)	10,936,415	6.3%	12,032,641	10.0%	13,150,729	9.3%
TOTAL EXPENDITURES	\$ 54,798,873	\$ 60,474,373	10.4%	\$ 72,072,906	19.2%	\$ 76,148,004	5.7%	\$ 83,598,840	9.8%	\$ 80,738,056	(3.4%)

METRO VANCOUVER HOUSING CORPORATION
CAPITAL PORTFOLIO
HOUSING DEVELOPMENT
2023 CAPITAL BUDGET AND 2023-2027 CAPITAL PLAN

	2023 CAPITAL BUDGET	2023 CAPITAL CASH FLOW	2024 CAPITAL CASH FLOW	2025 CAPITAL CASH FLOW	2026 CAPITAL CASH FLOW	2027 CAPITAL CASH FLOW	2023 TO 2027 TOTAL CAPITAL CASH FLOW	ACTIVE PHASE	PRIMARY DRIVER
CAPITAL EXPENDITURES									
Heather Place - Building B	\$ 47,000,000	\$ 5,000,000	\$ 15,000,000	\$ 20,000,000	\$ 5,350,000	\$ -	\$ 45,350,000	Detailed Design	Expand/Re-develop
Kingston Gardens - Phase 1	44,700,000	23,000,000	4,500,000	-	-	-	27,500,000	Construction	Expand/Re-develop
Welcher Avenue	36,100,000	26,000,000	3,900,000	-	-	-	29,900,000	Construction	Expand/Re-develop
Eastburn Square	73,500,000	2,000,000	30,000,000	30,000,000	10,600,000	-	72,600,000	Planned	Expand/Re-develop
Malaspina	81,700,000	3,000,000	5,000,000	10,000,000	30,000,000	26,700,000	74,700,000	Planned	Expand/Re-develop
Pitt Meadows Town Centre	74,700,000	1,200,000	40,800,000	31,270,000	-	-	73,270,000	Planned	Expand/Member Partnerships
Southwynde - Burnaby	64,500,000	2,000,000	30,000,000	30,000,000	1,650,000	-	63,650,000	Planned	Expand/Member Partnerships
TOTAL CAPITAL EXPENDITURES	\$ 422,200,000	\$ 62,200,000	\$ 129,200,000	\$ 121,270,000	\$ 47,600,000	\$ 26,700,000	\$ 386,970,000		
CAPITAL FUNDING									
Grants	\$ 160,913,236	\$ 15,575,000	\$ 94,000,000	\$ 19,988,236	\$ 21,000,000	\$ -	\$ 150,563,236		
External Borrowing	146,089,672	38,950,000	28,100,000	47,089,672	11,800,000	16,500,000	142,439,672		
Reserve	115,197,092	7,675,000	7,100,000	54,192,092	14,800,000	10,200,000	93,967,092		
Total	\$ 422,200,000	\$ 62,200,000	\$ 129,200,000	\$ 121,270,000	\$ 47,600,000	\$ 26,700,000	\$ 386,970,000		
SUMMARY BY DRIVER									
Expand/Re-develop	\$ 283,000,000	\$ 59,000,000	\$ 58,400,000	\$ 60,000,000	\$ 45,950,000	\$ 26,700,000	\$ 250,050,000		
Expand/Member Partnerships	139,200,000	3,200,000	70,800,000	61,270,000	1,650,000	-	136,920,000		
Total	\$ 422,200,000	\$ 62,200,000	\$ 129,200,000	\$ 121,270,000	\$ 47,600,000	\$ 26,700,000	\$ 386,970,000		

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 (2021)	Current performance (2022)	2023 performance objective
Total units rented to subsidized tenants	30% Target	31% (2022)	30%
Vacancy percentage (based on number of units)	0.1% (3 Year Average)	0.1% (2022)	0.1%
Number of Tenant Program Activities	107	130	130
Reduce GHG emissions	10.2 grams CO ² Emissions per square metre (2010 baseline)	7.88 grams CO ² Emissions per square metre (2021) ¹	7.45 grams CO ² Emissions per square metre
Kingston Gardens, Surrey Redevelopment	0% (construction)	40% (construction)	97% (construction)
Welcher Avenue, Port Coquitlam Redevelopment	0% (construction)	40% (construction)	97% (construction)
Heather Place B, Vancouver Redevelopment	65% (design) <5% (construction)	95% (design)	5% (construction)

¹ Methodology for this calculation updated to comply with Carbon Neutral Government Regulation
 52141522

Indicator	Historical and/or industry benchmark (2021)	Current performance (2022)	2023 performance objective
Eastburn Square, Burnaby Redevelopment	20% (design) 0% (construction)	60% (design)	100% (detailed design and construction tender)
Malaspina Phase 1, Coquitlam Redevelopment	5% (design) 0% (construction)	50% (design)	100% (detailed design)
Strathearn Court Rehabilitation Project	95% (design) 0% (construction)	100% (design) 0% (construction)	40% (construction)
Minato West Rehabilitation Project	0% (Design)	100% (design) 0% (construction)	50% (construction)

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

2023 Key Actions – Metro Vancouver Housing

Operations & Maintenance

- Continue implementation of the Metro Vancouver Housing 10-Year Plan and Asset Management Plan;
- Ongoing construction for Strathearn Court (Vancouver) and Minato West (Richmond) building envelope renewals and energy improvements;
- Apply for currently available CMHC, FCM and CleanBC grants and other partnerships for our capital maintenance projects that target green building retrofits and the preservation of affordable housing. Any grants received will be applied to increase the scope of projects in the following year;
- The Pembina Reframed initiative 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;
- Update the Metro Vancouver 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.

Redevelopment

- Progress construction of redevelopment sites: Kingston Gardens Phase 1 (Surrey) and Welcher Avenue (Port Coquitlam);
- Begin construction at Heather Place Building B redevelopment (Vancouver);
- Finalized detailed design and construction tender for Eastburn Square (Burnaby) and Malaspina Phase 1 (Coquitlam)
- Work with BC Housing and CMHC to secure funding partnerships to expand our portfolio and create additional homes;

Communications

- Continue to build brand awareness with key industry stakeholders and residents of the region
- Video and graphic documentation of new and existing MVHC sites and programs for partner and tenant engagement
- Work to build a better understanding the opinions and community needs of MVHC through focus group and public opinion research where needed

5.3 ATTACHMENT 4

Metro Vancouver Housing Corporation

2023 to 2027 – 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
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	Continue construction phase of project	Regional Growth
Welcher Avenue Redevelopment	Continue construction phase of project	Regional Growth
Heather Place B Redevelopment	Complete construction tendering process and begin construction	Regional Growth
Eastburn Square Redevelopment	Finalize detailed design and construction tender	Regional Growth
Malaspina Village – Phase 1 Redevelopment	Continue detailed design	Regional Growth
New development projects (through Partnerships)	Finalizing detailed design and construction tender for one site and construction tender and breaking ground for another site	Regional Growth
Strathearn Court Rehabilitation Project	Continue construction phase	System stewardship
Minato West Rehabilitation Project	Continue construction phase	System stewardship
Process development	Review and refine preventative maintenance procedures	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
Kingston Gardens – Phase 1 Redevelopment	Complete construction and begin rent-up	Regional Growth
Welcher Avenue Redevelopment	Complete construction and begin rent-up	Regional Growth
Heather Place B Redevelopment	Continue construction phase	Regional Growth
Eastburn Square Redevelopment	Continue construction phase	Regional Growth
Malaspina Village – Phase 1 Redevelopment	Finalize detailed design and construction tender	Regional Growth
New development projects (through Partnerships)	Continue construction phase for two sites	Regional Growth

Strathearn Court Rehabilitation Project	Continue construction phase	System stewardship
Minato West 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
2025		
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
Heather Place B Redevelopment	Complete construction and begin rent-up	Regional Growth
Eastburn Square Redevelopment	Continue construction phase	Regional Growth
Malaspina Village – Phase 1 Redevelopment	Continue construction phase	Regional Growth
New development projects (through Partnerships)	Complete construction and begin rent-up for Civic Centre, Pitt Meadows and continue construction for Southwynde, Burnaby	Regional Growth
Strathearn 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
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	Continue to progress through construction	Regional Growth
New development projects (through Partnerships)	Complete construction and begin rent-up at Southwynde, Burnaby.	Regional Growth
Building rehabilitation projects	Continue construction of initiated projects and the development of design in newly initiated projects	System stewardship
2027		
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

Malaspina Village – Phase 1 Redevelopment	Complete construction and begin rent-up	Regional Growth
Building rehabilitation projects	Continue construction of initiated projects and the development of design in newly initiated projects	System stewardship

METRO VANCOUVER DISTRICTS
2023-2027 PROJECTED RESERVES - METRO VANCOUVER HOUSING CORPORATION

OPERATING RESERVES

	2022	2023				2023	2024	2025	2026	2027
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Metro Vancouver Housing Corporation	\$ 2,629,149	\$ 2,629,149	\$ -	\$ -	\$ 52,583	\$ 2,681,732	\$ 2,735,367	\$ 2,790,074	\$ 2,845,876	\$ 2,902,793

DISCRETIONARY RESERVES

	2022	2023				2023	2024	2025	2026	2027
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Housing										
MVHC Capital Replacement Reserve	\$ 6,881,921	\$ 6,881,921	\$ 13,292,007	\$ (10,753,248)	\$ 163,026	\$ 9,583,706	\$ 10,699,906	\$ 9,368,933	\$ 6,519,538	\$ 6,774,806
MVHC Capital Development Reserve	40,496,025	40,496,025	2,337,067	(7,675,000)	756,541	35,914,633	30,471,926	9,374,924	6,582,922	20,745,871
Total	\$ 47,377,945	\$ 47,377,945	\$ 15,629,074	\$ (18,428,248)	\$ 919,567	\$ 45,498,339	\$ 41,171,831	\$ 18,743,857	\$ 13,102,460	\$ 27,520,677

STATUTORY RESERVES

	2022	2023				2023	2024	2025	2026	2027
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
MVHC Restricted Cap. Replacement Reserve	\$ 3,463,993	\$ 3,463,993	\$ 433,307	\$ (1,684,756)	\$ 56,765	\$ 2,269,309	\$ 3,074,952	\$ 1,826,788	\$ 2,119,588	\$ 2,379,838

To: Indigenous Relations Committee

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

Date: September 30, 2022 Meeting Date: October 7, 2022

Subject: **2023 - 2027 Financial Plan – Indigenous Relations**

RECOMMENDATION

That the Indigenous Relations Committee endorse the 2023 - 2027 Financial Plan for Indigenous Relations as presented in the report dated September 30, 2022, titled “2023 - 2027 Financial Plan – Indigenous Relations”, and forward it to the Metro Vancouver Board Budget Workshop on October 19, 2022 for consideration.

EXECUTIVE SUMMARY

The 2023 - 2027 Metro Vancouver Financial Plan has been prepared following direction received at the April 14, 2022 Metro Vancouver Board Budget Workshop. This has resulted in a plan that maintains the goals and objectives of Metro Vancouver while removing the use of financial levers that were put in place during the COVID-19 pandemic. Further, this budget represents a pause to assess the implications of the rapidly evolving macro economic environment and to undertake strategic planning with the incoming Board of Directors. The increase in Metro Vancouver’s overall consolidated household impact for 2023 is projected to be 4.5%, down from the 10.1% projected for 2023 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, lead or support negotiations, and contribute valuable work towards Reconciliation. There are significantly increased expectations (from the federal and provincial governments, from First Nations, and from the broader public) that Metro Vancouver is continuously 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 demands on and expectations for the program, the Indigenous Relations operating budget is proposed to increase from \$1,383,577 in 2022 to \$1,684,460 in 2023, by a total of \$300,883. Over the five years, the operating program is increasing by an annual average of \$58,119, or 3.45% per year.

PURPOSE

To present the 2023 - 2027 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 14, 2022 a Metro Vancouver Board Budget Workshop was held with the objective to seek direction for the preparation of the 2023 - 2027 Financial Plan. The workshop outlined the principles that guide the work of Metro Vancouver as an organization, the current 2022 - 2026 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 2023 - 2027 Financial Plan.

Given the challenges being observed coming out of the Covid-19 pandemic, this budget represents a pause for Metro Vancouver and focuses on maintaining the existing goals and objectives of Metro Vancouver and Liquid Waste Services. Staff will undertake strategic planning with the incoming Board of Directors, re-evaluate current plans under this leadership, and assess the implications of the rapidly evolving macro environment.

Key highlights of the overall Metro Vancouver 2023 proposed budget are as follows:

- A reduction of \$22 million of the total 2023 Metro Vancouver proposed operating budget compared to that previously projected for 2023
- Maintained or increased contribution to capital and reserves for key functions
- Reduced capital cash flow for 2023 and 2024
- Real reduction of HHI, \$33 less than that previously projected for 2023

This report focuses on Metro Vancouver's Indigenous Relations program and presents the 2023 provisional annual budget and the updated five-year plan for the years 2023 to 2027 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 2021, Indigenous Relations staff responded to 3,300 requests; the current trend for 2022 is 4,000 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 2023 Work Plan for Indigenous Relations is presented in this report. Within the Indigenous Relations Work Plan, four performance indicators have been developed and are being tracked. These include:

- 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
- Number of attendees at Indigenous Relations training sessions
- Special Indigenous Relations events hosted by Metro Vancouver (e.g. Community to Community Forums, workshops, lunch and learns): Number of events and number of attendees

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 IMPROVEMENTS

Continuous improvements for 2022 have included:

- Completion of First Nations Showcase Videos: Semiahmoo First Nation and Tsawwassen First Nation.
- Creation of a new required module for staff onboarding sessions on Metro Vancouver's commitment to reconciliation, and Indigenous Relations.
- Delivery of archaeological training sessions for over 200 Metro Vancouver staff on Chance Find Protocols.

Continuous improvement initiatives for 2023 include:

- Creation of web-based and video-based modules for on-demand staff training purposes: Indigenous Relations staff will be working with the External Relations Department in 2023 to create video-based training modules for project managers, work crews and contractors.
- Continued identification and implementation of software to improve the productivity of the Indigenous Relations team, with the aim of managing workflows and workload more efficiently. Indigenous Relations staff is continuing to test various possible software in order to assist with the assigning and tracking of requests and performance indicators.
- Pursuing additional or different externally-facilitated course topics for Metro Vancouver staff training. Metro Vancouver has kept the course topics consistent over the past 5 years. With new

and increased expectations on Metro Vancouver, it will be important to build on those earlier topics to continually enhance staff education and training.

- Reviewing Metro Vancouver's existing policies, processes, and practices for identifying additional and better opportunities for engagement with First Nations in light of the Board's commitment to reconciliation as well as First Nations' expectations with respect to the provincial and Federal *Declaration on the Rights of Indigenous Peoples Acts*.

Key work for 2023 includes:

- Co-hosting with an area First Nation a first-ever Regional Gathering of elected leaders from the 10 local First Nations in the region, the Board of Directors and the Indigenous Relations Committee;
- Undertaking enhanced bilateral engagement and negotiation with each of the First Nations within the region;
- Tracking the provincial *Declaration on the Rights of Indigenous Peoples Act Action Plan*, and identifying and analyzing key developments for Metro Vancouver;
- Creating a web-based portal for the purposes of sharing data with First Nations.

2023 BUDGET AND 2023 - 2027 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 2023 - 2027 Indigenous Relations Financial Plan is included as Attachment 1. The 2023 Annual Work Plan for Indigenous Relations presented in this report is included in Attachment 2 and the "What's Happening" highlights for the years 2023 - 2027 are included in Attachment 3.

Operating Budget Highlights

The Indigenous Relations operating budget is proposed to increase by \$300,883 for a total budget of \$1,684,460 in 2023 (Attachment 1). This increase is a direct result of: a constantly changing and evolving Indigenous Relations landscape; increasing demands and expectations placed upon Metro Vancouver, including a recognized need to involve First Nations in the regional district's plans, projects and initiatives; and increasing labour costs.

The 2023 operating budget includes the following key actions:

- Support ongoing First Nation engagement efforts (including agreements) on Metro Vancouver's major 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.
- 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.
- 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.
- 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.
- Host an annual event (e.g. workshop) for local government staff on a topical municipal/Indigenous Relations issue.
- Complete the video series of the 10 First Nations in the region.

Over the five years, the operating program is increasing by a total of \$290,596, which represents an annual average of \$58,119 or 3.5% per year.

APPROVAL PROCESS

The proposed 2023 - 2027 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 2023 - 2027 Financial Plan and Annual Work Plan will be presented at the Metro Vancouver Board Budget Workshop on October 19, 2022.
- The Board will consider adoption of the 2023 Budget and endorsement of the 2023 - 2027 Financial Plan on October 28, 2022.

ALTERNATIVES

1. That the Indigenous Relations Committee endorse the 2023 - 2027 Financial Plan for Indigenous Relations as presented in the report dated September 30, 2022, titled "2023 - 2027 Financial Plan – Indigenous Relations", and forward it to the Metro Vancouver Board Budget Workshop on October 19, 2022 for consideration.
2. That the Indigenous Relations Committee make recommendations and endorse an amended 2023 - 2027 Financial Plan for Indigenous Relations, and forward the amended Financial Plan to the Metro Vancouver Board Budget Workshop on October 19, 2022 for consideration.

FINANCIAL IMPLICATIONS

If the MVRD Board endorses the 2023 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 2023 - 2027 Financial Plan, if endorsed, will increase by \$290, 596, or an average of \$58,119 (3.5%) 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 2023 Budget and Five-year Financial Plan for Indigenous Relations has been prepared following direction received at the April 14, 2022 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 2023 to 2027 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 2023 - 2027 Financial Plan for Indigenous Relations as presented under alternative one.

Attachments:

1. 2023 - 2027 Financial Plan
2. 2023 Work Plan
3. 2023 - 2027 "What's Happening"

METRO VANCOUVER DISTRICTS
INDIGENOUS RELATIONS
2023 BUDGET REVIEW
2023-2027 FINANCIAL PLAN

	2022 BUDGET	2023 BUDGET	% CHANGE	2024 FORECAST	% CHANGE	2025 FORECAST	% CHANGE	2026 FORECAST	% CHANGE	2027 FORECAST	% CHANGE
REVENUES											
Allocated to Functional Departments	\$ 907,578	\$ 1,196,120	31.8%	\$ 1,268,151	6.0%	\$ 1,339,767	5.6%	\$ 1,411,746	5.4%	\$ 1,444,593	2.3%
Transfer from Capital	475,999	488,340		489,550		502,883	2.7%	516,490	2.7%	530,463	2.7%
TOTAL REVENUES	<u>\$ 1,383,577</u>	<u>\$ 1,684,460</u>	21.7%	<u>\$ 1,757,701</u>	4.3%	<u>\$ 1,842,650</u>	4.8%	<u>\$ 1,928,236</u>	4.6%	<u>\$ 1,975,056</u>	2.4%
EXPENDITURES											
Operating Programs:											
Indigenous Relations	\$ 1,383,577	\$ 1,684,460		\$ 1,757,701		\$ 1,842,650		\$ 1,928,236		\$ 1,975,056	
TOTAL EXPENDITURES	<u>\$ 1,383,577</u>	<u>\$ 1,684,460</u>	21.7%	<u>\$ 1,757,701</u>	4.3%	<u>\$ 1,842,650</u>	4.8%	<u>\$ 1,928,236</u>	4.6%	<u>\$ 1,975,056</u>	2.4%

AND INDIGENOUS RELATIONS

Indigenous Relations 2023 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	2023 performance objective
Number of bilateral meetings between Metro Vancouver and the nine area First Nations with lands	MV 5-year average (2017-2021) 37	Projected 2022: 90	 125
Total requests for information or advice related to First Nations and/or Indigenous Relations	MV 5-year average (2017-2021) 1,900	Projected 2022: 4,000	 5,000
Number of attendees at Indigenous Relations Training Sessions	MV 5-year average (2017-2021) 150	Projected 2022: 300	 400
Number of events/attendees at Special Indigenous Relations Events (e.g. Community to Community Forums, workshops, lunch and learns)	MV 5-year average (2017-2021) 3/450	Projected 2022: 11/900	 12/1,000

2023 Key Actions

- Support ongoing First Nation engagement efforts (including agreements) on major Metro Vancouver 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.
- 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.
- 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.
- Provide ongoing training sessions for Metro Vancouver staff on various Indigenous Relations issues, including corporate policy related to sharing information and engagement with First Nations, 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.

Indigenous Relations

2023 to 2027 – 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
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
Capital and Construction Projects	Support ongoing First Nation engagement efforts on Metro Vancouver capital and construction projects	Regional Growth
First Nations Engagement	Track, analyze and make recommendations regarding Metro Vancouver’s evolving obligations as implementation of the provincial <i>Declaration on the Rights of Indigenous Peoples Act Action Plan</i> progresses. Issues will include: “advancing First Nations participation in regional district boards” and “initiatives to advance collaborative stewardship of the environment, land and resources,” among other things.	Regulatory and Legislative Environment
Sensitive Ecosystem Inventory	Support First Nation engagement in the 5-year update of the sensitive ecosystem inventory for the 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
Policy Review	Review of existing policies, processes and practices for improving opportunities for engagement with First Nations based on the Board’s commitment to reconciliation and First Nations’ expectations	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	Development of a web-based platform for sharing project information and engaging with First Nations	Regional Growth
Archaeological Management	Collaborate with First Nations on a renewed Metro Vancouver approach and policy on archaeological management	Regulatory and Legislative Environment
Community to Community Forums with Individual First Nations	Forums to be co-hosted by Metro Vancouver Indigenous Relations Committee with individual First Nations	Environmental Sustainability

To: Liquid Waste Committee

From: Peter Navratil, General Manager, Liquid Waste Services

Date: September 28, 2022 Meeting Date: October 5, 2022

Subject: **2023 - 2027 Financial Plan – Liquid Waste Services**

RECOMMENDATION

That the Liquid Waste Committee endorse the 2023 - 2027 Financial Plan for Liquid Waste Services as presented in the report dated September 28, 2022, titled “2023 - 2027 Financial Plan – Liquid Waste Services”, and forward it to the Metro Vancouver Board Budget Workshop on October 19, 2022 for consideration.

EXECUTIVE SUMMARY

The 2023 - 2027 Metro Vancouver Financial Plan has been prepared following direction received at the April 14, 2022 Metro Vancouver Board Budget Workshop. This has resulted in a plan that maintains the goals and objectives of Metro Vancouver while removing the use of financial levers that were put in place during the COVID-19 pandemic. Further, this budget represents a pause to assess the implications of the rapidly evolving macro economic environment and to undertake strategic planning with the incoming Board of Directors. The increase in Metro Vancouver’s overall consolidated household impact for 2023 is projected to be 4.5%, down from the 10.1% projected for 2023 in the prior financial planning cycle.

In 2023, the Liquid Waste Services operating budget is proposed to increase by \$25.9 million (6.6%) for a total of \$418.8 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 \$22.8 million (7.6%), which represents an \$15 increase (5.4%) for a total of \$295 in the cost to the average regional household after growth is accounted for (which compares to a previous forecast for 2023 of \$321). Efforts to reduce operating expenditures and debt service costs along with the application of available reserves of approximately \$11.0 million have resulted in a reduction in the overall Sewer levy of \$28.7 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 pricing to establish incentives for municipal action on Inflow and Infiltration management.

PURPOSE

To present the 2023 - 2027 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 14, 2022 a Metro Vancouver Board Budget Workshop was held with the objective to seek direction for the preparation of the 2023 - 2027 Financial Plan. The workshop outlined the principles that guide the work of Metro Vancouver as an organization, the current 2022 - 2026 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 2023 - 2027 Financial Plan.

Given the challenges being observed coming out of the COVID-19 pandemic, this budget represents a pause for Metro Vancouver and focuses on maintaining the existing goals and objectives of Metro Vancouver and Liquid Waste Services. Staff will undertake strategic planning with the incoming Board of Directors, re-evaluate current plans under this leadership, and assess the implications of the rapidly evolving macro environment.

Key highlights of the overall Metro Vancouver 2023 proposed budget are as follows:

- A reduction of \$22 million of the total 2023 Metro Vancouver proposed operating budget compared to that previously projected for 2023
- Maintained or increased contribution to capital and reserves for key functions
- Reduced capital cash flow for 2023 and 2024
- Real reduction of HHI, \$33 less than that previously projected for 2023

This report focuses on the Liquid Waste Services function and presents the 2023 annual budget and the updated five-year plan for the years 2023 to 2027 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, 34 pump stations, three 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 2023 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 treatment plants have performed well in complying with existing treatment plant operational certificates, although the North Shore Sewerage Area continues to be 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 private infrastructure. Progress on key projects and initiatives 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:

- Development of Wet Weather Rate Structure to incentivize action by member jurisdictions to address Inflow and Infiltration on private and public infrastructure.
- Transition to renewable natural gas from FortisBC for all liquid waste facilities, resulting in reduction of annual GHG emissions by 835 tonnes.
- Implementation of safety management improvement strategies that has resulted in a reduction of lost time accidents and worker injuries.
- Changes to operating strategies at Lions Gate WWTP and new public education initiatives targeted to the North Shore Sewerage Area to reduce influent loading and improve the

quality of effluent discharged to Burrard Inlet.

- Implementation of modern modelling software for the wastewater collection systems that provides the ability to perform analysis that will allow the optimization of system operations during normal and emergency conditions, identify opportunities to help optimize Inflow and Infiltration (I&I) reduction actions and improve the accuracy of timing for future growth-related system expansions.
- Adoption of remote work opportunities, resulting in a 15% reduction in the amount of office space required by the Liquid Waste Services Department in the Metro Tower III offices, resulting in projected savings of \$300,000 per year.
- Establishment of a WWT Facility Planning group that will improve due diligence in meeting regulatory requirements, and will support financial sustainability and WWTP resiliency.
- Working with local health authorities to monitor wastewater to identify trends in community spread of COVID-19.
- Review of Trucked Liquid Waste Rates, ensuring that rates remain consistent with market conditions and reflect full cost of providing this service. This latest review will result in an increase in revenue of approximately \$3,000,000 by 2027.
- Completed development and implementation of an ISO 14001 compliant environmental management system including the establishment of a policy and implementation strategy to systematically reduce risks of environmental impacts.

For 2023 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.
- Work with the City of New Westminster on the development of a sewer heat based heat recovery district energy system in the Sapperton district. This project has the potential to reduce regional greenhouse gas emissions by 5,700 tonnes per year.
- Work with the City of Surrey, City of Richmond and City of Vancouver to identify and develop opportunities for additional sewer heat based district energy systems.
- Further improvement of effluent quality at Lions Gate WWTP through continuous application of chemically enhanced primary treatment and piloting cloth media filters and implementing this technology pilot performance is successful.
- Testing innovative sludge digestion processes such as the methanogen incubator with the goal of implementation at full scale. These have the potential to reduce GHG emissions by 1,200 tonnes per year and increase RNG revenue by \$500,000.
- Continue with the O&M Business Optimization initiative to use evidence based tools to identify and implement improvement opportunities across a broad area of work activities with the goal of reducing operating and maintenance costs and increasing staff productivity.
- Real-time public notification of combined sewer overflows.
- Identification and development of additional opportunities for green biomethane generation.
- Development of advanced technologies such as hydrothermal liquefaction to increase options for wastewater solids beneficial use and increased resource recovery.

2023 BUDGET AND 2023 - 2027 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 2023 - 2027 Liquid Waste Services Financial Plan Operating Budget Summary (Attachment 1) and the 2023 - 2027 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 2023 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 2023 - 2027 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 \$25.9 million in 2023 for a total budget of \$418.8 million (Attachment 1). This increase can essentially be attributed to increasing operating costs (close to \$4.5 million) due to increasing operating requirements. A significant portion of the increase can be attributed to increased debt service costs of \$17.3 million due to an accelerating capital program along with an increase in contributions to capital of \$4.0 million, supporting infrastructure investments required to meet service requirements and growth demands.

The 2023 operating budget includes the following key actions:

- Collaboration with GVS&DD members on reduction of 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 a Drainage policy to clarify jurisdictional roles.
- Continue review and update of the *Integrated Liquid Waste and Resource Management Plan* in accordance with a provincially-approved review strategy.
- Complete the rehabilitation of the New Westminster Interceptor on Columbia Street.
- Complete the removal of land-dried biosolids stockpile at the Iona Island WWTP.
- Expand access to GVS&DD flow and rainfall datasets for member jurisdictions.
- Commence real-time reporting of combined sewage overflows (CSOs).
- Introduction of a Reclaimed Water Policy.

Highlights of contracts and consulting assignments anticipated to be undertaken in 2023 to respond to work plan requirements within the operating budget include the following:

- Biosolids hauling and beneficial use projects.

- Technical support and community engagement services for the review and update of the Liquid Waste Management Plan.
- 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 \$84.6 million or 15.8% per year. Of this overall increase, funding related to the expanding capital program (debt servicing and contribution to the capital) is increasing \$70.5 million on average over the next five years. The operating programs expenditures are increasing by \$14.1 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 2023 approval is \$6.5 billion (Attachment 2). This amount includes all capital projects underway or planned in 2023. 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).

The projected capital cash flow for 2023 - 2027 totals \$4.7 billion, an average of \$946.0 million per year. The largest twelve projects (\$95 million and greater) make up approximately 77% of the capital spending over the next five years. These twelve projects also represent 96% of the expenditures planned for the 2028 – 2032 period. In addition to the twelve projects, there are a further 140 projects on the plan.

The most significant changes and issues in the Liquid Waste Capital Portfolio for this cycle are with respect to the North Shore WWTP and Northwest Langley WWTP. A new schedule and estimate for the North Shore WWTP is expected by the end of 2022. For Northwest Langley WWTP there will be significant changes in scale due to archeological discoveries and scope related to the overall capacity of the plant. The total proposed budget for the project has been adjusted to recognize that; however, this requires a full discussion with the Board during the stage gate milestone early next year. While the total proposed budget has changed, there is no material impact on the estimated annual cash flow for the Northwest Langley project over the five-year plan.

