

METRO VANCOUVER BOARD BUDGET WORKSHOP

(Joint meeting of the Metro Vancouver Regional District, Greater Vancouver Sewerage & Drainage District, Greater Vancouver Water District and Metro Vancouver Housing Corporation)

Wednesday, October 23, 2019

9:00 A.M.

28th Floor Boardroom, 4730 Kingsway, Burnaby, British Columbia

Purpose: to consider the 2020 – 2024 Financial Plan

[Membership and Votes](#)

REVISED AGENDA¹**1. PRESENTATION****1.1 2020 Budget and Annual Work Plans and 2020-2024 Financial Plan – Metro Vancouver Districts and Housing Corporation**

Designated Speakers: Carol Mason, Chief Administrative Officer/Commissioner and Dean Rear, Acting Chief Financial Officer/General Manager – Financial Services Department.

2. REPORTS***Revised* 2.1 2020-2024 Financial Plan – Metro Vancouver Districts and Housing Corporation****2.2 Proposed 2020 Metro Vancouver Position Requests****3. REFERENCE MATERIAL*****Revised* 3.1 2020 – 2024 Financial Plan – Standing Committee Reports****4. Q&A/COMMENTS FROM THE PUBLIC**

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

To: Board of Directors

From: Carol Mason, Commissioner/Chief Administrative Officer
Dean Rear, Acting General Manager, Financial Services/Chief Financial Officer

Date: October 18, 2019 Meeting Date: October 23, 2019

Subject: **2020 – 2024 Financial Plan – Metro Vancouver Districts and Housing Corporation**

RECOMMENDATION

That the Board endorse the 2020 Budget and 2020 -2024 Financial Plan for the Metro Vancouver Districts and Housing Corporation, as presented, and direct staff to prepare the necessary budget information to be presented at the November 1, 2019 Metro Vancouver Districts and Housing Corporation Board meetings for consideration.

PURPOSE

To present the 2020 Budget and 2020 - 2024 Financial Plan for the Metro Vancouver Districts and Housing Corporation for consideration.

BACKGROUND

The 2020 – 2024 Financial Plan for the Metro Vancouver Regional District (MVRD), Greater Vancouver Water District (GVWD), Greater Vancouver Sewerage and Drainage District (GVS&DD) and Metro Vancouver Housing Corporation (MVHC) has been guided by the direction provided in the *Board Strategic Plan* and prepared in accordance with Board policy. The 2020 – 2024 Financial Plan is a continued step forward towards ensuring financial sustainability for the region. The details of the Financial Plan are included in Attachment 1.

During the month of October, the 2020 – 2024 Financial Plans for Metro Vancouver’s four legal entities were presented to the following ten Board Standing Committees for the individual functions that fall under the oversight of those Committees:

- Indigenous Relations
- Climate Action
- Electoral Area
- Finance and Intergovernment
- Housing
- Regional Parks
- Regional Planning
- Water
- Liquid Waste
- Zero Waste

The Metro Vancouver Standing Committees were presented with individual reports covering the 2020 Budget and 2020 - 2024 Financial Plans for each function including program highlights and financial plan highlights ([see Item 3.1](#)). The reports included financial information for multiple years as well as a “What’s Happening” summary page that described the key activities projected over the five year period of the financial plan. Each Committee has reviewed and endorsed their individual financial plans and provided comments and direction where appropriate for consideration by the Board at the October 23, 2019 Board Budget Workshop.

The 2020 Budget and 2020 – 2024 Financial Plans reflect consistency and alignment with the legislative authority of the individual Districts and functions and support the vision and mission as articulated in the *Board Strategic Plan* and corresponding Regional Management Plans. The plan is also in accordance with applicable Board policies. Upon Board endorsement of the overall Five Year Financial Plan, this document will guide the direction of future annual budgets and long-term financial plans as well as provide key information to member local governments on future capital projects, anticipated expenditures and funding projections.

This report is being brought forward to present the overall 2020 – 2024 Financial Plan for Metro Vancouver Districts and Housing Corporation (representing the four legal entities: MVRD, GVWD, GVS&DD, MVHC) for consideration and to forward to the Board meeting on November 1, 2019 for approval.

2020 BUDGET AND FIVE YEAR FINANCIAL PLAN

The budget for this cycle and the five year financial plans are built upon five central themes that guide the development of Metro Vancouver’s long term plans and budgets:

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

Annual Work Plans are developed for most Metro Vancouver functions. The 2020 Annual Work Plans for each functional area are included with the reports that were presented to individual standing committees.

The *Metro Vancouver Proposed 2020 - 2024 Financial Plan* (Attachment 1) provides the financial details of the 2020 Budget and 2020 - 2024 Financial Plan including financial information by sub-region for the GVS&DD sewerage areas. The attachment also shows the impact of the plan on the cost to the average regional household by those sub-regions to assist member local governments in anticipating the financial impact of Metro Vancouver services to their communities.

FINANCIAL PLAN OVERVIEW

The completion of the 2020 Budget and the 2020 - 2024 Financial Plan is the culmination of a significant planning exercise with guidance framed by a number of Board policies including:

- the *Financial Management Policy*
- the *Corporate Allocation Policy*
- the *Operating, Statutory and Discretionary Reserves Policy*
- the Asset Management policies for individual functions

As proposed, the 2020 - 2024 Financial Plan has total operating expenditures for 2020 of \$890.1 million (prior projected: \$907.4 million) with projected capital expenditures of just over \$1,414.6 million as summarized in the tables below:

2020-2024 METRO VANCOUVER DISTRICTS OPERATING BUDGET						
\$ Millions	2019	2020	2021	2022	2023	2024
Revenues						
Water Sales	\$ 286.9	\$ 307.2	\$ 326.7	\$ 357.3	\$ 394.5	\$ 437.4
Liquid Waste Services Levy	255.8	274.2	306.8	347.6	386.5	416.3
Solid Waste Tipping Fees	98.4	105.8	112.5	117.8	125.9	130.9
Housing Rents	39.3	40.4	41.5	45.1	46.3	50.1
MVRD Requisitions	61.2	71.8	79.5	86.6	93.4	100.4
Other Revenue	69.5	72.1	84.5	99.8	112.3	127.8
Transfer from Reserves	25.3	18.6	16.0	13.4	12.4	9.7
Total Revenues	\$ 836.4	\$ 890.1	\$ 967.5	\$ 1,067.6	\$ 1,171.3	\$ 1,272.6
Expenditures						
Water Services	\$ 290.7	\$ 309.1	\$ 328.5	\$ 359.0	\$ 396.2	\$ 439.0
Liquid Waste Services	310.9	328.3	371.3	425.3	475.8	518.4
Solid Waste Services	107.2	114.1	122.3	127.8	136.1	141.4
MVHC	51.2	52.3	53.4	57.0	58.0	61.8
MVRD	76.4	86.3	92.0	98.5	105.2	112.0
Total Expenditures	\$ 836.4	\$ 890.1	\$ 967.5	\$ 1,067.6	\$ 1,171.3	\$ 1,272.6

2020-2024 METRO VANCOUVER DISTRICTS CAPITAL BUDGET						
\$ Millions	2019	2020	2021	2022	2023	2024
Water Services	\$ 231.4	\$ 397.5	\$ 449.7	\$ 496.5	\$ 522.7	\$ 540.8
Liquid Waste Services	564.9	883.4	759.9	529.5	617.8	634.1
Solid Waste Services	89.2	88.5	81.6	52.4	18.9	41.6
Housing Development	21.3	25.3	31.5	19.1	6.6	-
Regional Parks	15.9	19.9	23.9	29.4	32.2	37.3
Total Expenditures	\$ 922.7	\$ 1,414.6	\$ 1,346.6	\$ 1,126.9	\$ 1,198.2	\$ 1,253.8

Over the five years of the plan, most of the changes and increases in funding are associated with infrastructure investments in Water, Liquid Waste and Solid Waste, through changes to debt servicing and contributions to capital.

2020-2024 METRO VANCOUVER DISTRICTS TOTAL EXPENDITURES						
\$ Millions	2019	2020	2021	2022	2023	2024
Operations	\$ 482.2	\$ 498.0	\$ 516.6	\$ 529.2	\$ 547.1	\$ 547.8
Debt Service	135.8	135.0	175.0	237.7	294.9	357.7
Contribution to Capital	218.4	257.1	275.9	300.7	329.3	367.1
Total Expenditures	\$ 836.4	\$ 890.1	\$ 967.5	\$ 1,067.6	\$ 1,171.3	\$ 1,272.6

For 2020, the plan represents a \$33 increase to the cost of the average regional household (\$1.255 million assessed value) for a total cost of \$568. Over the five year period, the cost to the average regional household will increase an average of \$46. The cost to the average household is projected to increase from \$535 to \$768 over the next five years.

CONSISTENCY WITH THE 2019 -2023 FINANCIAL PLAN

For the purposes of providing predictability and stability for costs to our member municipalities, the financial plan was prepared to result in financial impacts that met or were better than what was

projected in the 2019 – 2023 Metro Vancouver Financial Plan for all four legal entities. In 2020 the impact on the average regional household is estimated to be \$8 less than the prior year projection for an average regional household cost of \$568 (Prior projection: \$576).

This change is driven by reductions in Water Services (-\$11) and Liquid Waste Services (-\$7) through adjustments to contribution to capital and direct application of DCC's to Liquid Waste growth projects, but is offset by increase reserve contributions for both Affordable Housing and Regional Parks in the Regional District (+\$8) and increased estimated household tonnage in Solid Waste Services (+\$2).

For the years 2021, 2022 and 2023 the household impact is estimated to be a total of \$34 less than the previous five year projection.

The total household impact compared to that projected in the previous financial plan is set out in the table below.

BY 2020 VS BY 2019 HOUSEHOLD IMPACT COMPARISON						
\$	2019	2020	2021	2022	2023	2024
Water Services						
Current Year Forecast	\$ 172	\$ 178	\$ 186	\$ 201	\$ 218	\$ 239
Prior Year Forecast	\$ 172	\$ 189	\$ 207	\$ 229	\$ 253	\$ -
Liquid Waste Services						
Current Year Forecast	\$ 250	\$ 264	\$ 290	\$ 322	\$ 352	\$ 372
Prior Year Forecast	\$ 250	\$ 271	\$ 298	\$ 328	\$ 343	\$ -
Solid Waste Services						
Current Year Forecast	\$ 58	\$ 62	\$ 65	\$ 68	\$ 70	\$ 73
Prior Year Forecast	\$ 58	\$ 60	\$ 62	\$ 64	\$ 67	\$ -
MVRD Services						
Current Year Forecast	\$ 55	\$ 64	\$ 69	\$ 74	\$ 79	\$ 84
Prior Year Forecast	\$ 55	\$ 56	\$ 58	\$ 59	\$ 60	\$ -
Total Household Impact						
Current Year Forecast	\$ 535	\$ 568	\$ 610	\$ 665	\$ 719	\$ 768
Prior Year Forecast	\$ 535	\$ 576	\$ 625	\$ 680	\$ 723	\$ -

FINANCIAL PLAN HIGHLIGHTS

GVWD - WATER

The GVWD comprises 18 member municipalities, one electoral area and one treaty First Nation within Metro Vancouver, serving a population of approximately 2.5 million. Drinking water is collected from three protected mountain watersheds covering an area of approximately 60,000 hectares. The system itself comprises six mountain storage lakes, five dams, two major water treatment facilities, over 500 km of large diameter transmission mains, 26 storage reservoirs, 19 pump stations and 8 rechlorination stations. The system treats and distributes an average of 1.0 billion litres of water per day.

The GVWD 2020 – 2024 Financial Plan for the next five years is summarized below:

WATER SERVICES FIVE YEAR FINANCIAL PLAN OVERVIEW							
\$ Millions	2019	2020	2021	2022	2023	2024	5 Year Ave
Water Sales	\$286.9	\$307.2	\$326.7	\$357.3	\$394.5	\$437.4	
% Change		7.1%	6.4%	9.4%	10.4%	10.9%	8.8%
Total Expenditures	\$290.7	\$309.1	\$328.5	\$359.0	\$396.2	\$439.0	
% Change		6.4%	6.2%	9.3%	10.4%	10.8%	8.6%
Blended Water Rate (m3)	\$0.7395	\$0.7836	\$0.8315	\$0.9049	\$0.9949	\$1.0953	
% Change		6.0%	6.1%	8.8%	9.9%	10.1%	8.2%
Total Capital Expenditures	\$231.4	\$397.5	\$449.7	\$496.5	\$522.7	\$540.8	\$481.4
Household Impact (\$)	\$172	\$178	\$186	\$201	\$218	\$239	
% Change		3.0%	4.9%	7.7%	8.8%	9.3%	6.8%
Household Impact Change from Prior Cycle (\$)		(\$11)	(\$21)	(\$28)	(\$35)	N/A	

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). It is proposed to increase by \$18.4 million in 2020 for a total budget of \$309.1 million (Attachment 1). This increase can essentially be attributed to contribution to capital, to support infrastructure investments required to meet service requirements, growth demands and resilience upgrades.

The 2020 operating budget includes the following key actions:

- Continue to collaborate with GVWD members to implement the new Region-wide Guide for Enforcement of Metro Vancouver's Drinking Water Conservation Plan.
- Secure water licence(s) for the additional water allocation from the Coquitlam source, as per the Coquitlam Water Use Plan, following execution of the new BC Hydro/GVWD Water Use Agreement
- Continue development of a Facility Master Plan that aligns with Metro Vancouver's Water Supply Outlook 2120.
- Continue development of an updated Drinking Water Management Plan.
- Continue to develop Asset Management Program for Water Services including Asset Assessment Plans and individual facility Asset Management Plans.
- Continue implementation of the Water Services Environmental Management System in addressing prioritized regulatory compliance and environmental risks.
- Complete fish stranding study downstream of Seymour Falls Dam in accordance with the approved Joint Water Use Plan.
- Complete Level 2 asset condition assessments for select water main marine crossings and critical line valve chambers in accordance with the Water Services Asset Management Plan.
- Develop an energy use dashboard for the Capilano Raw Water Pump Station to track and manage energy use and optimize operation.

- Conduct a screening level business case for the phased installation of in-line chlorine meters in the water transmission system.
- Coordinate interagency work for Pattullo Bridge Replacement project, Broadway Subway project and the Surrey/Langley Skytrain project.

In 2020, Water Services is proposing to add 5 new full-time staff positions. These include 2 Senior Project Engineers dedicated to completing key tasks supporting Water Services' Asset Management Program, 1 Utility System Operator II supporting field operations along with condition assessments of water transmission infrastructure assets as part of Water Services' Asset Management Program, 1 Engineering Technician II supporting environmental compliance reporting requirements, and 1 Senior Project Engineer supporting backup power related project works. As well, 1 Trades Foreman supporting ongoing maintenance work at the Seymour Capilano Filtration Plant is proposed to be added to the shared services provided by Liquid Waste.

Over the next five years, the Water Services budget is expected to increase an average of \$29.7 million or 8.6% per year. Of this overall increase, funding related to the expanding capital program (debt servicing and contribution to the capital) is increasing \$26.8 million on average over the next five years leaving the operating programs which are increasing, on average, by \$2.9 million per year, roughly at the rate of inflation.

Capital Budget Highlights

The Water Services capital budget for 2020 is \$397.5 million (Attachment 2). The capital program is funded by a combination of long-term debt, contributions from the operating budget, and external (interagency) contributions.