Highlights of capital projects planned or ongoing for 2023 include the following:

- North Shore WWTP Advanced Treatment Upgrade;
- Northwest Langley WWTP Expansion;
- Iona Island WWTP Advanced Treatment Upgrade;
- Gilbert / Brighthouse Trunk Sewer;
- Annacis Island WWTP Stage 5 Expansion and Outfall System;
- Annacis Island WWTP Refurbishment of the fourth and final Trickling Filter;

- Burnaby Lake North Interceptor - Winston Section;
- South Surrey Interceptor - Johnston Section;
- Jervis and Chilco Pump Station Backup Power facilities;
- Gleneagles Pump Stations 4 and 5;
- Crescent Beach Forcemain Replacement Project;
- New Westminster Interceptor Repair Columbia St. Section

Reserve Funds

The application of reserve funding in Liquid Waste Services is primarily made through the Biosolids Inventory Reserve, the Sustainability Innovation Fund Reserve, Drainage Area General Reserve and the Laboratory Equipment Reserve. In 2023, the financial plan includes \$11.38 million net application from the Biosolids Inventory Reserve for removal of the stockpile at the Iona Island Wastewater Treatment Plant and \$245,000 for several Drainage Area initiatives. In addition, a total of close to \$0.76 million is planned to be used from the Liquid Waste Sustainability Innovation Fund for several Board approved sustainability initiatives during 2023 (plus another \$0.44 million of funding in 2023-2027 period for Board approved sustainability initiative projects.)

The 2023 - 2027 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 and timing of introduction have been developed in coordination with staff from the GVS&DD members. This will be presented in 2023 along with recommended changes to the Cost Apportionment By-law, to allow the GVS&DD levy to be split into a dry weather component and a wet weather component allowing 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. Further consultation with the Regional Engineers Advisory Committee (REAC) Liquid Waste Sub-Committee, REAC and the Regional Administrators Advisory Committee will occur this fall and in 2023 to finalize the overall cost apportionment methodology.

APPROVAL PROCESS

The proposed 2023 - 2027 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 2023 - 2027 Financial Plan and Annual Work Plan will be presented for consideration at the Metro Vancouver Board Budget Workshop on October 19, 2022.
- The Board will consider adoption of the 2023 Budget and endorsement of the 2023 - 2027 Financial Plan on October 28, 2022.

ALTERNATIVES

1. That the Liquid Waste Committee endorse the 2023 - 2027 Financial Plan for Liquid Waste Services as presented in the report dated September 27, 2022, titled “2023 - 2027 Financial Plan – Liquid Waste Services”, and forward it to the Metro Vancouver Board Budget Workshop on October 19, 2022 for consideration.
2. That the Liquid Waste Committee make recommendations and endorse an amended 2023 - 2027 Financial Plan for Liquid Waste Services and forward the amended Financial Plan to the Metro Vancouver Board Budget Workshop on October 19, 2022 for consideration.

FINANCIAL IMPLICATIONS

If the GVS&DD Board approves the 2023 Budget and endorses the 2023 - 2027 Financial Plan for Liquid Waste Services, as presented under Alternative 1, in 2023 the revenue from the annual levy for the system will increase by \$22.8 million (7.6%) to \$324.3 million which will generate the majority of the \$418.8 million in total revenue required to offset total expenditures. The increase in the levy represents an \$15 increase in the cost to the average regional household to \$295 (2022 forecast for 2023: \$321.)

Over the term of the five-year Financial Plan, the Liquid Waste Services annual levy is projected to increase by an average of \$75.4 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 \$295 in 2023 to \$579 in 2027 representing an average annual increase of \$60.

Under Alternative 2, the Committee may wish to consider recommending amendments to the 2023 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 2023 Budget and Five-Year Financial Plan was prepared following direction received at the April 14, 2022 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 2023 to 2027 for Liquid Waste Services.

The presentation of the 2023 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 2023 - 2027 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. 2023 - 2027 Liquid Waste Services Financial Plan
2. 2023 - 2027 Liquid Waste Services Capital Budget Summary
3. 2023 Liquid Waste Services Work Plans
4. 2023 - 2027 “What’s Happening”
5. 2023 - 2027 Projected Reserves – Liquid Waste Services

51868528

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
LIQUID WASTE SERVICES
2023 BUDGET REVIEW
2023-2027 FINANCIAL PLAN

	2022 BUDGET	2023 BUDGET	% CHANGE	2024 FORECAST	% CHANGE	2025 FORECAST	% CHANGE	2026 FORECAST	% CHANGE	2027 FORECAST	% CHANGE
REVENUES											
Liquid Waste Services Levy	\$ 301,424,687	\$ 324,265,595	7.6%	\$ 403,777,026	24.5%	\$ 492,474,707	22.0%	\$ 581,272,842	18.0%	\$ 678,672,079	16.8%
User Fees	3,370,229	4,331,703		5,454,337		6,677,424		7,200,972		7,604,991	
Transfer from DCC Reserves	60,751,328	63,572,619		69,571,672		79,429,974		92,963,737		113,739,505	
Liquid Waste Industrial Charges	12,262,636	12,495,626		13,169,057		13,655,992		14,044,413		14,465,746	
Other External Revenues	1,414,821	1,793,792		1,805,882		1,817,974		1,830,068		1,177,883	
Transfer from Sustainability Innovation Fund Reserves	2,698,067	757,000		442,000		-		-		-	
Transfer from Reserves	11,045,508	11,618,251		2,251,007		239,074		285,000		135,000	
TOTAL REVENUES	\$ 392,967,276	\$ 418,834,586	6.6%	\$ 496,470,981	18.5%	\$ 594,295,145	19.7%	\$ 697,597,032	17.4%	\$ 815,795,204	16.9%
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	2,977,326	2,954,604		3,532,831		4,652,842		4,187,129		4,296,582	
Utility Policy and Planning	3,563,541	3,712,150		3,774,646		3,634,017		3,704,185		3,807,982	
Wastewater Research and Innovation	3,610,080	2,051,836		1,989,764		1,589,038		1,629,864		1,668,064	
Wastewater Facilities Planning	-	560,402		1,122,530		1,112,628		1,344,004		1,364,169	
	11,277,947	10,405,992	(7.7%)	11,546,771	11.0%	12,115,525	4.9%	11,992,182	(1.0%)	12,263,797	2.3%
Management Systems and Utility Services											
Annacis Research Centre	492,843	502,112		510,353		518,724		527,453		535,410	
Dispatch	145,550	155,180		160,490		165,079		169,483		174,008	
Energy Management	210,568	323,386		420,151		434,052		448,328		463,000	
Engineers in Training	666,857	589,460		606,800		623,084		639,764		656,899	
Management Systems Utility Services	1,013,613	1,219,885		1,247,100		1,274,421		1,302,432		1,331,194	
Records Management	123,383	131,443		135,686		139,515		143,326		147,238	
Utility Voice Radio	159,823	135,465		144,894		148,792		152,017		159,714	
	2,812,637	3,056,931	8.7%	3,225,474	5.5%	3,303,667	2.4%	3,382,803	2.4%	3,467,463	2.5%
Environmental Management and Quality Control											
Environmental Management and Quality Control	12,823,690	13,445,222		15,244,391		15,974,660		16,731,156		16,381,584	
Source Compliance Monitoring	419,306	412,888		426,240		437,940		598,369		459,429	
Contribution to Reserve	101,285	106,282		108,399		109,834		113,061		116,264	
	13,344,281	13,964,392	4.6%	15,779,030	13.0%	16,522,434	4.7%	17,442,586	5.6%	16,957,277	(2.8%)
Project Delivery											
Minor Capital Projects	9,225,154	7,170,828		9,707,735		9,927,346		10,088,180		10,378,088	
	9,225,154	7,170,828	(22.3%)	9,707,735	35.4%	9,927,346	2.3%	10,088,180	1.6%	10,378,088	2.9%
Operations and Maintenance											
Lake City Operations	966,184	1,027,079		1,112,993		1,195,417		1,228,507		1,333,682	
Liquid Waste Residuals	34,406,220	28,874,666		38,596,109		41,293,327		44,161,861		44,864,374	
Maintenance	32,496,440	36,063,178		38,107,341		40,387,840		42,810,064		44,932,255	
SCADA Control Systems	1,097,380	1,126,131		1,201,876		1,218,609		1,279,212		1,352,867	
Urban Drainage	1,263,704	1,406,189		1,564,007		1,718,492		1,785,930		1,851,455	
Wastewater Collection	17,102,791	17,365,872		18,238,017		19,202,472		20,514,963		21,180,131	
Wastewater Treatment	49,626,692	55,069,772		63,960,391		63,713,166		67,185,178		70,097,116	
	136,959,411	140,932,887	2.9%	162,780,734	15.5%	168,729,323	3.7%	178,965,715	6.1%	185,611,880	3.7%
Administration and Department Support	2,593,267	2,882,626	11.2%	3,202,263	11.1%	3,674,566	14.7%	3,757,442	2.3%	3,874,716	3.1%
Communications Program	475,001	475,000	0.0%	503,500	6.0%	523,640	4.0%	539,350	3.0%	555,531	3.0%
Environmental Regulation and Enforcement	2,169,508	2,278,451	5.0%	2,348,492	3.1%	2,414,820	2.8%	2,483,539	2.8%	2,548,174	2.6%
Allocation of Centralized Support Costs	31,423,500	34,321,573	9.2%	36,395,879	6.0%	39,468,965	8.4%	42,225,062	7.0%	44,461,990	5.3%
Total Operating Programs	210,280,706	215,488,680	2.5%	245,489,878	13.9%	256,680,286	4.6%	270,876,859	5.5%	280,118,916	3.4%
Allocation of Project Delivery Cost	7,340,267	6,684,840	(8.9%)	7,269,546	8.7%	7,686,479	5.7%	7,939,684	3.3%	8,019,953	1.0%
Debt Service	98,990,808	116,305,572	17.5%	149,580,165	28.6%	210,569,122	40.8%	283,136,607	34.5%	374,354,506	32.2%
Contribution to Capital	76,355,495	80,355,494	5.2%	94,131,392	17.1%	119,359,258	26.8%	135,643,882	13.6%	153,301,829	13.0%
TOTAL EXPENDITURES	\$ 392,967,276	\$ 418,834,586	6.6%	\$ 496,470,981	18.5%	\$ 594,295,145	19.7%	\$ 697,597,032	17.4%	\$ 815,795,204	16.9%

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
LIQUID WASTE SERVICES
2023 BUDGET REVIEW
2023-2027 FINANCIAL PLAN
VANCOUVER SEWERAGE AREA

	2022 BUDGET	2023 BUDGET	% CHANGE	2024 FORECAST	% CHANGE	2025 FORECAST	% CHANGE	2026 FORECAST	% CHANGE	2027 FORECAST	% CHANGE
REVENUES											
Liquid Waste Services Levy	\$ 94,622,591	\$ 99,429,756	5.1%	\$ 123,173,022	23.9%	\$ 154,398,830	25.4%	\$ 182,159,251	18.0%	\$ 203,382,487	11.7%
User Fees	914,177	1,243,538		1,545,383		1,947,265		2,149,184		2,331,142	
Transfer from DCC Reserves	6,320,559	7,005,177		6,797,418		6,763,564		6,809,710		6,784,863	
Liquid Waste Industrial Charges	3,135,617	3,195,194		3,386,906		3,522,382		3,628,053		3,736,895	
Other External Revenues	154,282	154,282		154,282		154,282		154,282		70,000	
Transfer from Sustainability Innovation Fund Reserves	1,020,678	296,214		172,955		-		-		-	
Transfer from Reserves	8,293,508	11,373,251		1,923,397		104,074		58,695		-	
TOTAL REVENUES	\$ 114,461,412	\$ 122,697,412	7.2%	\$ 137,153,363	11.8%	\$ 166,890,397	21.7%	\$ 194,959,175	16.8%	\$ 216,305,387	10.9%
EXPENDITURES											
Operating Programs:											
Policy Planning and Analysis											
Contribution to Sustainability Innovation Fund Reserve	\$ 426,344	\$ 440,995		\$ 440,995		\$ 440,995		\$ 440,995		\$ 440,995	
Utility Analysis and Infrastructure	1,097,950	1,087,659		1,283,491		1,719,872		1,535,708		1,576,555	
Utility Policy and Planning	1,320,993	1,425,173		1,449,628		1,398,512		1,425,970		1,466,585	
Wastewater Research and Innovation	1,365,693	802,884		778,595		621,790		637,766		652,713	
Wastewater Facilities Planning	-	219,285		439,246		435,371		525,909		533,799	
	4,210,980	3,975,996	(5.6%)	4,391,955	10.5%	4,616,540	5.1%	4,566,348	(1.1%)	4,670,647	2.3%
Management Systems and Utility Services											
Annacis Research Centre	186,443	196,476		199,701		202,977		206,392		209,506	
Dispatch	42,945	45,088		46,631		47,965		49,244		50,559	
Energy Management	62,129	93,962		122,077		126,117		130,266		134,528	
Engineers in Training	252,274	230,654		237,439		243,811		250,338		257,042	
Management Systems Utility Services	299,117	354,450		362,357		370,296		378,435		386,792	
Records Management	36,404	38,191		39,424		40,537		41,644		42,781	
Utility Voice Radio	57,383	48,639		52,025		53,424		54,581		57,346	
	936,695	1,007,460	7.6%	1,059,654	5.2%	1,085,127	2.4%	1,110,900	2.4%	1,138,554	2.5%
Environmental Management and Quality Control											
Environmental Management and Quality Control	4,678,167	5,049,905		5,749,243		6,028,292		6,318,159		6,175,880	
Source Compliance Monitoring	158,623	161,563		166,788		171,366		234,142		179,775	
Contribution to Reserve	38,316	41,588		42,417		42,978		44,241		45,494	
	4,875,106	5,253,056	7.8%	5,958,448	13.4%	6,242,636	4.8%	6,596,542	5.7%	6,401,149	(3.0%)
Project Delivery											
Minor Capital Projects	3,625,573	1,496,392		2,007,819		2,033,143		2,051,496		2,108,366	
	3,625,573	1,496,392	(58.7%)	2,007,819	34.2%	2,033,143	1.3%	2,051,496	0.9%	2,108,366	2.8%
Operations and Maintenance											
Lake City Operations	365,508	401,896		435,515		467,766		480,715		521,870	
Liquid Waste Residuals	19,977,101	17,569,473		22,688,862		23,925,480		25,255,703		13,652,067	
Maintenance	8,842,743	9,761,264		10,077,617		10,650,334		11,024,535		11,469,129	
SCADA Control Systems	315,205	310,583		331,474		336,090		352,802		373,117	
Wastewater Collection	4,119,149	4,662,071		4,893,199		5,096,542		5,487,533		5,642,810	
Wastewater Treatment	14,465,043	15,567,664		16,230,336		17,063,770		17,208,330		18,352,694	
	48,084,749	48,272,951	0.4%	54,657,003	13.2%	57,539,982	5.3%	59,809,618	3.9%	50,011,687	(16.4%)
Administration and Department Support											
	765,273	837,576	9.4%	930,450	11.1%	1,067,682	14.7%	1,091,762	2.3%	1,125,837	3.1%
Communications Program											
	179,693	185,868	3.4%	197,020	6.0%	204,900	4.0%	211,048	3.0%	217,379	3.0%
Environmental Regulation and Enforcement											
	382,701	439,741	14.9%	453,259	3.1%	466,060	2.8%	479,323	2.8%	491,798	2.6%
Allocation of Centralized Support Costs											
	9,295,808	9,984,775	7.4%	10,669,925	6.9%	10,877,530	1.9%	11,893,423	9.3%	12,444,076	4.6%
Total Operating Programs	72,356,578	71,453,815	(1.2%)	80,325,533	12.4%	84,133,600	4.7%	87,810,459	4.4%	78,609,493	(10.5%)
Allocation of Project Delivery Cost	1,948,909	1,868,051	(4.1%)	2,031,445	8.7%	2,147,957	5.7%	2,218,716	3.3%	2,241,142	1.0%
Debt Service	10,969,679	16,189,300	47.6%	19,963,743	23.3%	31,978,617	60.2%	48,247,207	50.9%	70,554,047	46.2%
Contribution to Capital	29,186,246	33,186,246	13.7%	34,832,642	5.0%	48,630,223	39.6%	56,682,793	16.6%	64,900,705	14.5%
TOTAL EXPENDITURES	\$ 114,461,412	\$ 122,697,412	7.2%	\$ 137,153,363	11.8%	\$ 166,890,397	21.7%	\$ 194,959,175	16.8%	\$ 216,305,387	10.9%

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
LIQUID WASTE SERVICES
2023 BUDGET REVIEW
2023-2027 FINANCIAL PLAN
NORTH SHORE SEWERAGE AREA

	2022 BUDGET	2023 BUDGET	% CHANGE	2024 FORECAST	% CHANGE	2025 FORECAST	% CHANGE	2026 FORECAST	% CHANGE	2027 FORECAST	% CHANGE
REVENUES											
Liquid Waste Services Levy	\$ 30,045,674	\$ 34,247,339	14.0%	\$ 40,415,146	18.0%	\$ 54,211,209	34.1%	\$ 63,597,604	17.3%	\$ 70,091,818	10.2%
User Fees	62,515	63,459		64,625		65,814		67,027		68,264	
Transfer from DCC Reserves	2,256,693	2,513,190		2,090,059		2,084,995		2,121,873		2,130,879	
Liquid Waste Industrial Charges	907,707	924,953		942,527		960,435		978,683		1,008,043	
Other External Revenues	18,693	18,781		18,871		18,963		19,057		-	
Transfer from Sustainability Innovation Fund Reserves	187,516	48,978		28,597		-		-		-	
Transfer from Reserves	915,000	-		19,410		-		9,705		-	
TOTAL REVENUES	\$ 34,393,798	\$ 37,816,700	10.0%	\$ 43,579,235	15.2%	\$ 57,341,416	31.6%	\$ 66,793,949	16.5%	\$ 73,299,004	9.7%
EXPENDITURES											
Operating Programs:											
Policy Planning and Analysis											
Contribution to Sustainability Innovation Fund Reserve	\$ 78,327	\$ 72,917		\$ 72,917		\$ 72,917		\$ 72,917		\$ 72,917	
Utility Analysis and Infrastructure	201,712	179,840		212,221		284,374		253,924		260,677	
Utility Policy and Planning	242,688	235,647		239,691		231,239		235,779		242,494	
Wastewater Research and Innovation	250,900	132,753		128,737		102,811		105,452		107,924	
Wastewater Facilities Planning	-	36,258		72,628		71,987		86,957		88,262	
	773,627	657,415	(15.0%)	726,194	10.5%	763,328	5.1%	755,029	(1.1%)	772,274	2.3%
Management Systems and Utility Services											
Annacis Research Centre	34,253	32,487		33,020		33,561		34,126		34,641	
Dispatch	12,968	13,601		14,065		14,467		14,854		15,249	
Energy Management	18,762	28,338		36,817		38,035		39,286		40,572	
Engineers in Training	46,354	38,131		39,253		40,306		41,385		42,494	
Management Systems Utility Services	90,313	106,899		109,283		111,678		114,132		116,653	
Records Management	10,993	11,519		11,891		12,227		12,561		12,903	
Utility Voice Radio	15,213	12,894		13,791		14,163		14,470		15,202	
	228,856	243,869	6.6%	258,120	5.8%	264,437	2.4%	270,814	2.4%	277,714	2.5%
Environmental Management and Quality Control											
Environmental Management and Quality Control	984,603	978,692		1,097,463		1,147,981		1,199,949		1,180,216	
Source Compliance Monitoring	29,142	26,714		27,578		28,335		38,714		29,725	
Contribution to Reserve	7,039	6,876		7,013		7,106		7,315		7,522	
	1,020,784	1,012,282	(0.8%)	1,132,054	11.8%	1,183,422	4.5%	1,245,978	5.3%	1,217,463	(2.3%)
Project Delivery											
Minor Capital Projects	114,978	373,392		392,280		407,437		418,976		430,891	
	114,978	373,392	220.0%	392,280	5.1%	407,437	3.9%	418,976	2.8%	430,891	2.8%
Operations and Maintenance											
Lake City Operations	67,150	66,452		72,011		77,343		79,484		86,289	
Liquid Waste Residuals	949,148	719,094		882,657		1,248,668		2,150,724		3,995,401	
Maintenance	3,505,038	3,972,973		4,217,074		5,219,455		5,243,661		5,488,558	
SCADA Control Systems	153,686	174,410		186,140		188,732		198,117		209,526	
Wastewater Collection	2,796,033	3,235,021		3,391,433		3,505,727		3,734,292		3,859,225	
Wastewater Treatment	6,519,751	7,023,825		7,182,421		10,601,904		13,077,026		12,962,441	
	13,990,806	15,191,775	8.6%	15,931,736	4.9%	20,841,829	30.8%	24,483,304	17.5%	26,601,440	8.7%
Administration and Department Support											
	231,060	252,605	9.3%	280,614	11.1%	322,002	14.7%	329,265	2.3%	339,541	3.1%
Communications Program											
	33,013	30,733	(6.9%)	32,576	6.0%	33,880	4.0%	34,896	3.0%	35,943	3.0%
Environmental Regulation and Enforcement											
	118,238	128,277	8.5%	132,220	3.1%	135,954	2.8%	139,823	2.8%	143,462	2.6%
Allocation of Centralized Support Costs											
	2,780,999	3,009,200	8.2%	3,301,676	9.7%	3,465,734	5.0%	4,096,458	18.2%	4,250,537	3.8%
Total Operating Programs	19,292,361	20,899,548	8.3%	22,187,470	6.2%	27,418,023	23.6%	31,774,543	15.9%	34,069,264	7.2%
Allocation of Project Delivery Cost											
	640,927	530,045	(17.3%)	576,407	8.7%	609,466	5.7%	629,543	3.3%	635,906	1.0%
Debt Service											
	5,689,202	7,615,799	33.9%	13,575,885	78.3%	20,488,362	50.9%	24,529,729	19.7%	27,706,716	13.0%
Contribution to Capital											
	8,771,308	8,771,308	0.0%	7,239,473	(17.5%)	8,825,565	21.9%	9,860,134	11.7%	10,887,118	10.4%
TOTAL EXPENDITURES	\$ 34,393,798	\$ 37,816,700	10.0%	\$ 43,579,235	15.2%	\$ 57,341,416	31.6%	\$ 66,793,949	16.5%	\$ 73,299,004	9.7%

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
LIQUID WASTE SERVICES
2023 BUDGET REVIEW
2023-2027 FINANCIAL PLAN
LULU ISLAND WEST SEWERAGE AREA

	2022 BUDGET	2023 BUDGET	% CHANGE	2024 FORECAST	% CHANGE	2025 FORECAST	% CHANGE	2026 FORECAST	% CHANGE	2027 FORECAST	% CHANGE
REVENUES											
Liquid Waste Services Levy	\$ 26,919,245	\$ 29,380,218	9.1%	\$ 33,763,357	14.9%	\$ 42,404,971	25.6%	\$ 48,079,429	13.4%	\$ 53,156,820	10.6%
User Fees	150,695	146,209		149,027		151,901		154,833		157,823	
Transfer from DCC Reserves	2,391,566	2,353,241		2,370,695		2,373,000		2,510,807		2,413,922	
Liquid Waste Industrial Charges	918,747	936,203		953,991		972,117		990,587		1,020,305	
Other External Revenues	666,268	678,268		690,268		702,268		714,268		711,000	
Transfer from Sustainability Innovation Fund Reserves	188,325	50,265		29,349		-		-		-	
Transfer from Reserves	1,000,000	-		19,920		-		9,960		-	
TOTAL REVENUES	\$ 32,234,846	\$ 33,544,404	4.1%	\$ 37,976,607	13.2%	\$ 46,604,257	22.7%	\$ 52,459,884	12.6%	\$ 57,459,870	9.5%
EXPENDITURES											
Operating Programs:											
Policy Planning and Analysis											
Contribution to Sustainability Innovation Fund Reserve	\$ 78,665	\$ 74,833		\$ 74,833		\$ 74,833		\$ 74,833		\$ 74,833	
Utility Analysis and Infrastructure	202,582	184,566		217,797		291,846		260,595		267,527	
Utility Policy and Planning	243,736	241,839		245,988		237,315		241,974		248,866	
Wastewater Research and Innovation	251,984	136,242		132,121		105,512		108,223		110,759	
Wastewater Facilities Planning	-	37,211		74,536		73,878		89,242		90,581	
	776,967	674,690	(13.2%)	745,275	10.5%	783,384	5.1%	774,867	(1.1%)	792,566	2.3%
Management Systems and Utility Services											
Annacis Research Centre	34,400	33,340		33,887		34,443		35,023		35,551	
Dispatch	11,882	12,838		13,277		13,657		14,021		14,396	
Energy Management	17,191	26,753		34,759		35,909		37,090		38,303	
Engineers in Training	46,540	39,145		40,297		41,378		42,486		43,624	
Management Systems Utility Services	82,711	100,921		103,173		105,433		107,750		110,130	
Records Management	10,073	10,874		11,225		11,542		11,857		12,181	
Utility Voice Radio	13,389	11,348		12,138		12,464		12,735		13,379	
	216,186	235,219	8.8%	248,756	5.8%	254,826	2.4%	260,962	2.4%	267,564	2.5%
Environmental Management and Quality Control											
Environmental Management and Quality Control	942,912	950,795		1,071,570		1,122,008		1,174,014		1,152,276	
Source Compliance Monitoring	29,268	27,416		28,302		29,079		39,732		30,506	
Contribution to Reserve	7,070	7,057		7,198		7,293		7,507		7,720	
	979,250	985,268	0.6%	1,107,070	12.4%	1,158,380	4.6%	1,221,253	5.4%	1,190,502	(2.5%)
Project Delivery											
Minor Capital Projects	1,739,157	827,092		819,902		843,845		853,203		877,169	
	1,739,157	827,092	(52.4%)	819,902	(0.9%)	843,845	2.9%	853,203	1.1%	877,169	2.8%
Operations and Maintenance											
Lake City Operations	67,439	68,197		73,901		79,376		81,573		88,556	
Liquid Waste Residuals	1,826,052	1,472,479		2,260,880		2,418,388		2,588,968		4,151,815	
Maintenance	2,732,955	3,504,307		3,557,469		3,425,008		3,515,394		3,626,275	
SCADA Control Systems	31,358	30,510		32,563		33,016		34,659		36,654	
Wastewater Collection	554,066	531,022		566,231		596,491		664,080		684,825	
Wastewater Treatment	5,915,085	6,701,565		6,987,373		7,189,863		7,678,020		7,791,629	
	11,126,955	12,308,080	10.6%	13,478,417	9.5%	13,742,142	2.0%	14,562,694	6.0%	16,379,754	12.5%
Administration and Department Support											
	211,611	238,480	12.7%	264,923	11.1%	303,997	14.7%	310,853	2.3%	320,555	3.1%
Communications Program											
	33,155	31,540	(4.9%)	33,432	6.0%	34,770	4.0%	35,813	3.0%	36,887	3.0%
Environmental Regulation and Enforcement											
	217,168	236,048	8.7%	243,304	3.1%	250,175	2.8%	257,295	2.8%	263,991	2.6%
Allocation of Centralized Support Costs											
	2,571,105	2,836,038	10.3%	2,924,450	3.1%	3,029,663	3.6%	3,334,949	10.1%	3,356,042	0.6%
Total Operating Programs	17,871,553	18,372,456	2.8%	19,865,528	8.1%	20,401,182	2.7%	21,611,889	5.9%	23,485,030	8.7%
Allocation of Project Delivery Cost											
	412,260	392,453	(4.8%)	426,780	8.7%	451,257	5.7%	466,123	3.3%	470,834	1.0%
Debt Service											
	6,268,165	7,096,627	13.2%	9,879,597	39.2%	15,368,674	55.6%	18,965,122	23.4%	21,320,076	12.4%
Contribution to Capital											
	7,682,868	7,682,868	0.0%	7,804,702	1.6%	10,383,144	33.0%	11,416,750	10.0%	12,183,930	6.7%
TOTAL EXPENDITURES	\$ 32,234,846	\$ 33,544,404	4.1%	\$ 37,976,607	13.2%	\$ 46,604,257	22.7%	\$ 52,459,884	12.6%	\$ 57,459,870	9.5%

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
LIQUID WASTE SERVICES
2023 BUDGET REVIEW
2023-2027 FINANCIAL PLAN
FRASER SEWERAGE AREA

	2022 BUDGET	2023 BUDGET	% CHANGE	2024 FORECAST	% CHANGE	2025 FORECAST	% CHANGE	2026 FORECAST	% CHANGE	2027 FORECAST	% CHANGE
REVENUES											
Liquid Waste Services Levy	\$ 147,917,480	\$ 158,960,909	7.5%	\$ 203,774,523	28.2%	\$ 238,623,308	17.1%	\$ 284,514,031	19.2%	\$ 349,041,008	22.7%
User Fees	2,242,842	2,878,497		3,695,302		4,512,444		4,829,928		5,047,762	
Transfer from DCC Reserves	49,782,510	51,701,011		58,313,500		68,208,415		81,521,347		102,409,841	
Liquid Waste Industrial Charges	7,300,565	7,439,276		7,885,633		8,201,058		8,447,090		8,700,503	
Other External Revenues	575,578	942,461		942,461		942,461		942,461		396,883	
Transfer from Sustainability Innovation Fund Reserves	1,301,548	361,543		211,099		-		-		-	
Transfer from Reserves	707,000	-		143,280		-		71,640		-	
TOTAL REVENUES	\$ 209,827,523	\$ 222,283,697	5.9%	\$ 274,965,798	23.7%	\$ 320,487,686	16.6%	\$ 380,326,497	18.7%	\$ 465,595,997	22.4%
EXPENDITURES											
Operating Programs:											
Policy Planning and Analysis											
Contribution to Sustainability Innovation Fund Reserve	\$ 543,664	\$ 538,255		\$ 538,255		\$ 538,255		\$ 538,255		\$ 538,255	
Utility Analysis and Infrastructure	1,400,082	1,327,539		1,566,561		2,099,184		1,874,403		1,924,259	
Utility Policy and Planning	1,684,502	1,739,491		1,769,339		1,706,951		1,740,462		1,790,037	
Wastewater Research and Innovation	1,741,503	979,957		950,311		758,925		778,423		796,668	
Wastewater Facilities Planning	-	267,648		536,120		531,391		641,896		651,527	
	5,369,751	4,852,890	(9.6%)	5,360,587	10.5%	5,634,706	5.1%	5,573,439	(1.1%)	5,700,746	2.3%
Management Systems and Utility Services											
Annacis Research Centre	237,747	239,809		243,745		247,743		251,912		255,712	
Dispatch	76,846	82,892		85,729		88,180		90,533		92,950	
Energy Management	111,168	172,748		224,439		231,865		239,490		247,328	
Engineers in Training	321,689	281,530		289,811		297,589		305,555		313,739	
Management Systems Utility Services	535,188	651,638		666,176		680,770		695,733		711,097	
Records Management	65,143	70,213		72,480		74,525		76,560		78,650	
Utility Voice Radio	73,838	62,584		66,940		68,741		70,231		73,787	
	1,421,619	1,561,414	9.8%	1,649,320	5.6%	1,689,413	2.4%	1,730,014	2.4%	1,773,263	2.5%
Environmental Management and Quality Control											
Environmental Management and Quality Control	6,218,008	6,465,830		7,326,115		7,676,379		8,039,034		7,873,212	
Source Compliance Monitoring	202,273	197,195		203,572		209,160		285,781		219,423	
Contribution to Reserve	48,860	50,761		51,771		52,457		53,998		55,528	
	6,469,141	6,713,786	3.8%	7,581,458	12.9%	7,937,996	4.7%	8,378,813	5.6%	8,148,163	(2.8%)
Project Delivery											
Minor Capital Projects	3,520,446	4,045,952		6,043,454		6,185,776		6,296,265		6,479,375	
	3,520,446	4,045,952	14.9%	6,043,454	49.4%	6,185,776	2.4%	6,296,265	1.8%	6,479,375	2.9%
Operations and Maintenance											
Lake City Operations	466,087	490,534		531,566		570,932		586,735		636,967	
Liquid Waste Residuals	11,653,919	9,113,620		12,763,710		13,700,791		14,166,466		23,065,091	
Maintenance	17,256,083	18,640,284		20,064,388		20,894,500		22,816,094		24,132,032	
SCADA Control Systems	576,324	589,227		628,859		637,613		669,324		707,860	
Wastewater Collection	9,633,543	8,937,758		9,387,154		10,003,712		10,629,058		10,993,271	
Wastewater Treatment	22,726,813	25,776,718		33,560,261		28,857,629		29,221,802		30,990,352	
	62,312,769	63,548,141	2.0%	76,935,938	21.1%	74,665,177	(3.0%)	78,089,479	4.6%	90,525,573	15.9%
Administration and Department Support											
	1,369,245	1,539,840	12.5%	1,710,585	11.1%	1,962,879	14.7%	2,007,151	2.3%	2,069,797	3.1%
Communications Program											
	229,140	226,859	(1.0%)	240,472	6.0%	250,090	4.0%	257,593	3.0%	265,322	3.0%
Environmental Regulation and Enforcement											
	1,451,401	1,474,385	1.6%	1,519,709	3.1%	1,562,631	2.8%	1,607,098	2.8%	1,648,923	2.6%
Allocation of Centralized Support Costs											
	16,570,811	18,309,694	10.5%	19,276,537	5.3%	21,870,268	13.5%	22,685,526	3.7%	24,211,988	6.7%
Total Operating Programs	98,714,323	102,272,961	3.6%	120,318,059	17.6%	121,758,936	1.2%	126,625,378	4.0%	140,823,150	11.2%
Allocation of Project Delivery Cost	4,334,365	3,891,818	(10.2%)	4,232,224	8.7%	4,474,955	5.7%	4,622,365	3.3%	4,669,104	1.0%
Debt Service	76,063,762	85,403,846	12.3%	106,160,940	24.3%	142,733,469	34.5%	191,394,549	34.1%	254,773,667	33.1%
Contribution to Capital	30,715,073	30,715,072	0.0%	44,254,575	44.1%	51,520,326	16.4%	57,684,205	12.0%	65,330,076	13.3%
TOTAL EXPENDITURES	\$ 209,827,523	\$ 222,283,697	5.9%	\$ 274,965,798	23.7%	\$ 320,487,686	16.6%	\$ 380,326,497	18.7%	\$ 465,595,997	22.4%

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
LIQUID WASTE SERVICES
2023 BUDGET REVIEW
2023-2027 FINANCIAL PLAN
DRAINAGE

	2022 BUDGET	2023 BUDGET	% CHANGE	2024 FORECAST	% CHANGE	2025 FORECAST	% CHANGE	2026 FORECAST	% CHANGE	2027 FORECAST	% CHANGE
REVENUES											
Liquid Waste Services Levy	\$ 1,919,697	\$ 2,247,373	17.1%	\$ 2,650,977	18.0%	\$ 2,836,389	7.0%	\$ 2,922,526	3.0%	\$ 2,999,946	2.6%
Transfer from Reserves	130,000	245,000		145,000		135,000		135,000		135,000	
TOTAL REVENUES	<u>\$ 2,049,697</u>	<u>\$ 2,492,373</u>	21.6%	<u>\$ 2,795,977</u>	12.2%	<u>\$ 2,971,389</u>	6.3%	<u>\$ 3,057,526</u>	2.9%	<u>\$ 3,134,946</u>	2.5%
EXPENDITURES											
Operating Programs:											
Policy Planning and Analysis											
Utility Analysis and Infrastructure	\$ 75,000	\$ 175,000		\$ 252,761		\$ 257,566		\$ 262,499		\$ 267,564	
Utility Policy and Planning	71,622	70,000		70,000		60,000		60,000		60,000	
	<u>146,622</u>	<u>245,000</u>	67.1%	<u>322,761</u>	31.7%	<u>317,566</u>	(1.6%)	<u>322,499</u>	1.6%	<u>327,564</u>	1.6%
Management Systems and Utility Services											
Dispatch	909	761		788		810		831		854	
Energy Management	1,318	1,585		2,059		2,126		2,196		2,269	
Management Systems Utility Services	6,284	5,977		6,111		6,245		6,382		6,523	
Records Management	770	646		666		684		704		723	
	<u>9,281</u>	<u>8,969</u>	(3.4%)	<u>9,624</u>	7.3%	<u>9,865</u>	2.5%	<u>10,113</u>	2.5%	<u>10,369</u>	2.5%
Project Delivery											
Minor Capital Projects	225,000	428,000		444,280		457,145		468,240		482,287	
	<u>225,000</u>	<u>428,000</u>	90.2%	<u>444,280</u>	3.8%	<u>457,145</u>	2.9%	<u>468,240</u>	2.4%	<u>482,287</u>	3.0%
Operations and Maintenance											
Maintenance	159,621	184,350		190,793		198,543		210,380		216,261	
SCADA Control Systems	20,807	21,401		22,840		23,158		24,310		25,710	
Urban Drainage	1,263,704	1,406,189		1,564,007		1,718,492		1,785,930		1,851,455	
	<u>1,444,132</u>	<u>1,611,940</u>	11.6%	<u>1,777,640</u>	10.3%	<u>1,940,193</u>	9.1%	<u>2,020,620</u>	4.1%	<u>2,093,426</u>	3.6%
Administration and Department Support	16,078	14,125	(12.1%)	15,691	11.1%	18,006	14.8%	18,411	2.2%	18,986	3.1%
Allocation of Centralized Support Costs	204,778	181,866	(11.2%)	223,291	22.8%	225,770	1.1%	214,706	(4.9%)	199,347	(7.2%)
Total Operating Programs	<u>2,045,891</u>	<u>2,489,900</u>	21.7%	<u>2,793,287</u>	12.2%	<u>2,968,545</u>	6.3%	<u>3,054,589</u>	2.9%	<u>3,131,979</u>	2.5%
Allocation of Project Delivery Cost	3,806	2,473	(35.0%)	2,690	8.8%	2,844	5.7%	2,937	3.3%	2,967	1.0%
TOTAL EXPENDITURES	<u>\$ 2,049,697</u>	<u>\$ 2,492,373</u>	21.6%	<u>\$ 2,795,977</u>	12.2%	<u>\$ 2,971,389</u>	6.3%	<u>\$ 3,057,526</u>	2.9%	<u>\$ 3,134,946</u>	2.5%

ATTACHMENT 2

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT CAPITAL PORTFOLIO LIQUID WASTE SERVICES 2023 CAPITAL BUDGET AND 2023-2027 CAPITAL PLAN

	CAPITAL BUDGET FOR APPROVAL	2023 CAPITAL CASH FLOW	2024 CAPITAL CASH FLOW	2025 CAPITAL CASH FLOW	2026 CAPITAL CASH FLOW	2027 CAPITAL CASH FLOW	2023 TO 2027 TOTAL CAPITAL CASH FLOW	ACTIVE PHASE	PRIMARY DRIVER
CAPITAL EXPENDITURES									
Collections									
8th Avenue Interceptor Air Treatment Facilities	\$ 500,000	\$ -	\$ -	\$ -	\$ 500,000	\$ 500,000	\$ 1,000,000	Definition	Upgrade
Albert Street Trunk Sewer	10,250,000	400,000	-	-	-	-	400,000	Construction	Growth
Big Bend Forcemain - Gate Replacement	200,000	80,000	-	-	600,000	650,000	1,330,000	Design	Maintenance
Burnaby Lake North Interceptor Cariboo Section	-	-	700,000	1,700,000	11,200,000	15,000,000	28,600,000	Not Started	Growth
Burnaby Lake North Interceptor Winston Section	116,950,000	33,450,000	24,150,000	5,000,000	5,000,000	5,000,000	72,600,000	Construction	Growth
Burnaby South Slope Interceptor	500,000	200,000	250,000	500,000	600,000	4,450,000	6,000,000	Multiple	Growth
Cloverdale Pump Station Capacity Upgrade	3,400,000	500,000	1,300,000	900,000	15,000,000	5,000,000	22,700,000	Design	Growth
Cloverdale Trunk Sewer Capacity Upgrade	1,200,000	250,000	450,000	1,800,000	900,000	8,150,000	11,550,000	Design	Growth
Combined Sewer Overflow Sampling Station Enhancements	1,900,000	350,000	250,000	-	-	-	600,000	Construction	Maintenance
Crescent Beach FM - Replacement	26,850,000	2,025,000	25,000	25,000	25,000	275,000	2,375,000	Construction	Maintenance
Eagle Creek (Lower Section) Channel Restoration	-	-	-	750,000	-	-	750,000	Not Started	Resilience
EMQC-Chemistry Laboratory	250,000	250,000	650,000	7,740,000	-	-	8,640,000	Definition	Upgrade
Fraser Sewerage Area Integrated Resource Recovery (IRR) Study	1,200,000	500,000	438,000	-	-	-	938,000	Design	Opportunity
Front Street Pressure Sewer Access Hatches Reinforcement	5,000,000	2,000,000	2,000,000	-	-	-	4,000,000	Construction	Maintenance
FSA Flow Metering Program	2,500,000	500,000	500,000	300,000	200,000	-	1,500,000	Design	Maintenance
FSA River Crossing Scour Protection Program - Phase 1	4,200,000	330,000	1,550,000	630,000	-	-	2,510,000	Construction	Maintenance
FSA Sewer Relocations and Protections	11,700,000	6,550,000	2,050,000	-	-	-	8,600,000	Construction	Maintenance
FSA Statutory Right of Way Acquisitions Phase 1	35,100,000	4,800,000	12,000,000	4,800,000	-	-	21,600,000	Design	Maintenance
Gilbert/Brighthouse Trunk Pressure Sewer	169,650,000	34,600,000	40,100,000	18,450,000	100,000	600,000	93,850,000	Multiple	Maintenance
Glenbrook Combined Trunk Kingsway Sanitary Section	7,200,000	4,950,000	1,500,000	-	-	-	6,450,000	Construction	Growth
Glenbrook CSO Gate Replacement	5,150,000	3,075,000	1,550,000	-	-	-	4,625,000	Construction	Maintenance
Gleneagles Forcemain Replacement	15,850,000	2,250,000	5,750,000	3,250,000	-	-	11,250,000	Multiple	Maintenance
Gleneagles Pump Stations Improvements	33,300,000	7,280,000	11,120,000	3,400,000	4,700,000	4,500,000	31,000,000	Construction	Maintenance
Harbour Pump Station Discharge Header Repair and Valve Replacements	2,500,000	1,950,000	-	-	-	-	1,950,000	Construction	Maintenance
Harbour Pump Station Power Distribution Equipment Replacement	1,600,000	950,000	300,000	1,400,000	-	-	2,650,000	Design	Maintenance
Hastings-Cassiar Intake Connection	5,350,000	1,030,000	-	-	-	-	1,030,000	Construction	Growth
Highbury Interceptor Diversion Junction Chamber Wall Rehabilitation	500,000	300,000	200,000	-	5,500,000	-	6,000,000	Design	Maintenance
Highbury Interceptor North Arm Crossing - Upgrade of Siphons	12,500,000	50,000	-	-	-	-	50,000	Construction	Resilience
Jervis Pump Station 25kV Voltage Conversion	1,300,000	850,000	-	-	-	-	850,000	Construction	Maintenance
Kent Pump Station High Voltage Switchgear Replacement	1,150,000	850,000	500,000	350,000	-	-	1,700,000	Design	Maintenance
Lozells Sanitary Trunk Golf Course Section	-	-	-	50,000	400,000	200,000	650,000	Not Started	Growth
LSA Flow Metering Program	300,000	50,000	50,000	-	-	-	100,000	Construction	Maintenance
Manitoba Street Combined Trunk Sewer Separation	-	-	-	-	100,000	1,400,000	1,500,000	Not Started	Upgrade
Marshend Pump Station	10,500,000	1,150,000	1,600,000	9,800,000	6,675,000	-	19,225,000	Multiple	Growth
New CSO Management Gates for New Westminster Interceptor	3,250,000	1,950,000	425,000	-	-	-	2,375,000	Construction	Upgrade
New West Interceptor - Annacis Section 2	42,000,000	2,100,000	2,800,000	6,800,000	6,800,000	5,250,000	23,750,000	Construction	Maintenance
New West Interceptor Grit Chamber	1,250,000	300,000	400,000	250,000	4,000,000	4,000,000	8,950,000	Design	Maintenance
New Westminster Interceptor Repair Columbia St. Section	39,550,000	16,100,000	1,000,000	-	-	-	17,100,000	Construction	Maintenance
New Westminster Interceptor West Branch and Columbia Extension Rehabilitation	2,900,000	1,150,000	1,100,000	15,000,000	6,100,000	4,100,000	27,450,000	Design	Maintenance
North Road Trunk Sewer	11,700,000	2,300,000	1,200,000	1,200,000	-	-	4,700,000	Construction	Growth
North Road Trunk Sewer Phase 2	8,450,000	2,000,000	4,000,000	1,500,000	-	-	7,500,000	Construction	Growth
North Surrey Interceptor - Port Mann Section - Odour Control	5,050,000	2,850,000	1,400,000	-	-	5,000,000	9,250,000	Construction	Upgrade
North Surrey Interceptor Annville Channel Crossing Scour Protection	4,350,000	2,400,000	-	-	-	-	2,400,000	Construction	Maintenance
North Surrey Interceptor Improvements	3,000,000	100,000	1,950,000	2,950,000	1,000,000	-	6,000,000	Multiple	Maintenance
North Surrey Interceptor Roebuck Section Replacement	1,600,000	500,000	1,450,000	1,000,000	10,000,000	5,000,000	17,950,000	Design	Maintenance
NSA Flow Metering Program	500,000	150,000	200,000	100,000	100,000	-	550,000	Design	Maintenance
NSA Scour Protection Upgrades	2,250,000	1,000,000	-	-	-	-	1,000,000	Construction	Maintenance

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
CAPITAL PORTFOLIO
LIQUID WASTE SERVICES
2023 CAPITAL BUDGET AND 2023-2027 CAPITAL PLAN

	CAPITAL BUDGET FOR APPROVAL	2023 CAPITAL CASH FLOW	2024 CAPITAL CASH FLOW	2025 CAPITAL CASH FLOW	2026 CAPITAL CASH FLOW	2027 CAPITAL CASH FLOW	2023 TO 2027 TOTAL CAPITAL CASH FLOW	ACTIVE PHASE	PRIMARY DRIVER
NSI 104th Ave Extension	12,950,000	-	-	6,500,000	1,500,000	-	8,000,000	Construction	Growth
NSI Flow Management	11,500,000	900,000	21,250,000	31,000,000	31,000,000	4,000,000	88,150,000	Design	Upgrade
NSI Rehab or Replacement	16,450,000	1,550,000	4,500,000	27,000,000	6,500,000	850,000	40,400,000	Construction	Maintenance
Ocean Park Trunk Manholes Lining	-	-	50,000	1,000,000	-	-	1,050,000	Not Started	Maintenance
Ocean Park Trunk Sewer - Air Management Facility	2,750,000	1,000,000	2,500,000	2,500,000	-	-	6,000,000	Design	Upgrade
Port Coquitlam Pump Station Refurbishment	5,950,000	3,350,000	1,500,000	23,100,000	25,100,000	4,500,000	57,550,000	Design	Maintenance
Port Moody Pump Station Capacity Upgrade	2,300,000	400,000	1,850,000	950,000	7,900,000	7,900,000	19,000,000	Design	Growth
Port Moody South Interceptor Capacity Upgrade	-	-	150,000	150,000	150,000	2,000,000	2,450,000	Not Started	Growth
Port Moody Storm Drain Rehabilitation	200,000	-	-	-	400,000	600,000	1,000,000	Design	Maintenance
Production Way Facility Access and Parking Improvements	4,850,000	1,100,000	1,000,000	-	-	-	2,100,000	Construction	Maintenance
Production Way Operation Center Design and Construction	31,000,000	1,050,000	6,000,000	15,000,000	8,910,000	-	30,960,000	Construction	Upgrade
Rosemary Heights Pressure Sewer Capacity Upgrade	-	-	-	350,000	500,000	700,000	1,550,000	Not Started	Growth
Royal Ave PS Rehabilitation	10,100,000	1,200,000	4,000,000	2,750,000	-	-	7,950,000	Construction	Maintenance
Sapperton Pump Station	97,500,000	1,400,000	3,600,000	500,000	-	-	5,500,000	Multiple	Growth
Sapperton Pump Station Emergency Backup Power	5,000,000	2,400,000	2,100,000	-	-	-	4,500,000	Construction	Resilience
Sewer Heat Projects	21,400,000	2,100,000	5,200,000	7,800,000	10,000,000	9,900,000	35,000,000	Construction	Opportunity
South Surrey Interceptor Johnston Section	84,050,000	9,345,000	7,300,000	15,950,000	-	-	32,595,000	Construction	Growth
South Surrey Interceptor Rehabilitation	1,800,000	900,000	2,500,000	21,450,000	30,000,000	10,640,000	65,490,000	Multiple	Maintenance
SSI - King George Section - Odor Control Facility (OCF) and Grit Chamber	19,550,000	1,150,000	-	-	-	-	1,150,000	Construction	Growth
SSI Influent Control Chamber Repair and Replace Gates	150,000	-	-	1,190,000	-	-	1,190,000	Design	Maintenance
SSI Sulfide Odour and Corrosion Control	9,550,000	2,750,000	1,000,000	-	-	-	3,750,000	Construction	Upgrade
Stoney Creek Sanitary Trunk	3,700,000	450,000	1,500,000	1,500,000	3,900,000	12,000,000	19,350,000	Design	Growth
Surrey Central Valley Capacity Upgrade	-	-	-	-	150,000	450,000	600,000	Not Started	Growth
Surrey Corrosion Control Facility Replacement	7,300,000	2,200,000	2,500,000	1,500,000	-	-	6,200,000	Construction	Maintenance
VSA Emergency Backup Power	24,300,000	3,050,000	3,200,000	2,550,000	1,200,000	-	10,000,000	Construction	Resilience
VSA Flow Metering Program	1,900,000	600,000	1,200,000	1,200,000	1,500,000	-	4,500,000	Design	Maintenance
VSA Grit Chamber Access Improvements	2,000,000	1,800,000	100,000	-	-	-	1,900,000	Construction	Maintenance
VSA Sewer Relocations and Protections	32,050,000	11,200,000	-	-	-	-	11,200,000	Construction	Maintenance
Westridge FM Replacement	7,600,000	5,550,000	900,000	-	-	-	6,450,000	Construction	Maintenance
Westridge Pump Stations 1 & 2 Refurbishment	2,800,000	1,550,000	1,100,000	7,500,000	4,950,000	-	15,100,000	Design	Maintenance
White Rock Forcemain Rehabilitation	1,200,000	650,000	10,300,000	3,300,000	-	-	14,250,000	Design	Maintenance
Works Yard	32,000,000	1,000,000	-	-	-	-	1,000,000	Design	Maintenance
Total Collections	\$ 1,066,300,000	\$ 203,065,000	\$ 210,208,000	\$ 264,385,000	\$ 213,160,000	\$ 122,615,000	\$ 1,013,433,000		
Treatment Plants									
AIWWTP Ammonia Removal – Sidestream	1,000,000	150,000	-	-	-	-	150,000	Design	Upgrade
AIWWTP Chemical Lab UPS System Replacement	600,000	400,000	50,000	-	-	-	450,000	Construction	Maintenance
AIWWTP Cogen Building Refurbishment	1,500,000	300,000	-	-	-	-	300,000	Construction	Maintenance
AIWWTP Cogeneration Backup Power	80,500,000	1,550,000	1,000,000	-	-	-	2,550,000	Multiple	Resilience
AIWWTP Digester No. 5*	6,900,000	500,000	3,500,000	3,387,000	4,000,000	4,500,000	15,887,000	Design	Growth
AIWWTP Electrical Distribution System Protection Control and Monitoring	2,650,000	700,000	250,000	600,000	-	-	1,550,000	Construction	Upgrade
AIWWTP Hydrothermal Processing Pilot	28,650,000	7,000,000	7,050,000	6,000,000	3,400,000	1,550,000	25,000,000	Construction	Opportunity
AIWWTP ICS Replacement Program	14,350,000	1,500,000	2,750,000	2,500,000	2,500,000	2,500,000	11,750,000	Construction	Maintenance
AIWWTP Influent System Remediation	2,400,000	500,000	800,000	1,050,000	14,500,000	20,700,000	37,550,000	Design	Maintenance
AIWWTP IPS Gates Replacements	700,000	250,000	400,000	-	-	-	650,000	Construction	Maintenance
AIWWTP IPS Pump Building Roof Replacement Phase 2	-	-	100,000	500,000	200,000	-	800,000	Not Started	Maintenance
AIWWTP Lubrication Storage Facility Conversion	500,000	500,000	-	-	-	-	500,000	Construction	Maintenance
AIWWTP O&M Building Refurbishment	-	-	100,000	1,200,000	3,100,000	1,800,000	6,200,000	Not Started	Maintenance
AIWWTP Outfall Repair	1,550,000	800,000	750,000	-	-	-	1,550,000	Construction	Maintenance

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
CAPITAL PORTFOLIO
LIQUID WASTE SERVICES
2023 CAPITAL BUDGET AND 2023-2027 CAPITAL PLAN

	CAPITAL BUDGET FOR APPROVAL	2023 CAPITAL CASH FLOW	2024 CAPITAL CASH FLOW	2025 CAPITAL CASH FLOW	2026 CAPITAL CASH FLOW	2027 CAPITAL CASH FLOW	2023 TO 2027 TOTAL CAPITAL CASH FLOW	ACTIVE PHASE	PRIMARY DRIVER
AIWWTP Replacement of ICS Equipment	4,450,000	100,000	250,000	-	-	-	350,000	Multiple	Maintenance
AIWWTP Replacement of Protective Relays	3,350,000	100,000	850,000	-	-	-	950,000	Construction	Maintenance
AIWWTP Scheduled 64kV Potential & Current Transformer Replacements	800,000	100,000	200,000	250,000	-	-	550,000	Construction	Maintenance
AIWWTP Scum Pump Replacement	-	-	200,000	150,000	500,000	500,000	1,350,000	Not Started	Maintenance
AIWWTP Secondary Clarifier Corrosion Repair	57,800,000	200,000	200,000	-	-	-	400,000	Multiple	Maintenance
AIWWTP Secondary Effluent Discharge Flowmeter Replacement	400,000	100,000	250,000	-	-	-	350,000	Construction	Maintenance
AIWWTP Sludge Control Building Electrical Room HVAC upgrade	850,000	850,000	-	-	-	-	850,000	Construction	Maintenance
AIWWTP Spare Trickling Filter Pump & Motor Purchase	1,950,000	90,000	-	-	-	-	90,000	Construction	Maintenance
AIWWTP Stage 5 Expansion*	944,100,000	31,800,000	40,000,000	52,000,000	105,000,000	131,000,000	359,800,000	Multiple	Growth
AIWWTP Station Battery Replacement	1,250,000	50,000	100,000	-	-	-	150,000	Multiple	Maintenance
AIWWTP Trickling Filter Media & Distributor Arms & Ducting Replacement	90,700,000	18,100,000	320,000	50,000	-	-	18,470,000	Construction	Maintenance
AIWWTP UPS Condition Monitoring System	-	-	400,000	150,000	-	-	550,000	Not Started	Resilience
All WWTPs Power Quality Monitoring & Outage Alarming Network	3,000,000	50,000	50,000	-	-	-	100,000	Construction	Upgrade
Annacis Influent System Surge Control Refurbishment	22,000,000	2,250,000	400,000	50,000	-	-	2,700,000	Construction	Growth
Annacis MCC 80 051, 80 070, 80 071 Replacement	2,850,000	50,000	550,000	-	-	-	600,000	Construction	Maintenance
Annacis Outfall System*	356,050,000	19,400,000	5,750,000	20,050,000	76,450,000	50,000	121,700,000	Construction	Growth
Biosolids Dryer*	22,700,000	1,500,000	13,400,000	43,400,000	76,500,000	109,500,000	244,300,000	Design	Opportunity
Ferguson Road Paving Refurbishment	2,100,000	1,500,000	-	-	-	-	1,500,000	Construction	Upgrade
IWWTP - Biogas Lines Relocation	5,750,000	650,000	700,000	-	-	-	1,350,000	Construction	Resilience
IWWTP Biosolids Dewatering Facility	61,300,000	510,000	750,000	-	-	-	1,260,000	Construction	Upgrade
IWWTP CEPT Polymer Line Replacement	300,000	250,000	750,000	300,000	-	-	1,300,000	Design	Maintenance
IWWTP CEPT Winterization	1,500,000	750,000	-	-	-	-	750,000	Construction	Maintenance
IWWTP ICS IPS Control Replacement	1,750,000	550,000	-	-	-	-	550,000	Construction	Maintenance
IWWTP ICS Migration Program	-	-	500,000	3,000,000	4,000,000	3,000,000	10,500,000	Not Started	Maintenance
IWWTP ICS Replacement Program	750,000	200,000	200,000	200,000	-	-	600,000	Construction	Maintenance
IWWTP Influent Gate Refurbishment	1,350,000	300,000	100,000	-	-	-	400,000	Construction	Maintenance
IWWTP IPS Drive Remediation	1,400,000	350,000	500,000	350,000	150,000	-	1,350,000	Construction	Maintenance
IWWTP MCC/Power Distribution Assess/Replace - Phase 2	1,000,000	50,000	250,000	-	-	-	300,000	Construction	Maintenance
IWWTP Non-Domestic Trucked Liquid Waste Alternative	800,000	600,000	200,000	-	-	-	800,000	Construction	Maintenance
IWWTP Outfall Refurbishment	20,000,000	1,500,000	2,000,000	3,000,000	3,000,000	63,000,000	72,500,000	Design	Maintenance
IWWTP PA Tanks Improvement	6,500,000	1,000,000	1,000,000	1,050,000	1,100,000	1,150,000	5,300,000	Construction	Maintenance
IWWTP PA-Sed Tank & Gallery Wall Refurbishment	200,000	100,000	125,000	100,000	250,000	200,000	775,000	Design	Maintenance
IWWTP Replacement of CoGen Control System	2,500,000	350,000	100,000	400,000	-	-	850,000	Construction	Maintenance
IWWTP Siphon Chamber Refurbishment	200,000	100,000	110,000	730,000	900,000	300,000	2,140,000	Design	Maintenance
IWWTP Solids Handling Refurbishment	64,850,000	200,000	150,000	-	-	-	350,000	Multiple	Maintenance
IWWTP Standby Diesel Generators	2,000,000	100,000	650,000	750,000	950,000	750,000	3,200,000	Design	Resilience
IWWTP Surge Mitigation	250,000	250,000	1,750,000	-	-	-	2,000,000	Design	Maintenance
Iona Island Control & Instrumentation Replacement 2011	2,750,000	100,000	-	-	-	-	100,000	Construction	Maintenance
Iona Island Wastewater Treatment Plant*	1,060,000,000	59,850,000	125,300,000	300,550,000	295,650,000	362,350,000	1,143,700,000	Construction	Upgrade
LIWWTP Admin Dewatering Building Roof Repair	100,000	90,000	700,000	-	-	-	790,000	Design	Maintenance
LIWWTP Biogas Clean-up Project	13,800,000	600,000	750,000	-	-	-	1,350,000	Construction	Opportunity
LIWWTP CCT Isolation Gates	2,050,000	500,000	400,000	400,000	-	-	1,300,000	Construction	Maintenance
LIWWTP Effluent Heat Recovery Project	10,000,000	1,000,000	2,000,000	3,000,000	2,000,000	2,000,000	10,000,000	Construction	Opportunity
LIWWTP Gravity Thickener Redundancy	500,000	75,000	425,000	2,125,000	18,750,000	-	21,375,000	Design	Maintenance
LIWWTP Ground Fault Detection System Replacement	1,550,000	300,000	300,000	750,000	150,000	-	1,500,000	Construction	Maintenance
LIWWTP High Efficiency Boiler	1,300,000	310,000	300,000	300,000	200,000	-	1,110,000	Construction	Maintenance
LIWWTP ICS Electrical Distribution System Migration Program	-	-	1,250,000	4,000,000	1,750,000	-	7,000,000	Not Started	Maintenance
LIWWTP ICS Replacement Program	6,750,000	2,000,000	1,600,000	650,000	-	-	4,250,000	Construction	Maintenance
LIWWTP PA-Sed Tank Refurbishment	4,150,000	1,000,000	1,000,000	1,000,000	-	-	3,000,000	Construction	Maintenance
LIWWTP Pilot Digestion Optimization Facility	4,850,000	650,000	650,000	550,000	350,000	-	2,200,000	Construction	Opportunity

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
CAPITAL PORTFOLIO
LIQUID WASTE SERVICES
2023 CAPITAL BUDGET AND 2023-2027 CAPITAL PLAN

	CAPITAL BUDGET FOR APPROVAL	2023 CAPITAL CASH FLOW	2024 CAPITAL CASH FLOW	2025 CAPITAL CASH FLOW	2026 CAPITAL CASH FLOW	2027 CAPITAL CASH FLOW	2023 TO 2027 TOTAL CAPITAL CASH FLOW	ACTIVE PHASE	PRIMARY DRIVER
LIWWTP Power Reliability	12,400,000	4,500,000	4,200,000	-	-	-	8,700,000	Construction	Resilience
LIWWTP SCL Refurbishment	850,000	50,000	500,000	800,000	1,150,000	10,350,000	12,850,000	Design	Maintenance
LIWWTP Trickling Filter Refurbishment	500,000	50,000	350,000	400,000	650,000	10,200,000	11,650,000	Design	Maintenance
NLWWTP 25 kV Substation Replacement	10,100,000	100,000	950,000	-	-	-	1,050,000	Construction	Maintenance
NLWWTP Screw Pump Replacement	1,550,000	100,000	100,000	-	-	-	200,000	Construction	Maintenance
NLWWTP Standby Diesel Generator	1,000,000	400,000	400,000	-	-	-	800,000	Construction	Resilience
North Shore WWTP Secondary Upgrade, Conveyance and Decommissioning*	1,057,900,000	193,755,000	187,818,000	63,883,000	14,579,000	6,612,000	466,647,000	Construction	Upgrade
Northwest Langley Wastewater Treatment Program*	2,280,650,000	114,800,000	59,350,000	150,150,000	272,100,000	453,250,000	1,049,650,000	Multiple	Growth
WWTPs Electrical System Studies & Upgrades	750,000	250,000	350,000	300,000	400,000	250,000	1,550,000	Design	Resilience
Total Treatment Plants	\$ 6,301,550,000	\$ 478,680,000	\$ 478,198,000	\$ 670,075,000	\$ 904,229,000	\$ 1,185,512,000	\$ 3,716,694,000		
TOTAL CAPITAL EXPENDITURES	\$ 7,367,850,000	\$ 681,745,000	\$ 688,406,000	\$ 934,460,000	\$ 1,117,389,000	\$ 1,308,127,000	\$ 4,730,127,000		
CAPITAL FUNDING									
New External Borrowing funded by Levy	\$ 4,274,047,000	\$ 381,831,000	\$ 302,254,000	\$ 434,956,000	\$ 482,035,000	\$ 1,142,843,000	\$ 2,743,919,000		
New Borrowing funded by DCC	1,363,084,000	117,732,000	169,058,000	218,593,000	369,711,000	-	875,094,000		
DCCs	167,584,000	28,716,000	45,279,000	17,017,000	14,583,000	1,993,000	107,588,000		
Contribution to Capital from LWS Levy	907,780,000	80,355,000	94,131,000	119,359,000	135,644,000	153,302,000	582,791,000		
Reserve	64,120,000	10,465,000	12,050,000	7,650,000	5,400,000	5,600,000	41,165,000		
External Funding - Interagency	591,235,000	62,646,000	65,634,000	136,885,000	110,016,000	4,389,000	379,570,000		
Total	\$ 7,367,850,000	\$ 681,745,000	\$ 688,406,000	\$ 934,460,000	\$ 1,117,389,000	\$ 1,308,127,000	\$ 4,730,127,000		
SUMMARY BY DRIVER									
Growth	\$ 4,005,250,000	\$ 227,725,000	\$ 158,550,000	\$ 273,987,000	\$ 511,425,000	\$ 649,650,000	\$ 1,821,337,000		
Maintenance	864,000,000	160,455,000	139,975,000	173,950,000	160,425,000	154,665,000	789,470,000		
Resilience	144,200,000	12,950,000	13,000,000	4,500,000	2,550,000	1,000,000	34,000,000		
Upgrade	2,251,800,000	267,265,000	347,393,000	421,273,000	350,739,000	379,862,000	1,766,532,000		
Opportunity	102,600,000	13,350,000	29,488,000	60,750,000	92,250,000	122,950,000	318,788,000		
Total	\$ 7,367,850,000	\$ 681,745,000	\$ 688,406,000	\$ 934,460,000	\$ 1,117,389,000	\$ 1,308,127,000	\$ 4,730,127,000		

* Project is part of Metro Vancouver's formal stage gate framework. Detailed project report will be brought forward as part of the stage gate review process.