Highlights of capital projects planned or ongoing for 2020 include the following:

- Commence Coquitlam Intake No. 2 Project Preliminary Design
- Continue design of Coquitlam Main No. 4
- Continue construction of Second Narrows Water Supply Tunnel
- Complete detailed design of Annacis Water Supply Tunnel and begin construction phase
- Complete construction of Mackay Creek Debris Flow Mitigation project
- Continue construction of Kennedy-Newton Main (Phase 1)
- Complete design of Annacis Main No. 5 (South)
- Complete construction of South Delta Main No. 1 Replacement (Phase 3)
- Commence construction of Capilano Raw Water Pump Station Backup Power
- Continue design of Capilano Main No. 5 (Stanley Park Section)
- Commence construction of Fleetwood Reservoir
- Complete construction of Jericho Reservoir
- Continue construction of Port Mann Main No. 2 (South)
- Continue construction of Whalley Main
- Commence construction of Douglas Road Main No. 2 (Still Creek Section)
- Complete construction of Central Park Main No. 2 (Phase 1) and
- Continue conceptual design of Cambie-Richmond Main No. 3 (Marine Crossing).

The capital expenditure budget for 2020 – 2024 totals \$2.41 billion, an average of \$481 million per year. The largest 10 projects (\$150 million and greater) make up approximately 57% of the capital

spending over the next five years. These ten projects also represent the majority of expenditures planned for the 2025 – 2029 period (67%). There are an additional 118 projects on the plan.

Capital program expenditures over the next five years are largely driven by system expansion to meet the needs of a growing population, upgrades to improve system resiliency and maintenance of aging infrastructure. The following ten projects are the largest projects included in the five year plan:

- Coquitlam Intake No. 2, Tunnel and Treatment - \$2.3B
- Annacis Main No. 5 (Marine Crossing) - \$488M
- Second Narrows Crossing (Tunnel) - \$469M
- Cambie-Richmond Main No.3 (Marine Crossing) - \$405M
- Lulu Island-Delta Main No.2 (Marine Crossing) - \$370M
- Coquitlam Main No. 4 (Central Section) - \$297M
- Capilano Main No. 5 (South Shaft to Lost Lagoon) - \$249M
- Seymour Main No. 5 III (North) - \$237M
- Coquitlam Main No. 4 (South Section) - \$228M, and
- Kennedy-Newton Main - \$164M.

GVS&DD – LIQUID WASTE

The Liquid waste function of the GVS&DD comprises 17 member municipalities and one electoral area within Metro Vancouver, serving a population of approximately 2.5 million. The wastewater collection and treatment system consists of over 530 kilometers of trunk sewers, 33 pump stations and 5 treatment plants that convey and treat an average of 1.2 billion litres of wastewater per day. The urban drainage function comprises the Still Creek/Brunette, Port Moody/Coquitlam and UBC Drainage Areas.

The Liquid Waste 2020 – 2024 Financial Plan for the next five years is summarized below:

LIQUID WASTE SERVICES FIVE YEAR FINANCIAL PLAN OVERVIEW							
\$ Millions	2019	2020	2021	2022	2023	2024	5 Year Ave
Sewer Levy	\$255.8	\$274.2	\$306.8	\$347.6	\$386.5	\$416.3	
% Change		7.2%	11.9%	13.3%	11.2%	7.7%	10.3%
Total Expenditures	\$310.9	\$328.3	\$371.3	\$425.3	\$475.8	\$518.4	
% Change		5.6%	13.1%	14.6%	11.9%	9.0%	10.8%
Total Capital Expenditures	\$564.9	\$883.4	\$759.9	\$529.5	\$617.8	\$634.1	\$684.9
Household Impact (\$)	\$250	\$264	\$290	\$322	\$352	\$372	
% Change		5.6%	9.8%	11.3%	9.2%	5.8%	8.3%
Household Impact Change from Prior Cycle (\$)		(\$7)	(\$8)	(\$6)	\$9	N/A	

The Sewer Levy and household impact by sewerage areas (SA) are as follows:

\$ Millions	2019	2020	2021	2022	2023	2024	5 Year Ave
Vancouver SA - Levy	\$79.6	\$85.5	\$92.6	\$99.8	\$106.5	\$111.4	7.0%
Household Impact (\$)	\$293	\$310	\$331	\$353	\$371	\$384	5.6%
North Shore SA - Levy	\$23.0	\$26.0	\$29.2	\$34.5	\$39.1	\$44.6	14.1%
Household Impact (\$)	\$304	\$340	\$376	\$440	\$493	\$558	12.9%
Lulu Island SA - Levy	\$21.5	\$24.7	\$28.1	\$32.2	\$35.8	\$38.7	12.6%
Household Impact (\$)	\$214	\$239	\$269	\$300	\$329	\$347	10.2%
Fraser SA - Levy	\$129.5	\$135.9	\$154.8	\$179.0	\$203.0	\$219.4	11.2%
Household Impact (\$)	\$226	\$234	\$260	\$294	\$326	\$344	8.8%
Drainage Areas – Levy (**)	\$2.2	\$2.1	\$2.1	\$2.1	\$2.1	\$2.2	0.0%

(**) Household impact is not calculated for drainage areas

In 2019, an amendment to the *Cost Apportionment* Bylaw allowed for the direct application of DCCs for growth capital expenditure. For each sewerage area, the direct application of DCCs has resulted in savings in debt service costs through reduced projected borrowing. This contributes directly to the primary objectives of the *Financial Management Policy* by reducing overall debt servicing both currently and in the future. Capacity has also been created to allow additional contribution to capital over the next five years which reduce long term borrowing within individual sewerage areas.

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 \$17.4 million in 2020 for a total budget of \$328.3 million (Attachment 1). This increase can essentially be attributed to increasing operating costs, debt service and contribution to capital. A significant portion of the increase can be attributed to increased contributions to capital of \$8.2 million to support infrastructure investments required to meet service requirements and growth demands and increased debt service costs of \$2.9 million due to accelerating capital program.

The 2020 operating budget includes the following key actions:

- Complete the Project Definition Report for the Iona Island Wastewater Treatment Plant Secondary and advanced treatment options upgrade, including development of the indicative design for the new plant.
- Initiate review of the *Integrated Liquid Waste and Resource Management Plan* for 2021 update.
- Continue to decommission the Iona Island Wastewater Treatment Plant biosolids stockpile. Acceleration of the grit dump decommissioning, increased disposal volumes due to weed seed contamination and delays in the decommissioning of the sludge lagoons are driving cost increases for 2020.
- Continue development of Asset Management program in alignment with the Board *Asset Management for Liquid Waste Policy*, including O&M asset condition assessment plans, facility level risk assessments and asset management plans. This work will include developing

strategies and implementing pilot work on technologies for full pipe condition inspections/assessments.

- Update the Biosolids Management Plan Framework, identifying an action plan to manage future increases in biosolids generation resulting from growth and the treatment plant upgrades.
- Complete Maintenance Service Enhancement Initiatives to review maintenance practices, efficiency, transparency/accuracy of data and level of customer service with the intent to optimize resources, procedures and practices.
- Continue Source Control regulatory initiatives including a review of the Food Sector Grease Interceptor Bylaw and the Sewer Use Bylaw (with respect to the trucked liquid waste sector) Identification and pursuit of unauthorized discharges will reduce system maintenance and treatment costs and reduce risks to workers, biosolids quality and the environment.

In 2020, Liquid Waste Services is proposing to add 7 new full-time staff positions. These include 2 Project Engineers dedicated to required engineering support at North Shore and Northwest Langley wastewater treatment plants, 1 Clerk Stenographer III providing required administrative support for large infrastructure projects such as the North Shore wastewater plant upgrade, 1 Project Engineer dedicated to complete key tasks supporting Liquid Waste Service's Asset Management Program, 1 Engineering Technician I to provide technical resources supporting numerous asset management and condition asset programs, 1 Project Engineer providing mechanical engineering technical support for select utilities assets as well as technical maintenance related start-up and commissioning services for new assets and 1 Senior Project Engineer in Wastewater Engineering providing operational engineering technical support for all phases of wastewater capital projects underway including project definition, detailed design, construction and start-up and commissioning.

As well, 1 Trades Foreman supporting ongoing maintenance work at Seymour Capilano Filtration Plant for Water Services is proposed to be added to the shared services provided by Liquid Waste Services Operations and Maintenance.

Over the next five years, the Liquid Waste Services budget is expected to increase an average of \$41.5 million or 10.8% per year. Of this overall increase, funding related to the expanding capital program (debt servicing and contribution to the capital) is increasing \$36.2 million on average over the next five years. The operating programs are increasing, on average, by \$5.3 million per year, roughly at the rate of inflation.

Capital Budget Highlights

The Liquid Waste Services capital budget for 2020 is \$883.4 million (Attachment 2). The capital program is funded by long-term debt, contributions from the operating budget, and external (interagency and senior level government grant) contributions.

Highlights of capital projects planned or ongoing for 2020 include the following:

- Remove all preload from North Shore Wastewater Treatment Plant site, complete 90% of excavation and commence foundation pouring;
- Substantially complete construction of 5 primary sedimentation tanks, 2 solids contact tanks and 6 secondary clarifiers for the Annacis Island WWTP Stage 5 expansion;
- Complete construction of 2 vertical launch/receiving shafts and commence tunneling of chlorine contact tank effluent section for the Annacis Island WWTP Outfall project;

- Substantially complete the Sapperton Pump Station;
- Complete the Northwest Langley Wastewater Treatment Plant Phase 2 ground improvements;
- Start construction of the open cut and tunneled sections of the Burnaby Lake North Interceptor – Winston section;
- Achieve total completion of the two South Surrey Interceptor Odour Control Facilities (King George and Highway 10);
- Start construction of the last section of the twinning of the South Surrey Interceptor; and
- Complete the Hastings Sanitary Trunk Sewer, North Road Trunk Sewer (Phase 1), Albert Street Sanitary Trunk Sewer (Phase 1) and Highbury Interceptor Air Management Facility.

The capital expenditure budget for 2020 - 2024 totals \$3.42 billion, an average of \$685 million per year. The largest 5 projects (\$175 million and greater) make up 60% of the capital spending over the next 5 years. These five projects also represent the majority of the expenditures planned for the following 10 years (61%). In addition, there are a further 130 projects on the plan.

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

- North Shore Wastewater Treatment Plant Secondary - \$882M;
- Annacis Stage 5 Expansion - \$686M;
- Annacis Outfall System - \$378M;
- Northwest Langley Wastewater Plant Stage 1 - \$889M; and
- Iona Secondary Treatment Indicative Design and Ground Improvements - \$335M from 2020 to 2024.

GVS&DD – SOLID WASTE

The Solid Waste function comprises 17 member municipalities and one electoral area within Metro Vancouver, serving a population of approximately 2.5 million under the Greater Vancouver Sewerage and Drainage District. Metro Vancouver services provided to the region include regional solid waste planning, facilities for waste transfer, waste-to-energy and disposal and the regional coordination of public recycling services and education.

The Solid Waste 2020 – 2024 Financial Plan for the next five years is summarized below:

SOLID WASTE SERVICES FIVE YEAR FINANCIAL PLAN OVERVIEW							
\$ Millions	2019	2020	2021	2022	2023	2024	5 Year Ave
Tipping Fee Revenue	\$98.4	\$105.8	\$112.5	\$117.8	\$125.9	\$130.9	
% Change		7.6%	6.3%	4.7%	6.9%	4.0%	5.9%
Total Expenditures	\$107.2	\$114.1	\$122.3	\$127.8	\$136.1	\$141.4	
% Change		6.5%	7.2%	4.5%	6.6%	3.8%	5.7%
Total Capital Expenditures	\$89.2	\$88.5	\$81.6	\$52.4	\$18.9	\$41.6	\$56.6

\$ Millions	2019	2020	2021	2022	2023	2024	5 Year Ave
Household Impact (\$)	\$58	\$62	\$65	\$68	\$70	\$73	
% Change		6.6%	5.3%	3.7%	3.5%	4.1%	4.6%
Household Impact Change from Prior Cycle (\$)		\$2	\$3	\$4	\$3	N/A	
Tipping Fees:							
Up to 1 tonne	\$142	\$147	\$154	\$161	\$168	\$175	
1 to 9 tonnes	\$120	\$125	\$132	\$139	\$146	\$153	
Over 9 tonnes	\$90	\$99	\$106	\$113	\$120	\$127	
Municipal	\$108	\$113	\$120	\$127	\$134	\$141	

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 \$6.9 million in 2020 for a total budget of \$114.1 million (Attachment 1). This increase can essentially be attributed to increasing transfer station and Waste-to-Energy Facility operating costs based on volume, additional resources in support of the work to update the *Integrated Solid Waste and Resource Management Plan* beginning in 2020 (through 2022) along with debt service and contribution to capital. With respect to contributions to capital, there was an increase of \$1.7 million to support infrastructure investments required to meet service requirements and growth demands and an increase of debt service costs of \$2.3 million due to the capital program primarily related to transfer station development work.

The 2020 operating budget includes the following key actions:

- Implementation of the Asset Management Program, including facility condition assessments;
- Complete Waste-to-Energy Facility biosolids processing preliminary design and district energy preliminary design and business case;
- Bottom ash beneficial use procurement;
- Autoscale software replacement plan;
- Initiate review of the *Integrated Solid Waste and Resource Management Plan*;
- Evaluate the transfer station network and potential improvements;
- Monitor implementation of the Disposal Ban Program;
- Evaluate the feasibility of an alternative fuel and recyclable recovery facility;
- Support programs for textiles, single-use items, seasonal wastes, food wastes, illegal dumping, and the Zero Waste Conference;
- Support the National Zero Waste Council including work on implementing the Circular Economy and Zero Plastics Waste;
- Support national solid waste benchmarking and applied waste research;
- Update regional waste composition monitoring;
- Track and manage waste flows;
- Update transfer stations customer service survey;
- Complete replacement Coquitlam Transfer Station construction and prepare for operations;
- Continue Surrey Recycling and Waste Drop-Off Facility development including beginning construction; and
- Inform, educate and engage the public in decision making on applicable solid waste initiatives.

Highlights of contracts and consulting projects anticipated to be undertaken in 2020 to respond to work plan requirements within the operating budget include the following:

- Transfer station scale projects, customer survey, asset condition assessments (\$504,000);
- Waste-to-Energy Facility projects (\$675,000);
- *Integrated Solid Waste and Resource Management Plan* review and update (\$1,000,000); and
- Ashcroft Ranch McLean Lake Dam spillway (\$150,000).

There are no new full-time staff positions proposed for 2020. The Solid Waste Services organization chart is included as Attachment 6.

Over the next five years, the Solid Waste Services budget is expected to increase an average of \$6.8 million or 5.7% per year. Of this overall increase, funding related to the expanding capital program (debt servicing and contribution to the capital) is increasing \$5.0 million on average over the next five years leaving the operating programs which are increasing, on average, by \$1.8 million per year, roughly at the rate of inflation.

Capital Budget Highlights

The proposed Solid Waste Services capital budget for 2020 is \$88.5 million (Attachment 2). The capital program is funded by long-term debt and contribution to capital from the annual operating budget as available.

Highlights of capital projects planned or ongoing for 2020 include the following:

- Coquitlam Transfer Station replacement and Coquitlam Landfill Closure;
- Surrey Recycling and Waste Drop-off Facility; and
- Refuse crane at the Waste-to-Energy Facility.

The capital expenditure budget for 2020 - 2024 totals \$282.9 million, an average of \$56.6 million per year. The largest five projects (each over \$10 million) make up approximately 74% of the capital spending over the next five years, with an additional 25 projects on the plan making up the balance.

The capital program over the next five years is largely driven by the need to replace aging transfer stations and increase transfer station capacity through addition and expansion. Upgrades to the existing Waste-to-Energy Facility will ensure it continues to meet regulatory requirements and the addition of biosolids management at the Waste-to-Energy Facility and the Alternative Fuel and Recyclables Recovery project is expected to increase beneficial use of waste within the region. The following five key projects are the largest on the five year plan:

- Alternative Fuel and Recyclables Recovery Centre - \$60.0M
- Coquitlam Transfer Station replacement - \$77.6M
- Surrey Recycling and Waste Drop-off Facility - \$62.3M
- Waste-to-Energy Facility Acid Gas Reduction - \$41.0M
- Waste-to-Energy Facility Biosolids Processing - \$20.5M

The proposed budgets for the Coquitlam Transfer Station replacement and Surrey Recycling and Waste Drop-Off have increased by \$7.4 and \$8.0 million respectively due to increased building and

subdivision costs along with site specific issues related to developing the transfer station on a closed landfill for the Coquitlam Transfer Station, and updated costs estimates with the completion of detailed design for Surrey Recycling and Waste Drop-Off. Contingencies for both projects have been replenished with the proposed budget increases.