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 (GVSD). The Policy, Planning and Analysis Division includes innovations, utility planning, policy and resiliency management to comply with provincial and federal legislation. The Division undertakes utility infrastructure analysis to service growth planning with municipalities, facilities modeling, scenario analysis, scope development for capital projects, and facility analysis and planning. Divisional mandate also includes 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. Included in the portfolio is innovation management involving 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	2023 Performance objective
Annual number of wet-weather related sanitary sewer overflow (SSO) events from Metro Vancouver sewers	MV 3-year average: 48 2021: 76 2020: 40 2019: 29	76	0
Annual CSO Volume (ML)	MV 3-year average: 32,500 2021: 38,500 2020: 36,900 2019: 22,100	38,500	32,500
Percentage of Assets not Meeting Capacity or Regulation within 10 Years	MV 3-year average: 28% 2020: 34% 2019: 25% 2018: 25%	34%	33%

2023 Key actions

- Continue to progress on updating the Integrated Liquid Waste and Resource Management Plan in accordance with the provincially-approved review strategy.
- Initiate work on a comprehensive facilities plan for liquid waste.
- Provide ongoing operational and design analysis for sanitary and drainage systems.
- Continue to maintain and upgrade system analysis tools and processes.
- Complete a policy for Board approval addressing a wet weather pricing framework.
- Coordinate Sanitary Sewer Overflow Working Groups with Member Municipalities
- Develop a Compounds of Environmental Concern (CEC) management strategy that integrates a broad range of approaches including source control, treatment, and external liaison.
- Review and update sewer use bylaws, modernizing and achieving full cost recovery.
- Complete three SIF projects: High-Efficiency Aeration, Handheld Wastewater Microbial DNA Monitor, and Phase 1 of Biorock Innovative Offshore Building Material.
- Develop a drainage policy to clarify jurisdictional roles and coordinate with drainage area members on implementing storm water and flood management strategies.
- Commence AIWWTP Effluent Pump Station Study.
- Regulatory reviews including WWTP Operational Certificate amendments.

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	2023 Performance objective
Percent of Capital Program Expenditures Achieved (Projects >\$90M) (4 PROJECTS – \$53M)	3-year average: 61% 2021: 39% 2020: 62% 2019: 82%	31%	95%
Percent of Capital Program Expenditures Achieved (Projects \$20M - \$90M) (37 PROJECTS – \$119M)	3-year average: 61% 2021: 47% 2020: 73% 2019: 64%	42%	90%
Percent of Capital Program Expenditures Achieved (Projects \$5M - \$20M) (39 Projects – \$59M)	3-year average: 45% 2021: 59% 2020: 36% 2019: 41%	15%	75%

Indicator	Historical and/or industry Benchmark	Current performance	2023 Performance objective
Percent of Capital Program Expenditures Achieved Projects < \$5M (56 Projects – \$28M)	3-year average: 37% 2021: 34% 2020: 36% 2019: 41%	26%	75%
Percent of Minor Capital Program Expenditures	3-year average: 67% 2021: 70% 2020: 72% 2019: 58%	57%	90%

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

2023 Key actions

- In conjunction with the PMO (Project Delivery Department), continue to support project management process improvements including the implementation of a Portfolio Management Information System (PMIS).
- Complete the review and revisions of the Minor Capital Program, including project prioritization processes and improved program level controls.
- Substantially complete:
 - Rehabilitation of the last of the four AIWWTP Trickling Filters (Delta)
 - Rehabilitation of the New Westminster Interceptor – Columbia St. (New Westminster)
 - Crescent Beach Forcemain Replacement (Surrey)
 - LIWWTP Pilot Digestion Optimization Facility (Richmond)
- Initiate construction:
 - Next section of the South Surrey Interceptor Twinning (Surrey)
 - Glen Eagles Pump Stations 4 and 5 Rehabilitation (West Vancouver)
 - Glen Eagles Force mains Replacement (West Vancouver)
 - Royal Pump Station Rehabilitation (New Westminster)
 - Corrosion Control Facility at the Cloverdale PS (Surrey)
 - Hydrothermal Liquefaction System at AIWWTP (Delta)
 - Scour Protection of the North Shore Sewer Crossings, the North Surrey Interceptor Fraser River Crossing, the Maple Ridge Force main Fraser River Crossing (West Vancouver, North Vancouver, Maple Ridge, Surrey and Delta)
 - Gilbert Trunk Sewer Central and South Sections (Richmond)
 - North Road Trunk Sewer – Phase 2 (Burnaby)
 - LIWWTP Backup Power
- Initiate and complete construction:
 - Westridge Force main (Burnaby),
 - Glenbrook Sanitary Trunk Sewer (Burnaby),
 - Jervis and Chilco PS Temporary Emergency Backup Power (Vancouver),
 - Front Street Pressure Sewer Rehabilitation (New Westminster)
 - Ferguson Road Paving Refurbishment (Richmond)

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	2023 Performance Objective
Number of reported events of sanitary sewer overflows (SSOs): non-weather related	MV 3-year average: 17.3 2021: 6 2020: 35 2019: 11	24	0
Number of odour complaints received	MV 3-year average: 14 2021: 7 2020: 21 2019: 14	10	10

2023 Key actions

- Implement Phase 2 mobile technology laptops in field for senior field operations staff;
- Develop a construction team capable of mid-sized civil capital construction work;
- Create service levels for work plan programs (Collections Operations, Drainage)
- Develop and perform initial implementation of a comprehensive Maintenance Reliability Program to increase asset resilience;
- Complete Electrical Safety program development (including work practices, systems) and begin initial implementation.
- Continue review of lockout and isolation procedures for operation and maintenance work tasks.
- Expand self-service access to GVS&DD sanitary sewer flow and rainfall datasets for member jurisdictions;
- Performance testing of 15% LWS pump stations
- Progress asset condition work by inspecting and condition rating:
 - 5% of sewer system inventory
 - 5% of the manhole inventory

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 through the treatment process.

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	2023 Performance objective
Volume treated per year (ML)	MV 3-year average: 448,438 2021: 451,732 2020: 459,118 2019: 434,465	436,400	464,000
Percent of digester gas used at the Wastewater Treatment Plants	MV 3-year average: 55.2% 2021: 53.7% 2020: 55.5% 2019: 56.3%	54%	56%

Indicator	Historical and/or industry benchmark	Current performance	2023 Performance objective
Compliance with treatment plant Operational Certificates (%)	MV 3-year average: 99.91% 2021: 99.99% 2020: 99.83% 2019: 99.91%	99.99%	100%
Percent of biosolids beneficially used	MV 3-year average: 98.5% 2021: 100% 2020: 99.5% 2019: 96.1%	100%	98%
Percentage of Biosolids beneficially used in Metro Vancouver Region	MV 3-year average: 16.3% 2021: 17.9% 2020: 17.6% 2019: 13.5%	15%	12%

2023 Key actions

- Complete removal of land-dried biosolids stockpile at Iona Island WWTP.
- Complete a Maintenance Services Review of Plant Maintenance.
- Create transition plan to move WWTP Operations to work order management system.
- Review and update critical operations, maintenance and safety documents related to plant process, operating and maintenance procedures for the wastewater treatment plants.
- Support SWS for the procurement of a biosolids feed system for the Waste-to-Energy Facility.
- Conduct a beneficial use trial for WWTP grit – use in bioremediation of hydrocarbon contaminated soil. Explore other options for beneficial use of WWTP grit.
- Complete Annacis and Lulu Gas Holder replacements
- Complete Iona influent and effluent pump major maintenance
- Commission and test new Annacis Island WWTP Outfall and upgraded solids contact tanks
- Complete Annacis Island WWTP Trickling Filter 4 media replacement.
- Complete Iona Island WWTP Trucked Liquid Waste clarifier overhaul.
- Test and commission the primary effluent reuse water reclamation system at Iona Island WWTP.
- Optimize new Iona Island WWTP biosolids dewatering system.
- Install and commission new Iona WWTP Thickener polymer system.
- Support PDE in procurement of regional biosolids drying facility – engineering selection and preliminary design.
- Develop new centrate storage tank system at Lulu Island WWTP.
- Commission and Test Lulu Island WWTP Pilot Digester.
- Initiate WWTP digital twinning Project.

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	2023 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	28
Fraser River water quality index ¹	MV 3-year average: 84 2020: 77 2019: 88 2018: 88	74	74

Indicator	Historical and/or industry benchmark	Current performance	2023 Performance objective
Burrard Inlet water quality index	MV 3-year average: 86 2019: 82 2018: 87 2017: 90	76	76
Sturgeon Bank water quality index	MV 3-year average: 93 2019: 96 2018: 92 2017: 92	90	90

¹ 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)

2023 Key actions

- Produce the 2022 GVS&DD Environmental Management & Quality Control Annual Report.
- Complete and submit 2022 National Pollution Release Inventory (NPRI) and Greenhouse Gas (GHG) Reports to Environment Canada and the BC Ministry of Environment, respectively.
- Conduct field work for the Fraser River water quality and fish health monitoring program.
- Initiate Fish Pilot Study in Burrard Inlet and sediment coring in the Strait of Georgia, in accordance with recommendations from the Water Body Environmental Program Reviews.
- Update the SSO Rapid Risk Ranking Tool for all SSOs for the 5-year interval of 2018-2022.
- Continue the collaborative work on advancing the use of wastewater based epidemiology for the protection of public health.
- Continue collaboration with DFO and SFU on development of genomics solutions for understanding impacts of wastewater treatment plant (WWTP) discharges on Fraser River salmon.
- Explore opportunities to use artificial intelligence to interpret recreational beach water quality monitoring results.
- Continuing scenario modelling and now-casting to support regulatory reporting of sewer overflows and wastewater treatment plant (WWTP) process upsets
- Perform Canadian Association for Laboratory Accreditation (CALA) bi-annual site assessment to maintain the accreditation of the Chemistry and Wastewater Treatment Process Control Laboratories.
- Perform quarterly analyses of pharmaceuticals and personal care products (PPCPs) in wastewater, and semi-annual analyses of Perfluoroalkyl and Polyfluoroalkyl (PFAS) substances in drinking water.
- Perform the analyses of drinking water sources for determination of microcystins using Liquid Chromatography Mass Spectrometry (LCMSMS) and cross-check the results with those obtained by enzyme-linked immunosorbent assay (ELISA) analysis.

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	2023 Performance objective
Operating cost per million litres collected and treated (\$/ML)	MV 3-year average: \$395 2021: \$408 2020: \$395 2019: \$381	\$476	\$486
Net energy use in the collection and treatment of liquid waste (GJ/ML)	MV 3-year average: 1.10 2021: 1.07 2020: 1.05 2019: 1.18	1.10	1.13
Total Greenhouse gas emissions from energy and direct emissions (Kg CO ₂ e/ML)	MV 3-year average: 18.1 2021: 18.7 2020: 16.2 2019: 19.4	18.1	16.0

Indicator	Historical and/or industry benchmark	Current performance	2023 Performance objective
Energy Savings Realized (kWh/y)	MV 3-year average: 1,316,400 2021: 3,300,125 2020: 137,861 2019: 511,343	25,000	600,000

2023 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.
- Promote and pursue additional 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.
- Develop training resources on document management processes for new and existing staff.
- Improve the management of departmental performance monitoring data using enterprise tools such as Metrolytics.
- Introduction of a Reclaimed Water Policy.
- Further discussion with member advisory committees of the expansion of Tier III cost apportionment into operating budget activities.

2023 to 2027 – 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
2023		
Iona Island WWTP Biosolids Stockpile Removal	Completion of the removal of the land dried biosolids stockpile and grit stockpile.	Regulatory and Legislative Environment
Wet Weather Management	First year of implementation of a regionally revenue-neutral sewer levy split into dry and wet weather components, providing incentives to mitigate I&I and separate combined sewers.	Environmental Sustainability / Financial 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
Iona Island WWTP	Commence preliminary design of WWTP and commence enabling projects, site preparation and remediation projects	Regulatory and Legislative Environment
Northwest Langley WWTP	Completion of construction of the Golden Ears Pump Station, the forcemain river crossing and the Sanitary Sewage Overflow Storage Facility.	Regional Growth / Environmental Sustainability
North Shore WWTP	Commence construction completion	Regulatory and Legislative Environment
Annacis Island WWTP Trickling Filters	Completion of replacement of media, distributor arms and foul air ducting.	System Stewardship
Vancouver Sewerage Area (VSA) Pump Station Backup Power	Generators installed at Jervis and Chilco Pump Stations. VSA Pump Station Backup Power Program complete.	System Stewardship
2024		
Iona Island WWTP	Commence construction of WWTP ground improvement works and secondary treatment technology piloting	Regulatory and Legislative Environment
Annacis Island WWTP Outfall	Completion of construction of the outfall system	Regional Growth
Annacis Island WWTP	Completion of construction of Primary Sludge Gravity Thickeners #4 and #5	Regional Growth
Burnaby Lake North Interceptor	Completion of construction of the tunneled section of the Burnaby Lake North Interceptor	Regional Growth
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

Initiative	Description	Theme
2025		
Gilbert Trunk Sewer	Completion of the twinning of the Gilbert Trunk Sewer to improve system reliability and resiliency.	System Stewardship
North Surrey Interceptor Odour Control	Completion of construction of odor control system.	System Stewardship
Annacis Island WWTP Hydrothermal Processing (HTP) Demonstration Facility	Commencement of operation of the HTP facility and initial production of biocrude oil at demonstration scale.	Environmental Sustainability
Gilbert Trunk Sewer	Completion of construction of Gilbert Trunk Sewer #2	System Stewardship
Northwest Langley WWTP	Commence wastewater treatment plant construction	Regional Growth
Iona Island WWTP	Select secondary treatment technology	Regulatory and Legislative Environment
2026		
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
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
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 outfall construction	Regional Growth
Iona Island WWTP	Completion of preliminary design of WWTP, completion of ground improvements and Phase 1 ecological projects.	Regulatory and Legislative Environment
2027		
Iona Island WWTP Lagoon Decommissioning	Completion of the removal of all biosolids sludge lagoons in preparation for the construction of the secondary treatment plant.	Regulatory and Legislative Environment
Iona Island WWTP	Commence detailed design of WWTP	Regulatory and Legislative Environment

ATTACHMENT 5

METRO VANCOUVER DISTRICTS 2023-2027 PROJECTED RESERVES - LIQUID WASTE

OPERATING RESERVES

	2022	2023	2023	2023	2023	2023	2024	2025	2026	2027
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Liquid Waste Services	\$ 30,249,903	\$ 30,249,903	\$ -	\$ -	\$ 604,998	\$ 30,854,901	\$ 31,472,000	\$ 32,101,440	\$ 32,743,468	\$ 33,398,338

DISCRETIONARY RESERVES

	2022	2023	2023	2023	2023	2023	2024	2025	2026	2027
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Liquid Waste Services										
Biosolids Inventory Reserve	\$ 13,114,037	\$ 13,114,037	-	(11,373,251)	\$ 148,548	\$ 1,889,334	\$ 103,053	\$ -	\$ -	\$ -
Liquid Waste General Debt Reserve Fund	2,165,817	2,165,817	-	-	43,316	2,209,133	2,253,316	2,298,382	2,344,350	2,391,237
Lions Gate Contingency	1,519,975	1,519,975	-	-	30,399	1,550,374	1,581,382	1,613,009	1,645,269	1,678,175
Drainage General Reserve	4,458,451	4,458,451	-	(245,000)	86,719	4,300,170	4,239,723	3,430,667	2,958,931	2,275,759
Total	\$ 21,258,278	\$ 21,258,278	\$ -	\$ (11,618,251)	\$ 308,983	\$ 9,949,011	\$ 8,177,474	\$ 7,342,059	\$ 6,948,550	\$ 6,345,171

STATUTORY RESERVES

	2022	2023	2023	2023	2023	2023	2024	2025	2026	2027
	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	\$ 722,403	\$ 722,403	\$ 106,282	\$ -	\$ 15,511	\$ 844,195	\$ 667,562	\$ 791,847	\$ 770,376	\$ 903,211
Liquid Waste Sustainability Innovation Fund Reserve	16,799,001	16,799,001	1,127,000	(6,222,152)	285,029	11,988,878	5,800,005	5,170,779	6,412,464	7,678,984
Total	\$ 17,521,404	\$ 17,521,404	\$ 1,233,282	\$ (6,222,152)	\$ 300,539	\$ 12,833,073	\$ 6,467,567	\$ 5,962,626	\$ 7,182,841	\$ 8,582,194

To: Regional Parks Committee

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

Date: October 6, 2022 Meeting Date: October 12, 2022

Subject: **2023 - 2027 Financial Plan – Regional Parks**

RECOMMENDATION

That the Regional Parks Committee endorse the 2023 - 2027 Financial Plan for Regional Parks as presented in the report dated October 6, 2022, titled “2023 - 2027 Financial Plan – Regional Parks”, and forward it to the Metro Vancouver Board Budget Workshop on October 19, 2022 for consideration.

EXECUTIVE SUMMARY

The 2023 - 2027 Metro Vancouver Financial Plan has been prepared following direction received at the April 14, 2022 Metro Vancouver Board Budget Workshop. This has resulted in a plan that maintains the goals and objectives of Metro Vancouver while removing the use of financial levers that were put in place during the COVID-19 pandemic. Further, this budget represents a pause to assess the implications of the rapidly evolving macro economic environment and to undertake strategic planning with the incoming Board of Directors. The increase in Metro Vancouver’s overall consolidated household impact for 2023 is projected to be 4.5%, down from the 10.1% projected for 2023 in the prior financial planning cycle.

Over the next five years, the Regional Parks budget is expected to increase an average of \$4,109,665 or 5.4% 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 2023 - 2027 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 14, 2022 a Metro Vancouver Board Budget Workshop was held with the objective to seek direction for the preparation of the 2023 - 2027 Financial Plan. The workshop outlined the principles that guide the work of Metro Vancouver as an organization, the current 2022 - 2026 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 2023 - 2027 Financial Plan.

Given the challenges being observed coming out of the Covid-19 pandemic, this budget represents a pause for Metro Vancouver and focuses on maintaining the existing goals and objectives of Metro Vancouver and Liquid Waste Services. Staff will undertake strategic planning with the incoming Board of Directors, re-evaluate current plans under this leadership, and assess the implications of the rapidly evolving macro environment.

Key highlights of the overall Metro Vancouver 2023 proposed budget are as follows:

- A reduction of \$22 million of the total 2023 Metro Vancouver proposed operating budget compared to that previously projected for 2023
- Maintained or increased contribution to capital and reserves for key functions
- Reduced capital cash flow for 2023 and 2024
- Real reduction of HHI, \$33 less than that previously projected for 2023

This report focuses on the Regional Parks Service and presents the 2023 provisional annual budget and the updated five-year plan for the years 2023 to 2027 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 2023 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 2023 continuous improvement opportunities include the following:

- Continued 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.
- Implementation of a sustainability innovation fund initiative for real time parking availability technology to be piloted at Iona Beach Regional Park and Boundary Bay Regional Park.
- Continued implementation with the *Tsleil-Waututh Nation Cultural Planning and Cooperation Agreement*.

- Positioning capital projects for funding from other levels of government and partnering with local municipalities and others.
- Continued implementation of Regional Parks Land Acquisition 2050 – carbon credits from Regional park land acquisition and restoration enabled Metro Vancouver to achieve carbon neutrality.
- 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.
- Development of a methodology for the valuation of natural assets in Regional Parks that will be shared with member municipalities.
- Efficiency improvements in procurement of capital works and establishment of integrated project delivery team for project delivery

2023 BUDGET AND 2023 - 2027 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 2023 - 2027 Regional Parks Financial Plan is included as Attachment 1. The 2023 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 2023 - 2027 are included in Attachment 4.

Operating Budget Highlights

The Regional Parks 2023 operating budget is proposed to increase by \$7,550,090 for a total budget of \$76,540,552 (Attachment 1). This is a result of pressures for new service levels, land acquisition and accelerated park and greenway development.

The 2023 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).

- Commence a review for 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.
- Enhanced 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.
- Initiation of Bowen Island- Cape Roger Curtis design and Planning process for a new 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 \$4,109,665 or 5.4% per year. Adjusting for the additional increases in the contribution to the Regional Parks Land Acquisition and Development Reserve in 2023 to 2027, the average increase per year is 3.4%.

Capital Budget Highlights

The Regional Parks capital budget for 2023 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 2023 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 2023 - 2027 totals to \$169.8M 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
- Planning and development for a new regional Park with camping facilities and other amenities at Cape Roger Curtis on Bowen Island
- 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 2023, \$264,000 of operating initiatives, \$2.3M 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 2023, \$27.3M in reserve funding will be applied for capital development projects and land acquisition. The 2023 - 2027 projected reserves for Regional Parks is included in Attachment 5.

APPROVAL PROCESS

The proposed 2023 - 2027 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 2023 - 2027 Financial Plan and Annual Work Plan will be presented for consideration at the Metro Vancouver Board Budget Workshop on October 19, 2022.
- The Board will consider adoption of the 2023 Budget and endorsement of the 2023 - 2027 Financial Plan on October 28, 2022.

ALTERNATIVES

1. That the Regional Parks Committee endorse the 2023 - 2027 Financial Plan for Regional Parks as presented in the report "2023 - 2027 Financial Plan – Regional Parks" dated October 6, 2022 and forward it to the Metro Vancouver Board Budget Workshop on October 19, 2022 for consideration.
2. That the Regional Parks Committee make recommendations and endorse an amended 2023 - 2027 Financial Plan for the Regional Parks function and forward the amended Financial Plan to the to the Metro Vancouver Board Budget Workshop on October 19, 2022 for consideration.

FINANCIAL IMPLICATIONS

If the MVRD Board endorses the 2023 - 2027 Financial Plan for Regional Parks, as presented under Alternative 1, in 2023 the Regional Parks requisition will increase by \$7,044,890 (12.3%) for a total requisition of \$64,107,186.

Over the term of the five-year plan, the annual Regional Parks requisition is projected to increase by an average of \$4,327,655 per year (6.7%) 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 \$54 in 2023 to just over \$62 in 2027.

Under Alternative 2, the Committee may wish to consider recommending amendments to the 2023 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 2023 Budget and five-year financial plan has been prepared following direction received at the April 14, 2022 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 2023 to 2027 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 2023 - 2027 Financial Plan and Annual Work Plan for Regional Parks as presented under Alternative 1.