Business cases for the development of the Alternative Fuel and Recyclables Recovery Centre and biosolids management at the Waste-to-Energy Facility will be provided to the Zero Waste Committee and Board for consideration and specific approval of the projects.

MVHC – HOUSING

The MVHC owns and operates 49 housing sites that provide 3,400 units of affordable rental housing for low to moderate income households across the region. MVHC maintains existing assets, redevelops housing complexes, manages tenants and builds communities within the housing portfolio and surrounding neighborhoods. The Housing Corporation is supported by revenues generated from unit rentals and does not form part of the overall MVRD tax requisition.

The MVHC 2020 – 2024 Financial Plan for the next five years is summarized below:

MVHC FIVE YEAR FINANCIAL PLAN OVERVIEW							
\$ Millions	2019	2020	2021	2022	2023	2024	5 Year Ave
Housing Rents	\$39.3	\$40.4	\$41.5	\$45.1	\$46.3	\$50.1	
% Change		2.8%	2.9%	8.6%	2.7%	8.0%	5.0%
Total Expenditures	\$51.2	\$52.3	\$53.4	\$57.0	\$58.0	\$61.8	
% Change		2.0%	2.3%	6.7%	1.7%	6.5%	3.8%
Capital Replacement	\$10.0	\$9.0	\$9.0	\$9.0	\$9.0	\$9.0	\$9.0
Housing Development	\$21.3	\$25.3	\$31.5	\$19.1	\$6.6	\$ -	

Operating Budget Highlights

MVHC 2020 operating budget is proposed to increase by \$1,020,291 for a total budget of \$52,289,752 (Attachment 1). This increase is primarily due to the increase rental revenue and operating subsidies to meet service requirements and growth demands.

The 2020 operating budget includes the following key actions:

- Rent-up and normalization of operations at Heather Place Building A
- Begin the implementation of the Metro Vancouver Housing 10-Year Plan actions
- Begin the implementation of the Redevelopment Plan and Asset Management Plan
- Begin construction on Kelly Court and Strathearn Court building envelope renewals and energy improvements
- Create new standardized signage for housing sites
- Enhance the online housing application process for tenants

There is one new full-time Community Development Coordinator position proposed for 2020 to support the Tenant Associations as well as enhancing tenant programs.

Over the next five years, the MVHC budget is expected to increase an average of \$2.1 million or 3.8% per year. Of this overall increase, funding related to the expanding capital program (debt servicing and contribution to the capital) is increasing on average \$1.2 million over the next five years and the operating programs and asset maintenance and replacement are increasing, on average, by \$928,388 or 2.6% per year, in line with inflation.

Capital Budget Highlights

The MVHC capital budget for 2020 is \$25.3 million (Attachment 2). The capital program is funded by mortgage financing, reserve funding, and contributions from external agencies. The capital projects planned and ongoing for 2020 are the redevelopment of Heather Place - Building A and B, Kingston Gardens - Phase I and Welcher Avenue. The capital expenditure budget for 2020 - 2024 totals \$82.5 million with Heather Place – Building A slated for completion in 2020 and Kingston Gardens - Phase I and Welcher Avenue are estimated to be completed in 2021. Heather Place – Building B is estimated to be completed in 2023.

MVRD – REGIONAL DISTRICT

The MVRD budget and financial plan presented includes thirteen regional district functions of which eleven services are apportioned to all MVRD members through the tax requisition and two services which are apportioned to either a single jurisdiction (Electoral Area A) or to two municipalities (Belcarra and Anmore – Sasamat Fire Protection Service). The MVRD functions are also funded through a variety of other sources including permit revenues and user fees. The thirteen regional district functions are as follows:

Affordable Housing	Regional Emergency Management
Air Quality	Regional Global Positioning System
E911 Emergency Telephone Service	Regional Parks
Electoral Area Service	Regional Planning
General Government Administration	Regional Economic Prosperity
General Government Zero Waste Collaboration Initiatives	Sasamat Fire Protection Service
	Labour Relations

The MVRD 2020 – 2024 Financial Plan for the next five years is summarized below:

REGIONAL DISTRICT SERVICES FIVE YEAR FINANCIAL PLAN OVERVIEW							
\$ Millions	2019	2020	2021	2022	2023	2024	5 Year Ave
Tax requisition	\$61.2	\$71.8	\$79.5	\$86.6	\$93.4	\$100.4	
% Change		17.3%	10.7%	9.0%	7.9%	7.5%	10.5%
Total Expenditures	\$76.4	\$86.3	\$92.0	\$98.5	\$105.2	\$112.0	
% Change		12.9%	6.6%	7.1%	6.8%	6.6%	8.0%
Total Capital Expenditures	\$15.9	\$19.9	\$23.9	\$29.4	\$32.2	\$37.3	\$28.5
Household Impact (\$)	\$55	\$64	\$69	\$74	\$79	\$84	
% Change		15.5%	9.0%	7.3%	6.3%	6.0%	8.8%
Household Impact Change from Prior Cycle (\$)		\$8	\$11	\$15	\$19	N/A	

Operating Budget Highlights

In 2020, total expenditures for the Regional District Service Areas are proposed to increase \$9.8 million for total expenditures of \$86.3 million (Attachment 1). The increase is primarily due to the following:

- An additional annual provision to a reserve of \$4 million for the development of affordable housing.
- An increase in the annual provision to the Parkland Acquisition Reserve Fund of \$4 million for the acquisition of new park land
- The planned increase in the budget for Regional Economic Prosperity totaling \$535,500.

The 2020 Regional District Service Area operating budgets includes the following key actions:

- Complete the Regional Greenways Plan
- Complete the Regional Parks Asset Management Plan
- Undertake an analysis of the Park Partnership Program
- Open the Sheep Paddocks Trail at Colony Farm Regional Park
- Seek Board adoption the Campbell Valley Regional Park Management Plan Update
- Continue to implement the *Climate 2050 Strategy*;
- Complete development of the next regional air quality management plan, the *Clean Air Plan*;
- 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.
- Update *Metro 2040* – Phase I Completion - Policy reviews and draft policy actions
- Complete the Urban Centres and FTDAs, Industrial and Mixed Employment, Agricultural, Environment, Transportation, Housing, and Climate Change Policy Review
- Completion of the 2020 Regional Industrial Land Inventory
- Frequent Transit Corridor Study
- Access to Homeownership Opportunities and development of Housing Agreement Templates
- Advance a Transit Oriented Affordable Housing Fund; update the Housing and Transportation Cost Burden analysis
- Climate Change Impacts on Invasive Species
- Urban forestry – Best Practices
- Complete pre-planning and concept development for select housing sites
- Build awareness and support for the Metro Vancouver Housing 10-year Plan
- Finalize and start the implementation of the Redevelopment Plan to support the increase in MVHC affordable housing units
- Support Metro Vancouver Regional Planning policies related to housing in the 2050 Regional Growth Strategy

Over the next five years, the key driver for the Regional District is the annual increase in the Regional Parks budget for the contribution to the Regional Parks Land Acquisition Reserve in 2020 to 2024. The impact of this increase on the Regional District budget and the Household impact is illustrated in the table below which compares the prior year projections for Household Impact with that for the current year:

REGIONAL DISTRICT HOUSEHOLD IMPACTS						
\$	2019	2020	2021	2022	2023	2024
MVRD Household Impact – Existing Services	\$55	\$56	\$57	\$58	\$59	\$60
Impact - Affordable Housing Development Reserve	\$-	\$4	\$4	\$4	\$4	\$4
Impact - Regional Parkland Acquisition Reserve	\$-	\$4	\$8	\$12	\$16	\$20
Total Proposed MVRD Household Impact	\$55	\$64	\$69	\$74	\$79	\$84
Prior Cycle MVRD Household Impact	\$55	\$56	\$58	\$59	\$60	\$-
\$ Change in Household Impact from Prior Cycle	\$-	\$8	\$11	\$15	\$19	\$-

There are two new full-time staff positions proposed for 2020 from the Regional District:

- A Policy Coordinator in Regional Planning to coordinate Metro Vancouver comments, and ensure a consistent approach when addressing external agency projects that have impacts on Metro Vancouver assets, operation, interests and legislated responsibilities (external agencies such as Translink, Port of Vancouver, Ministry of Transportation and Infrastructure).
- A Legislative Services Analyst in General Government Administration intended to manage the legislative requirements under the Freedom of Information and Protection of Privacy Act. The position is in response to FOI requests increasing in both number and complexity as well as privacy requirements becoming more stringent.

Over the five year plan, the projected expenditures for Regional District services collectively is projecting to increase from \$76.4 million in 2019 to \$112.0 million in 2024, an average increase of \$7.1 million. Over the five year plan, the cost to the average regional household, for all Regional District Service is increasing \$28 to a cost of \$84 representing an average increase of \$6 per year.

Capital Budget Highlights

For Regional District Services, only the Regional Parks has a capital program, which has a capital budget for 2020 is \$19.9 million (Attachment 2). The capital program is funded by reserve funds.

Highlights of capital projects planned or ongoing in 2020 include the following:

- Complete advanced design of Widgeon Marsh Regional Park
- Develop new service yard facilities at Capilano, Crippen, and Pacific Spirit Regional Parks
- Continued implementation of Grouse Mountain Regional Park Management Plan with upgrades to the BCMC and Grouse Grind Trails
- Pursue land acquisitions in support of *Regional Parks Land Acquisition 2050*
- Capital maintenance projects

The capital expenditure budget for 2020 - 2024 totals \$142.7 million 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
- Construction of the Belcarra South Picnic Area
- Development of Burns Bog Ecological Conservancy Area - Delta Nature Reserve

- Trail developments at Aldergrove, Tynehead, Campbell Valley and Pacific Spirit Regional Parks
- Pursue land acquisitions in support of *Regional Parks Land Acquisition 2050*
- Capital maintenance projects

CENTRALIZED SUPPORT PROGRAM

The Centralized Support Program includes the following support services: Corporate Services, External Relations, Financial Services, Human Resources Indigenous Relations and Legislative Services. These departments support all activities within the Metro Vancouver Districts and the Housing Corporation and costs are allocated to the various Districts and functions according to the Board's *Corporate Allocation Policy*.

The 2020 – 2024 Financial Plan for the Centralized Support Program for the next five years is summarized below:

CENTRALIZED SUPPORT PROGRAM FIVE YEAR FINANCIAL PLAN OVERVIEW							
\$ Millions	2019	2020	2021	2022	2023	2024	5 Year Ave
Allocated to Functions	\$ 59.9	\$ 61.5	\$ 63.2	\$ 64.5	\$ 64.9	\$ 67.1	
% Change		2.6%	2.8%	2.0%	0.6%	3.4%	2.3%
Corporate Services	\$ 42.4	\$ 43.1	\$ 42.8	\$ 43.2	\$ 40.5	\$ 42.3	
External Relations	6.1	6.0	6.1	6.2	6.4	6.5	
Financial Services	12.1	13.0	13.3	13.4	13.7	13.9	
Human Resources	8.6	9.5	9.5	9.7	9.9	10.1	
Indigenous Relations	0.6	0.6	0.6	0.6	0.6	0.6	
Legislative Services	4.1	4.1	4.2	4.3	4.4	4.5	
	\$ 73.9	\$ 76.3	\$ 76.5	\$ 77.4	\$ 75.5	\$ 77.9	
% Change		3.2%	0.3%	1.2%	(2.5%)	3.1%	1.1%

Operating Budget Highlights

In 2020, the Centralized Support Program expenditures are increasing \$2.37 million for total expenditures of \$76.3 million (Attachment 1). The allocation of Centralized Support Program costs, the true impact on the revenue requirements of the plan, is the total expenditures adjusted for external recoveries and reserve applications. In 2020, the allocation of centralized support program costs is increasing by \$1.56 million (2.6%). This increase is largely inflationary, but is also impacted by reduced estimates for third-party lease returns at head office and partially offset by increased reserve funding for projects meeting the criteria for funding in accordance with the *Operating, Statutory and Discretionary Reserves Policy*.

Financial Services is proposing the addition of one Financial Systems Analyst to provide additional client support for the Unit 4 financial management system and the Questica financial planning system.

Centralized Support Services support the organization and focus on processes, systems and procedures which enhance the business activities of all Metro Vancouver service areas. Some of those enhancements include the following:

- Upgrade the Financial Planning System including an enhanced capital planning module
- Implementation of the Digital Strategy setting out a coordinated direction for IT corporately.
- Completion of the initial Metro Vancouver 30 Year Financial Plan
- Reviewing and revising Corporate Safety Management System Standards
- Continue the development of asset management programs building on the Board approved policies
- Review and update job classifications and generate job descriptions for the Teamsters positions
- Implementation of a Talent Management System and Learning Management System

Over the five years of the plan, the Centralized Support Program expenditures are increasing from \$73.4 million in 2019 to \$77.9 million in 2024, an average increase of \$796,000 per year.

ALTERNATIVES

1. That the Board endorse the 2020 Budget and 2020 -2024 Financial Plan for the Metro Vancouver Districts and Housing Corporation, as presented, and direct staff to prepare the necessary budget information to be presented at the November 1, 2019 Metro Vancouver Districts and Housing Corporation Board meetings for consideration.
2. That the Board make recommendations to amend the 2020 Budget and 2020 -2024 Financial Plan for the Metro Vancouver Districts and Housing Corporation, as presented, and endorse the 2020 Budget and 2020 -2024 Financial Plan for the Metro Vancouver Districts and Housing Corporation as amended.

FINANCIAL IMPLICATIONS

If the Board endorses the 2020 Budget and 2020 – 2024 Financial Plan for the Metro Vancouver Districts and Housing Corporation as presented under alternative one, the cost to the average regional household (\$1.255 million assessed value) will increase by \$33 in 2020 for a total impact of \$568 for all Metro Vancouver services. Over the next five years of the financial plan, the cost to the average regional household will increase from \$535 in 2019 to \$768 in 2024, an average annual increase of \$46.

Under alternative two, the Board may wish to consider recommending amendments to the financial plan to reflect program priorities. Any proposed changes could require an update to the revenues required to fund the priorities in the plan.

SUMMARY / CONCLUSION

During the first two weeks of October, the 2020 Budget and 2020 – 2024 Financial Plans for Metro Vancouver's legal entities and functions were presented to the following ten Board Standing Committees for the individual functions that fall under the oversight of those Committees:

- | | |
|-------------------------------|---------------------|
| • Indigenous Relations | • Regional Parks |
| • Climate Action | • Regional Planning |
| • Electoral Area | • Water |
| • Finance and Intergovernment | • Liquid Waste |
| • Housing | • Zero Waste |

The Metro Vancouver Standing Committees were presented with individual reports covering the 2020 Budget and 2020 - 2024 Financial Plans for each function including program highlights, financial plan highlights, financial information for multiple years as well as a “What’s Happening” summary page that described the key activities projected over the five year period of the financial plan. Each Committee reviewed and endorsed their individual financial plans and provided comments and direction where appropriate for consideration by the Board at the October 23, 2019 Board Budget Workshop.

Within this report, the 2020 Budget and 2020 – 2024 Financial Plan for the Metro Vancouver Districts and Housing Corporation have been consolidated for Board consideration and present the overall financial forecast for Metro Vancouver over the next five years. The proposed Financial Plan includes significant capital investment that will be required if Metro Vancouver and its member jurisdictions are to meet the growing demands of the Metro Vancouver region over the coming years. For 2020, the plan represents a \$33 increase to the cost of the average regional household (\$1.255 million assessed value) for a total cost of \$568. Over the five year period, the cost to the average regional household will increase an average of \$46. Household impact is also presented by sub-region (using GVS&DD sewer areas as sub-regions) to assist member local governments in anticipating the financial impact of Metro Vancouver services to their individual communities. The cost to the average household is projected to increase from \$535 to \$768 over the next five years.