Attachments

1. 2023 - 2027 Financial Plan
2. 2023 - 2027 Capital Portfolio – Regional Parks
3. 2023 Work Plan
4. 2023 - 2027 “What’s Happening”
5. 2023 - 2027 Projected Reserves – Regional Parks

ATTACHMENT 1

METRO VANCOUVER REGIONAL DISTRICT
REGIONAL PARKS
2023 BUDGET REVIEW
2023-2027 FINANCIAL PLAN

	2022 BUDGET	2023 BUDGET	% CHANGE	2024 FORECAST	% CHANGE	2025 FORECAST	% CHANGE	2026 FORECAST	% CHANGE	2027 FORECAST	% CHANGE
REVENUES											
Metro Vancouver Regional District Requisitions	\$ 57,062,296	\$ 64,107,186	12.3%	\$ 70,634,437	10.2%	\$ 72,887,741	3.2%	\$ 76,189,626	4.5%	\$ 78,700,573	3.3%
User Fees	881,314	867,927		885,782		903,679		921,620		902,784	
Other External Revenues	1,855,250	1,760,439		1,461,004		1,461,070		1,436,640		1,310,428	
Transfer from Sustainability Innovation Fund Reserves	536,602	100,000		-		-		-		-	
Transfer from Reserves	8,655,000	9,705,000		6,810,000		7,860,000		8,375,000		8,625,000	
TOTAL REVENUES	\$ 68,990,462	\$ 76,540,552	10.9%	\$ 79,791,223	4.2%	\$ 83,112,490	4.2%	\$ 86,922,886	4.6%	\$ 89,538,785	3.0%
EXPENDITURES											
Operating Programs:											
Systems Planning, Design and Development Services											
Planning and Resource Management	\$ 2,898,020	\$ 2,361,112		\$ 2,426,125		\$ 2,450,768		\$ 2,480,903		\$ 2,527,528	
Design and Development	1,539,521	1,391,136		1,421,856		1,296,288		1,309,753		1,322,912	
Engineers in Training	15,508	11,760		12,106		12,431		12,763		13,105	
	4,453,049	3,764,008	(15.5%)	3,860,087	2.6%	3,759,487	(2.6%)	3,803,419	1.2%	3,863,545	1.6%
Systems Visitor and Operations Services											
Visitor Services	1,523,534	1,472,808		1,483,468		1,507,447		1,531,938		1,443,902	
Operations Services	1,837,557	1,725,801		1,721,176		1,763,381		1,804,127		1,876,865	
	3,361,091	3,198,609	(4.8%)	3,204,644	0.2%	3,270,828	2.1%	3,336,065	2.0%	3,320,767	(0.5%)
Central Area Services											
Operations and Maintenance	6,753,942	7,255,705		7,254,520		7,539,701		7,760,886		7,731,125	
Area Visitor Services	612,709	632,447		676,545		737,981		756,315		765,685	
Area Management and Administration	3,422,093	3,444,740		664,901		682,598		701,444		694,093	
Area Planning	161,774	166,746		170,674		174,876		178,677		182,580	
Burns Bog Ecological Conservancy Area	471,440	491,777		525,545		533,211		541,478		549,957	
Contribution to Reserve	223,000	173,000		173,000		173,000		173,000		173,000	
	11,644,958	12,164,415	4.5%	9,465,185	(22.2%)	9,841,367	4.0%	10,111,800	2.7%	10,096,440	(0.2%)
East Area Services											
Operations and Maintenance	4,846,934	4,984,936		5,168,214		5,383,906		5,608,129		5,797,904	
Area Visitor Services	635,817	640,426		654,660		670,403		709,272		725,758	
Area Management and Administration	626,506	649,872		668,005		685,255		702,974		721,173	
Area Planning	165,881	170,926		176,392		180,931		185,545		190,922	
	6,275,138	6,446,160	2.7%	6,667,271	3.4%	6,920,495	3.8%	7,205,920	4.1%	7,435,757	3.2%
West Area Services											
Operations and Maintenance	4,756,383	5,237,540		5,469,742		5,766,875		5,961,802		6,158,828	
Area Visitor Services	626,892	640,315		659,408		695,522		713,711		731,592	
Area Management and Administration	963,755	989,454		1,011,933		1,032,612		1,053,481		1,074,911	
Area Planning	157,565	162,537		166,585		170,371		174,237		178,209	
	6,504,595	7,029,846	8.1%	7,307,668	4.0%	7,665,380	4.9%	7,903,231	3.1%	8,143,540	3.0%
Administration and Department Support	1,451,781	1,376,718	(5.2%)	1,434,669	4.2%	1,460,934	1.8%	1,487,793	1.8%	1,512,753	1.7%
Communications Program	110,000	130,000	18.2%	130,000	0.0%	130,000	0.0%	130,000	0.0%	130,000	0.0%
Utility Voice Radio	82,520	69,943	(15.2%)	74,811	7.0%	76,824	2.7%	78,490	2.2%	82,463	5.1%
Quality Control Allocated	54,406	56,945	4.7%	58,136	2.1%	59,645	2.6%	61,065	2.4%	62,640	2.6%
Allocation of Centralized Support Costs	4,115,924	4,606,908	11.9%	4,742,524	2.9%	4,263,032	(10.1%)	4,020,580	(5.7%)	3,854,765	(4.1%)
Total Operating Programs	38,053,462	38,843,552	2.1%	36,944,995	(4.9%)	37,447,992	1.4%	38,138,363	1.8%	38,502,670	1.0%
Allocation of Project Delivery Cost	-	-	0.0%	144,228	0.0%	152,498	5.7%	157,523	3.3%	159,115	1.0%
Asset Maintenance	5,185,000	6,945,000	33.9%	6,700,000	(3.5%)	7,810,000	16.6%	8,325,000	6.6%	8,575,000	3.0%
Contribution to Capital Infrastructure Reserve	6,182,000	7,182,000	16.2%	8,432,000	17.4%	10,132,000	20.2%	12,732,000	25.7%	14,732,000	15.7%
Contribution to Parkland Acquisition and Development Reserve	19,570,000	23,570,000	20.4%	27,570,000	17.0%	27,570,000	0.0%	27,570,000	0.0%	27,570,000	0.0%
TOTAL EXPENDITURES	\$ 68,990,462	\$ 76,540,552	10.9%	\$ 79,791,223	4.2%	\$ 83,112,490	4.2%	\$ 86,922,886	4.6%	\$ 89,538,785	3.0%

ATTACHMENT 2

METRO VANCOUVER REGIONAL DISTRICT CAPITAL PORTFOLIO REGIONAL PARKS 2023 CAPITAL BUDGET AND 2023-2027 CAPITAL PLAN

	CAPITAL BUDGET FOR APPROVAL	2023 CAPITAL CASH FLOW	2024 CAPITAL CASH FLOW	2025 CAPITAL CASH FLOW	2026 CAPITAL CASH FLOW	2027 CAPITAL CASH FLOW	2023 TO 2027 TOTAL CAPITAL CASH FLOW	ACTIVE PHASE	PRIMARY DRIVER
CAPITAL EXPENDITURES									
Major Projects									
Grouse Mountain - Regional Park Trail and Amenity Improvements	\$ 3,075,000	\$ 1,000,000	\$ 1,000,000	\$ -	\$ -	\$ -	\$ 2,000,000	Construction	Capacity, Growth & Ecological Resilience
Widgeon Marsh - Regional Park Development	19,100,000	6,580,000	6,500,000	-	-	-	13,080,000	Construction	Capacity, Growth & Ecological Resilience
Campbell Valley - Management Plan Implementation	8,100,000	1,000,000	1,000,000	1,000,000	1,000,000	3,000,000	7,000,000	Construction	Capacity, Growth & Ecological Resilience
Belcarra - South Day Use Area	5,950,000	250,000	2,200,000	3,500,000	-	-	5,950,000	Planned	Capacity, Growth & Ecological Resilience
Bowen Island - Park Development	15,800,000	400,000	4,000,000	5,800,000	3,600,000	2,000,000	15,800,000	Planned	Capacity, Growth & Ecological Resilience
Codd Wetland - Park Development	-	-	-	-	-	900,000	900,000	Planned	Capacity, Growth & Ecological Resilience
West Creek Wetlands - Park Development	-	-	-	-	300,000	750,000	1,050,000	Planned	Capacity, Growth & Ecological Resilience
Burns Bog - Fire Restoration	-	-	-	-	500,000	1,000,000	1,500,000	Planned	Capacity, Growth & Ecological Resilience
Total Major Projects	\$ 52,025,000	\$ 9,230,000	\$ 14,700,000	\$ 10,300,000	\$ 5,400,000	\$ 7,650,000	\$ 47,280,000		
Greenways									
Aldergrove - Southern Slopes Greenway	1,250,000	1,250,000	-	-	-	-	1,250,000	Planned	Connected Network
DNR/DSSG Management Plan Implementation	10,600,000	500,000	1,000,000	2,000,000	2,500,000	4,600,000	10,600,000	Planned	Connected Network
Boundry Bay - Perimeter Trail	1,650,000	150,000	1,500,000	-	-	-	1,650,000	Planned	Connected Network
Tynehead - Perimeter Trail	2,500,000	1,000,000	1,500,000	-	-	-	2,500,000	Planned	Connected Network
Burnaby Lake - Glencarin Greenway Connection	-	-	1,500,000	2,000,000	-	-	3,500,000	Planned	Connected Network
Other Greenways Upgrades	-	-	-	100,000	200,000	200,000	500,000	Planned	Connected Network
Total Greenways	\$ 16,000,000	\$ 2,900,000	\$ 5,500,000	\$ 4,100,000	\$ 2,700,000	\$ 4,800,000	\$ 20,000,000		
Service Facilities									
Burnaby Lake - Service Yard Building Replacement	1,700,000	50,000	50,000	100,000	-	1,500,000	1,700,000	Construction	Facility Replacement & Asset Management
Capilano - New Service Yard	943,000	150,000	-	-	-	-	150,000	Construction	Facility Replacement & Asset Management
Total Service Facilities	\$ 2,643,000	\$ 200,000	\$ 50,000	\$ 100,000	\$ -	\$ 1,500,000	\$ 1,850,000		
Park Development									
Crippen - Davies Orchard	1,750,000	250,000	500,000	-	-	-	750,000	Construction	Capacity, Growth & Ecological Resilience
Colony Farm - TMX Agreement Projects	1,000,000	300,000	300,000	300,000	-	-	900,000	Construction	Capacity, Growth & Ecological Resilience
Belcarra - Admiralty Heights Trail Decommissioning	1,050,000	150,000	150,000	250,000	250,000	250,000	1,050,000	Planned	Capacity, Growth & Ecological Resilience
Campbell Valley - Little River Loop Boardwalk	1,700,000	200,000	1,500,000	-	-	-	1,700,000	Planned	Facility Replacement & Asset Management
Minnekhada - Park Improvements	-	-	-	-	-	650,000	650,000	Planned	Capacity, Growth & Ecological Resilience
Lynn Valley - Cable Pool Bridge Replacement	-	-	-	100,000	1,250,000	1,250,000	2,600,000	Planned	Facility Replacement & Asset Management
Burnaby Lake - Nature House	-	-	-	50,000	150,000	2,000,000	2,200,000	Planned	Facility Replacement & Asset Management
Pacific Spirit - Beach Access & Trail Improvments	-	-	50,000	100,000	500,000	1,000,000	1,650,000	Planned	Facility Replacement & Asset Management
Park Amenities and Visitor Experience	2,350,000	500,000	300,000	300,000	250,000	1,000,000	2,350,000	Planned	Capacity, Growth & Ecological Resilience
Other Replacement, Restoration & Upgrade Projects	9,865,000	1,050,000	3,130,000	850,000	1,905,000	3,930,000	10,865,000	Planned	Facility Replacement & Asset Management
Total Park Development	\$ 17,715,000	\$ 2,450,000	\$ 5,930,000	\$ 1,950,000	\$ 4,305,000	\$ 10,080,000	\$ 24,715,000		
Regional Parks Land Acquisition									
Regional Parks Land Acquisition	44,990,000	44,990,000	7,000,000	8,000,000	8,000,000	8,000,000	75,990,000		Land Acquisition
Total Regional Parks Land Acquisition	\$ 44,990,000	\$ 44,990,000	\$ 7,000,000	\$ 8,000,000	\$ 8,000,000	\$ 8,000,000	\$ 75,990,000		
TOTAL CAPITAL EXPENDITURES	\$ 133,373,000	\$ 59,770,000	\$ 33,180,000	\$ 24,450,000	\$ 20,405,000	\$ 32,030,000	\$ 169,835,000		

METRO VANCOUVER REGIONAL DISTRICT
CAPITAL PORTFOLIO
REGIONAL PARKS
2023 CAPITAL BUDGET AND 2023-2027 CAPITAL PLAN

	CAPITAL BUDGET FOR APPROVAL	2023 CAPITAL CASH FLOW	2024 CAPITAL CASH FLOW	2025 CAPITAL CASH FLOW	2026 CAPITAL CASH FLOW	2027 CAPITAL CASH FLOW	2023 TO 2027 TOTAL CAPITAL CASH FLOW	ACTIVE PHASE	PRIMARY DRIVER
CAPITAL FUNDING									
Reserve	\$ 125,043,000	\$ 55,570,000	\$ 31,150,000	\$ 22,350,000	\$ 20,405,000	\$ 32,030,000	\$ 161,505,000		
External Funding - Grants	8,330,000	4,200,000	2,030,000	2,100,000			8,330,000		
Total	\$ 133,373,000	\$ 59,770,000	\$ 33,180,000	\$ 24,450,000	\$ 20,405,000	\$ 32,030,000	\$ 169,835,000		
SUMMARY BY DRIVER									
Capacity, Growth & Ecological Resilience	\$ 58,175,000	\$ 10,430,000	\$ 15,950,000	\$ 11,150,000	\$ 5,900,000	\$ 9,550,000	\$ 52,980,000		
Facility Replacement & Asset Management	14,208,000	1,450,000	4,730,000	1,200,000	3,805,000	9,680,000	20,865,000		
Connected Network	16,000,000	2,900,000	5,500,000	4,100,000	2,700,000	4,800,000	20,000,000		
Land Acquisition	44,990,000	44,990,000	7,000,000	8,000,000	8,000,000	8,000,000	75,990,000		
Total	\$ 133,373,000	\$ 59,770,000	\$ 33,180,000	\$ 24,450,000	\$ 20,405,000	\$ 32,030,000	\$ 169,835,000		

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. For over 50 years, Metro Vancouver's regional parks system has protected natural areas for people to connect with nature, reduce stress, and maintain their physical and mental health. As the sustained extraordinary visitation rates of the past year have shown, residents continue to rely on regional parks for their well-being. Regional parks experienced strong visitation in 2021, with records set at 9 regional parks and greenways. Over 16.3 million visits connected people with important protected natural areas — a 37% increase from 2019.

Protecting over 13,848 hectares of natural lands throughout the region, 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 High-Level 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 Network that connects natural areas and promotes access to them.

Goals



1 The region's important natural areas are protected in perpetuity.



2 Everyone has the opportunity to benefit from exceptional experiences in nature.



3 Regional parks are sustainably managed and well-maintained for the safety of visitors and integrity of ecosystems.



4 First Nations have an active role in the planning and stewardship of regional parks.



5 Regional parks adapt to change and contribute to regional resilience.

Performance Indicators

Indicators reflect an assumption that the restrictions due to the COVID-19 pandemic will substantially remain in place for 2023.

Indicator	Historical and/or Industry Benchmark	2021 Performance	2023 performance objective
Annual number of visits to Regional Parks	3-year average: 14,917,333 2021: 16,347,000 2020: 16,497,000 2019: 11,935,000	16.3M	16M
Annual number of participants in Regional Park public programming	3-year average: 30,392 2021: 23,670 2020: 5,629* 2019: 61,876 *2020 impacted due to Covid Pandemic	23,670	25,000
Annual number of volunteer hours through stewardship, partnership and visitor services programs	3-year average: 13,956 2021: 11,606 2020: 8,237 2019: 22,026	11,606	15,000
Total hectares of Regional Parks land	2020: 13,743 ha 2019: 13,632 ha 2018: 13,557 ha	13,824 ha	13,950ha

2023 Key Actions

Advancing Our Mission to “Protect & Connect”

- Continued COVID-19 response/recovery and providing leadership to member municipalities.
- Continued recovery of Regional Parks revenue streams: filming, public programming and facility rentals.
- Re-introduce Regional Parks community events.
- Participate 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)
- Continue implementation and additional opportunities for paid parking as part of visitor demand management strategy
- Implement Equity, Diversity and Inclusion messaging on park kiosk signs system-wide.
- 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 təmtə́míxʷtən Belcarra Regional Park.
- Advance the continued development of cultural planning and cooperative agreements with Katzie and Kwikwetlem First Nations.
- Initiate Phase 1 park capital development at Widgeon Marsh Regional Park including partnering with City of Coquitlam for upgrades to Quarry Road.
- Regional Parks Plan implementation strategy
- Complete the Burnaby Lake Regional Park lease renewal 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.
- Complete Phase 1 of the Campbell Valley Management Plan Implementation Project.
- Complete construction of the Derby Reach Full Service Washroom/Camp Shower Facility.
- Support corporate initiatives including Regional Growth Strategy, Iona Beach Regional Park planning with the wastewater treatment plant, Climate 2050, PNE and new tree management policy and arboricultural procedures.
- Initiate advanced design for park development projects including new Bowen Island parkland, təmtə́míxʷtən/Belcarra South Day Use Area, Admiralty Heights Trail Decommissioning, and Campbell Valley Little River Loop Boardwalk.
- Develop adaptation and mitigation strategies to ensure public safety and forest health due to climate change and hemlock looper moth impacts
- 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 Bay Park Perimeter Trail.
- Finalize and begin implementation of the Regional Parks 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 quantification and valuation of Regional Parks natural assets.

- Complete the *Regional Parks Building Strategy*.
- Address staffing resources required for shoulder seasons.
- Continue pursuit of the electrification of the Regional Parks fleet and small equipment.
- Update the Terrestrial Ecosystem Mapping and Wildfire Risk Mapping.
- Promote, support, and collaborate with the Metro Vancouver Regional Parks Foundation to align strategic funding priorities.
- 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 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.
- Supporting on-going litigation.
- Update the Regional Parks Land Acquisition Catalogue.
- Advance sustainable transportation projects to reduce barriers to accessing regional parks.
- Initiate a program to understand who visits regional parks as part of the work to ensure regional parks are a welcoming, inclusive space for all.

2023 Major Capital Program

- Widgeon Marsh park development (*multiyear, \$6,580,000 in 202*)
- Grouse Mountain Trail and Amenity Improvements (*multiyear, \$1,000,000 in 2023*)
- Aldergrove South Slopes Greenway (*multiyear, \$1,250,000 in 2023*)
- Campbell Valley Management Plan Implementation – design (*multiyear, \$1,000,000 2023*)
- Tynehead Perimeter Trail (*multiyear, \$1,000,000 in 2023*)
- IWWTP - Iona Beach Regional Park (*LWS lead, integrated team support*)

2023 Advanced Design Program

1. *Belcarra South Day Use Area*
2. *Delta Nature Reserve / Delta South Surrey Greenway*
3. *Admiralty Heights Trails*
4. *Central Valley Greenway Connection*
5. *Bowen Island – New Park Design and Development*
6. *Boundary Bay Perimeter Trail*
7. *Campbell Valley Little River Loop*

Regional Parks

2023 to 2027 – 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
2023		
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) • Bowen Island Park advanced design and development phase 1 • Delta Nature Reserve and Delta/South Surrey Greenway – Trail/Road detailed design and tendering. • Grouse Mountain Trail and Amenity Aldergrove South Slopes Greenway • Tynehead Perimeter Trail • IWWTP - Iona Beach Regional Park (LWS lead, integrated team support) • Advanced design for future year capital programs • Asset management (Minor Capital) 	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> strategy 	Regional Growth
Planning/Outreach and Engagement	<ul style="list-style-type: none"> • Implementation Regional Parks Plan 2050 recommendations • 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

2024		
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. Major development phase 2 Bowen Island <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
Planning/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
2025		
Capital Development Program	<ul style="list-style-type: none"> Completion of Davies Orchard Precinct at Crippen Regional Park. Belcarra South development and heritage restoration at Belcarra Regional Park Grouse Mountain Regional Park Grant Implementation Delta Nature Reserve/South Surrey Greenway Development Campbell Valley Regional Park Management Plan Implementation Advanced design for future year capital programs Asset management (Minor Capital) 	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> strategy 	Regional Growth
Planning/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"> • 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 • Advanced design for future year capital programs • Asset management (Minor Capital) 	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 strategy 	Regional Growth
Planning/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
2027		
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 • Bowen Island Park development and operations/Belcarra/White Pine and Admiralty Heights Improvements • Park Amenity and Visitor Experience Improvements • Regional greenway phased development • Advanced design for future year capital programs 	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 strategy. 	Regional Growth
Planning/ 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

ATTACHMENT 5

METRO VANCOUVER DISTRICTS 2023-2027 PROJECTED RESERVES - REGIONAL PARKS

OPERATING RESERVES

	2022 ENDING BALANCE	2023 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2023 ENDING BALANCE	2024 ENDING BALANCE	2025 ENDING BALANCE	2026 ENDING BALANCE	2027 ENDING BALANCE
Regional Parks	\$ 2,122,855	\$ 2,122,855	\$ -	\$ -	\$ 42,457	\$ 2,165,312	\$ 2,208,618	\$ 2,252,791	\$ 2,297,847	\$ 2,343,804

DISCRETIONARY RESERVES

	2022 ENDING BALANCE	2023 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2023 ENDING BALANCE	2024 ENDING BALANCE	2025 ENDING BALANCE	2026 ENDING BALANCE	2027 ENDING BALANCE
Regional Parks General Reserve	\$ 2,731,778	\$ 2,731,778	\$ 150,000	\$ (2,535,000)	\$ 30,786	\$ 377,564	\$ 476,015	\$ 637,035	\$ 801,276	\$ 968,801

STATUTORY RESERVES

	2022 ENDING BALANCE	2023 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2023 ENDING BALANCE	2024 ENDING BALANCE	2025 ENDING BALANCE	2026 ENDING BALANCE	2027 ENDING BALANCE
Regional Parks										
Regional Parks Infrastructure Reserve	\$ 2,485,167	\$ 2,485,167	\$ 7,182,000	\$ (7,755,000)	\$ 43,973	\$ 1,956,141	\$ 2,280,084	\$ 3,115,505	\$ 3,508,085	\$ 4,287,267
Regional Parkland Acquisition Reserve Fund	9,677,596	9,677,596		(5,000,000)	143,552	4,821,148	4,917,571	5,015,922	5,116,240	5,218,565
Regional Parkland Acquisition and Development Reserve Fund	23,233,975	23,233,975	23,570,000	(42,990,000)	270,480	4,084,455	8,781,844	23,673,181	43,912,344	54,456,291
Delta Airpark Reserve	188,493	188,493	23,000	-	4,000	215,492	243,032	271,123	299,775	329,001
Regional Parks Legacy Fund	2,669,328	2,669,328	-	(50,000)	52,887	2,672,214	2,675,158	2,678,162	2,681,225	2,684,349
Total	\$ 38,254,559	\$ 38,254,559	\$ 30,775,000	\$ (55,795,000)	\$ 514,891	\$ 13,749,450	\$ 18,897,689	\$ 34,753,893	\$ 55,517,670	\$ 66,975,474

To: Regional Planning Committee

From: Heather McNell, Deputy Chief Administrative Officer, Policy and Planning
General Manager, Regional Planning and Housing Services

Date: September 26, 2022

Meeting Date: October 7, 2022

Subject: **2023 - 2027 Financial Plan – Regional Planning**

RECOMMENDATION

That the Regional Planning Committee endorse the 2023 - 2027 Financial Plan for Regional Planning as presented in the report dated September 26, 2022, titled “2023 - 2027 Financial Plan – Regional Planning”, and forward it to the Metro Vancouver Board Budget Workshop on October 19, 2022 for consideration.

EXECUTIVE SUMMARY

The 2023 - 2027 Metro Vancouver Financial Plan has been prepared following direction received at the April 14, 2022 Metro Vancouver Board Budget Workshop. This has resulted in a plan that maintains the goals and objectives of Metro Vancouver while removing the use of financial levers that were put in place during the COVID-19 pandemic. Further, this budget represents a pause to assess the implications of the rapidly evolving macro economic environment and to undertake strategic planning with the incoming Board of Directors. The increase in Metro Vancouver’s overall consolidated household impact for 2023 is projected to be 4.5%, down from the 10.1% projected for 2023 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 2023 - 2027 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 \$556,591, or an average of 2.3% per year.

PURPOSE

To present the 2023 - 2027 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 14, 2022 a Metro Vancouver Board Budget Workshop was held with the objective to seek direction for the preparation of the 2023 - 2027 Financial Plan. The workshop outlined the principles that guide the work of Metro Vancouver as an organization, the current 2022 - 2026 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 2023 - 2027 Financial Plan.

Given the challenges being observed coming out of the Covid-19 pandemic, this budget represents a pause for Metro Vancouver and focuses on maintaining the existing goals and objectives of Metro Vancouver and Liquid Waste Services. Staff will undertake strategic planning with the incoming Board of Directors, re-evaluate current plans under this leadership, and assess the implications of the rapidly evolving macro environment.

Key highlights of the overall Metro Vancouver 2023 proposed budget are as follows:

- A reduction of \$22 million of the total 2023 Metro Vancouver proposed operating budget compared to that previously projected for 2023;
- Maintained or increased contribution to capital and reserves for key functions;
- Reduced capital cash flow for 2023 and 2024; and
- Real reduction of HHI, \$33 less than that previously projected for 2023.

This report focuses on the Regional Planning Service and presents the 2023 provisional annual budget and the updated five-year plan for the years 2023 to 2027 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 2023 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;
- Percentage of new dwelling units located within Urban Centres;
- Percentage of residential growth located along Transit Corridors;
- 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, and affordable housing, particularly near transit; and
- improve the integration of land use and transportation planning as TransLink just completed the update to the Regional Transportation Strategy.

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:

- A new Regional Growth Management and Investment Model to improve 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.

- A Regional Land Use Inventory to assist in providing knowledge about land use capacities for each regional land use designation. Capacities will ensure a more robust model and provide improved analytics for decision making.
- Finalize the Implementation Services group to focus on needed services including: member jurisdiction liaisons, First Nations and other regional agencies in the processing of 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.

2023 BUDGET AND 2023 - 2027 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 2023 - 2027 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 2023 - 2027 are included in Attachment 3.

Operating Budget Highlights

The Regional Planning 2023 operating budget is proposed to decrease by (\$5,340) for a total budget of \$4,616,025. The consistency in the budget between 2022 and 2023 is primarily due to the transitioning from *Metro 2050* to focusing on projects related to the implementation of *Metro 2050* and other associated research. The 2023 operating budget includes the following key actions:

- Complete *Metro 2050*
- Conduct a review of Metro 2050’s climate action policies with an aim to an early amendment
- Growth Management and Investment Model – Complete Phase II
- Conduct a Regional Land Use Assessment (Land Budget)

- Conduct Urban Centres and FTDA's Policy and Target Review
- Complete the Regional Parking Strategy
- Implement the recommended actions of the Regional Industrial Land Strategy
- Participate in policy research in health and social equity – Where Matters/Hey Neighbour
- Update the Housing + Transportation Cost Burden Study
- Regional Green Infrastructure Network Guidelines
- Complete the Sensitive Ecosystem Inventory
- Regional Food Systems Strategy Update
- Agricultural Land Use Inventory
- Support TransLink on works related to transit infrastructure investment/expansion
- Implement findings from Municipal Liaison Review
- Update and prepare new RGS implementation tools and guidelines
- Transportation Corridor Study
- Develop Immigration Model
- Finalize the regional land use model
- Prepare Census 2021 custom data requests and run demographic analyses with new Census data to support various Regional Planning reports

Over the next five years, expenditures are increasing by a total of \$556,591, or an average of 2.3% per year.

Communications Program

The 2023 Regional Planning Communications Program of \$45,000 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.
- Support for the Regional Data Book

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 2023 - 2027 Projected Reserves for Regional Planning are included in Attachment 4.

APPROVAL PROCESS

The proposed 2023 - 2027 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 2023 - 2027 Financial Plan and Annual Work Plan will be presented for consideration at the Metro Vancouver Board Budget Workshop on October 19, 2022.

- The Board will consider adoption of the 2021 Budget and endorsement of the 2023 - 2027 Financial Plan on October 28, 2022.

ALTERNATIVES

1. That the Regional Planning Committee endorse the 2023 - 2027 Financial Plan for Regional Planning as presented in the report dated September 26, 2022, titled “2023 - 2027 Financial Plan - Regional Planning”, and forward it to the Metro Vancouver Board Budget Workshop on October 19, 2022 for consideration.
2. That the Regional Planning Committee make recommendations and endorse an amended 2023 - 2027 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 19, 2022 for consideration.

FINANCIAL IMPLICATIONS

If the MVRD Board endorses the 2023 - 2027 Financial Plan for Regional Planning, as presented under Alternative 1, in 2023 the Regional Planning requisition will increase by \$208,460 (5.3%) for a total requisition of \$4,131,025, although the overall Regional Planning budget is decreasing slightly.

Over the term of the five-year plan, the annual Regional Planning requisition is projected to increase by an average of \$187,078 per year (4.4%) 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 2023 to slightly over \$4 in 2027.

Under Alternative 2, the Committee may wish to consider recommending amendments to the 2023 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 2023 Budget and Five-Year Financial Plan has been prepared following direction received at the April 14, 2022 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 2023 to 2027 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 2023 - 2027 Financial Plan and Annual Work Plan for Regional Planning as presented under Alternative one.

Attachments

1. 2023 - 2027 Financial Plan
2. 2023 Work Plan
3. 2023 - 2027 “What’s Happening”
4. 2023 - 2027 Projected Reserves – Regional Planning

55566352

METRO VANCOUVER REGIONAL DISTRICT
REGIONAL PLANNING
2023 BUDGET REVIEW
2023-2027 FINANCIAL PLAN

	2022 BUDGET	2023 BUDGET	% CHANGE	2024 FORECAST	% CHANGE	2025 FORECAST	% CHANGE	2026 FORECAST	% CHANGE	2027 FORECAST	% CHANGE
REVENUES											
Metro Vancouver Regional District Requisitions	\$ 3,922,565	\$ 4,131,025	5.3%	\$ 4,434,988	7.4%	\$ 4,735,258	6.8%	\$ 4,822,192	1.8%	\$ 4,857,956	0.7%
Transfer from Sustainability Innovation Fund Reserves	418,800	-		-		-		-		-	
Transfer from Reserves	280,000	485,000		340,000		230,000		270,000		320,000	
TOTAL REVENUES	\$ 4,621,365	\$ 4,616,025	(0.1%)	\$ 4,774,988	3.4%	\$ 4,965,258	4.0%	\$ 5,092,192	2.6%	\$ 5,177,956	1.7%
EXPENDITURES											
Operating Programs:											
Implementation Services	\$ 765,946	\$ 744,616		\$ 763,361		\$ 786,034		\$ 809,169		\$ 832,768	
Regional Land Use Policy	1,522,102	1,612,264		1,760,681		1,798,470		1,838,363		1,879,187	
Planning Analytics	798,135	1,000,622		955,061		1,087,167		1,152,280		1,176,386	
Regional Sustainability Initiatives	418,000	-		-		-		-		-	
Administration and Department Support	744,590	846,550		861,677		885,116		909,003		933,170	
	4,248,773	4,204,052	(1.1%)	4,340,780	3.3%	4,556,787	5.0%	4,708,815	3.3%	4,821,511	2.4%
Communications Program	50,000	45,000	(10.0%)	45,000	0.0%	45,000	0.0%	45,000	0.0%	45,000	0.0%
Allocation of Centralized Support Costs	322,592	366,973	13.8%	389,208	6.1%	363,471	(6.6%)	338,377	(6.9%)	311,445	(8.0%)
TOTAL EXPENDITURES	\$ 4,621,365	\$ 4,616,025	(0.1%)	\$ 4,774,988	3.4%	\$ 4,965,258	4.0%	\$ 5,092,192	2.6%	\$ 5,177,956	1.7%

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 building 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	2023 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

2023 Key Actions

Regional Land Use Policy

- Complete Metro 2050
- Conduct a review of Metro 2050's climate action policies with an aim to an early amendment
- Conduct Urban Centres and FTDA's Policy and Target Review
- Regional Industrial Lands Strategy Implementation
- Regional Land Use Assessment (Land Budget)
- Applied policy research in health and social equity
- Update the Housing and Transportation Cost Burden Study
- Regional Green Infrastructure Network Guidelines
- Support TransLink on works related to transit infrastructure investment/expansion
- Update the Agricultural Land Inventory

Implementation Services

- Climate and Environment Research
- Implement Findings from the Municipal Liaison Service Review
- Frequent Transit Development Area – Transit Corridor Study
- Preparing Regional Growth Strategy Implementation Tools and Guidelines

Planning Analytics

- Land Use Model Preparation
- Data/Projections Validation
- Immigration Model
- Census Data Custom Runs
- Regional Data Book
- Complete Community and Social Data Model

Regional Planning

2023 to 2027 – 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
2023		
Finalizing 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
Immigration Model	Develop an immigration model to better reflect current immigration patterns and their impact on growth in the region.	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 Strategy	Analyze regional parking utilization rates within different urban forms	Regional Growth
Urban Centres and FTDA Targets Update	Review and possibly update Urban Centre and FTDA policy and targets within the Regional Growth Strategy. Confirm current target achievements.	Regional Growth
Regional Green Infrastructure Guidelines	Research and prepare guidelines for the development and enhancement of the Regional Green Infrastructure Network	Regional Growth
Census Bulletins and Custom Data	Prepare bulletins outlining information/data from the most recent census and request custom data runs to assist with analyzing RGS targets.	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

2024		
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
2025		
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
2026		
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
2027		
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

5.2 ATTACHMENT 4

METRO VANCOUVER DISTRICTS 2023-2027 PROJECTED RESERVES - REGIONAL PLANNING

OPERATING RESERVES

	2022 ENDING BALANCE	2023 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2023 ENDING BALANCE	2024 ENDING BALANCE	2025 ENDING BALANCE	2026 ENDING BALANCE	2027 ENDING BALANCE
Regional Planning	\$ 883,646	\$ 883,646	\$ -	\$ -	\$ 17,673	\$ 901,319	\$ 919,345	\$ 937,732	\$ 956,486	\$ 975,616

DISCRETIONARY RESERVES

	2022 ENDING BALANCE	2023 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2023 ENDING BALANCE	2024 ENDING BALANCE	2025 ENDING BALANCE	2026 ENDING BALANCE	2027 ENDING BALANCE
Regional Planning General Reserve	\$ 2,351,883	\$ 2,351,883	\$ -	\$ (485,000)	\$ 42,188	\$ 1,909,070	\$ 1,603,852	\$ 1,403,629	\$ 1,159,001	\$ 858,981

To: Water Committee

From: Marilyn Towill, General Manager, Water Services

Date: September 27, 2022 Meeting Date: October 6, 2022

Subject: **2023 - 2027 Financial Plan – Water Services**

RECOMMENDATION

That the Water Committee endorse the 2023 - 2027 Financial Plan for Water Services as presented in the report dated September 27, 2022, titled “2023 - 2027 Financial Plan – Water Services”, and forward it to the Metro Vancouver Board Budget Workshop on October 19, 2022 for consideration.

EXECUTIVE SUMMARY

The 2023 - 2027 Metro Vancouver Financial Plan has been prepared following direction received at the April 14, 2022 Metro Vancouver Board Budget Workshop. This has resulted in a plan that maintains the goals and objectives of Metro Vancouver while removing the use of financial levers that were put in place during the COVID-19 pandemic. Further, this budget represents a pause to assess the implications of the rapidly evolving macro economic environment, impacts of water conservation efforts on growth capital project timing, and to undertake strategic planning with the incoming Board of Directors. The increase in Metro Vancouver’s overall consolidated household impact for 2023 is projected to be 4.5%, down from the 10.1% projected for 2023 in the prior financial planning cycle.

In 2023, the average water rate will increase by 2.8% to \$0.8676 per cubic metre (/m3) (2022 average water rate: \$0.8444/m3). This represents a \$2 (1.4%) increase in the cost to the average regional household to \$177, which is less than the \$183 forecasted for 2023 in the prior year budget.

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 2023 - 2027 Financial Plan for Water 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 14, 2022 a Metro Vancouver Board Budget Workshop was held with the objective to seek direction for the preparation of the 2023 - 2027 Financial Plan. The workshop outlined the principles that guide the work of Metro Vancouver as an organization, the current 2022 - 2026 Financial Plan, 51870590

the implications of the COVID-19 pandemic, the tools that can be used to make budget adjustments, and a proposed approach for the 2023 - 2027 Financial Plan.

Given the challenges being observed coming out of the COVID-19 pandemic, this budget represents a pause for Metro Vancouver and focuses on maintaining the existing goals and objectives of Metro Vancouver and Water Services. Staff will undertake strategic planning with the incoming Board of Directors, confirm current plans under this leadership, and assess the implications of the rapidly evolving macro environment and impacts of water conservation efforts on growth capital project timing.

Key highlights of the overall Metro Vancouver 2023 proposed budget are as follows:

- A reduction of \$22 million of the total 2023 Metro Vancouver proposed operating budget compared to that previously projected for 2023
- Maintained or increased contribution to capital and reserves for key functions
- Reduced capital cash flow for 2023 and 2024
- Real reduction of HHI, \$33 less than that previously projected for 2023

This report focuses on the Water Services function and presents the 2023 annual budget and the updated five-year plan for the years 2023 to 2027 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 water supply areas covering approximately 60,000 hectares. The system itself comprises six mountain storage lakes, seven dams, two major water treatment facilities, over 520 km of large diameter transmission mains, 27 storage reservoirs, 19 pump stations, and eight 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 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:

- Provide clean, safe drinking water
- Ensure the sustainable use of water resources
- 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, consultation and ongoing communication.

The region's population continues to grow and with it total water demand. Anticipated impacts of climate change will also put pressure on the regional water supply. 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 demand for drinking water. The second is ensuring adequate water supply and appropriate infrastructure are in place.

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 2023 Work Plans for Water Services are presented in this report. Within the Water Services Work Plans, 29 performance indicators have been developed and are being tracked. These include:

- Peak 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

CONTINUOUS IMPROVEMENT

Water Services continues to explore, evaluate and implement continuous improvement opportunities. The department identified numerous opportunities in 2022 and has made progress on many including:

- Continued to increase in-house Project Management and Field Quality Control/Assurance, thereby reducing reliance on external consultants and reducing costs
- Completed the 2021 Water Services State of the Assets Report which provided a current summary of the asset inventory, condition, replacement value, and forecast long-term investment needs
- Initiated moving pipe storage from the U.S. to a local space resulting in \$800,000 in cost savings (\$400,000 / year) and improved resiliency with repair materials being readily available (expected to be complete by end of 2022)
- Incorporated Lean Six Sigma methodology to standardize business practices with an initial focus on safety to reduce lost time incidents by improving the investigation and reporting process
- Completed upgrades and enhancements of the Port Mann water supply corridor to increase supply capacity from the Coquitlam water supply source and strengthen resiliency

For 2023, some opportunities for continuous improvement have been carried forward from 2022 and new ones have been added including:

- Updating the regional water transmission model to improve growth and resilience planning as well as providing short term forecasting to support daily operations and maintenance
- Developing a drinking water stress index to facilitate planning for a resilient water supply system during climate change stresses such as drought
- Continue building standard Lean processes, methods and tools to guide WS organizational development and improve business processes
- Formalizing a valve exercising and inspection program
- Optimizing Coquitlam Water Treatment Plant ozone system resulting in cumulative \$250,000/year (\$25,000 from a 2023 project) reduction in electricity and oxygen costs, and 27,000 kg CO₂e per year (10,000 kg from a 2023 project)
- Developing and implementing an ISO 14001 compliant Environmental Management System to improve environmental performance resulting in reduced environmental and regulatory risks and less reportable environmental incidents
- Completing the implementation of Building Information Modeling (BIM) Phase I, to enable greater utilization of collaborative 3D design methods and design conflicts management

2023 BUDGET AND 2023 - 2027 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 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 2023 - 2027 Water Services Financial Plan is included as Attachment 1. The 2023 Annual Work Plans for Water Services presented in this report are included in Attachment 3 and the “What’s Happening” highlights for the years 2023 - 2027 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 \$13.2 million to \$351.6 million for 2023. It is now proposed to increase by \$4.1 million in 2023 for a total budget of \$342.5 million (Attachment 1). This increase can be attributed to core operating fund increases (\$3.1 million); and increases to allocated programs (\$1.3 million). Capital and debt servicing decreases helped to offset the increases (-\$0.3 million) for the net increase of \$4.1 million.

The 2023 financial plan includes increased water sales revenues of approximately \$9.0 million, based on higher summer rates (\$1.0927/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 \$0.8676/m³ compared to 2022 forecast for 2023 of \$0.8958/m³). The differential rates are intended to incentivize conservation efforts in the region and to assist in reducing long term pressures on the Capital Budget.

The 2023 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
- Host the opening of the Watershed Learning Center, a multi-use public educational and office building, in the Lower Seymour Conservation Reserve
- 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
- Conduct a Canadian Association of Laboratory Accreditation audit required for continued operation of the Metro Vancouver laboratory

Highlights of contracts and consulting assignments anticipated to be undertaken in 2023 to respond to work plan requirements within the operating budget include the following:

- Updates to Drinking Water Management Plan and continue the Drinking Water Conservation Plan Summer Support program
- Asset condition assessments
- 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

Capital Budget Highlights

The 2023-2027 Capital Plan (Attachment 2) includes \$399.9 million for 2023 and a total of \$2.7 billion over the five years, with an average of \$539.3 million per year. There are 145 projects on the five-year plan and the largest nine projects make up 64% of the capital spending.

The capital program is funded by a combination of long-term debt, reserves, 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, maintenance of aging infrastructure and opportunities to reduce life-cycle costs for services and/or achieve Board goals such as climate change mitigation. Highlights of capital projects planned or ongoing for 2023 include the following:

- Commence construction: Coquitlam Water Main, Annacis Water Supply Tunnel, Capilano Raw Water Pump Station Back-up Power, Newton Pump Station No. 2, and Stanley Park Water Supply Tunnel

- Continue construction: Kennedy Newton Main, Fleetwood Reservoir, and Second Narrows Water Supply Tunnel

Throughout the capital planning process, staff diligently reviewed project schedules to ensure efficient project timing, deliverability and scope. This exercise was performed in preparing the Water 2023 - 2027 Capital Plan and resulted in the deferral of \$311 million in capital expenditures into future years.

Reserve Funds

The application of reserve funding in Water Services comes from the Sustainability Innovation Fund and the Laboratory Equipment reserves. In 2023, the financial plan includes \$1,490,000 in funding from the Water Sustainability Innovation Fund for several sustainability project initiatives approved by the Board being undertaken and \$96,000 from the Laboratory Equipment Reserve for equipment purchases. The 2023 - 2027 Projected Reserves for Water Services is included in Attachment 5.

APPROVAL PROCESS

The proposed 2023 - 2027 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 2023 - 2027 Financial Plan and Annual Work Plan will be presented for consideration at the Metro Vancouver Board Budget Workshop on October 19, 2022.

The Board will consider adoption of the 2023 Budget and endorsement of the 2023 - 2027 Financial Plan on October 28, 2022.

ALTERNATIVES

1. That the Water Committee endorse the 2023 - 2027 Financial Plan for Water Services as presented in the report dated September 27, 2022, titled “2023 - 2027 Financial Plan – Water Services”, and forward it to the Metro Vancouver Board Budget Workshop on October 19, 2022 for consideration; and
2. That the Water Committee make recommendations and endorse an amended 2023 - 2027 Financial Plan for Water Services and forward the amended Financial Plan to the Metro Vancouver Board Budget Workshop on October 19, 2022 for consideration.

FINANCIAL IMPLICATIONS

If the Greater Vancouver Water District Board approves the 2023 Budget and endorses the Five-Year Financial Plan for Water Services, as presented under Alternative 1, in 2023, with the increase applied 100% to the Water Rate for June to September, the projected Water Rates would be \$1.0927/m³ for June through September and remain at \$0.7119/m³ for January through May and October through December (average water rate of \$0.8676/m³ compared to 2022 forecast for 2023 of \$0.8958/m³). Revenue from the sale of water is projected to increase by \$9.0 million (2.7%) to \$338.3 million which will generate the majority of the \$342.5 million in total revenue required to offset projected expenditures. The increase in the average water rate represents a \$2 increase in the annual cost to the average regional household to \$177 which is less than the \$183 forecasted for 2023 in the prior year budget. The application of the proposed increase for 2023 to the peak water rate does not have bearing on the budget or the financial plan.

Over the term of the five-year plan, the blended water rate is projected to increase by an average of \$0.1073/m³ with water sales increasing by an average of \$43.9 million per year to provide the required revenue to offset projected expenditures. It is anticipated that the annual cost to the average regional household over the next five years will rise from \$177 in 2023 to \$270 in 2027 representing an average annual increase of \$19. Future budgets will be adjusted based on the success of conservation efforts across the region.

SUMMARY / CONCLUSION

The 2023 Budget and Five-Year Financial Plan for Water Services have been prepared following direction received at the April 14, 2022 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 2023 to 2027 for Water Services.

The presentation of the 2023 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 2023 - 2027 Financial Plan and Annual Work Plans for Water Services as presented under Alternative 1.

Attachments:

1. 2023 - 2027 Water Services Financial Plan
2. 2023 - 2027 Water Services Capital Budget Summary
3. 2023 Water Services Work Plans
4. 2023 - 2027 "What's Happening"
5. 2023 - 2027 Projected Reserves – Water Services

GREATER VANCOUVER WATER DISTRICT
WATER SERVICES
2023 BUDGET REVIEW
2023-2027 FINANCIAL PLAN

	2022 BUDGET	2023 BUDGET	% CHANGE	2024 FORECAST	% CHANGE	2025 FORECAST	% CHANGE	2026 FORECAST	% CHANGE	2027 FORECAST	% CHANGE
REVENUES											
Water Sales	\$ 329,365,517	\$ 338,337,102	2.7%	\$ 373,205,406	10.3%	\$ 425,239,222	13.9%	\$ 480,853,802	13.1%	\$ 548,965,816	14.2%
Other External Revenues	1,657,055	2,576,682		2,706,891		2,663,076		2,672,578		2,392,238	
Transfer from Sustainability Innovation Fund Reserves	3,916,070	1,490,000		725,000		75,000		-		-	
Transfer from Reserves	3,496,000	96,000		96,000		96,000		96,000		96,000	
TOTAL REVENUES	\$ 338,434,642	\$ 342,499,784	1.2%	\$ 376,733,297	10.0%	\$ 428,073,298	13.6%	\$ 483,622,380	13.0%	\$ 551,454,054	14.0%
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	588,445	514,855		537,577		561,764		587,540		615,224	
Utility Modeling and Data Analytics	2,101,727	2,083,847		2,693,060		2,863,999		2,829,698		2,918,821	
Utility Policy and Planning	3,154,654	3,070,575		2,558,490		1,698,999		1,625,097		1,657,206	
	6,567,826	6,392,277	(2.7%)	6,512,127	1.9%	5,847,762	(10.2%)	5,765,335	(1.4%)	5,914,251	2.6%
Engineering and Construction											
Minor Capital Projects	9,416,652	9,992,975		10,342,345		10,623,538		10,900,666		11,229,806	
Infrastructure Operations Support	2,025,714	2,304,108		2,815,558		2,873,052		3,046,133		3,260,934	
Dispatch	131,424	133,312		137,874		141,816		145,600		149,488	
	11,573,790	12,430,395	7.4%	13,295,777	7.0%	13,638,406	2.6%	14,092,399	3.3%	14,640,228	3.9%
Shared and Support Services											
Engineers in Training	434,233	377,784		388,896		399,333		410,023		421,005	
Business & Shared Services Support	732,088	1,520,112		1,700,026		1,749,675		1,961,787		2,015,721	
Shared & Utility Services	1,026,571	183,271		188,878		194,071		199,335		204,743	
Minor Capital Projects	1,016,387	885,627		916,590		941,511		966,071		995,241	
Records Management	111,408	112,920		116,566		119,855		123,128		126,489	
	3,320,687	3,079,714	(7.3%)	3,310,956	7.5%	3,404,445	2.8%	3,660,344	7.5%	3,763,199	2.8%
Watershed and Environmental Management											
Watershed and Environmental Management	13,135,271	13,323,399		13,577,381		13,835,132		14,331,110		14,921,712	
	13,135,271	13,323,399	1.4%	13,577,381	1.9%	13,835,132	1.9%	14,331,110	3.6%	14,921,712	4.1%
Operations and Maintenance											
Drinking Water Residuals	1,108,925	1,260,654		1,331,660		1,356,109		1,399,487		1,444,494	
Lake City Operations	966,185	1,027,080		1,112,994		1,195,418		1,228,508		1,333,682	
Maintenance	9,263,780	9,372,262		10,227,768		10,633,552		11,244,100		11,883,489	
SCADA Control Systems	5,873,474	6,075,523		6,460,171		6,622,264		6,967,950		7,440,712	
Secondary Disinfection	1,225,831	1,251,732		1,332,709		1,413,696		1,499,626		1,546,793	
Seymour Capilano Filtration Plant	9,895,748	10,713,657		11,266,433		11,707,881		12,285,173		12,757,625	
Coquitlam Water Treatment Plant	6,973,765	7,070,138		7,526,625		8,043,870		8,591,485		9,043,026	
Energy Management	210,569	138,594		180,065		186,023		192,140		198,429	
Utility Voice Radio	122,467	103,802		111,026		114,013		116,486		122,382	
Water Supply	21,171,403	21,394,770		22,508,375		23,389,569		24,330,926		25,139,860	
	56,812,147	58,408,212	2.8%	62,057,826	6.2%	64,662,395	4.2%	67,855,881	4.9%	70,910,492	4.5%
Interagency Projects and Quality Control											
Drinking Water Quality Control	2,964,943	3,150,929		3,105,215		3,273,173		3,452,949		3,521,060	
Interagency Projects	562,330	581,688		796,542		816,372		853,997		874,905	
	3,527,273	3,732,617	5.8%	3,901,757	4.5%	4,089,545	4.8%	4,306,946	5.3%	4,395,965	2.1%
Administration and Department Support	2,126,039	2,701,727	27.1%	2,787,276	3.2%	2,865,045	2.8%	2,942,787	2.7%	3,022,649	2.7%
Communications Program	448,360	508,879	13.5%	524,146	3.0%	539,871	3.0%	556,066	3.0%	572,748	3.0%
Allocation of Centralized Support Costs	29,040,339	30,462,293	4.9%	30,923,491	1.5%	31,102,718	0.6%	31,738,492	2.0%	32,264,526	1.7%
Total Operating Programs	126,551,732	131,039,513	3.5%	136,890,737	4.5%	139,985,319	2.3%	145,249,360	3.8%	150,405,770	3.6%
Allocation of Project Delivery Cost	3,939,069	3,810,519	(3.3%)	4,143,816	8.7%	4,381,476	5.7%	4,525,808	3.3%	4,571,565	1.0%
Debt Service	84,174,697	83,880,609	(0.3%)	95,255,172	13.6%	119,859,145	25.8%	141,754,796	18.3%	172,060,238	21.4%
Contribution to Capital	123,769,144	123,769,143	0.0%	140,443,572	13.5%	163,847,358	16.7%	192,092,416	17.2%	224,416,481	16.8%
TOTAL EXPENDITURES	\$ 338,434,642	\$ 342,499,784	1.2%	\$ 376,733,297	10.0%	\$ 428,073,298	13.6%	\$ 483,622,380	13.0%	\$ 551,454,054	14.0%
Blended Water Rate (\$/m3)	\$ 0.8444	\$ 0.8676	2.8%	\$ 0.9456	9.0%	\$ 1.0764	13.8%	\$ 1.2140	12.8%	\$ 1.3811	13.8%

**GREATER VANCOUVER WATER DISTRICT
CAPITAL PORTFOLIO
WATER SERVICES
2023 CAPITAL BUDGET AND 2023-2027 CAPITAL PLAN**

	CAPITAL BUDGET FOR APPROVAL	2023 CAPITAL CASH FLOW	2024 CAPITAL CASH FLOW	2025 CAPITAL CASH FLOW	2026 CAPITAL CASH FLOW	2027 CAPITAL CASH FLOW	2023 TO 2027 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	1,200,000	150,000	50,000	-	-	-	200,000	Construction	Maintenance
Annacis Main No. 2 and Barnston Island Main Online Chlorine and pH Analyzers	750,000	500,000	-	-	-	-	500,000	Construction	Upgrade
Annacis Main No. 3 Annieville Channel Crossing Scour Protection	850,000	400,000	-	-	-	-	400,000	Construction	Maintenance
Annacis Main No. 3 BHP Potash Facility Pipe Protection	600,000	200,000	200,000	200,000	-	-	600,000	Construction	Maintenance
Annacis Main No. 5 (North)	69,100,000	600,000	16,750,000	15,750,000	10,000,000	4,900,000	48,000,000	Construction	Growth
Annacis Main No. 5 (South)	12,350,000	300,000	-	1,000,000	14,000,000	14,000,000	29,300,000	Construction	Growth
Annacis Water Supply Tunnel*	482,100,000	74,600,000	80,000,000	65,000,000	50,000,000	51,000,000	320,600,000	Construction	Growth
Boundary Road Main No. 2 & No. 3 Decommissioning	1,250,000	50,000	-	-	-	-	50,000	Construction	Maintenance
Burnaby Mountain Main No. 2	600,000	300,000	600,000	600,000	2,600,000	5,000,000	9,100,000	Design	Maintenance
Cambie-Richmond Water Supply Tunnel*	62,800,000	5,500,000	5,500,000	10,000,000	13,000,000	16,500,000	50,500,000	Design	Resilience
Central Park Main No. 2 (10th Ave to Westburnco)	4,750,000	1,460,000	3,300,000	11,000,000	6,000,000	5,600,000	27,360,000	Construction	Maintenance
Central Park Main No. 2 (Patterson to 10th Ave)	109,100,000	7,100,000	15,500,000	14,000,000	10,000,000	4,000,000	50,600,000	Construction	Maintenance
Clayton Langley Main No. 2	1,900,000	600,000	700,000	200,000	3,000,000	9,000,000	13,500,000	Design	Resilience
Coquitlam Water Main*	293,700,000	64,000,000	116,700,000	134,000,000	159,000,000	156,000,000	629,700,000	Multiple	Growth
Douglas Road Main No. 2 (Flow Meter 169) Replacement	2,000,000	750,000	750,000	-	-	-	1,500,000	Construction	Maintenance
Douglas Road Main No. 2 (Vancouver Heights Section)	21,450,000	600,000	700,000	-	-	-	1,300,000	Construction	Maintenance
Douglas Road Main No. 2 Still Creek	60,000,000	10,250,000	8,000,000	5,000,000	9,400,000	-	32,650,000	Construction	Maintenance
Douglas Road Main Protection	1,500,000	790,000	510,000	150,000	-	-	1,450,000	Construction	Maintenance
Haney Main No. 4 (West Section)	1,900,000	900,000	1,650,000	1,200,000	7,550,000	16,850,000	28,150,000	Multiple	Growth
Haney Water Supply Tunnel*	25,250,000	2,000,000	2,500,000	6,000,000	16,000,000	27,500,000	54,000,000	DEFINITION	Resilience
Improvements to Capilano Mains No. 4 and 5	1,700,000	750,000	750,000	-	-	-	1,500,000	Construction	Maintenance
Kennedy Newton Main	140,450,000	19,300,000	21,000,000	10,000,000	10,000,000	9,500,000	69,800,000	Construction	Growth
Lulu Island - Delta Main - Scour Protection Phase 2	3,550,000	10,000	10,000	2,600,000	890,000	20,000	3,530,000	Construction	Maintenance
Lulu-Delta Water Supply Tunnel*	5,000,000	500,000	1,500,000	5,000,000	5,500,000	54,500,000	67,000,000	DEFINITION	Maintenance
Lynn Valley Road Main, Seymour Main No. 3 & Seymour Main No. 4 Aerial Crossings Rehab	4,200,000	1,930,000	2,270,000	-	-	-	4,200,000	Construction	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	850,000	450,000	1,100,000	2,500,000	5,000,000	6,000,000	15,050,000	Design	Growth
Palisade Outlet Works Rehabilitation	400,000	400,000	800,000	5,000,000	3,000,000	2,000,000	11,200,000	Design	Maintenance
Port Mann Main No. 2 (South)	33,600,000	550,000	-	-	-	-	550,000	Multiple	Growth
Port Mann No. 1 South Section Decommissioning	850,000	750,000	-	-	-	-	750,000	Construction	Maintenance
Port Moody Main No. 1 Christmas Way Relocation	2,350,000	450,000	-	-	-	-	450,000	Construction	Maintenance
Port Moody Main No. 3 Dewdney Trunk Rd Relocation	2,700,000	50,000	-	-	-	-	50,000	Construction	Maintenance
Port Moody Main No. 3 Scott Creek Section	2,450,000	800,000	3,400,000	12,000,000	12,500,000	-	28,700,000	Design	Maintenance
Queensborough Main Royal Avenue Relocation	7,500,000	2,200,000	2,200,000	750,000	-	-	5,150,000	Construction	Maintenance
Rehabilitation of AN2 on Queensborough Bridge	3,850,000	850,000	470,000	-	-	-	1,320,000	Construction	Maintenance
Relocation and Protection for MOTI Expansion Project Broadway	8,900,000	1,600,000	580,000	575,000	575,000	-	3,330,000	Construction	Maintenance
Relocation and Protection for MOTI George Massey Crossing Replacement	450,000	25,000	-	-	700,000	700,000	1,425,000	Design	Maintenance
Relocation and Protection for Translink Expansion Project Surrey Langley SkyTrain	600,000	50,000	2,025,000	2,525,000	525,000	525,000	5,650,000	Design	Maintenance
Sapperton Main No. 1 New Line Valve and Chamber	3,850,000	500,000	1,000,000	-	-	-	1,500,000	Construction	Upgrade
Sapperton Main No. 2 North Road Relocation and Protection	6,500,000	2,650,000	-	-	-	-	2,650,000	Construction	Maintenance
Scour Protection Assessments and Construction General	4,000,000	800,000	150,000	1,000,000	-	650,000	2,600,000	Construction	Resilience
Second Narrows Crossing 1 & 2 (Burrard Inlet Crossing Removal)*	2,000,000	750,000	1,000,000	1,200,000	12,000,000	12,000,000	26,950,000	Design	Maintenance
Second Narrows Water Supply Tunnel*	468,550,000	40,000,000	30,000,000	20,000,000	45,000,000	600,000	135,600,000	Construction	Resilience
Seymour Main No. 2 Joint Improvements	3,300,000	1,000,000	750,000	1,000,000	1,000,000	-	3,750,000	Construction	Resilience

**GREATER VANCOUVER WATER DISTRICT
CAPITAL PORTFOLIO
WATER SERVICES
2023 CAPITAL BUDGET AND 2023-2027 CAPITAL PLAN**

	CAPITAL BUDGET FOR APPROVAL	2023 CAPITAL CASH FLOW	2024 CAPITAL CASH FLOW	2025 CAPITAL CASH FLOW	2026 CAPITAL CASH FLOW	2027 CAPITAL CASH FLOW	2023 TO 2027 TOTAL CAPITAL CASH FLOW	ACTIVE PHASE	PRIMARY DRIVER
Seymour Main No. 5 III (North)	7,900,000	500,000	-	-	100,000	500,000	1,100,000	Design	Resilience
South Delta Main No. 1 - Ferry Road Check Valve Replacement	600,000	100,000	-	-	-	-	100,000	Construction	Maintenance
South Surrey Main No. 1 Nickomekl Dam Relocation	7,100,000	400,000	3,600,000	2,100,000	1,000,000	-	7,100,000	Construction	Maintenance
South Surrey Main No. 2	2,000,000	800,000	900,000	2,000,000	5,000,000	6,900,000	15,600,000	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	250,000	-	-	-	-	250,000	Construction	Maintenance
Stanley Park Water Supply Tunnel*	340,000,000	7,400,000	33,000,000	42,000,000	55,000,000	50,000,000	187,400,000	Construction	Maintenance
Tilbury Junction Chamber Valves Replacement with Actuators	5,600,000	200,000	-	-	-	-	200,000	Construction	Upgrade
Tilbury Main North Fraser Way Valve Addition	3,100,000	1,000,000	1,500,000	-	-	-	2,500,000	Construction	Maintenance
Water Chamber Improvements and Repairs	2,000,000	205,000	205,000	200,000	-	-	610,000	Construction	Maintenance
Water Meter Upgrades	22,400,000	2,450,000	2,500,000	2,500,000	2,500,000	2,400,000	12,350,000	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	600,000	2,150,000	2,500,000	2,500,000	2,500,000	10,250,000	Design	Upgrade
Water Optimization Automation & Instrumentation	9,550,000	900,000	-	-	-	-	900,000	Construction	Upgrade
Whalley Kennedy Main No. 2	2,900,000	300,000	1,300,000	2,000,000	2,000,000	2,000,000	7,600,000	Design	Growth
Whalley Main	31,800,000	50,000	-	-	-	-	50,000	Construction	Growth
Total Water Mains	\$ 2,337,750,000	\$ 263,870,000	\$ 373,070,000	\$ 386,100,000	\$ 470,340,000	\$ 468,145,000	\$ 1,961,525,000		
Pump Stations									
Barnston/Maple Ridge Pump Station - Back-up Power	14,000,000	8,100,000	-	-	500,000	2,100,000	10,700,000	Construction	Resilience
Burnaby Mountain Pump Station No. 2	1,300,000	100,000	900,000	1,000,000	700,000	9,000,000	11,700,000	Design	Maintenance
Cape Horn Pump Station No. 3	29,050,000	1,600,000	4,500,000	5,100,000	5,000,000	17,000,000	33,200,000	Design	Growth
Capilano Raw Water Pump Station - Back-up Power	55,000,000	18,000,000	16,050,000	2,000,000	-	-	36,050,000	Construction	Resilience
Capilano Raw Water Pump Station Bypass PRV Upgrades	3,200,000	1,600,000	700,000	-	-	-	2,300,000	Construction	Maintenance
Central Park WPS Starters Replacement	11,000,000	2,550,000	5,400,000	1,000,000	-	-	8,950,000	Construction	Maintenance
Grandview Pump Station Improvements	3,500,000	1,550,000	500,000	-	-	-	2,050,000	Construction	Resilience
Newton Pump Station No. 2	72,550,000	11,100,000	21,000,000	12,400,000	2,000,000	3,000,000	49,500,000	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	24,500,000	250,000	1,500,000	7,050,000	6,500,000	4,800,000	20,100,000	Construction	Resilience
Westburnco Pump Station No. 2 VFD Replacements	2,550,000	700,000	-	-	-	-	700,000	Construction	Maintenance
Total Pump Stations	\$ 216,650,000	\$ 45,550,000	\$ 50,700,000	\$ 29,200,000	\$ 15,700,000	\$ 35,900,000	\$ 177,050,000		
Reservoirs									
Burnaby Mountain Tank No. 2	3,350,000	450,000	950,000	1,200,000	500,000	7,000,000	10,100,000	Design	Resilience
Burnaby Mountain Tank No. 3	3,400,000	650,000	1,200,000	1,200,000	450,000	7,000,000	10,500,000	Design	Resilience
Cape Horn Reservoir Condition Assessment and Structural Repair	500,000	150,000	250,000	1,300,000	-	-	1,700,000	Design	Maintenance
Capilano Energy Recovery Facility 66" PRV Replacement	-	-	1,450,000	50,000	3,500,000	2,000,000	7,000,000	Not Started	Maintenance
Capilano Energy Recovery Facility Operational Upgrades	1,800,000	300,000	750,000	450,000	300,000	-	1,800,000	Construction	Maintenance
Central Park Reservoir Structural Improvements	-	-	100,000	200,000	1,300,000	500,000	2,100,000	Not Started	Maintenance
Clayton Reservoir	25,750,000	50,000	-	-	-	-	50,000	Construction	Resilience
Dechlorination for Reservoir Overflow and Underdrain Discharges	2,700,000	1,700,000	300,000	-	-	-	2,000,000	Construction	Maintenance
Fleetwood Reservoir	56,550,000	17,000,000	13,000,000	9,650,000	-	-	39,650,000	Construction	Growth
Grandview Reservoir Unit No. 2	-	-	400,000	800,000	1,400,000	1,000,000	3,600,000	Not Started	Growth
Hellings Tank No. 2	43,900,000	9,000,000	11,500,000	9,000,000	7,650,000	-	37,150,000	Construction	Growth
Kersland Reservoir No. 1 Structural Improvements	5,500,000	500,000	-	-	-	-	500,000	Construction	Maintenance
Pebble Hill Reservoir No. 3 Seismic Upgrade	500,000	50,000	-	-	-	5,000,000	5,050,000	Design	Resilience
Pebble Hill Reservoir Seismic Upgrade	12,350,000	2,600,000	2,600,000	-	-	-	5,200,000	Construction	Resilience