With Board endorsement, the *2020 – 2024 Metro Vancouver Financial Plan* will form part of a 30 Year Financial Plan, currently under development, to ensure a sustainable financial foundation in the years ahead.

Staff recommend endorsing the 2020 Budget and 2020 – 2024 Financial Plan as presented under alternative one.

Attachments:

1. Proposed 2020 – 2024 Financial Plan

**Proposed
2020-2024 Financial Plan**

October 2019



**Metro Vancouver Districts
2020 - 2024 Financial Plan Information**

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**METRO VANCOUVER DISTRICTS
ESTIMATED HOUSEHOLD IMPACT
2020-2024 FINANCIAL PLAN**

	2019 FINAL	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
Vancouver Sewerage Area											
Water Services	\$ 172	\$ 178	3.0%	\$ 186	4.9%	\$ 201	7.7%	\$ 218	8.8%	\$ 239	9.3%
Liquid Waste Services	293	310	5.6%	331	7.0%	353	6.5%	371	5.2%	384	3.6%
Solid Waste Services	58	62	6.6%	65	5.3%	68	3.7%	70	3.5%	73	4.1%
Metro Vancouver Regional District Services	55	64	15.5%	69	9.0%	74	7.3%	79	6.3%	84	6.0%
Total Household Impact	\$ 578	\$ 614	5.9%	\$ 651	6.4%	\$ 696	6.6%	\$ 738	6.2%	\$ 780	5.6%
North Shore Sewerage Area											
Water Services	\$ 172	\$ 178	3.0%	\$ 186	4.9%	\$ 201	7.7%	\$ 218	8.8%	\$ 239	9.3%
Liquid Waste Services	304	340	11.8%	376	10.6%	440	17.1%	493	12.1%	558	13.1%
Solid Waste Services	58	62	6.6%	65	5.3%	68	3.7%	70	3.5%	73	4.1%
Metro Vancouver Regional District Services	55	64	15.5%	69	9.0%	74	7.3%	79	6.3%	84	6.0%
Total Household Impact	\$ 589	\$ 644	9.0%	\$ 696	8.4%	\$ 783	12.4%	\$ 860	9.9%	\$ 954	10.7%
Lulu Island West Sewerage Area											
Water Services	\$ 172	\$ 178	3.0%	\$ 186	4.9%	\$ 201	7.7%	\$ 218	8.8%	\$ 239	9.3%
Liquid Waste Services	214	239	11.8%	269	12.2%	300	11.6%	329	9.8%	347	5.5%
Solid Waste Services	58	62	6.6%	65	5.3%	68	3.7%	70	3.5%	73	4.1%
Metro Vancouver Regional District Services	55	64	15.5%	69	9.0%	74	7.3%	79	6.3%	84	6.0%
Total Household Impact	\$ 499	\$ 543	8.6%	\$ 589	8.6%	\$ 643	9.0%	\$ 696	8.4%	\$ 743	6.6%
Fraser Sewerage Area											
Water Services	\$ 172	\$ 178	3.0%	\$ 186	4.9%	\$ 201	7.7%	\$ 218	8.8%	\$ 239	9.3%
Liquid Waste Services	226	234	3.2%	260	11.1%	294	13.1%	326	10.9%	344	5.7%
Solid Waste Services	58	62	6.6%	65	5.3%	68	3.7%	70	3.5%	73	4.1%
Metro Vancouver Regional District Services	55	64	15.5%	69	9.0%	74	7.3%	79	6.3%	84	6.0%
Total Household Impact	\$ 511	\$ 538	4.8%	\$ 580	8.1%	\$ 637	9.6%	\$ 693	8.9%	\$ 740	6.7%
	2019 Final	2020 Prior Year Forecast	2020 Current Year Forecast	2021 Prior Year Forecast	2021 Current Year Forecast	2022 Prior Year Forecast	2022 Current Year Forecast	2023 Prior Year Forecast	2023 Current Year Forecast	2024 Prior Year Forecast	2024 Current Year Forecast
Metro Vancouver Average											
Water Services	\$ 172	\$ 189	\$ 178	\$ 207	\$ 186	\$ 229	\$ 201	\$ 253	\$ 218	N/A	\$ 239
Liquid Waste Services	250	271	264	298	290	328	322	343	352	N/A	372
Solid Waste Services	58	60	62	62	65	64	68	67	70	N/A	73
Metro Vancouver Regional District Services	55	56	64	58	69	59	74	60	79	N/A	84
Total Household Impact	\$ 535	\$ 576	\$ 568	\$ 625	\$ 610	\$ 680	\$ 665	\$ 723	\$ 719	N/A	\$ 768

**METRO VANCOUVER DISTRICTS
REVENUE AND EXPENDITURE SUMMARY
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN**

	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES											
Water Sales	\$ 286,908,565	\$ 307,175,053	7.1%	\$ 326,712,080	6.4%	\$ 357,309,593	9.4%	\$ 394,526,146	10.4%	\$ 437,378,545	10.9%
Liquid Waste Services Levy	255,810,755	274,237,112	7.2%	306,762,144	11.9%	347,617,635	13.3%	386,541,738	11.2%	416,276,434	7.7%
Solid Waste Tipping Fees	98,362,329	105,822,892	7.6%	112,531,210	6.3%	117,787,451	4.7%	125,918,930	6.9%	130,900,548	4.0%
Metro Vancouver Regional District Requisitions	61,188,452	71,779,890	17.3%	79,456,410	10.7%	86,572,835	9.0%	93,397,733	7.9%	100,374,202	7.5%
Compensation Services Revenue	478,280	483,893	1.2%	502,980	3.9%	503,373	0.1%	509,285	1.2%	516,934	1.5%
Collective Bargaining Services Revenue	867,558	887,536	2.3%	922,506	3.9%	924,552	0.2%	936,360	1.3%	951,277	1.6%
Housing Rents	39,309,579	40,392,325	2.8%	41,544,306	2.9%	45,130,135	8.6%	46,338,026	2.7%	50,049,662	8.0%
Liquid Waste Industrial Charges	11,022,967	11,201,217	1.6%	11,425,241	2.0%	11,653,747	2.0%	11,886,822	2.0%	12,124,559	2.0%
Energy Sales	5,927,304	5,681,540	(4.1%)	6,239,530	9.8%	6,401,758	2.6%	6,568,204	2.6%	6,738,977	2.6%
Transfer from DCC Reserves	31,665,173	34,172,083	7.9%	44,631,226	30.6%	59,373,050	33.0%	71,596,693	20.6%	86,697,664	21.1%
User Fees	5,257,010	5,288,054	0.6%	5,331,694	0.8%	5,390,855	1.1%	5,456,097	1.2%	5,510,326	1.0%
Housing Mortgage Subsidies	1,088,554	2,103,014	93.2%	2,099,058	(0.2%)	2,153,023	2.6%	1,901,688	(11.7%)	1,950,519	2.6%
Non-Road Diesel Permit Fees	2,450,000	1,760,000	(28.2%)	1,710,000	(2.8%)	1,615,000	(5.6%)	1,565,000	(3.1%)	1,465,000	(6.4%)
Regional Global Positioning System User Fees	314,180	292,221	(7.0%)	294,175	0.7%	299,252	1.7%	303,846	1.5%	309,310	1.8%
Electoral Area Requisition	366,510	376,943	2.8%	398,979	5.8%	425,310	6.6%	443,219	4.2%	458,992	3.6%
Love Food Hate Waste	556,000	406,800	(26.8%)	499,500	22.8%	547,200	9.5%	502,200	(8.2%)	502,200	0.0%
Zero Waste Conference	180,000	230,000	27.8%	325,000	41.3%	337,000	3.7%	350,500	4.0%	366,200	4.5%
Other External Revenues	9,311,422	9,213,671	(1.0%)	10,128,494	9.9%	10,121,552	(0.1%)	10,205,368	0.8%	10,304,943	1.0%
Transfer from Sustainability Innovation Fund Reserve	3,249,082	895,000	(72.5%)	265,000	(70.4%)	155,000	(41.5%)	-	(100.0%)	-	0.0%
Transfer from Reserves	22,068,080	17,650,939	(20.0%)	15,691,594	(11.1%)	13,255,576	(15.5%)	12,333,614	(7.0%)	9,755,579	(20.9%)
TOTAL REVENUES	\$ 836,381,800	\$ 890,050,183	6.4%	\$ 967,471,127	8.7%	\$ 1,067,573,897	10.3%	\$ 1,171,281,469	9.7%	\$ 1,272,631,871	8.7%
EXPENDITURES											
Operating Programs:											
Greater Vancouver Water District	\$ 290,674,105	\$ 309,148,765	6.4%	\$ 328,462,949	6.2%	\$ 358,973,462	9.3%	\$ 396,181,015	10.4%	\$ 439,048,943	10.8%
Greater Vancouver Sewerage & Drainage District:											
Liquid Waste	310,869,528	328,262,814	5.6%	371,272,678	13.1%	425,298,327	14.6%	475,810,549	11.9%	518,415,299	9.0%
Solid Waste	107,157,767	114,088,624	6.5%	122,263,419	7.2%	127,769,111	4.5%	136,141,409	6.6%	141,370,775	3.8%
Metro Vancouver Housing Corporation	51,269,461	52,289,752	2.0%	53,477,886	2.3%	57,051,348	6.7%	58,008,008	1.7%	61,767,011	6.5%
Metro Vancouver Regional District											
Affordable Housing	1,839,479	5,833,504	220.0%	5,847,990	0.2%	5,859,978	0.2%	5,870,428	0.2%	5,870,445	0.0%
Air Quality	11,147,867	11,258,492	1.0%	10,888,637	(3.3%)	10,959,742	0.7%	11,100,594	1.3%	11,394,762	2.7%
E911 Emergency Telephone Service	4,411,585	4,521,227	2.5%	4,643,773	2.7%	4,774,193	2.8%	4,927,854	3.2%	5,074,228	3.0%
Electoral Area Service	1,230,484	808,417	(34.3%)	678,453	(16.1%)	732,784	8.0%	648,693	(11.5%)	652,466	0.6%
General Government Administration	5,548,594	5,879,900	6.0%	5,925,061	0.8%	6,019,674	1.6%	6,066,192	0.8%	6,138,863	1.2%
General Government Zero Waste Collaboration Initiatives	1,445,409	1,679,923	16.2%	1,897,152	12.9%	1,975,718	4.1%	1,904,399	(3.6%)	1,913,618	0.5%
Labour Relations	2,849,713	3,164,558	11.0%	2,860,674	(9.6%)	2,872,976	0.4%	2,912,142	1.4%	2,959,956	1.6%
Regional Economic Prosperity	484,500	1,020,000	110.0%	1,530,000	50.0%	2,040,000	33.3%	2,550,000	25.0%	2,550,000	0.0%
Regional Emergency Management	228,104	237,868	4.3%	222,945	(6.3%)	198,745	(10.9%)	189,162	(4.8%)	178,579	(5.6%)
Regional Global Positioning System	549,880	328,849	(40.2%)	381,792	16.1%	337,885	(11.5%)	343,522	1.7%	350,057	1.9%
Regional Parks	42,679,709	46,820,308	9.7%	52,817,157	12.8%	58,513,760	10.8%	64,229,903	9.8%	70,529,644	9.8%
Regional Planning	3,656,687	3,763,393	2.9%	3,951,867	5.0%	3,842,497	(2.8%)	3,895,795	1.4%	3,907,212	0.3%
Sasamat Fire Protection Service	338,928	943,789	180.0%	348,694	(63.1%)	353,697	1.4%	501,804	41.9%	510,013	1.6%
	76,410,939	86,260,228	12.9%	91,994,195	6.6%	98,481,649	7.1%	105,140,488	6.8%	112,029,843	6.6%
TOTAL EXPENDITURES	\$ 836,381,800	\$ 890,050,183	6.4%	\$ 967,471,127	8.7%	\$ 1,067,573,897	10.3%	\$ 1,171,281,469	9.7%	\$ 1,272,631,871	8.7%

GREATER VANCOUVER WATER DISTRICT
WATER
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN

	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES											
Water Sales	\$ 286,908,565	\$ 307,175,053	7.1%	\$ 326,712,080	6.4%	\$ 357,309,593	9.4%	\$ 394,526,146	10.4%	\$ 437,378,545	10.9%
Other External Revenues	1,596,366	1,652,712		1,654,869		1,654,869		1,654,869		1,670,398	
Transfer from Sustainability Innovation Fund Reserve	704,174	230,000		-		-		-		-	
Transfer from Reserves	1,465,000	91,000		96,000		9,000		-		-	
TOTAL REVENUES	\$ 290,674,105	\$ 309,148,765	6.4%	\$ 328,462,949	6.2%	\$ 358,973,462	9.3%	\$ 396,181,015	10.4%	\$ 439,048,943	10.8%
EXPENDITURES											
Operating Programs:											
Policy Planning and Analysis											
Utility Analysis and Infrastructure	\$ 1,540,418	\$ 1,627,545		\$ 1,658,661		\$ 1,692,569		\$ 1,733,363		\$ 1,762,118	
Utility Policy and Planning	1,589,199	1,247,420		1,034,722		1,055,683		1,080,233		1,098,438	
	3,129,617	2,874,965	(8.1%)	2,693,383	(6.3%)	2,748,252	2.0%	2,813,596	2.4%	2,860,556	1.7%
Engineering and Construction											
Minor Capital Projects	9,840,909	10,486,537		10,791,811		11,106,211		11,419,169		11,743,709	
Dispatch	129,736	127,172		129,797		132,468		135,200		137,994	
Public Involvement	1,147,432	1,175,828		1,325,747		1,355,090		1,385,130		1,415,874	
	11,118,077	11,789,537	6.0%	12,247,355	3.9%	12,593,768	2.8%	12,939,499	2.7%	13,297,576	2.8%
Major Projects, Management Systems and Utility Services											
Department Technical Training	566,644	568,207		571,040		570,892		572,274		573,685	
Engineering Standards	118,520	116,256		118,647		121,077		123,558		126,104	
Engineers in Training	588,263	403,690		411,836		420,104		428,553		437,180	
Management Systems Utility Services	1,604,183	1,592,355		1,623,662		1,655,345		1,856,446		1,893,364	
Minor Capital Projects	873,316	915,963		942,627		970,089		997,425		1,025,772	
Records Management	109,800	107,704		109,919		112,171		114,471		116,862	
	3,860,726	3,704,175	(4.1%)	3,777,731	2.0%	3,849,677	1.9%	4,092,727	6.3%	4,172,967	2.0%
Watershed and Environmental Management											
Watershed and Environmental Management	12,691,419	12,061,843		12,226,881		12,160,574		12,101,162		12,272,073	
	12,691,419	12,061,843	(5.0%)	12,226,881	1.4%	12,160,574	(0.5%)	12,101,162	(0.5%)	12,272,073	1.4%
Operations and Maintenance											
Drinking Water Residuals	1,014,608	986,682		1,005,152		1,030,219		1,055,824		1,082,913	
Lake City Operations	965,126	999,649		1,020,474		1,040,761		1,064,104		1,100,508	
Maintenance	9,340,499	9,384,035		9,715,353		10,136,213		10,534,634		11,053,323	
SCADA Control Systems	5,251,889	5,330,421		5,500,313		5,607,120		5,750,710		5,988,905	
Secondary Disinfection	1,664,588	1,845,431		1,953,133		1,987,842		2,029,530		2,146,163	
Seymour Capilano Filtration Plant	9,001,545	8,760,728		9,256,619		9,698,177		10,103,266		10,350,869	
Coquitlam Water Treatment Plant	4,886,545	4,986,483		5,514,464		5,925,624		6,275,209		6,553,548	
Infrastructure Operations Support	1,499,628	1,441,854		1,518,804		1,620,614		1,651,045		1,735,050	
Utility Voice Radio	122,149	123,175		125,236		126,770		128,378		131,719	
Water Supply	19,180,503	18,925,252		19,538,182		20,402,995		21,305,134		22,561,934	
	52,927,080	52,783,710	(0.3%)	55,147,729	4.5%	57,576,335	4.4%	59,897,834	4.0%	62,704,931	4.7%
Interagency Projects and Quality Control											
Contribution to Sustainability Innovation Fund Reserve	723,000	723,000		723,000		723,000		723,000		723,000	
Drinking Water Quality Control	2,637,574	2,775,624		2,905,751		2,895,903		2,941,264		2,981,649	
Energy Management	105,748	122,423		125,680		128,987		132,364		135,814	
Research and Innovation	744,758	766,814		794,523		823,477		853,809		885,834	
Interagency Projects	367,242	393,493		545,840		724,004		736,762		749,792	
Contribution to Reserve	46,000	46,000		46,000		46,000		46,000		46,000	
	4,624,322	4,827,354	4.4%	5,140,794	6.5%	5,341,371	3.9%	5,433,199	1.7%	5,522,089	1.6%
Administration and Department Support											
Administration and Department Support	2,117,455	2,180,659	3.0%	2,226,047	2.1%	2,271,732	2.1%	2,318,668	2.1%	2,366,966	2.1%
Communications Program											
Communications Program	520,287	450,000	(13.5%)	450,000	0.0%	450,000	0.0%	450,000	0.0%	450,000	0.0%
Allocation of Centralized Support Costs											
Allocation of Centralized Support Costs	23,857,580	23,818,111	(0.2%)	24,792,994	4.1%	24,654,199	(0.6%)	24,516,670	(0.6%)	25,445,718	3.8%
Total Operating Programs	114,846,563	114,490,354	(0.3%)	118,702,914	3.7%	121,645,908	2.5%	124,563,354	2.4%	129,092,876	3.6%
Debt Service											
Debt Service	72,683,912	67,582,784	(7.0%)	76,784,276	13.6%	96,058,410	25.1%	117,301,372	22.1%	140,512,495	19.8%
Contribution to Capital											
Contribution to Capital	103,143,631	127,075,627	23.2%	132,975,759	4.6%	141,269,144	6.2%	154,316,289	9.2%	169,443,572	9.8%
TOTAL EXPENDITURES	\$ 290,674,105	\$ 309,148,765	6.4%	\$ 328,462,949	6.2%	\$ 358,973,462	9.3%	\$ 396,181,015	10.4%	\$ 439,048,943	10.8%