**GREATER VANCOUVER WATER DISTRICT
CAPITAL PORTFOLIO
WATER SERVICES
2023 CAPITAL BUDGET AND 2023-2027 CAPITAL PLAN**

	CAPITAL BUDGET FOR APPROVAL	2023 CAPITAL CASH FLOW	2024 CAPITAL CASH FLOW	2025 CAPITAL CASH FLOW	2026 CAPITAL CASH FLOW	2027 CAPITAL CASH FLOW	2023 TO 2027 TOTAL CAPITAL CASH FLOW	ACTIVE PHASE	PRIMARY DRIVER
Reservoir Isolation Valve Automation	6,450,000	1,050,000	1,500,000	1,250,000	1,150,000	-	4,950,000	Construction	Resilience
Reservoir Sampling Kiosks - Multi Location	500,000	350,000	650,000	300,000	-	-	1,300,000	Design	Upgrade
Reservoir Structural Preliminary Assessments	3,200,000	500,000	1,200,000	1,500,000	-	-	3,200,000	Definition	Maintenance
Sasamat Reservoir Refurbishment	400,000	150,000	650,000	700,000	-	-	1,500,000	Design	Maintenance
Sunnyside Reservoir Units 1 and 2 Seismic Upgrade	8,000,000	100,000	2,000,000	7,200,000	1,000,000	-	10,300,000	Construction	Resilience
Vancouver Heights System Resiliency Improvements	2,500,000	700,000	1,000,000	500,000	-	-	2,200,000	Construction	Resilience
Total Reservoirs	\$ 177,350,000	\$ 35,300,000	\$ 39,500,000	\$ 35,300,000	\$ 17,250,000	\$ 22,500,000	\$ 149,850,000		
Treatment Plants									
Coquitlam Intake Tower Seismic Upgrade	2,500,000	250,000	250,000	5,000,000	14,000,000	5,000,000	24,500,000	Design	Resilience
Coquitlam Lake Water Supply*	160,750,000	15,000,000	16,000,000	30,000,000	50,000,000	108,000,000	219,000,000	Multiple	Growth
Critical Control Sites - Back-Up Power	-	-	200,000	300,000	400,000	500,000	1,400,000	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	400,000	1,350,000	1,000,000	-	-	2,750,000	Design	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	7,500,000	2,050,000	50,000	-	-	-	2,100,000	Construction	Upgrade
CWTP Ozone Sidestream Pipe Heat Trace and Insulation	900,000	50,000	-	-	-	-	50,000	Construction	Maintenance
CWTP Ozone Sidestream Pump VFD Replacement	1,400,000	490,000	300,000	-	-	-	790,000	Construction	Maintenance
CWTP Temporary Water Supply	2,000,000	1,300,000	250,000	-	-	-	1,550,000	Construction	Maintenance
Online Chlorine and pH Analyzers	2,500,000	400,000	1,400,000	1,200,000	1,500,000	1,500,000	6,000,000	Multiple	Upgrade
SCFP Additional Pre-Treatment	-	-	-	-	1,000,000	7,300,000	8,300,000	Not Started	Upgrade
SCFP Centralized Compressed Air System	1,900,000	1,225,000	250,000	-	-	-	1,475,000	Construction	Maintenance
SCFP Clearwell Baffle Replacement	600,000	250,000	1,350,000	500,000	-	1,000,000	3,100,000	Multiple	Maintenance
SCFP Clearwell Membrane Replacement	600,000	200,000	600,000	800,000	5,700,000	5,500,000	12,800,000	Design	Maintenance
SCFP Flocc Tank Baffle Replacement and Ladder Installation to Improve Accessibility	800,000	700,000	100,000	6,000,000	2,000,000	1,000,000	9,800,000	Design	Maintenance
SCFP OMC Building Expansion	800,000	300,000	250,000	1,550,000	500,000	-	2,600,000	Design	Maintenance
SCFP Polymer System Upgrade	4,650,000	700,000	-	-	-	-	700,000	Construction	Maintenance
SCFP SCADA/ICS Controller Replacement	1,400,000	700,000	700,000	-	-	-	1,400,000	Design	Maintenance
Total Treatment Plants	\$ 189,050,000	\$ 24,015,000	\$ 24,050,000	\$ 49,550,000	\$ 80,600,000	\$ 131,300,000	\$ 309,515,000		
Others									
Beach Yard Facility - Site Redevelopment	-	-	-	500,000	1,000,000	1,500,000	3,000,000	Not Started	Maintenance
Capilano Hydropower	4,250,000	-	-	-	1,750,000	2,000,000	3,750,000	Design	Opportunity
Capilano Mid-Lake Debris Boom	750,000	50,000	-	-	-	-	50,000	Construction	Resilience
Capilano Raw Water Pump Station VFD Upgrades	1,800,000	1,800,000	500,000	-	-	-	2,300,000	Construction	Maintenance
Capilano Reservoir and Seymour Reservoir Dam Safety Boom Replacement	3,700,000	3,050,000	500,000	-	-	-	3,550,000	Construction	Maintenance
Capilano Reservoir Boat Wharf	850,000	100,000	-	-	-	-	100,000	Construction	Resilience
Capilano Watershed Bridge Replacements - Crown Creek and Capilano River	-	-	-	-	95,000	200,000	295,000	Not Started	Maintenance
Capilano Watershed Security Gatehouse	4,700,000	2,950,000	400,000	-	-	-	3,350,000	Construction	Maintenance
CLD & SFD Fasteners Replacement & Coating Repairs	2,350,000	350,000	-	-	-	-	350,000	Construction	Maintenance
Cleveland Dam - Lower Outlet HBV Rehabilitation	4,900,000	200,000	1,000,000	-	-	-	1,200,000	Construction	Maintenance
Cleveland Dam Drumgate Seal Replacement	300,000	-	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	1,000,000	Not Started	Maintenance
Cleveland Dam Power Resiliency Improvements	1,700,000	1,300,000	250,000	-	-	-	1,550,000	Construction	Resilience
Cleveland Dam Public Warning System and Enhancements	10,000,000	2,000,000	2,000,000	3,000,000	-	-	7,000,000	Construction	Maintenance
Cleveland Dam Seismic Stability Evaluation	800,000	400,000	-	-	-	-	400,000	Design	Resilience
Cleveland Dam Spillway Resurfacing	-	-	-	-	400,000	1,000,000	1,400,000	Not Started	Maintenance

**GREATER VANCOUVER WATER DISTRICT
CAPITAL PORTFOLIO
WATER SERVICES
2023 CAPITAL BUDGET AND 2023-2027 CAPITAL PLAN**

	CAPITAL BUDGET FOR APPROVAL	2023 CAPITAL CASH FLOW	2024 CAPITAL CASH FLOW	2025 CAPITAL CASH FLOW	2026 CAPITAL CASH FLOW	2027 CAPITAL CASH FLOW	2023 TO 2027 TOTAL CAPITAL CASH FLOW	ACTIVE PHASE	PRIMARY DRIVER
Facilities O&M Documentation Development	2,000,000	500,000	1,000,000	500,000	-	-	2,000,000	Design	Resilience
Lake City HVAC Upgrade	900,000	900,000	200,000	-	-	-	1,100,000	Construction	Resilience
Lower Seymour Conservation Reserve Learning Lodge Replacement	5,050,000	50,000	-	-	-	-	50,000	Construction	Upgrade
Microbiology Laboratory Expansion	-	-	150,000	200,000	1,400,000	3,000,000	4,750,000	Not Started	Maintenance
Newton Rechlorination Station No. 2	-	-	400,000	900,000	1,900,000	1,500,000	4,700,000	Not Started	Maintenance
Pitt River Rechlorination Station Reconstruction	-	-	-	500,000	1,000,000	1,500,000	3,000,000	Not Started	Maintenance
Rechlorination Station SHS Storage Tank Replacement	1,200,000	250,000	-	-	-	-	250,000	Construction	Maintenance
Rechlorination Station Upgrades	5,000,000	2,050,000	1,500,000	1,000,000	6,000,000	6,000,000	16,550,000	Design	Maintenance
Rice Lake Dams Rehabilitation	3,000,000	600,000	1,200,000	600,000	600,000	-	3,000,000	Construction	Maintenance
Scour Protection - General	2,000,000	100,000	-	-	-	-	100,000	Construction	Maintenance
Seymour Falls Boat Wharf	800,000	50,000	-	-	-	-	50,000	Construction	Resilience
Seymour Falls Dam Public Warning System	10,000,000	500,000	2,500,000	4,000,000	3,000,000	-	10,000,000	Construction	Maintenance
Seymour Falls Dam Seismic Stability Assessment	1,800,000	800,000	1,000,000	1,000,000	1,000,000	2,500,000	6,300,000	Definition	Resilience
Seymour Lake Debris Boom	800,000	50,000	-	-	-	-	50,000	Construction	Resilience
Seymour Reservoir Mid-Lake Debris Boom	2,300,000	100,000	-	-	-	-	100,000	Construction	Resilience
South Fraser Works Yard	71,000,000	13,000,000	2,500,000	500,000	-	-	16,000,000	Design	Maintenance
Total Others	\$ 142,700,000	\$ 31,200,000	\$ 15,600,000	\$ 13,200,000	\$ 18,645,000	\$ 19,700,000	\$ 98,345,000		
TOTAL CAPITAL EXPENDITURES	\$ 3,063,500,000	\$ 399,935,000	\$ 502,920,000	\$ 513,350,000	\$ 602,535,000	\$ 677,545,000	\$ 2,696,285,000		

CAPITAL FUNDING

New External Borrowing	\$ 1,697,307,000	\$ 262,605,000	\$ 290,360,000	\$ 255,840,000	\$ 321,645,000	\$ 363,405,000	\$ 1,493,855,000
DCCs	346,812,000	-	60,030,000	81,870,000	80,840,000	82,500,000	305,240,000
Contribution to Capital	959,594,000	123,770,000	140,440,000	163,850,000	192,090,000	224,420,000	844,570,000
Reserve	28,405,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	25,000,000
External Funding - Interagency	31,382,000	8,560,000	7,090,000	6,790,000	2,960,000	2,220,000	27,620,000
Total	\$ 3,063,500,000	\$ 399,935,000	\$ 502,920,000	\$ 513,350,000	\$ 602,535,000	\$ 677,545,000	\$ 2,696,285,000

SUMMARY BY DRIVER

Growth	\$ 1,466,250,000	\$ 216,100,000	\$ 306,800,000	\$ 300,900,000	\$ 328,600,000	\$ 396,150,000	\$ 1,548,550,000
Maintenance	781,100,000	86,685,000	113,570,000	134,700,000	151,085,000	168,545,000	654,585,000
Resilience	748,200,000	88,450,000	70,450,000	67,500,000	108,600,000	90,150,000	425,150,000
Upgrade	63,700,000	8,700,000	12,100,000	10,250,000	12,500,000	20,700,000	64,250,000
Opportunity	4,250,000	-	-	-	1,750,000	2,000,000	3,750,000
Total	\$ 3,063,500,000	\$ 399,935,000	\$ 502,920,000	\$ 513,350,000	\$ 602,535,000	\$ 677,545,000	\$ 2,696,285,000

* Project is part of Metro Vancouver's formal stage gate framework. Detailed project report will be brought forward as part of the stage gate review process.

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; development and implementation of the Drinking Water Management Plan (DWMP); leads regional water conservation efforts through the Drinking Water Conservation Plan (DWCP); implementation of key components of the Joint Water Use Plan (JWUP) for the Capilano and Seymour Watersheds; supports the water metering network; ensures 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

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.
- Encourage innovation in the delivery of Metro Vancouver services that will contribute to the region's resilience and prosperity through clean technology and circular economy solutions.

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	2023 Performance Objective
Peak day per capita water use (litres/c/day)	MV 5-year average (2017 - 2021): 642 2017: 621 2018: 667 2019: 577 2020: 602 2021: 664	2022 Objective: 583	592*
Average day per capita water use (litres/c/day)	MV 5-year average (2017-2021): 420 2017: 440 2018: 434 2019: 424 2020: 403 2021: 399	2022 Objective: 402	374**

* Based on a 5-year trend (2016 – 2020). The heat dome in 2021 resulted in a much higher peak day demand and significantly increased the peak day performance objective. If the 2021 data was not included the 5-year average would be 626 (not 642) Liters/c/day. Although such heat domes are considered to be rare events, they are expected to occur more frequently due to climate change.

** Based on a 5-year trend (2017 – 2021)

2023 Key Actions

Utility Planning and Policy

- Complete a feasibility study to optimize energy use in the transmission system.
- Review potential forever chemicals in WTP waste products and recommend handling process to reduce the potential for their release into the environment.
- Continue analysis on regional equity and affordability of drinking water.
- Continue to collaborate with GVWD members to implement the new Region-wide Guide for Enforcement of Metro Vancouver's *Drinking Water Conservation Plan*.
- Continue development of an updated *Drinking Water Management Plan* through engagement processes.
- 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.
- Complete project on the potential presence of micro plastics in Metro Vancouver watersheds
- Continue to develop water conservation methods to potentially defer growth related projects.
- Continue the development Drinking Water Stress Index.
- In partnership with Liquid Waste, develop the Climate 2050 Infrastructure Roadmap.

Water System Modelling and Data Analytics

- Develop the new Regional Water Transmission Hydraulic Model as the foundation of the Corporation's smart water system (Digital Twin).
- Develop hydrological models for the Capilano and Seymour watersheds.
- Develop a new Peak Day Demand Methodology for the water transmission system design.
- Continue to provide system planning and analysis support to O&M, E&C, and PDE projects.
- Continue the Capital Water Meter Upgrades Program.
- Continue the water demand forecasting process for Finance and rate updates.

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 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	2023 Performance Objective
Percent of GVWD Capital Program Expenditures Achieved:	3 yr average (2019 – 2021): 73% 2019: 105% 2020: 63% 2021: 50%	(as of August 2022) YTD: 42% Objective: 85%	85%

Indicator	Historical and/or Industry Benchmark	Current Performance	2023 Performance Objective
Percent of Minor Capital Program Expenditures Achieved:	3 yr average (2019 – 2021): 90% 2019: 116% 2020: 57% 2021: 98%	(as of August 2022) YTD: 57% Objective: 95%	95%
Percent of project complete:		(as of August 2022)	
Kennedy Newton Main (Phase 3) – Construction	n/a	0%	30%
Annacis Main No. 5 (North) – Design	n/a	40%	100%
Capilano Raw Water Pump Station Backup Power – Construction	n/a	15%	55%
Fleetwood Reservoir plus Feeder Main – Construction	n/a	15%	60%
Pebble Hill Reservoir Seismic upgrade Units 1 & 2 - Construction	n/a	50%	100%
Central Park Main No. 2 (Phase 2) – Construction	n/a	0%	30%
Douglas Road Main No. 2 (Still Creek Section) – Construction	n/a	50%	95%
Cape Horn Pump Station No. 3 – Design	n/a	30%	60%

2023 Key Actions

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

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, 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

S&SS supports the KPIs identified in O&M and E&C Work Plans.

Indicator	Historical and/or Industry Benchmark	Current Performance (as of Aug 2022)	2023 Performance Objective
Continuous improvement savings (\$/yr)	2021: \$15,000	\$0	\$100,000
Continuous improvement safety – time loss incidents	2021: 8	4	0
Continuous improvement safety - injuries	2021: 34	9	0
Number of operational (level 1) condition assessments completed	2021: 14*	32	150+
Number of expert (level 2) condition assessments completed	2021: 15	4	14

*Note: other condition assessments were completed but not formally tracked. The significant increase in 2023 is partially due to improve records.

2023 Key Actions

- Continue to build Lean processes and tools based on DMAIC principles (Define- Measure-Analyze-Improve-Control) in order to guide WS organizational development.
- Introduce Lean methods to business planning and budgeting process.
- Continue to reduce lost time incidents by improving the investigation and reporting process.
- Improve knowledge of WS asset condition to enable improved data-driven decision making and sustain our service level targets. Example initiatives:
 - Strengthen field staff condition assessment program by standardizing practices.
 - Expand the water main condition assessment program using new technology to assess infrastructure that is difficult to access.
 - Implement a formalized valve inspection and exercising program.
- Complete the implementation of Building Information Modeling (BIM) Phase I, enabling greater utility of collaborative 3D design and design conflicts management. Prepare next phase of the multi-year program, based on approved action plan arising at the end of Phase I.
 - Develop and implement KPI and associated targets with WS, LWS and PDE for tracking reduced design and or change orders costs (capital projects), as a result of implementing 3D design reviews process/tools.
- 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.

REGIONAL GLOBAL POSITIONING SYSTEM

Description of Services

Regional Global Positioning System is a Metro Vancouver Regional District function established to provide an accurate and consistent engineering survey standard in the Metro Vancouver region. Through a High Precision Network (HPN) of approximately 350 survey control monuments, five (5) Active Control Points (ACPs), and a real-time broadcast service of Global Navigation Satellite Systems (GNSS) data, local government and private users (the latter for a fee) are able to efficiently locate and layout various infrastructure and related works, such as water and sewer lines, reservoirs, roadways, trails, rights-of-way, bathymetric surveys, and topography. By pooling resources, local governments are able to reduce their individual costs for maintaining a high-accuracy geospatial reference system while also ensuring consistent survey standards are maintained in the region.

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.
- Continue to engage with members on processes and initiatives that contribute to an effective and well-functioning organization.
- Enhance relationships between Metro Vancouver and other orders of government, First Nations, adjacent regional districts and key stakeholders.

Performance Indicators

Indicator	Historical and/or Industry Benchmark	Current Performance (2022)	2023 Performance Objective
Percent of service uptime (business hours, 8am – 4pm, M-F): <ul style="list-style-type: none"> Real-time service to mobile surveyors 	MV 3-year average (2019-2021): 99% 2019 99% 2020 99% 2021 99%	99%	99%
Percent of service uptime (24 x 7, 365 days / year): Post-mission data availability through Provincial portal	MV 3-year average (2018-2020): 99% 2019 99% 2020 99% 2021 99%	99%	99%

2023 Key Actions

- With local government partners, continue the development implementation of the action plan for the long term (10-15 years) maintenance and enhancement of the High Precision Network (HPN) of control monuments and the Active Control Point (ACP) system, in accordance with the 2019-2023 GPS Program Strategic Plan.
- With local government partners, look for opportunities for further innovation and continuous improvement to enhance the utility of the HPN and ACPs for geo-spatial referencing applications.

Water Services

Watersheds & Environment

Description of Services

Water Services provides safe drinking water to the Metro Vancouver region through the Greater Vancouver Water District. The Watersheds & 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	2023 Performance Objective
Annual participants in water education tours and K-12 school programs conducted in person and virtually.	MV 3-year average (2019-2021): 6,195 2019: 5,904 2020: 3,802 2021: 8,880	2022 YTD (August): 5,050 Objective 6,000	6,000
Number of water samples collected from the GVWD transmission system, six municipal distribution systems, and Parks sites.	MV 3-year average (2019-2021): 17,902 2019: 18,760 2020: 17,870 2021: 17,077	2022 YTD (August): 10,859 Objective 14, 000	14, 000
Number of days the water supply areas are in high or extreme fire hazard *Objective will equal 3 year average	MV 3-year average (2019-2021): 29 2019: 24 2020: 12 2021: 52	2022 YTD (August): 14 Objective: 29*	29*

2023 Key Actions

- Officially open the Watershed Learning Centre in the Lower Seymour Conservation Reserve.
- Complete replacement of the dam safety booms in Capilano and Seymour Reservoirs.
- Develop wildfire fuel management plans for water supply lands interface zones through the Wildfire Strategic Partners Working Group.
- Submit updated Crown Land (Watershed) Management Plan to the Province.
- Complete preparation required to seek ISO Certification of the GVWD Environmental Management System in 2024.

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 associated supporting infrastructure (works yards, communications systems, and control systems). The division closely collaborates with shared services which provides maintenance of all water treatment and transmission infrastructure, and management and disposal of water treatment residuals.

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	2023 Performance Objective
Annual volume of drinking water treated, delivered (in million litres)	MV 3-year average (2019-21): 384,614 2019: 383,400 2020: 378,734 2021: 392,000	2022 Jan - May: 142,555 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 (2019-21): 0.50 2019: 0.53 2020: 0.44 2021: 0.54	Rolling Average May/21 – April/22 0.54 Objective: 0.50	0.50
Compliance with treatment operating permit criteria	MV 3-year average (2019-21): 100% 2019: 100% 2020: 100% 2021: 100%	2022 Jan - May: 100% Objective: 100%	100%
Number of leak repairs in water transmission system piping per 100 kilometers of pipe ¹	MV 3-year average (2019-21): 2.73 2019: 4.08 2020: 2.25 2021: 1.87	2022 YTD June: 1.15 Objective: < 3.1	< 3.0
Number of remote monitoring and control points to ensure system resiliency	MV 3-year average (2019-21): 31,272 2019: 30,687 2020: 31,382 2021: 31,746	2022 YTD June: 31,831 Objective: 32,300	32,600

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

2023 Key Actions

- Cybersecurity Audit – working with external consultants, this project will provide auditing and review of current application of technologies, processes and controls to protect the SCADA/CDACS systems, communications networks, and data from the risk of cyber-attacks.
- Operations and Maintenance GHG Reduction – in collaboration with Fleet Services, we will evaluate the fleet vehicles, and where feasible, reduce the fleet size and transition to hybrid/electric vehicles, in order to reduce GHG.
- Operations and Maintenance New Lockout Procedure – update the lockout procedures to reflect the requirements outlined in the new Lockout Standard, which is currently being developed by Corporate Safety. Will also require migrating the lockout procedures into the new management system that is being procured by the IT Department.
- Increase Field Accessibility to Information – provide staff with the equipment required to access information (e.g. EAM, GIS, PeopleSoft, etc.) while in the field, including tablets, smart phones and laptops. Will involve the development of applications and processes to improve record management, efficiency, encourage more informed and organized work, and transition from paper to digital data collection.
- Haney Main No. 3 Valve Assessment and Replacement Program – work with E&C and Corporate Safety to assess the Haney Main No. 3 (at Woodland Drive) valves that are critical to system operation/future work, and replace valves that are identified as problematic. A comprehensive assessment of removed valves will be performed with visual inspection, leak testing at Beach Yard, material testing, etc.

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	2023 Performance Objective
Number of water tests completed on samples collected from the GVWD and member jurisdiction water systems	MV 3-year average (2019-2021): 167,234 2019: 161,465 2020: 161,564 2021: 178,675	2022 YTD Aug 31: 111,888 Projected 2022: 162,000	168,000
Number of samples collected from the GVWD system that were positive for <i>E.coli</i> bacteria	MV 3-year average (2019-2021): 0 2019: 0 2020: 0 2021: 0	2022 YTD Aug 31: 0 Projected 2022: 0	0*
Percent of Samples Positive for Total Coliform bacteria in the GVWD system	MV 3-year average (2019-2021): 0.2% 2019: 0.2% 2020: 0.4% 2021: 0.2%	2022 YTD Aug 31: 0.2% Projected 2022: <10%	<10%*
Number of major interagency projects coordinated	MV 3-year average (2019-2021): 11 2019: 10 2020: 10 2021: 12	2022 YTD Aug 31: 14 Projected 2022: 12	14

*Based on BC Water Quality Standards for Potable Water

2023 Key Actions

- Continue coordination of interagency work for key projects such as the DFO Capilano River Salmon Hatchery, MOTI Broadway Subway, and TransLink Operations and Maintenance Centre 4 (OMC4)
- Update the *Water Quality Monitoring and Reporting Plan* (WQMRP) utilized by Metro Vancouver, Regional Health Authorities and Member Jurisdictions.
- Complete a review of GVWD water quality sampling locations to assess the need for additional installations to ensure the continued integrity of the water quality monitoring system.
- Coordinate the bi-annual audit by the Canadian Association of Laboratory Accreditation (CALA) required for the continued operation of the Water Services Laboratories.
- Continue to install improved in-system reservoir sampling equipment at high priority reservoir sites.
- Initiate design and installation of Phase 1 of additional online chlorine analyzers to assess real-time water quality.

2023 to 2027 – 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 managed by the Project Delivery Department.

Initiative	Description	Theme
2023		
Dam Safety Review for Cleveland Dam	Complete the next Dam Safety Review for Cleveland Dam in accordance with the provincial Dam Safety Regulations.	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
Coquitlam Water Treatment Plant Feasibility Study for On-site Oxygen Generation and Recovery	Conduct study to evaluate options to produce liquid oxygen (LOX) on site and incorporate an oxygen recovery system. Potential benefits are savings on LOX, minimized GHG emissions and improved efficiency of LOX usage.	Financial Sustainability
Drinking Water Management Plan Update	Technical analysis to support the next iteration of the Drinking Water Management Plan. Includes engagement with stakeholders, partners, and other levels of governments.	Regional growth and System Stewardship
Drinking Water Stress Index	Develop a drinking water stress index to help communicate the stress on our water system from drought to the public.	System stewardship
Hydraulic and Hydrologic Models Update	Update the models for our water system and incorporate predictive analysis for short term forecasting and transparent performance tracking.	System Stewardship
New Watershed Center - Opening	Host opening of the new Watershed Center, a multi-use public educational and office building in the Lower Seymour Conservation Reserve	System Stewardship & Environmental Sustainability
Dam Safety Booms in Seymour and Capilano Reservoirs Replacement	Both dam safety booms are approaching end of life and are due for replacement. These booms prevent debris from entering the dam spillways and provide a physical barrier for boat operations.	System Stewardship & Environmental Sustainability

Canadian Association of Laboratory Accreditation (CALA)	Conduct a national laboratory accreditation audit required for continued operation of the Metro Vancouver laboratory (continues every two years).	Regulatory and Legislative Environment
Water Quality Monitoring and Reporting Plan (WQMRP) Update	Update the current plan in partnership of our member jurisdictions and regional health authorities.	Regulatory and Legislative Environment
Lake City Laboratory Upgrade	Initiate conceptual design for the Metro Vancouver Microbiology Laboratory upgrade at the Lake City Operations Centre.	Regulatory and Legislative Environment
Transmission System Online Chlorine Analyzers Additions	Begin a multi-year program to install additional online chlorine analyzers within the transmission system to provide real time chlorine residual data. (continues to 2026)	System Stewardship
Capilano Raw Water PS Backup Power Facility - Construction	Commence 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	Commence construction of the Newton Pump Station No. 2, required to meet growing water demand in the City of Surrey.	Regional Growth
Kennedy Newton Main	Continue construction of Kennedy Newton Main, required to meet growing water demand in the City of Surrey, includes approximately 9 kilometers of 1800mm diameter steel water main between the Kennedy and Newton Reservoirs.	Regional Growth
Building Information Modeling (BIM) Phase I implementation	Complete implementation of standards, protocols and training for 3D design processes for Utilities, in collaboration with WS, LWS, PDE PMO and Corporate Digital Strategy	System Stewardship & Environmental Sustainability
Formal Valve Exercising and Inspection Program	Implement a formalized valve exercising and inspection program to extend asset lifespan, improve asset condition knowledge and enable data-driven decision making regarding valve replacement.	System Stewardship
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	Regional Growth

Coquitlam Water Main– Construction	Commence Construction of Coquitlam Water Main. Will be completed via multiple project phases. Estimated to be completed by 2030. Timeline of construction kick-off for key sections: 2023 – South Section (Robson Drive to Guildford Way) 2024 – Central Section 2024 - Cape Horn Section 2025 – Tunnel Section (Guildford Way to Dewdney Trunk Road) 2025 – Cape Horn Section (Southernmost)	Regional Growth
2024		
Dam Safety Review for Rice Lake Dams	Carry out scheduled dam safety review for Rice Lake Dams	Regulatory and Legislative Environment
Smart Water Initiative	Proceed with incorporating and upgrading systems with digital devices to improve monitoring and data gathering across the Water Utility. This will improve real time performance monitoring and continuous improvement capabilities.	System Stewardship
Facility Master Plan for Water Supply System	Proceed with the development of the facility master plan to identify longer term capital projects to address growth	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
Westburnco PS Backup Power – Design & Construction	Complete design and construction of Westburnco PS No. 1 & No. 2 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

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
Annacis Main No. 5 (North) - Construction	Commence 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
Lulu-Delta Tunnel – Preliminary Design	Commence preliminary design of new water supply tunnel under the Fraser River.	System Stewardship
Coquitlam Lake Water Supply – Preliminary Design	Commence preliminary design of intake, tunnel and treatment plant	Regional Growth
Environmental Management System	Complete ISO 14001 certification process for the water utilities Environmental Management System.	Environmental Sustainability & Regulatory and Legislative Environment
Building Information Modeling (BIM) Phases II-III Implementation (multi-year program)	Phases II-III will enable field based connections with broader corporate systems such as GIS, EAM, engineering drawings, RFI work flow systems and 3D models to optimize infrastructure management work flows. Execution to continue through 2025 with completion date in 2026.	System Stewardship & Environmental Sustainability
2025		
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
Drinking Water Management Plan	Update the Drinking Water Management Plan	System Stewardship

Enhanced Water Quality Assurance Audit (EWQA)	Conduct a provincial laboratory accreditation audit required for continued operation of the Metro Vancouver Microbiology laboratory.	Regulatory and Legislative Environment
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
Annacis Main No. 5 (South) - Construction	Commence construction of Annacis Main No. 5 (South), required to convey water from the south shaft of the Annacis Water Supply Tunnel to the Kennedy Reservoir in the City of Surrey. The project consists of 3 km of 1.8 m diameter steel watermain.	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
2026		
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
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
Building Information Modeling (BIM) Phases II-III Implementation (continued)	Continuation of multi-year Phase II-III program	System Stewardship & Environmental Sustainability
Haney Water Supply Tunnel – Preliminary Design	Commence preliminary design of new water tunnel under the Pitt River.	System Stewardship
Second Narrows Water Supply Tunnel	Commissioning new infrastructure related to new water tunnel beneath Burrard Inlet.	System Stewardship
2027		
Annacis Main No. 5 (North and South) - Construction	Commissioning of Annacis Main No. 5 (North and South), required to convey water from the existing system within the City of Burnaby, through the Annacis Water Supply Tunnel to the Kennedy Reservoir in the City of Surrey. The project consists of 5.5 km of 1.8 m diameter steel watermain.	Regional Growth

Central Park Main No. 2 - Construction	Commissioning 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
Building Information Modeling (BIM) Phases II-III Implementation (continued)	Complete implementation of multi-year Phase II-III program	System Stewardship & Environmental Sustainability
Coquitlam Lake Water Supply	Commence construction of early site preparation work for intake, tunnel and treatment plant	Regional Growth

METRO VANCOUVER DISTRICTS
2023-2027 PROJECTED RESERVES - WATER

OPERATING RESERVES

	2022	2023				2023	2024	2025	2026	2027
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Water Services	\$ 25,740,386	\$ 25,740,386	\$ -	\$ -	\$ 514,808	\$ 26,255,194	\$ 26,780,298	\$ 27,315,903	\$ 27,862,222	\$ 28,419,466

STATUTORY RESERVES

	2022	2023				2023	2024	2025	2026	2027
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Water Services										
Water Laboratory Equipment Reserve	\$ 703,468	\$ 703,468	\$ -	\$ (96,000)	\$ 13,109	\$ 620,577	\$ 536,029	\$ 449,789	\$ 361,825	\$ 272,101
Water Sustainability Innovation Fund Reserve	14,416,988	14,416,988	723,000	(1,490,000)	280,670	13,930,658	14,207,251	15,145,876	16,179,024	17,232,834
Total	\$ 15,120,456	\$ 15,120,456	\$ 723,000	\$ (1,586,000)	\$ 293,779	\$ 14,551,235	\$ 14,743,280	\$ 15,595,665	\$ 16,540,849	\$ 17,504,936

To: Zero Waste Committee

From: Paul Henderson, General Manager, Solid Waste Services

Date: October 7, 2022 Meeting Date: October 14, 2022

Subject: **2023 - 2027 Financial Plan – Solid Waste Services**

RECOMMENDATION

That the Zero Waste Committee endorse the 2023 – 2027 Financial Plan for Solid Waste Services as presented in the report dated October 7, 2022, titled “2023 – 2027 Financial Plan – Solid Waste Services”, and forward it to the Metro Vancouver Board Budget Workshop on October 19, 2022 for consideration.