**GREATER VANCOUVER WATER DISTRICT
CAPITAL PROGRAMS AND PROJECT TOTALS
WATER SERVICES
2020-2024 CAPITAL PLAN**

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
CAPITAL EXPENDITURES							
Water Infrastructure Growth Capital							
Annacis Main No. 5							
Annacis Main No. 5 (Marine Crossing)	\$ 21,250,000	\$ 55,000,000	\$ 55,000,000	\$ 60,000,000	\$ 70,000,000	\$ 261,250,000	\$ 488,000,000
Annacis Main No. 5 (North)	1,550,000	1,150,000	9,400,000	15,500,000	15,500,000	43,100,000	51,500,000
Annacis Main No. 5 (South)	1,000,000	300,000	-	8,400,000	16,700,000	26,400,000	56,400,000
Cape Horn Pump Station No. 3							
Cape Horn Pump Station No. 3	1,500,000	1,450,000	13,400,000	15,000,000	12,000,000	43,350,000	56,950,000
Coquitlam Intake No. 2 (Tunnel & Treatment)							
Coquitlam Intake No. 2 & Tunnel	1,500,000	10,500,000	21,500,000	30,000,000	30,500,000	94,000,000	1,369,230,000
Coquitlam Intake No. 2 (Water Treatment)	500,000	6,000,000	10,000,000	11,000,000	17,500,000	45,000,000	957,000,000
Coquitlam Main No. 4							
Coquitlam Main No. 4 (Cape Horn)	2,500,000	2,500,000	10,500,000	22,850,000	29,000,000	67,350,000	149,600,000
Coquitlam Main No. 4 (Central Section)	3,000,000	8,700,000	40,700,000	42,100,000	50,000,000	144,500,000	297,470,000
Coquitlam Main No. 4 (South Section)	2,500,000	4,000,000	20,400,000	38,000,000	50,000,000	114,900,000	227,650,000
Fleetwood Reservoir							
Fleetwood Reservoir	16,000,000	16,000,000	5,950,000	-	-	37,950,000	43,367,000
Grandview Reservoir Unit No. 2							
Grandview Reservoir Unit No. 2	-	-	-	-	400,000	400,000	26,000,000
Haney Main No. 4 (West Section)							
Haney Main No. 4 (West Section)	1,200,000	1,700,000	900,000	-	-	3,800,000	74,050,000
Hellings Tank No. 2							
Hellings Tank No. 2	8,100,000	11,000,000	4,500,000	-	-	23,600,000	29,411,000
Jericho Reservoir No. 1							
Jericho Reservoir No. 1	15,000,000	4,800,000	-	-	-	19,800,000	38,065,000
Kennedy Newton Main							
Kennedy Newton Main	31,250,000	40,400,000	27,850,000	20,900,000	7,600,000	128,000,000	164,300,000
Newton Reservoir Connection	-	450,000	1,100,000	4,500,000	8,000,000	14,050,000	27,050,000
Newton Pump Station No. 2							
Newton Pump Station No. 2	1,600,000	7,600,000	15,400,000	12,500,000	7,000,000	44,100,000	50,800,000

**GREATER VANCOUVER WATER DISTRICT
CAPITAL PROGRAMS AND PROJECT TOTALS
WATER SERVICES
2020-2024 CAPITAL PLAN**

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
Port Mann Main No. 2 (South)							
Port Mann Main No. 2 (South)	10,000,000	7,500,000	8,000,000	-	-	25,500,000	44,800,000
South Surrey Main No. 2							
South Surrey Main No. 2	750,000	1,000,000	500,000	-	1,500,000	3,750,000	145,700,000
Whalley Kennedy Main No. 2							
Whalley Kennedy Main No. 2	-	-	-	1,000,000	1,300,000	2,300,000	96,000,000
Whalley Main							
Whalley Main	10,500,000	10,000,000	-	-	-	20,500,000	33,300,000
	\$ 129,700,000	\$ 190,050,000	\$ 245,100,000	\$ 281,750,000	\$ 317,000,000	\$ 1,163,600,000	\$ 4,426,643,000
Water Infrastructure Maintenance Capital							
Annacis Main No. 2 - Queensborough Crossover Improvement							
Annacis Main No. 2 - Queensborough Crossover Improvement	\$ 500,000	\$ 400,000	\$ 100,000	\$ -	\$ -	\$ 1,000,000	\$ 1,200,000
Annacis Main No. 3 BHP Potash Facility Pipe Protection							
Annacis Main No. 3 BHP Potash Facility Pipe Protection	50,000	450,000	100,000	-	-	600,000	600,000
Annacis Main No. 3 Fraser Grain Terminal Pipe Relocation and Protection							
Annacis Main No. 3 Fraser Grain Terminal Pipe Relocation and Protection	300,000	-	-	-	-	300,000	600,000
Boundary Road Main No. 2 & No. 3 Decommissioning							
Boundary Road Main No. 2 & No. 3 Decommissioning	600,000	300,000	-	-	-	900,000	1,500,000
Burnaby Mountain Main No. 2							
Burnaby Mountain Main No. 2	-	-	300,000	300,000	1,300,000	1,900,000	10,200,000
Burnaby Mountain Pump Station No. 2							
Burnaby Mountain Pump Station No. 2	-	1,000,000	1,600,000	2,700,000	9,400,000	14,700,000	23,000,000
Capilano Main No. 4 Abandoning							
Capilano Main No. 4 Abandoning	50,000	-	-	-	-	50,000	700,000
Capilano Main No. 5 (South Shaft to Lost Lagoon)							
Capilano Main No.5 (South Shaft to Lost Lagoon)	3,000,000	9,400,000	40,000,000	45,000,000	45,000,000	142,400,000	249,000,000
Capilano Main No. 7 Line Valve & Swing Connection							
Capilano Main No. 7 Line Valve & Swing Connection	600,000	1,000,000	300,000	-	-	1,900,000	2,100,000

**GREATER VANCOUVER WATER DISTRICT
CAPITAL PROGRAMS AND PROJECT TOTALS
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2020-2024 CAPITAL PLAN**

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
Capilano Main No. 7 MOTI Hwy 1 Main / Dollarton Interchange Pipe Protection							
Capilano Main No. 7 MOTI Hwy 1 Main / Dollarton Interchange Pipe Protection	350,000	150,000	-	-	-	500,000	500,000
Capilano Raw Water Pump Station Bypass PRV Upgrades							
Capilano Raw Water Pump Station Bypass PRV Upgrades	300,000	700,000	200,000	-	-	1,200,000	1,200,000
Capilano Watershed Security Gatehouse							
Capilano Watershed Security Gatehouse	1,450,000	500,000	-	-	-	1,950,000	2,300,000
Central Park Main No. 2 (10th Ave to Westburnco)							
Central Park Main No. 2 (10th Ave to Westburnco)	100,000	1,300,000	1,200,000	6,300,000	7,000,000	15,900,000	28,350,000
Central Park Main No. 2 (Patterson to 10th Ave)							
Central Park Main No. 2 (Patterson to 10th Ave)	13,200,000	17,700,000	22,800,000	16,400,000	5,200,000	75,300,000	84,400,000
Central Park PS Seismic Upgrade							
Central Park PS Seismic Upgrade	50,000	-	-	-	-	50,000	3,700,000
Central Park Reservoir Structural Improvements							
Central Park Reservoir Structural Improvements	-	-	-	-	300,000	300,000	1,900,000
Central Park WPS Starters Replacement							
Central Park WPS Starters Replacement	4,000,000	2,550,000	-	-	-	6,550,000	8,000,000
CLD & SFD Fasteners Replacement & Coating Repairs							
CLD & SFD Fasteners Replacement & Coating Repairs	250,000	-	-	-	-	250,000	900,000
Cleveland Dam - Lower Outlet HBV Rehabilitation							
Cleveland Dam - Lower Outlet HBV Rehabilitation	2,550,000	1,950,000	-	-	-	4,500,000	5,900,000
Cleveland Dam - Spillway Concrete Repairs							
Cleveland Dam - Spillway Concrete Repairs	50,000	-	-	-	-	50,000	5,500,000
Cleveland Dam Drumgate Seal Replacement							
Cleveland Dam Drumgate Seal Replacement	-	500,000	500,000	-	-	1,000,000	1,250,000
Cleveland Dam Elevator Decommissioning and Ladder Replacement							
Cleveland Dam Elevator Decommissioning and Ladder Replacement	100,000	-	-	-	-	100,000	500,000
Coquitlam Pipeline Road Remediation							
Coquitlam Pipeline Road Remediation	1,000,000	-	-	-	-	1,000,000	2,000,000
CWTP Ozone Sidestream Pump VFD Replacement							
CWTP Ozone Sidestream Pump VFD Replacement	200,000	700,000	500,000	-	-	1,400,000	1,400,000

**GREATER VANCOUVER WATER DISTRICT
CAPITAL PROGRAMS AND PROJECT TOTALS
WATER SERVICES
2020-2024 CAPITAL PLAN**

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
CWTP pH, Alkalinity Upgrades							
CWTP pH, Alkalinity Upgrades	1,050,000	-	-	-	-	1,050,000	1,700,000
Douglas Road Main No. 2 - Kincaid Section							
Douglas Road Main No. 2 - Kincaid Section	1,250,000	1,300,000	-	-	-	2,550,000	12,300,000
Douglas Road Main No. 2 (Vancouver Heights Section)							
Douglas Road Main No. 2 (Vancouver Heights Section)	12,000,000	3,500,000	-	-	-	15,500,000	28,486,000
Douglas Road Main No. 2 Still Creek							
Douglas Road Main No. 2 Still Creek	6,200,000	17,450,000	11,250,000	12,000,000	13,500,000	60,400,000	63,100,000
Douglas Road Main Protection							
Douglas Road Main Protection	-	100,000	900,000	500,000	-	1,500,000	1,500,000
E2 Shaft Phase 3							
E2 Shaft Phase 3	2,000,000	-	-	-	-	2,000,000	16,500,000
First Narrows Tunnel Isolation Chamber Improvements							
First Narrows Tunnel Isolation Chamber Improvements	2,800,000	2,450,000	-	-	-	5,250,000	7,000,000
Improvements to Capilano Mains No. 4 and 5							
Improvements to Capilano Mains No. 4 and 5	1,000,000	500,000	-	-	-	1,500,000	1,700,000
Kersland Reservoir No. 1 Structural Improvements							
Kersland Reservoir No. 1 Structural Improvements	-	2,000,000	2,500,000	500,000	-	5,000,000	5,750,000
Little Mountain Reservoir Roof Upgrades							
Little Mountain Reservoir Roof Upgrades	1,100,000	200,000	-	-	-	1,300,000	1,500,000
Lulu Island - Delta Main - Scour Protection Phase 2							
Lulu Island - Delta Main - Scour Protection Phase 2	-	250,000	2,500,000	800,000	-	3,550,000	3,550,000
Lulu Island - Delta Main No. 2 (Marine Crossing)							
Lulu Island - Delta Main No. 2 (Marine Crossing)	-	-	-	5,000,000	5,000,000	10,000,000	370,000,000
Maple Ridge Main West Lining Repairs							
Maple Ridge Main West Lining Repairs	800,000	1,600,000	1,000,000	-	-	3,400,000	3,500,000
Newton Rechlorination Station No. 2							
Newton Rechlorination Station No. 2	-	-	400,000	600,000	1,500,000	2,500,000	5,000,000
Port Mann Main No. 1 (Fraser River Crossing Removal)							
Port Mann Main No. 1 (Fraser River Crossing Removal)	900,000	2,000,000	5,000,000	5,000,000	-	12,900,000	13,500,000

**GREATER VANCOUVER WATER DISTRICT
CAPITAL PROGRAMS AND PROJECT TOTALS
WATER SERVICES
2020-2024 CAPITAL PLAN**

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
Port Moody Main No. 1 Christmas Way Relocation							
Port Moody Main No. 1 Christmas Way Relocation	250,000	1,750,000	350,000	-	-	2,350,000	2,350,000
Port Moody Main No. 3 Dewdney Trunk Rd Relocation							
Port Moody Main No. 3 Dewdney Trunk Rd Relocation	-	1,800,000	900,000	-	-	2,700,000	2,700,000
Port Moody Main No. 3 Scott Creek Section							
Port Moody Main No. 3 Scott Creek Section	200,000	1,400,000	2,000,000	700,000	-	4,300,000	4,750,000
Queensborough Main Royal Avenue Relocation							
Queensborough Main Royal Avenue Relocation	1,600,000	3,500,000	2,300,000	-	-	7,400,000	7,500,000
Rechlorination Station SHS Storage Tank Replacement							
Rechlorination Station SHS Storage Tank Replacement	400,000	800,000	-	-	-	1,200,000	1,200,000
Rechlorination Station Upgrades							
Rechlorination Station Upgrades	900,000	1,000,000	1,400,000	6,000,000	4,700,000	14,000,000	14,200,000
Rehabilitation of AN2 on Queensborough Bridge							
Rehabilitation of AN2 on Queensborough Bridge	1,700,000	800,000	-	-	-	2,500,000	2,500,000
Relocation and Protection for MOTI Expansion Project Broadway							
Relocation and Protection for MOTI Expansion Project Broadway	2,700,000	4,000,000	2,000,000	-	-	8,700,000	8,900,000
Relocation and Protection for MOTI George Massey Crossing Replacement							
Relocation and Protection for MOTI George Massey Crossing Replacement	-	-	200,000	650,000	600,000	1,450,000	2,450,000
Relocation and Protection for Translink Expansion Project Surrey Langley SkyTrain							
Relocation and Protection for Translink Expansion Project Surrey Langley SkyTrain	300,000	1,300,000	2,000,000	2,000,000	1,000,000	6,600,000	6,600,000
Sasamat Reservoir Joint Upgrades							
Sasamat Reservoir Joint Upgrades	100,000	-	-	-	-	100,000	700,000
SCFP Clearwell Membrane Replacement							
SCFP Clearwell Membrane Replacement	-	200,000	1,200,000	5,500,000	5,500,000	12,400,000	17,400,000
SCFP Concrete Coatings							
SCFP Concrete Coatings	600,000	600,000	-	-	-	1,200,000	6,500,000
SCFP Filter Underdrain Repairs							
SCFP Filter Underdrain Repairs	8,000,000	8,000,000	4,500,000	-	-	20,500,000	29,000,000

**GREATER VANCOUVER WATER DISTRICT
CAPITAL PROGRAMS AND PROJECT TOTALS
WATER SERVICES
2020-2024 CAPITAL PLAN**

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
SCFP OMC Building Expansion							
SCFP OMC Building Expansion	500,000	1,750,000	100,000	-	-	2,350,000	2,450,000
SCFP Polymer System Upgrade							
SCFP Polymer System Upgrade	1,550,000	850,000	-	-	-	2,400,000	2,950,000
Second Narrows Crossing 1 & 2 (Burrard Inlet Crossing Removal)							
Second Narrows Crossing 1 & 2 (Burrard Inlet Crossing Removal)	-	-	-	-	750,000	750,000	21,500,000
South Delta Main No. 1 - Ferry Road Check Valve Replacement							
South Delta Main No. 1 - Ferry Road Check Valve Replacement	200,000	-	-	-	-	200,000	600,000
South Fraser Works Yard							
South Fraser Works Yard	32,000,000	-	-	-	-	32,000,000	32,000,000
South Surrey Main No. 2 Nickomekl Dam Relocation							
South Surrey Main No. 1 Nickomekl Dam Relocation	500,000	1,500,000	3,000,000	2,100,000	-	7,100,000	7,100,000
Sunnyside Reservoir Unit 1 Upgrades							
Sunnyside Reservoir Unit 1 Upgrades	3,000,000	2,500,000	-	-	-	5,500,000	8,050,000
Tilbury Main North Fraser Way Valve Addition							
Tilbury Main North Fraser Way Valve Addition	800,000	1,500,000	400,000	-	-	2,700,000	3,100,000
Westburnco Pump Station No. 2 VFD Replacements							
Westburnco Pump Station No. 2 VFD Replacements	2,050,000	300,000	-	-	-	2,350,000	2,550,000
	\$ 115,150,000	\$ 103,500,000	\$ 111,500,000	\$ 112,050,000	\$ 100,750,000	\$ 542,950,000	\$ 1,158,836,000
Water Infrastructure Resilience Capital							
Barnston/Maple Ridge Pump Station - Back-up Power							
Barnston/Maple Ridge Pump Station - Back-up Power	\$ 150,000	\$ 1,000,000	\$ 3,000,000	\$ 2,700,000	\$ 1,800,000	\$ 8,650,000	\$ 9,000,000
Burnaby Mountain Tank No. 2							
Burnaby Mountain Tank No. 2	2,600,000	1,150,000	12,000,000	5,000,000	-	20,750,000	21,650,000
Burnaby Mountain Tank No. 3							
Burnaby Mountain Tank No. 3	800,000	1,500,000	1,100,000	-	-	3,400,000	21,400,000
Cambie Richmond Main No. 3 (Marine Crossing)							
Cambie Richmond Main No. 3 (Marine Crossing)	2,000,000	6,000,000	5,000,000	25,000,000	30,000,000	68,000,000	405,250,000

**GREATER VANCOUVER WATER DISTRICT
CAPITAL PROGRAMS AND PROJECT TOTALS
WATER SERVICES
2020-2024 CAPITAL PLAN**

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
Cape Horn Pump Station 2 - Back-Up Power							
Cape Horn Pump Station 2 - Back-Up Power	500,000	1,650,000	750,000	1,500,000	2,000,000	6,400,000	8,000,000
Capilano Mid-Lake Debris Boom							
Capilano Mid-Lake Debris Boom	500,000	-	-	-	-	500,000	750,000
Capilano Raw Water Pump Station - Back-up Power							
Capilano Raw Water Pump Station - Back-up Power	16,900,000	8,000,000	-	-	-	24,900,000	33,000,000
Capilano Reservoir Boat Wharf							
Capilano Reservoir Boat Wharf	650,000	-	-	-	-	650,000	850,000
Clayton Langley Main No. 2							
Clayton Langley Main No. 2	-	700,000	1,400,000	800,000	6,000,000	8,900,000	36,400,000
Cleveland Dam Power Resiliency Improvements							
Cleveland Dam Power Resiliency Improvements	800,000	400,000	500,000	-	-	1,700,000	1,700,000
Coquitlam Intake Tower Seismic Upgrade							
Coquitlam Intake Tower Seismic Upgrade	600,000	7,000,000	12,000,000	5,000,000	-	24,600,000	25,500,000
Critical Control Sites - Back-Up Power							
Critical Control Sites - Back-Up Power	-	200,000	100,000	400,000	700,000	1,400,000	1,800,000
CWTP Ozone Back-up Power							
CWTP Ozone Back-up Power	-	500,000	1,450,000	4,000,000	1,500,000	7,450,000	7,450,000
Emergency Power Strategy for Regional Water Facilities							
Emergency Power Strategy for Regional Water Facilities	200,000	200,000	-	-	-	400,000	400,000
Grandview Pump Station Improvements							
Grandview Pump Station Improvements	950,000	1,500,000	-	-	-	2,450,000	2,600,000
Mackay Creek Debris Flow Mitigation							
Mackay Creek Debris Flow Mitigation	3,400,000	-	-	-	-	3,400,000	9,700,000
Pebble Hill Pump Station Seismic Upgrade							
Pebble Hill Pump Station Seismic Upgrade	-	250,000	1,100,000	300,000	-	1,650,000	1,650,000
Pebble Hill Reservoir No. 3 Seismic Upgrade							
Pebble Hill Reservoir No. 3 Seismic Upgrade	100,000	5,000,000	3,400,000	-	-	8,500,000	8,900,000
Pebble Hill Reservoir Seismic Upgrade							
Pebble Hill Reservoir Seismic Upgrade	7,000,000	3,400,000	-	-	-	10,400,000	14,800,000

**GREATER VANCOUVER WATER DISTRICT
CAPITAL PROGRAMS AND PROJECT TOTALS
WATER SERVICES
2020-2024 CAPITAL PLAN**

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
Reservoir Isolation Valve Automation							
Reservoir Isolation Valve Automation	1,000,000	2,150,000	1,300,000	-	-	4,450,000	6,450,000
SCFP UPS Reconfiguration							
SCFP UPS Reconfiguration	100,000	-	-	-	-	100,000	1,270,000
Second Narrows Crossing (Tunnel)							
Second Narrows Crossing (Tunnel)	75,000,000	75,000,000	70,000,000	70,000,000	75,600,000	365,600,000	468,550,000
Seymour Falls Boat Wharf							
Seymour Falls Boat Wharf	700,000	-	-	-	-	700,000	800,000
Seymour Lake Debris Boom							
Seymour Lake Debris Boom	400,000	-	-	-	-	400,000	800,000
Seymour Main No. 2 Joint Improvements							
Seymour Main No. 2 Joint Improvements	900,000	1,000,000	750,000	-	-	2,650,000	3,252,000
Seymour Main No. 5 III (North)							
Seymour Main No. 5 III (North)	1,650,000	2,400,000	-	-	-	4,050,000	236,900,000
Seymour Reservoir Mid-Lake Debris Boom							
Seymour Reservoir Mid-Lake Debris Boom	1,400,000	500,000	-	-	-	1,900,000	2,300,000
Sunnyside Reservoir Units 1 and 2 Seismic Upgrade							
Sunnyside Reservoir	5,100,000	3,400,000	4,000,000	2,200,000	-	14,700,000	17,300,000
System Seismic Upgrade							
System Seismic Upgrade	-	600,000	600,000	600,000	600,000	2,400,000	116,400,000
Vancouver Heights System Resiliency Improvements							
Vancouver Heights System Resiliency Improvements	500,000	400,000	500,000	100,000	-	1,500,000	1,500,000
Westburnco Pump Station - Back-up Power							
Westburnco Pump Station - Back-up Power	8,650,000	9,500,000	3,500,000	-	-	21,650,000	27,000,000
	\$ 132,550,000	\$ 133,400,000	\$ 122,450,000	\$ 117,600,000	\$ 118,200,000	\$ 624,200,000	\$ 1,493,322,000
Water Infrastructure Upgrade Capital							
Burwell Alpine Reservoir Valve Improvements							
Burwell Alpine Reservoir Valve Improvements	\$ 250,000	\$ -	\$ -	\$ -	\$ -	250,000	\$ 650,000
Cleveland Dam East Abutment Additional GV Series Pump Wells							
Cleveland Dam East Abutment Additional GV Series Pump Wells	100,000	-	-	-	-	100,000	750,000

**GREATER VANCOUVER WATER DISTRICT
CAPITAL PROGRAMS AND PROJECT TOTALS
WATER SERVICES
2020-2024 CAPITAL PLAN**

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
CWTP Ozone Generation Upgrades for Units 2 & 3							
CWTP Ozone Generation Upgrades for Units 2 & 3	2,300,000	600,000	-	-	-	2,900,000	12,000,000
Lower Seymour Conservation Reserve Learning Lodge Replacement							
Lower Seymour Conservation Reserve Learning Lodge Replacement	2,000,000	600,000	-	-	-	2,600,000	5,000,000
Online Chlorine Monitoring Stations							
Online Chlorine Monitoring Stations	-	350,000	600,000	850,000	850,000	2,650,000	3,600,000
Sapperton Main No. 1 New Line Valve and Chamber							
Sapperton Main No. 1 New Line Valve and Chamber	600,000	500,000	-	-	-	1,100,000	3,800,000
SCFP Interior Lighting Efficiency Upgrade							
SCFP Interior Lighting Efficiency Upgrade	50,000	-	-	-	-	50,000	500,000
South Delta Main No. 1 - 28 Ave to 34B Ave							
South Delta Main No. 1 - 28 Ave to 34B Ave	4,150,000	-	-	-	-	4,150,000	19,650,000
South Delta Mains - 28 Ave Crossover							
South Delta Mains - 28 Ave Crossover	1,650,000	1,500,000	-	-	-	3,150,000	10,500,000
Water Meter Upgrades							
Water Meter Upgrades	5,000,000	6,900,000	5,000,000	1,800,000	-	18,700,000	22,400,000
Water Optimization - Flow Meters (Non-billing) Phase 1							
Water Optimization - Flow Meters (Non-billing) Phase 1	-	4,000,000	6,900,000	5,600,000	-	16,500,000	16,500,000
Water Optimization - Flow Meters (Non-billing) Phase 2							
Water Optimization - Flow Meters (Non-billing) Phase 2	-	-	-	1,500,000	4,000,000	5,500,000	18,000,000
Water Optimization - Instrumentation							
Water Optimization - Instrumentation	-	4,200,000	4,200,000	1,500,000	-	9,900,000	9,900,000
Water Optimization Automation & Instrumentation							
Water Optimization Automation & Instrumentation	3,000,000	2,100,000	-	-	-	5,100,000	9,540,000
	<u>\$ 19,100,000</u>	<u>\$ 20,750,000</u>	<u>\$ 16,700,000</u>	<u>\$ 11,250,000</u>	<u>\$ 4,850,000</u>	<u>\$ 72,650,000</u>	<u>\$ 132,790,000</u>
Water Opportunity Capital							
Capilano Hydropower							
Capilano Hydropower	\$ 1,000,000	\$ 2,000,000	\$ 750,000	\$ -	\$ -	\$ 3,750,000	\$ 99,250,000
	<u>\$ 1,000,000</u>	<u>\$ 2,000,000</u>	<u>\$ 750,000</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 3,750,000</u>	<u>\$ 99,250,000</u>

**GREATER VANCOUVER WATER DISTRICT
CAPITAL PROGRAMS AND PROJECT TOTALS
WATER SERVICES
2020-2024 CAPITAL PLAN**

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
TOTAL CAPITAL EXPENDITURES	\$ 397,500,000	\$ 449,700,000	\$ 496,500,000	\$ 522,650,000	\$ 540,800,000	\$ 2,407,150,000	\$ 7,310,841,000

CAPITAL FUNDING							
New External Borrowing	\$ 181,010,000	\$ 293,500,000	\$ 341,150,000	\$ 359,860,000	\$ 364,800,000	\$ 1,540,320,000	
Contribution to Capital	127,100,000	133,000,000	141,300,000	154,300,000	169,400,000	725,100,000	
Surplus from Prior Year/Reserves	68,990,000	5,000,000	5,000,000	5,000,000	5,000,000	88,990,000	
External Funding - Interagency	20,400,000	18,200,000	9,050,000	3,490,000	1,600,000	52,740,000	
Total	\$ 397,500,000	\$ 449,700,000	\$ 496,500,000	\$ 522,650,000	\$ 540,800,000	\$ 2,407,150,000	

DEBT SERVICING TOTALS/RATIO							
Operating Programs - Water Services	\$ 114,500,000	\$ 118,700,000	\$ 121,600,000	\$ 124,600,000	\$ 129,100,000	\$ 608,500,000	
Debt Service - Existing	66,700,000	65,800,000	72,600,000	89,600,000	110,700,000	405,400,000	
Debt Service - New	900,000	11,000,000	23,500,000	27,700,000	29,800,000	92,900,000	
Contribution to Capital	127,100,000	133,000,000	141,300,000	154,300,000	169,400,000	725,100,000	
Total	\$ 309,200,000	\$ 328,500,000	\$ 359,000,000	\$ 396,200,000	\$ 439,000,000	\$ 1,831,900,000	
% Debt Service	22%	23%	27%	30%	32%	27%	

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
LIQUID WASTE
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN

	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES											
Liquid Waste Services Levy	\$ 255,810,755	\$ 274,237,112	7.2%	\$ 306,762,144	11.9%	\$ 347,617,635	13.3%	\$ 386,541,738	11.2%	\$ 416,276,434	7.7%
User Fees	2,403,269	2,540,468		2,594,278		2,644,064		2,699,844		2,751,642	
Transfer from DCC Reserves	31,665,173	34,172,083		44,631,226		59,373,050		71,596,693		86,697,664	
Liquid Waste Industrial Charges	11,022,967	11,201,217		11,425,241		11,653,747		11,886,822		12,124,559	
Other External Revenues	540,000	540,000		540,000		540,000		540,000		540,000	
Transfer from Sustainability Innovation Fund Reserve	1,946,403	555,000		265,000		155,000		-		-	
Transfer from Reserves	7,480,961	5,016,934		5,054,789		3,314,831		2,545,452		25,000	
TOTAL REVENUES	\$ 310,869,528	\$ 328,262,814	5.6%	\$ 371,272,678	13.1%	\$ 425,298,327	14.6%	\$ 475,810,549	11.9%	\$ 518,415,299	9.0%
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	2,092,283	2,612,298		2,762,691		2,644,159		2,754,962		2,896,591	
Utility Policy and Planning	1,844,851	2,657,094		2,708,552		2,214,320		2,208,045		2,234,223	
	5,064,134	6,396,392	26.3%	6,598,243	3.2%	5,985,479	(9.3%)	6,090,007	1.7%	6,257,814	2.8%
Management Systems and Utility Services											
Annacis Research Centre	513,674	511,467		467,287		477,292		451,376		467,745	
Department Technical Training	566,644	568,206		571,039		570,891		572,273		573,683	
Dispatch	127,983	136,616		139,436		142,304		145,240		148,242	
Energy Management	246,744	285,653		293,253		300,968		308,850		316,899	
Engineers in Training	588,263	565,166		576,571		588,145		599,973		612,051	
Engineering Standards	116,919	124,890		127,457		130,068		132,734		135,468	
Liquid Waste Residuals	28,392,006	29,178,967		32,402,152		33,886,754		38,112,141		23,474,745	
Management Systems Utility Services	2,025,917	2,182,654		2,396,132		2,575,567		2,616,536		2,657,508	
Records Management	108,318	115,703		118,082		120,501		122,972		125,538	
Utility Voice Radio	159,409	160,747		163,437		165,439		167,539		171,898	
Wastewater Research and Innovation	2,853,862	1,828,063		1,419,775		1,444,232		1,464,560		1,493,758	
	35,699,739	35,658,132	(0.1%)	38,674,621	8.5%	40,402,161	4.5%	44,694,194	10.6%	30,177,535	(32.5%)
Environmental Management and Quality Control											
Environmental Management and Quality Control	11,529,370	12,098,012		12,852,598		13,180,648		13,424,296		13,335,760	
Source Compliance Monitoring	420,620	413,611		408,603		416,750		425,073		433,569	
Contribution to Reserve	97,800	99,854		101,951		104,092		106,243		106,952	
	12,047,790	12,611,477	4.7%	13,363,152	6.0%	13,701,490	2.5%	13,955,612	1.9%	13,876,281	(0.6%)
Project Delivery											
Minor Capital Projects	8,380,514	8,542,930		8,827,286		9,282,844		9,681,186		9,921,719	
Public Involvement	1,207,174	1,450,933		1,475,142		1,259,751		1,284,879		1,310,552	
	9,587,688	9,993,863	4.2%	10,302,428	3.1%	10,542,595	2.3%	10,966,065	4.0%	11,232,271	2.4%
Operations and Maintenance											
Lake City Operations	965,125	999,648		1,020,475		1,040,760		1,064,105		1,100,508	
Maintenance	29,390,556	30,246,927		31,362,364		33,324,974		34,234,935		35,990,072	
SCADA Control Systems	984,573	1,055,781		1,078,815		1,096,944		1,115,995		1,156,364	
Urban Drainage	1,048,272	1,109,596		1,105,853		1,103,942		1,128,837		1,152,760	
Wastewater Collection	15,242,385	15,626,816		16,071,414		16,239,363		16,492,428		17,073,562	
Wastewater Treatment	40,229,560	40,585,187		45,271,017		46,635,475		47,845,594		51,348,245	
	87,860,471	89,623,955	2.0%	95,909,938	7.0%	99,441,458	3.7%	101,881,894	2.5%	107,821,511	5.8%
Administration and Department Support											
	2,126,503	2,299,047	8.1%	2,335,896	1.6%	2,383,146	2.0%	2,381,070	(0.1%)	2,442,060	2.6%
Communication and Outreach											
	400,000	450,000	12.5%	450,000	0.0%	450,000	0.0%	450,000	0.0%	450,000	0.0%
Environmental Regulation and Enforcement											
	1,899,700	2,041,734	7.5%	2,083,088	2.0%	2,125,127	2.0%	2,168,112	2.0%	2,212,033	2.0%
Allocation of Centralized Support Costs											
	23,188,428	25,166,351	8.5%	25,893,131	2.9%	27,402,386	5.8%	28,490,917	4.0%	29,909,762	5.0%
Total Operating Programs	177,874,453	184,240,951	3.6%	195,610,497	6.2%	202,433,842	3.5%	211,077,871	4.3%	204,379,267	(3.2%)
Debt Service											
	54,340,894	57,211,522	5.3%	81,594,045	42.6%	117,858,990	44.4%	149,458,974	26.8%	185,304,641	24.0%
Contribution to Capital											
	78,654,181	86,810,341	10.4%	94,068,136	8.4%	105,005,495	11.6%	115,273,704	9.8%	128,731,391	11.7%
TOTAL EXPENDITURES	\$ 310,869,528	\$ 328,262,814	5.6%	\$ 371,272,678	13.1%	\$ 425,298,327	14.6%	\$ 475,810,549	11.9%	\$ 518,415,299	9.0%

**GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
LIQUID WASTE REGULATION
2020-2024 FINANCIAL PLAN**

	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES											
Liquid Waste Revenues	\$ 1,899,700	\$ 2,041,734	7.5%	\$ 2,083,088	2.0%	\$ 2,125,127	2.0%	\$ 2,168,112	2.0%	\$ 2,212,033	2.0%
TOTAL REVENUES	\$ 1,899,700	\$ 2,041,734	7.5%	\$ 2,083,088	2.0%	\$ 2,125,127	2.0%	\$ 2,168,112	2.0%	\$ 2,212,033	2.0%
EXPENDITURES											
Operating Programs:											
Environmental Regulation and Enforcement	\$ 1,765,868	\$ 1,798,609		\$ 1,835,012		\$ 1,872,015		\$ 1,909,849		\$ 1,948,509	2.0%
Administration and Department Support	133,832	243,125		248,076		253,112		258,263		263,524	2.0%
TOTAL EXPENDITURES	\$ 1,899,700	\$ 2,041,734	7.5%	\$ 2,083,088	2.0%	\$ 2,125,127	2.0%	\$ 2,168,112	2.0%	\$ 2,212,033	2.0%

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
LIQUID WASTE
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN
VANCOUVER SEWERAGE AREA

	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES											
Liquid Waste Services Levy	\$ 79,609,908	\$ 85,463,155	7.4%	\$ 92,578,059	8.3%	\$ 99,794,688	7.8%	\$ 106,525,478	6.7%	\$ 111,396,738	4.6%
User Fees	579,307	582,962		595,574		606,409		619,450		630,723	
Transfer from DCC Reserves	3,096,988	4,292,957		5,354,504		6,163,919		6,935,706		8,159,481	
Liquid Waste Industrial Charges	2,849,111	2,919,742		2,978,137		3,037,700		3,098,454		3,160,423	
Other External Revenues	82,120	81,940		81,940		81,940		81,940		81,940	
Transfer from Sustainability Innovation Fund Reserve	786,347	220,890		105,470		61,690		-		-	
Transfer from Reserves	5,251,461	4,810,136		5,029,789		3,289,831		2,520,452		-	
TOTAL REVENUES	\$ 92,255,242	\$ 98,371,782	6.6%	\$ 106,723,473	8.5%	\$ 113,036,177	5.9%	\$ 119,781,480	6.0%	\$ 123,429,305	3.0%
EXPENDITURES											
Operating Programs:											
Policy Planning and Analysis											
Contribution to Sustainability Innovation Fund Reserve	\$ 455,308	\$ 448,546		\$ 448,546		\$ 448,546		\$ 448,546		\$ 448,546	
Utility Analysis and Infrastructure	779,150	984,124		1,073,514		1,026,018		1,069,789		1,125,823	
Utility Policy and Planning	718,868	1,029,326		1,049,680		852,846		850,218		860,503	
	1,953,326	2,461,996	26.0%	2,571,740	4.5%	2,327,410	(9.5%)	2,368,553	1.8%	2,434,872	2.8%
Management Systems and Utility Services											
Annacis Research Centre	207,524	203,564		185,980		189,962		179,648		186,163	
Department Technical Training	174,436	168,041		168,879		168,836		169,244		169,661	
Dispatch	39,398	40,402		41,236		42,084		42,952		43,840	
Energy Management	75,955	84,480		86,728		89,009		91,340		93,721	
Engineers in Training	237,658	224,913		229,452		234,058		238,765		243,572	
Engineering Standards	35,992	36,934		37,693		38,465		39,254		40,063	
Liquid Waste Residuals	13,663,231	16,124,206		19,160,842		20,046,770		21,877,418		8,625,934	
Management Systems Utility Services	635,071	664,625		728,055		781,416		793,848		806,274	
Records Management	33,344	34,217		34,921		35,636		36,367		37,126	
Utility Voice Radio	57,236	57,716		58,682		59,401		60,155		61,720	
Wastewater Research and Innovation	1,152,960	727,569		565,070		574,804		582,895		594,516	
	16,312,805	18,366,667	12.6%	21,297,538	16.0%	22,260,441	4.5%	24,111,886	8.3%	10,902,590	(54.8%)
Environmental Management and Quality Control											
Environmental Management and Quality Control	4,476,506	4,694,233		5,005,002		5,127,560		5,220,009		5,183,130	
Source Compliance Monitoring	169,930	164,617		162,624		165,867		169,179		172,560	
Contribution to Reserve	39,922	38,745		39,559		40,389		41,224		41,499	
	4,686,358	4,897,595	4.5%	5,207,185	6.3%	5,333,816	2.4%	5,430,412	1.8%	5,397,189	(0.6%)
Project Delivery											
Minor Capital Projects	3,531,455	2,960,643		3,065,227		3,246,985		3,400,943		3,484,384	
Public Involvement	371,604	429,099		436,258		372,559		379,990		387,582	
	3,903,059	3,389,742	(13.2%)	3,501,485	3.3%	3,619,544	3.4%	3,780,933	4.5%	3,871,966	2.4%
Operations and Maintenance											
Lake City Operations	389,910	397,861		406,149		414,222		423,513		438,002	
Maintenance	7,638,781	8,033,121		8,311,911		8,553,784		8,747,491		9,238,136	
SCADA Control Systems	294,561	303,023		309,635		314,838		320,305		331,892	
Wastewater Collection	3,963,328	4,056,455		3,943,161		3,983,513		3,936,605		4,372,980	
Wastewater Treatment	10,178,730	10,639,750		12,097,170		13,046,131		13,343,911		13,912,861	
	22,465,310	23,430,210	4.3%	25,068,026	7.0%	26,312,488	5.0%	26,771,825	1.7%	28,293,871	5.7%
Administration and Department Support											
	654,601	679,920	3.9%	690,818	1.6%	704,792	2.0%	704,179	(0.1%)	722,213	2.6%
Communication and Outreach											
	161,600	179,100	10.8%	179,100	0.0%	179,100	0.0%	179,100	0.0%	179,100	0.0%
Environmental Regulation and Enforcement											
	353,914	380,375	7.5%	388,079	2.0%	395,911	2.0%	403,919	2.0%	412,102	2.0%
Allocation of Centralized Support Costs											
	7,166,850	7,471,881	4.3%	7,785,865	4.2%	7,857,141	0.9%	7,541,981	(4.0%)	7,518,110	(0.3%)
Total Operating Programs	57,657,823	61,257,486	6.2%	66,689,836	8.9%	68,990,643	3.5%	71,292,788	3.3%	59,732,013	(16.2%)
Debt Service											
	5,864,427	7,131,201	21.6%	10,002,927	40.3%	13,359,288	33.6%	17,752,908	32.9%	24,864,935	40.1%
Contribution to Capital											
	28,732,992	29,983,095	4.4%	30,030,710	0.2%	30,686,246	2.2%	30,735,784	0.2%	38,832,357	26.3%
TOTAL EXPENDITURES	\$ 92,255,242	\$ 98,371,782	6.6%	\$ 106,723,473	8.5%	\$ 113,036,177	5.9%	\$ 119,781,480	6.0%	\$ 123,429,305	3.0%

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
LIQUID WASTE
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN
NORTH SHORE SEWERAGE AREA

	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES											
Liquid Waste Services Levy	\$ 23,045,180	\$ 26,051,249	13.0%	\$ 29,236,996	12.2%	\$ 34,559,724	18.2%	\$ 39,078,775	13.1%	\$ 44,589,848	14.1%
User Fees	71,525	74,232		75,943		77,349		79,114		80,577	
Transfer from DCC Reserves	1,409,438	1,549,664		1,622,266		2,136,243		2,253,475		2,657,667	
Liquid Waste Industrial Charges	759,135	765,271		780,576		796,188		812,112		828,354	
Other External Revenues	2,016	1,989		1,989		1,989		1,989		1,989	
Transfer from Sustainability Innovation Fund Reserve	130,798	36,797		17,570		10,277		-		-	
Transfer from Reserves	462,500	11,210		-		-		-		-	
TOTAL REVENUES	\$ 25,880,592	\$ 28,490,412	10.1%	\$ 31,735,340	11.4%	\$ 37,581,770	18.4%	\$ 42,225,465	12.4%	\$ 48,158,435	14.1%
EXPENDITURES											
Operating Programs:											
Policy Planning and Analysis											
Contribution to Sustainability Innovation Fund Reserve	\$ 75,734	\$ 74,720		\$ 74,720		\$ 74,720		\$ 74,720		\$ 74,720	
Utility Analysis and Infrastructure	129,601	163,938		178,829		170,917		178,209		187,543	
Utility Policy and Planning	119,574	171,468		174,859		142,070		141,632		143,345	
	<u>324,909</u>	<u>410,126</u>	26.2%	<u>428,408</u>	4.5%	<u>387,707</u>	(9.5%)	<u>394,561</u>	1.8%	<u>405,608</u>	2.8%
Management Systems and Utility Services											
Annacis Research Centre	34,519	33,910		30,981		31,644		29,926		31,011	
Department Technical Training	50,522	46,354		46,585		46,573		46,686		46,801	
Dispatch	11,409	11,145		11,375		11,609		11,849		12,093	
Energy Management	21,999	23,301		23,921		24,550		25,193		25,850	
Engineers in Training	39,531	37,486		38,242		39,010		39,794		40,595	
Engineering Standards	10,423	10,188		10,398		10,611		10,828		11,051	
Liquid Waste Residuals	676,565	799,980		860,671		899,906		2,229,388		2,082,303	
Management Systems Utility Services	204,437	206,691		224,548		239,626		243,442		247,244	
Records Management	9,656	9,439		9,633		9,830		10,032		10,241	
Utility Voice Radio	15,173	15,301		15,557		15,747		15,947		16,362	
Wastewater Research and Innovation	191,779	121,201		94,131		95,753		97,100		99,036	
	<u>1,266,013</u>	<u>1,314,996</u>	3.9%	<u>1,366,042</u>	3.9%	<u>1,424,859</u>	4.3%	<u>2,760,185</u>	93.7%	<u>2,622,587</u>	(5.0%)
Environmental Management and Quality Control											
Environmental Management and Quality Control	870,020	904,095		956,076		983,072		1,001,757		997,436	
Source Compliance Monitoring	28,266	27,422		27,090		27,631		28,182		28,746	
Contribution to Reserve	6,729	7,462		7,619		7,779		7,940		7,993	
	<u>905,015</u>	<u>938,979</u>	3.8%	<u>990,785</u>	5.5%	<u>1,018,482</u>	2.8%	<u>1,037,879</u>	1.9%	<u>1,034,175</u>	(0.4%)
Project Delivery											
Minor Capital Projects	244,254	532,271		548,942		577,145		601,755		616,645	
Public Involvement	107,620	118,353		120,327		102,758		104,808		106,902	
	<u>351,874</u>	<u>650,624</u>	84.9%	<u>669,269</u>	2.9%	<u>679,903</u>	1.6%	<u>706,563</u>	3.9%	<u>723,547</u>	2.4%
Operations and Maintenance											
Lake City Operations	64,857	66,276		67,658		69,002		70,551		72,964	
Maintenance	3,190,153	3,233,529		3,383,566		4,233,583		4,351,024		4,498,409	
SCADA Control Systems	114,795	151,738		155,047		157,653		160,392		166,193	
Wastewater Collection	2,489,925	2,558,692		2,544,381		2,651,985		2,898,390		2,833,524	
Wastewater Treatment	5,788,201	5,887,287		6,489,394		6,781,781		6,734,854		9,003,860	
	<u>11,647,931</u>	<u>11,897,522</u>	2.1%	<u>12,640,046</u>	6.2%	<u>13,894,004</u>	9.9%	<u>14,215,211</u>	2.3%	<u>16,574,950</u>	16.6%
Administration and Department Support											
	189,577	187,533	(1.1%)	190,539	1.6%	194,393	2.0%	194,223	(0.1%)	199,199	2.6%
Communication and Outreach											
	26,880	29,835	11.0%	29,835	0.0%	29,835	0.0%	29,835	0.0%	29,835	0.0%
Environmental Regulation and Enforcement											
	112,652	121,075	7.5%	123,527	2.0%	126,020	2.0%	128,569	2.0%	131,174	2.0%
Allocation of Centralized Support Costs											
	2,063,132	2,047,764	(0.7%)	2,254,384	10.1%	2,337,575	3.7%	2,521,617	7.9%	2,652,433	5.2%
Total Operating Programs	<u>16,887,983</u>	<u>17,598,454</u>	4.2%	<u>18,692,835</u>	6.2%	<u>20,092,778</u>	7.5%	<u>21,988,643</u>	9.4%	<u>24,373,508</u>	10.8%
Debt Service											
	3,082,684	3,251,337	5.5%	5,370,574	65.2%	9,717,684	80.9%	12,432,939	27.9%	15,545,101	25.0%
Contribution to Capital											
	5,909,925	7,640,621	29.3%	7,671,931	0.4%	7,771,308	1.3%	7,803,883	0.4%	8,239,826	5.6%
TOTAL EXPENDITURES	\$ 25,880,592	\$ 28,490,412	10.1%	\$ 31,735,340	11.4%	\$ 37,581,770	18.4%	\$ 42,225,465	12.4%	\$ 48,158,435	14.1%