EXECUTIVE SUMMARY

The 2023 - 2027 Metro Vancouver Financial Plan has been prepared following direction received at the April 14, 2022 Metro Vancouver Board Budget Workshop. This has resulted in a plan that maintains the goals and objectives of Metro Vancouver while removing the use of financial levers that were put in place during the COVID-19 pandemic. Further, this budget represents a pause to assess the implications of the rapidly evolving macro economic environment and to undertake strategic planning with the incoming Board of Directors. The increase in Metro Vancouver’s overall consolidated household impact for 2023 is projected to be 4.5%, down from the 10.1% projected for 2023 in the prior financial planning cycle.

The planned 2023 garbage tipping fees increase of \$6 per tonne, is \$1 less than the prior budget cycle projected increase. The per household cost is \$65 per household, up from \$63 in 2022. Key budget drivers for 2023 include new operating costs associated with the completion of the United Boulevard and Central Surrey recycling and waste centres as well as increased contingency disposal costs.

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 2023 – 2027 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 14, 2022 a Metro Vancouver Board Budget Workshop was held with the objective to seek direction for the preparation of the 2023 - 2027 Financial Plan. The workshop outlined the principles that guide the work of Metro Vancouver as an organization, the current 2022 - 2026 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 2023 - 2027 Financial Plan.

Given the challenges being observed coming out of the COVID-19 pandemic, this budget represents a pause for Metro Vancouver and focuses on maintaining the existing goals and objectives of Metro Vancouver and Solid Waste Services. Staff will undertake strategic planning with the incoming Board of Directors, re-evaluate current plans under this leadership, and assess the implications of the rapidly evolving macro environment.

Key highlights of the overall Metro Vancouver 2023 proposed budget are as follows:

- A reduction of \$22 million of the total 2023 Metro Vancouver proposed operating budget compared to that previously projected for 2023
- Maintained or increased contribution to capital and reserves for key functions
- Reduced capital cash flow for 2023 and 2024
- Real reduction of household impact, \$33 less than that previously projected for 2023

This report focuses on Solid Waste Services and presents the 2023 annual budget and the updated five-year plan for the years 2023 to 2027 for Committee consideration.

SOLID WASTE SERVICES PROGRAM

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

Solid Waste Services works collaboratively with member jurisdictions 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 1,000,000 metric tonnes of waste annually. In addition, the City of Vancouver owns and operates the Vancouver South Transfer Station and Vancouver Landfill, facilities that are integrated into the regional solid waste system.

Solid Waste Services initiatives 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 2023 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 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 2022 compared to 2021. Metro Vancouver's recycling and waste centres and Waste-to-Energy Facility have high customer availability (>99%). The recycling rate is currently at 64%, approximately twice the Canadian average. 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:

- Opening two new recycling and waste centres;
- Innovative stakeholder and community engagement;
- Waste to energy / district energy agreement with River District Energy;
- Lease agreement termination for the closed Coquitlam Recycling and Waste Centre saving \$800,000 annually.

New or continuous improvement initiatives for 2023 include:

- New weighscale system software replacement;
- North Surrey and Langley recycling depot development;
- Zero waste / circular economy community actions.

2023 BUDGET AND 2023 - 2027 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 2023 – 2027 Solid Waste Services Financial Plan is included as Attachment 1. The 2023 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 2023 - 2027 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 \$10.4 million in 2023 for a total budget of \$133.4 million (Attachment 1). This increase is primarily a result of new operating costs associated with United Boulevard and Central Surrey recycling and waste centres. Contingency disposal costs are also higher with additional waste requiring disposal at remote disposal sites.

The 2023 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;
- Alternative fuel and recyclable recovery procurement;
- Asset management program, including data validation and program guideline development;
- Support for behavior change programs for textiles, single-use items, seasonal wastes, food wastes, illegal dumping, and the Zero Waste Conference;
- Expand reuse events at recycling and waste centres and repair events in partnership with member jurisdictions; 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 2023 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
- Waste composition analysis

Over the next five years, the Solid Waste Services budget is expected to increase an average of \$9.1 million or 6.5% per year. Of this overall increase, funding related to the expanding capital program (debt servicing and contribution to the capital) is increasing \$2.6 million per year on average over the next five years leaving the operating programs which are increasing, on average, by \$6.5 million per year, roughly at the rate of inflation plus increases for new facilities/service levels.

Capital Budget Highlights

The Solid Waste Services capital budget for 2023 approval is \$266.6 million (Attachment 2). This amount includes all capital projects underway or planned in 2023. The capital program is funded by long-term debt and planned contribution to capital from the annual operating budget as available.

The projected capital cash flow for 2023 – 2027 totals \$244.5 million, an average of \$48.9 million per year. The largest five projects (each over \$10 million) make up approximately 66% of the capital spending over the next five years. There are 41 projects on the 5-year capital 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 8% 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

2023 – 2027 Tipping Fee Projections

The following table shows the tipping fee projections based on the required revenue to offset expected expenditures. Tipping fees for 2023 and 2024 are increasing by \$6 and \$7 per tonne respectively. Requirements for 2025 and beyond will be reviewed during future budget processes with the goal of reducing tipping fee increases where possible.

The 2023 tipping fee was projected to increase by \$7 per tonne in the previous cycle. All other years match previous cycle projections, and 2027 tipping fees are projected to increase by \$8 per tonne.

Projected Tipping Fees for Municipal Solid Waste (\$/tonne)	2022	2023	2024	2025	2026	2027
Municipal Tipping Fee	\$121	\$127	\$134	\$141	\$148	\$156
Small Vehicles (0-1t)	\$155	\$161	\$168	\$175	\$182	\$190
Medium Vehicles (1-8t)	\$133	\$139	\$146	\$153	\$160	\$168
Large Vehicles (>8t)	\$107	\$113	\$120	\$127	\$134	\$142

Waste Flows

With garbage tipping fees being the primary revenue source for the Solid Waste function, waste flow projections are the key driver for annual budget projections. Projections for 2022 are currently estimated at approximately 1,040,000 tonnes, slightly higher than 2021 actuals. The increase in tonnage in 2022 is due in part to increasing waste flow as a result of population growth as well as the disposal of construction and demolition facility residuals delivered to the Vancouver Landfill, material not typically delivered to the regional system. The waste flow for 2023 is budgeted at 915,000 tonnes.

Reserve Funds

There are no proposed applications of reserve funding in the 2023 - 2027 Financial Plan.

The 2023 – 2027 Projected Reserves for Solid Waste Services is included in Attachment 5.

APPROVAL PROCESS

The proposed 2023 - 2027 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 2023 - 2027 Financial Plan and Annual Work Plan will be presented for consideration at the Metro Vancouver Board Budget Workshop on October 19, 2022.
- The Greater Vancouver Sewerage and Drainage District Board will consider adoption of the 2023 Budget and endorsement of the 2023 - 2027 Financial Plan on October 28, 2022.

ALTERNATIVES

1. That the Zero Waste Committee endorse the 2023 - 2027 Financial Plan for Solid Waste Services as presented in the report dated October 7, 2022, titled “2023 - 2027 Financial Plan – Solid Waste Services”, and forward it to the Metro Vancouver Board Budget Workshop on October 19, 2022 for consideration.
2. That the Zero Waste Committee make recommendations and endorse an amended 2023 - 2027 Financial Plan for Solid Waste Services and forward the amended Financial Plan to the Metro Vancouver Board Budget Workshop on October 19, 2022 for consideration.

FINANCIAL IMPLICATIONS

If the Greater Vancouver Sewerage and Drainage District Board approves the 2023 Budget and endorses the Five-Year Financial Plan for Solid Waste Services, as presented under Alternative 1, in 2023 the revenue from tipping fees for the system will increase by \$9.0 million (8.0%) to \$121.9 million which will generate the majority of the \$133.4 million in total revenue required to offset projected expenditures. This represents a \$2 or 3.8% increase in the cost to the average regional household to \$65 (2022 - \$63).

Over the term of the five-year plan, the annual tipping fee revenue is projected to increase by an average of \$8.2 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 \$65 in 2023 to \$78 in 2027 representing an average annual increase of approximately \$3 per household.

Under Alternative 2, the Committee may wish to consider recommending amendments to the 2023 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 2023 Budget and Five-Year Financial Plan for Solid Waste Services has been prepared following direction received at the April 14, 2022 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 2023 to 2027 for Solid Waste Services.

The presentation of the 2023 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 are required to maintain our assets and 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 2023 – 2027 Budget and Five-Year Financial Plan and Annual Work Plans for Solid Waste Services as presented under Alternative 1.

Attachments:

1. 2023 – 2027 Solid Waste Financial Plan
2. 2023 – 2027 Capital Programs and Project Total – Solid Waste Services
3. 2023 Solid Waste Work Plans
4. 2023 – 2027 “What’s Happening”
5. 2023 – 2027 Projected Reserves – Solid Waste

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
SOLID WASTE SERVICES
2023 BUDGET REVIEW
2023-2027 FINANCIAL PLAN

	2022 BUDGET	2023 BUDGET	% CHANGE	2024 FORECAST	% CHANGE	2025 FORECAST	% CHANGE	2026 FORECAST	% CHANGE	2027 FORECAST	% CHANGE
REVENUES											
Solid Waste Tipping Fees	\$ 112,909,870	\$ 121,921,930	8.0%	\$ 129,029,184	5.8%	\$ 137,969,863	6.9%	\$ 146,011,531	5.8%	\$ 153,818,262	5.3%
Energy Sales	6,401,758	5,900,000		6,254,000		6,504,160		6,699,285		6,900,263	
Other External Revenues	3,679,379	5,569,809		7,183,189		7,382,530		7,546,682		7,716,108	
TOTAL REVENUES	<u>\$ 122,991,007</u>	<u>\$ 133,391,739</u>	8.5%	<u>\$ 142,466,373</u>	6.8%	<u>\$ 151,856,553</u>	6.6%	<u>\$ 160,257,498</u>	5.5%	<u>\$ 168,434,633</u>	5.1%
EXPENDITURES											
Operating Programs:											
Solid Waste Operations											
Allocated Quality Control	\$ 17,582	\$ 20,107		\$ 20,946		\$ 23,259		\$ 25,189		\$ 25,179	
Ashcroft Ranch	862,263	862,425		428,125		408,426		326,075		245,093	
Engineers in Training	124,066	89,668		92,306		94,783		97,321		99,927	
Landfills	25,778,096	28,131,613		29,276,269		32,208,158		33,926,731		35,158,021	
Contribution to Reserve – Landfills	5,715,630	5,723,220		5,655,120		5,160,900		5,094,630		5,179,270	
Recycling and Waste Centre	39,877,587	44,524,742		47,154,032		49,867,644		52,104,018		54,490,126	
Waste to Energy Facility	24,897,642	26,251,301		28,924,926		31,941,703		32,805,694		33,665,020	
	<u>97,272,866</u>	<u>105,603,076</u>	8.6%	<u>111,551,724</u>	5.6%	<u>119,704,873</u>	7.3%	<u>124,379,658</u>	3.9%	<u>128,862,636</u>	3.6%
Solid Waste Planning											
Policy and Facility Development	624,289	591,574		607,098		621,590		636,373		651,554	
Zero Waste Implementation	2,308,441	2,455,259		2,184,302		2,228,792		2,273,202		2,318,816	
Programs and Public Involvement	764,836	828,368		847,429		695,184		713,260		731,712	
	<u>3,697,566</u>	<u>3,875,201</u>	4.8%	<u>3,638,829</u>	(6.1%)	<u>3,545,566</u>	(2.6%)	<u>3,622,835</u>	2.2%	<u>3,702,082</u>	2.2%
Administration and Department Support	656,133	703,540	7.2%	724,744	3.0%	743,201	2.5%	762,989	2.7%	781,763	2.5%
Environmental Regulation and Enforcement	1,418,683	1,631,268	15.0%	1,687,587	3.5%	1,728,965	2.5%	1,643,729	(4.9%)	1,683,554	2.4%
Allocation of Centralized Support Costs	5,056,849	5,693,279	12.6%	6,266,161	10.1%	6,109,564	(2.5%)	5,774,325	(5.5%)	5,593,346	(3.1%)
Total Operating Programs	<u>108,102,097</u>	<u>117,506,364</u>	8.7%	<u>123,869,045</u>	5.4%	<u>131,832,169</u>	6.4%	<u>136,183,536</u>	3.3%	<u>140,623,381</u>	3.3%
Allocation of Project Delivery Cost	425,090	345,469	(18.7%)	375,687	8.7%	397,231	5.7%	410,318	3.3%	414,466	1.0%
Debt Service	10,440,429	10,819,361	3.6%	14,573,009	34.7%	19,392,101	33.1%	22,506,570	16.1%	25,941,031	15.3%
Contribution to Reserve	4,023,391	4,720,545	17.3%	3,648,632	(22.7%)	235,052	(93.6%)	1,157,074	390.0%	1,455,755	25.8%
TOTAL EXPENDITURES	<u>\$ 122,991,007</u>	<u>\$ 133,391,739</u>	8.5%	<u>\$ 142,466,373</u>	6.8%	<u>\$ 151,856,553</u>	6.6%	<u>\$ 160,257,498</u>	5.5%	<u>\$ 168,434,633</u>	5.1%

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
CAPITAL PORTFOLIO
SOLID WASTE SERVICES
2023 CAPITAL BUDGET AND 2023-2027 CAPITAL PLAN

	CAPITAL BUDGET FOR APPROVAL	2023 CAPITAL CASH FLOW	2024 CAPITAL CASH FLOW	2025 CAPITAL CASH FLOW	2026 CAPITAL CASH FLOW	2027 CAPITAL CASH FLOW	2023 TO 2027 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	Not Started	Opportunity
Coquitlam Landfill East Closure	5,000,000	2,150,000	1,750,000	1,100,000	-	-	5,000,000	Construction	Resilience
Coquitlam Landfill Gas Collection Upgrades	8,100,000	2,000,000	-	-	-	-	2,000,000	Multiple	Maintenance
Coquitlam Landfill Lot 3 Development	5,000,000	50,000	-	-	-	-	50,000	Construction	Resilience
Coquitlam Landfill Pump Station Upgrade	3,400,000	1,100,000	1,000,000	800,000	-	-	2,900,000	Construction	Maintenance
Coquitlam Landfill: Leachate Collection System Grade Realignment	1,000,000	850,000	-	-	-	-	850,000	Construction	Resilience
Total Landfills	\$ 22,500,000	\$ 6,150,000	\$ 2,750,000	\$ 1,900,000	\$ 1,500,000	\$ 20,000,000	\$ 32,300,000		
Recycling and Waste Centres									
Central Surrey Recycling and Waste Centre	50,300,000	200,000	-	-	-	-	200,000	Construction	Growth
Langley Recycling Depot Development	5,500,000	3,050,000	2,250,000	-	-	-	5,300,000	Construction	Upgrade
Maple Ridge Recycling and Waste Centre Upgrades	2,000,000	1,800,000	-	-	-	-	1,800,000	Construction	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	3,000,000	3,000,000	-	-	-	-	3,000,000	Construction	Maintenance
North Surrey Recycling Depot Development	25,500,000	3,050,000	2,250,000	-	-	-	5,300,000	Construction	Upgrade
Weigh Scale Replacement	3,000,000	1,000,000	2,000,000	-	-	-	3,000,000	Construction	Maintenance
Total Recycling and Waste Centres	\$ 89,300,000	\$ 12,100,000	\$ 6,500,000	\$ 2,500,000	\$ -	\$ -	\$ 21,100,000		
Waste To Energy Facilities									
Acid Gas Reduction	2,000,000	-	2,800,000	7,750,000	30,000,000	6,500,000	47,050,000	Design	Upgrade
Air System Piping Replacement	300,000	300,000	-	-	-	-	300,000	Construction	Maintenance
Biosolids Processing	22,500,000	2,200,000	8,100,000	8,000,000	3,700,000	-	22,000,000	Construction	Resilience
Boiler and APC Roof Replacement	1,750,000	100,000	650,000	1,000,000	-	-	1,750,000	Construction	Maintenance
Bottom Ash Crane Replacement	1,400,000	800,000	500,000	-	-	-	1,300,000	Construction	Maintenance
Bottom Ash Processing	6,800,000	200,000	-	-	-	-	200,000	Construction	Opportunity
Carbon Silo Replacement	-	-	-	-	-	2,400,000	2,400,000	Not Started	Maintenance
Compressed Air System Replacement	3,000,000	1,500,000	-	-	-	-	1,500,000	Construction	Maintenance
Electrical Transformers Replacement	5,000,000	4,500,000	300,000	-	-	-	4,800,000	Construction	Maintenance
Fabric Filter Hopper and Pulse Header Refurbishment	2,150,000	1,500,000	-	-	-	-	1,500,000	Construction	Maintenance
Feed Hopper/Chute	2,600,000	50,000	-	-	-	-	50,000	Construction	Maintenance
Feedwater Pump Replacement	1,000,000	50,000	-	-	-	-	50,000	Construction	Maintenance
Fire Suppression System	1,400,000	500,000	500,000	400,000	-	-	1,400,000	Construction	Maintenance
Fly Ash Silo Refurbishment	1,000,000	500,000	400,000	-	-	-	900,000	Construction	Maintenance
Generation Bank Replacement	9,000,000	100,000	5,900,000	3,000,000	-	-	9,000,000	Construction	Maintenance
Lime Silo Replacement	-	-	-	-	-	3,600,000	3,600,000	Not Started	Maintenance
Primary Economizer Replacement	7,000,000	3,000,000	-	-	-	-	3,000,000	Construction	Maintenance

**GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
CAPITAL PORTFOLIO
SOLID WASTE SERVICES
2023 CAPITAL BUDGET AND 2023-2027 CAPITAL PLAN**

	CAPITAL BUDGET FOR APPROVAL	2023 CAPITAL CASH FLOW	2024 CAPITAL CASH FLOW	2025 CAPITAL CASH FLOW	2026 CAPITAL CASH FLOW	2027 CAPITAL CASH FLOW	2023 TO 2027 TOTAL CAPITAL CASH FLOW	ACTIVE PHASE	PRIMARY DRIVER
Primary Superheaters Replacement	4,000,000	100,000	2,000,000	1,000,000	900,000	-	4,000,000	Construction	Maintenance
Programmable Logic Controllers Replacement	2,000,000	500,000	500,000	500,000	-	-	1,500,000	Construction	Maintenance
Pug Mill Enclosure Ventilation System Replacement	1,000,000	500,000	500,000	-	-	-	1,000,000	Construction	Maintenance
Refuse Crane	16,800,000	4,500,000	5,300,000	5,500,000	-	-	15,300,000	Construction	Maintenance
Refuse Pit Bunker Door Replacement	600,000	200,000	-	-	-	-	200,000	Construction	Maintenance
Secondary Economizers Replacement	6,000,000	250,000	1,750,000	3,000,000	1,000,000	-	6,000,000	Construction	Maintenance
Soot Blower Piping Replacement	300,000	300,000	-	-	-	-	300,000	Construction	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	-	-	-	-	350,000	Construction	Maintenance
WTE Facility District Heating	55,000,000	1,000,000	6,000,000	25,000,000	23,000,000	-	55,000,000	Construction	Resilience
WTE Facility District Heating Opportunities	2,300,000	1,600,000	-	-	-	-	1,600,000	Construction	Opportunity
Total Waste To Energy Facilities	\$ 155,250,000	\$ 24,600,000	\$ 37,700,000	\$ 57,650,000	\$ 58,600,000	\$ 12,500,000	\$ 191,050,000		
TOTAL CAPITAL EXPENDITURES	\$ 267,050,000	\$ 42,850,000	\$ 46,950,000	\$ 62,050,000	\$ 60,100,000	\$ 32,500,000	\$ 244,450,000		
CAPITAL FUNDING									
New External Borrowing	\$ 166,558,000	\$ 34,425,000	\$ 28,129,000	\$ 25,401,000	\$ 33,165,000	\$ 31,343,000	\$ 152,463,000		
Reserve	16,373,000	5,225,000	4,721,000	3,649,000	235,000	1,157,000	14,987,000		
External Funding - Interagency	84,119,000	3,200,000	14,100,000	33,000,000	26,700,000	-	77,000,000		
Total	\$ 267,050,000	\$ 42,850,000	\$ 46,950,000	\$ 62,050,000	\$ 60,100,000	\$ 32,500,000	\$ 244,450,000		
SUMMARY BY DRIVER									
Growth	\$ 50,300,000	\$ 200,000	\$ -	\$ -	\$ -	\$ -	\$ 200,000		
Maintenance	86,150,000	28,500,000	21,300,000	17,700,000	1,900,000	6,000,000	75,400,000		
Resilience	88,500,000	6,250,000	15,850,000	34,100,000	26,700,000	-	82,900,000		
Upgrade	33,000,000	6,100,000	7,300,000	7,750,000	30,000,000	6,500,000	57,650,000		
Opportunity	9,100,000	1,800,000	2,500,000	2,500,000	1,500,000	20,000,000	28,300,000		
Total	\$ 267,050,000	\$ 42,850,000	\$ 46,950,000	\$ 62,050,000	\$ 60,100,000	\$ 32,500,000	\$ 244,450,000		

SOLID WASTE SERVICES

Solid Waste Operations

Description of Services

Solid Waste Services provides waste reduction and recycling planning and solid waste facility operations 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, United Boulevard, North Surrey, Central 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	2023 Performance Objective
Annual solid waste flows in Metro Vancouver system (tonnes)	2021: 902,000 2020: 854,000 2019: 921,000	projected: 1,040,000	915,000
Processing Availability of the Waste-to-Energy Facility	2021: 91% 2020: 91.6% 2019: 93.1%	projected: 93%	93%
Customer availability for the Waste-to-Energy Facility	2021: 99% 2020: 99%	projected: 99%	99.0%
Customer availability for the Recycling and Waste Centres	2021: 99.9% 2020: 99.9% 2019: 99.9%	projected: 99.9%	99.9%

2023 Key Actions

General

- Asset management program development, including condition assessments and asset 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 first full year of operation
- Recycling depots expansion design at North Surrey and Langley recycling and waste centres
- 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
- Recycling and waste centres buildings and assets assessment
- Assess opportunities to improve pedestrian and cyclist access

Waste-to-Energy Facility

- Complete feed hopper/feed chute, primary economizer, and feedwater pump replacement projects
- Advance refuse crane, bottom ash crane, fabric filter hopper, compressed air, and programmable logic controllers replacement projects
- Initiate design for secondary economizer, fly ash silo, 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
- Initiate procurement of new Operating and Maintenance Contract. Current contract expires in March 2025.

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 detailed design for the east leachate pump station upgrade
- Complete detailed design for the flare station upgrade

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, zero waste implementation and solid waste facility operations 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 stakeholder 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,
- Stakeholder engagement services.

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 ¹	2023 performance objective
Recycling rate (percent of solid waste diverted from final disposal)	Canadian average ² : 27.6% Metro Vancouver historical: 2019: 63% 2018: 64% 2017: 63%	64%	65%

Indicator	Historical and/or industry benchmark	Current performance ¹	2023 performance objective
Waste disposed per capita (tonnes)	Canadian average ¹ : 0.69 Metro Vancouver historical: 2020: 0.45 2019: 0.48 2018: 0.48 2017: 0.49	0.45	0.45

¹Most recent figures (2018) derived from Statistics Canada disposal & diversion tonnages

2023 Key Actions

- Solid Waste and Recycling Industry Advisory Committee support
- Stakeholder engagement for review and update of the solid waste management plan, including supporting the Public/Technical Advisory Committee
- 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
- Canada Plastic Pact support
- National Solid Waste Benchmarking Initiative and applied waste research
- Regional waste composition monitoring
- Solid waste initiatives public engagement
- Regional Food Recovery Network
- Regional Reuse and Repair events
- Alternative fuels processing pilot
- Zero waste construction certification
- Carbon capture, utilization, sequestration study
- Expansion of Recycling Depots at North Surrey and Langley Recycling and Waste Centres

Solid Waste Services

2023 to 2027 – WHAT’S HAPPENING

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

Initiative	Description	Theme
2023		
Weigh scale software replacement	Autoscale software replacement installation and customer service enhancements	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	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
Zero waste initiatives	Research on 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	Pilot test for beneficial use of bottom ash	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
Langley Recycling Depot expansion	Langley Recycling and Waste Centre Recycling Depot design	Environmental Protection and Climate Action
Reuse and Repair events	Expand reuse events at recycling and waste centers and community repair events	Environmental Protection and Climate Action
Capital replacements at the Waste-to-Energy Facility	Capital replacements and upgrades, including primary and secondary economizers, generation bank, refuse crane, and bottom ash crane	System Stewardship

Solid waste management plan review	Continue review and update of the region's solid waste management plan	Environmental Protection and Climate Action
Coquitlam Landfill	Complete detailed design for the east leachate pump station upgrade	System Stewardship
Coquitlam Landfill	Complete detailed design for the flare station upgrade	System Stewardship
Waste-to-Energy Facility operating contract	Procurement for the Waste-to-Energy Facility operating and maintenance contract	System Stewardship
2024		
Capital replacements at the Waste-to-Energy Facility	Continue capital replacements and upgrades, including secondary economizers, generation bank, refuse crane, and primary superheaters	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 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
Alternative fuel and recyclables recovery	Alternative fuel and recyclables project pilot testing	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
Coquitlam Landfill	Complete detailed design for the east leachate pump station upgrade	System Stewardship
Coquitlam Landfill	Complete detailed design for the flare station upgrade	System Stewardship
District energy system at the Waste-to-Energy Facility	Construction of Phase 1 of the District Energy system, providing waste heat to River District Energy	Environmental Protection and Climate Action
Biosolids at the Waste-to-Energy Facility	Complete construction/commissioning of a biosolids receiving system at the Waste-to-Energy Facility	Opportunities for Innovation and Enhanced Service
Waste-to-Energy Facility operating	Select Operating and Maintenance Contractor for Waste-to-Energy Facility	System Stewardship

contract		
2025		
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 updated 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 recycling	New recycling depots operating at the Langley and North Surrey facilities	Environmental Protection and Climate Action
District energy system at the Waste-to-Energy Facility	Commissioning of the District Energy system	Environmental Protection and Climate Action
2026		
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 updated solid waste management plan	Environmental Protection and Climate Action
North Shore compactor replacement	Replace North Shore Recycling and Waste Centre compactor	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
2027		
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	Environmental Protection and

	updated solid waste management plan	Climate Action
--	-------------------------------------	----------------

METRO VANCOUVER DISTRICTS
2023-2027 PROJECTED RESERVES - SOLID WASTE

OPERATING RESERVES

	2022	2023				2023	2024	2025	2026	2027
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Solid Waste Services	\$ 39,997,739	\$ 39,997,739	\$ -	\$ -	\$ 799,955	\$ 40,797,694	\$ 41,613,648	\$ 42,445,921	\$ 43,294,839	\$ 44,160,736

DISCRETIONARY RESERVES

	2022	2023				2023	2024	2025	2026	2027
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Solid Waste Services										
Solid Waste General Reserve	\$ 18,408,289	\$ 18,408,289	\$ -	\$ -	\$ 368,166	\$ 18,776,455	\$ 19,151,984	\$ 19,535,024	\$ 19,925,724	\$ 20,324,239
Landfill Post Closure Reserve	11,533,419	11,533,419	-	-	230,668	11,764,088	11,999,369	12,239,357	12,484,144	12,733,827
Total	\$ 29,941,709	\$ 29,941,709	\$ -	\$ -	\$ 598,834	\$ 30,540,543	\$ 31,151,354	\$ 31,774,381	\$ 32,409,868	\$ 33,058,066