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
LIQUID WASTE
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN
LULU ISLAND WEST SEWERAGE AREA

	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES											
Liquid Waste Services Levy	\$ 21,446,956	\$ 24,688,980	15.1%	\$ 28,075,752	13.7%	\$ 32,168,092	14.6%	\$ 35,776,868	11.2%	\$ 38,713,844	8.2%
User Fees	138,058	143,359		146,466		149,276		152,494		155,417	
Transfer from DCC Reserves	519,742	1,523,267		1,476,943		2,230,907		2,209,234		2,857,410	
Liquid Waste Industrial Charges	907,497	854,993		872,093		889,535		907,326		925,473	
Other External Revenues	2,160	2,112		2,112		2,112		2,112		2,112	
Transfer from Sustainability Innovation Fund Reserve	140,141	39,072		18,656		10,912		-		-	
Transfer from Reserves	-	10,973		-		-		-		-	
TOTAL REVENUES	\$ 23,154,554	\$ 27,262,756	17.7%	\$ 30,592,022	12.2%	\$ 35,450,834	15.9%	\$ 39,048,034	10.1%	\$ 42,654,256	9.2%
EXPENDITURES											
Operating Programs:											
Policy Planning and Analysis											
Contribution to Sustainability Innovation Fund Reserve	\$ 81,144	\$ 79,341		\$ 79,341		\$ 79,341		\$ 79,341		\$ 79,341	
Utility Analysis and Infrastructure	138,858	174,076		189,888		181,487		189,229		199,140	
Utility Policy and Planning	128,115	182,072		185,672		150,855		150,390		152,210	
	<u>348,117</u>	<u>435,489</u>	25.1%	<u>454,901</u>	4.5%	<u>411,683</u>	(9.5%)	<u>418,960</u>	1.8%	<u>430,691</u>	2.8%
Management Systems and Utility Services											
Annacis Research Centre	36,985	36,007		32,897		33,601		31,777		32,929	
Department Technical Training	45,218	42,184		42,394		42,383		42,486		42,590	
Dispatch	10,211	10,143		10,352		10,565		10,783		11,006	
Energy Management	19,687	21,208		21,772		22,345		22,930		23,527	
Engineers in Training	42,355	39,792		40,595		41,410		42,243		43,093	
Engineering Standards	9,328	9,272		9,463		9,656		9,854		10,057	
Liquid Waste Residuals	1,585,445	1,602,414		1,690,652		1,768,056		1,883,934		1,751,305	
Management Systems Utility Services	168,017	171,941		187,943		201,417		204,622		207,823	
Records Management	8,642	8,590		8,767		8,946		9,130		9,320	
Utility Voice Radio	13,354	13,466		13,691		13,859		14,035		14,400	
Wastewater Research and Innovation	205,478	128,696		99,952		101,674		103,105		105,161	
	<u>2,144,720</u>	<u>2,083,713</u>	(2.8%)	<u>2,158,478</u>	3.6%	<u>2,253,912</u>	4.4%	<u>2,374,899</u>	5.4%	<u>2,251,211</u>	(5.2%)
Environmental Management and Quality Control											
Environmental Management and Quality Control	871,860	885,036		936,262		961,428		979,712		973,947	
Source Compliance Monitoring	30,285	29,118		28,766		29,339		29,925		30,523	
Contribution to Reserve	6,924	7,305		7,458		7,615		7,772		7,824	
	<u>909,069</u>	<u>921,459</u>	1.4%	<u>972,486</u>	5.5%	<u>998,382</u>	2.7%	<u>1,017,409</u>	1.9%	<u>1,012,294</u>	(0.5%)
Project Delivery											
Minor Capital Projects	1,096,710	1,388,789		1,449,505		1,502,357		1,551,853		1,591,709	
Public Involvement	96,320	107,717		109,515		93,524		95,389		97,295	
	<u>1,193,030</u>	<u>1,496,506</u>	25.4%	<u>1,559,020</u>	4.2%	<u>1,595,881</u>	2.4%	<u>1,647,242</u>	3.2%	<u>1,689,004</u>	2.5%
Operations and Maintenance											
Lake City Operations	69,489	70,375		71,841		73,270		74,913		77,476	
Maintenance	2,575,095	2,670,287		2,741,291		2,820,876		2,896,348		3,156,841	
SCADA Control Systems	25,094	29,342		29,982		30,486		31,016		32,137	
Wastewater Collection	762,108	774,700		794,774		743,393		824,214		835,338	
Wastewater Treatment	5,084,096	5,353,598		5,655,436		5,804,544		5,961,852		6,105,374	
	<u>8,515,882</u>	<u>8,898,302</u>	4.5%	<u>9,293,324</u>	4.4%	<u>9,472,569</u>	1.9%	<u>9,788,343</u>	3.3%	<u>10,207,166</u>	4.3%
Administration and Department Support											
	169,674	170,681	0.6%	173,417	1.6%	176,925	2.0%	176,771	(0.1%)	181,299	2.6%
Communication and Outreach											
	28,800	31,680	10.0%	31,680	0.0%	31,680	0.0%	31,680	0.0%	31,680	0.0%
Environmental Regulation and Enforcement											
	182,562	196,211	7.5%	200,185	2.0%	204,225	2.0%	208,356	2.0%	212,576	2.0%
Allocation of Centralized Support Costs											
	1,850,124	1,868,554	1.0%	2,166,529	15.9%	2,254,434	4.1%	2,375,887	5.4%	2,450,959	3.2%
Total Operating Programs	<u>15,341,978</u>	<u>16,102,595</u>	5.0%	<u>17,010,020</u>	5.6%	<u>17,399,691</u>	2.3%	<u>18,039,547</u>	3.7%	<u>18,466,880</u>	2.4%
Debt Service											
	1,571,032	3,888,777	150.0%	6,280,180	61.5%	10,718,275	70.7%	13,143,952	22.6%	14,281,838	8.7%
Contribution to Capital											
	6,241,544	7,271,384	16.5%	7,301,822	0.4%	7,332,868	0.4%	7,864,535	7.3%	9,905,538	26.0%
TOTAL EXPENDITURES	\$ 23,154,554	\$ 27,262,756	17.7%	\$ 30,592,022	12.2%	\$ 35,450,834	15.9%	\$ 39,048,034	10.1%	\$ 42,654,256	9.2%

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
LIQUID WASTE
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN
FRASER SEWERAGE AREA

	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES											
Liquid Waste Services Levy	\$ 129,540,876	\$ 135,919,069	4.9%	\$ 154,793,415	13.9%	\$ 179,010,442	15.6%	\$ 203,018,003	13.4%	\$ 219,404,502	8.1%
User Fees	1,614,379	1,739,915		1,776,296		1,811,031		1,848,786		1,884,925	
Transfer from DCC Reserves	26,639,005	26,806,195		36,177,513		48,841,981		60,198,278		73,023,106	
Liquid Waste Industrial Charges	6,507,224	6,661,211		6,794,435		6,930,324		7,068,930		7,210,309	
Other External Revenues	453,704	453,959		453,959		453,959		453,959		453,959	
Transfer from Sustainability Innovation Fund Reserve	889,117	258,241		123,304		72,121		-		-	
Transfer from Reserves	950,000	69,615		-		-		-		-	
TOTAL REVENUES	\$ 166,594,305	\$ 171,908,205	3.2%	\$ 200,118,922	16.4%	\$ 237,119,858	18.5%	\$ 272,587,956	15.0%	\$ 301,976,801	10.8%
EXPENDITURES											
Operating Programs:											
Policy Planning and Analysis											
Contribution to Sustainability Innovation Fund Reserve	\$ 514,814	\$ 524,393		\$ 524,393		\$ 524,393		\$ 524,393		\$ 524,393	
Utility Analysis and Infrastructure	880,981	1,150,536		1,255,041		1,199,512		1,250,686		1,316,194	
Utility Policy and Planning	812,818	1,203,380		1,227,175		997,059		993,987		1,006,009	
	2,208,613	2,878,309	30.3%	3,006,609	4.5%	2,720,964	(9.5%)	2,769,066	1.8%	2,846,596	2.8%
Management Systems and Utility Services											
Annacis Research Centre	234,646	237,986		217,429		222,085		210,025		217,642	
Department Technical Training	290,201	306,843		308,373		308,293		309,039		309,801	
Dispatch	65,553	73,776		75,299		76,848		78,433		80,054	
Energy Management	126,378	154,253		158,356		162,523		166,780		171,125	
Engineers in Training	268,719	262,975		268,282		273,667		279,171		284,791	
Engineering Standards	59,886	67,444		68,830		70,240		71,680		73,157	
Liquid Waste Residuals	12,466,765	10,652,367		10,689,987		11,172,022		12,121,401		11,015,203	
Management Systems Utility Services	1,003,037	1,126,377		1,240,852		1,336,945		1,358,205		1,379,488	
Records Management	55,480	62,482		63,767		65,074		66,408		67,795	
Utility Voice Radio	73,646	74,264		75,507		76,432		77,402		79,416	
Wastewater Research and Innovation	1,303,645	850,597		660,622		672,001		681,460		695,045	
	15,947,956	13,869,364	(13.0%)	13,827,304	(0.3%)	14,436,130	4.4%	15,420,004	6.8%	14,373,517	(6.8%)
Environmental Management and Quality Control											
Environmental Management and Quality Control	5,310,984	5,614,648		5,955,258		6,108,588		6,222,818		6,181,247	
Source Compliance Monitoring	192,139	192,454		190,123		193,913		197,787		201,740	
Contribution to Reserve	44,225	46,342		47,315		48,309		49,307		49,636	
	5,547,348	5,853,444	5.5%	6,192,696	5.8%	6,350,810	2.6%	6,469,912	1.9%	6,432,623	(0.6%)
Project Delivery											
Minor Capital Projects	2,414,466	3,339,854		3,449,037		3,634,279		3,795,100		3,889,537	
Public Involvement	618,290	783,547		796,621		680,303		693,874		707,738	
	3,032,756	4,123,401	36.0%	4,245,658	3.0%	4,314,582	1.6%	4,488,974	4.0%	4,597,275	2.4%
Operations and Maintenance											
Lake City Operations	440,869	465,136		474,827		484,266		495,128		512,066	
Maintenance	15,781,764	16,090,428		16,698,311		17,472,886		17,980,187		18,840,055	
SCADA Control Systems	526,847	549,682		561,676		571,114		581,032		602,051	
Wastewater Collection	7,946,296	8,154,375		8,721,499		8,791,589		8,745,772		8,942,588	
Wastewater Treatment	19,178,533	18,704,552		21,029,017		21,003,019		21,804,977		22,326,150	
	43,874,309	43,964,173	0.2%	47,485,330	8.0%	48,322,874	1.8%	49,607,096	2.7%	51,222,910	3.3%
Administration and Department Support											
	1,089,153	1,241,554	14.0%	1,261,454	1.6%	1,286,969	2.0%	1,285,849	(0.1%)	1,318,786	2.6%
Communication and Outreach											
	182,720	209,385	14.6%	209,385	0.0%	209,385	0.0%	209,385	0.0%	209,385	0.0%
Environmental Regulation and Enforcement											
	1,250,572	1,344,073	7.5%	1,371,297	2.0%	1,398,971	2.0%	1,427,268	2.0%	1,456,181	2.0%
Allocation of Centralized Support Costs											
	11,868,408	13,569,054	14.3%	13,515,152	(0.4%)	14,800,357	9.5%	15,911,725	7.5%	17,153,091	7.8%
Total Operating Programs	85,001,835	87,052,757	2.4%	91,114,885	4.7%	93,841,042	3.0%	97,589,279	4.0%	99,610,364	2.1%
Debt Service											
	43,822,751	42,940,207	(2.0%)	59,940,364	39.6%	84,063,743	40.2%	106,129,175	26.2%	130,612,767	23.1%
Contribution to Capital											
	37,769,719	41,915,241	11.0%	49,063,673	17.1%	59,215,073	20.7%	68,869,502	16.3%	71,753,670	4.2%
TOTAL EXPENDITURES	\$ 166,594,305	\$ 171,908,205	3.2%	\$ 200,118,922	16.4%	\$ 237,119,858	18.5%	\$ 272,587,956	15.0%	\$ 301,976,801	10.8%

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
LIQUID WASTE
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN
DRAINAGE SEWERAGE AREA

	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES											
Liquid Waste Services Levy	\$ 2,167,834	\$ 2,114,659	(2.5%)	\$ 2,077,921	(1.7%)	\$ 2,084,688	0.3%	\$ 2,142,614	2.8%	\$ 2,171,502	1.3%
Transfer from Reserves	817,000	115,000		25,000		25,000		25,000		25,000	
TOTAL REVENUES	\$ 2,984,834	\$ 2,229,659	(25.3%)	\$ 2,102,921	(5.7%)	\$ 2,109,688	0.3%	\$ 2,167,614	2.7%	\$ 2,196,502	1.3%
EXPENDITURES											
Operating Programs:											
Policy Planning and Analysis											
Utility Analysis and Infrastructure	\$ 163,693	\$ 139,624		\$ 65,419		\$ 66,225		\$ 67,049		\$ 67,891	
Utility Policy and Planning	65,476	70,848		71,166		71,490		71,818		72,156	
	<u>229,169</u>	<u>210,472</u>	(8.2%)	<u>136,585</u>	(35.1%)	<u>137,715</u>	0.8%	<u>138,867</u>	0.8%	<u>140,047</u>	0.8%
Management Systems and Utility Services											
Annacis Research Centre	-	-		-		-		-		-	
Department Technical Training	6,267	4,784		4,808		4,806		4,818		4,830	
Dispatch	1,412	1,150		1,174		1,198		1,223		1,249	
Energy Management	2,725	2,411		2,476		2,541		2,607		2,676	
Engineers in Training	-	-		-		-		-		-	
Engineering Standards	1,290	1,052		1,073		1,096		1,118		1,140	
Management Systems Utility Services	15,355	13,020		14,734		16,163		16,419		16,679	
Records Management	1,196	975		994		1,015		1,035		1,056	
Utility Voice Radio	-	-		-		-		-		-	
	<u>28,245</u>	<u>23,392</u>	(17.2%)	<u>25,259</u>	8.0%	<u>26,819</u>	6.2%	<u>27,220</u>	1.5%	<u>27,630</u>	1.5%
Project Delivery											
Minor Capital Projects	1,093,629	321,373		314,575		322,078		331,535		339,444	
Public Involvement	13,340	12,217		12,421		10,607		10,818		11,035	
	<u>1,106,969</u>	<u>333,590</u>	(69.9%)	<u>326,996</u>	(2.0%)	<u>332,685</u>	1.7%	<u>342,353</u>	2.9%	<u>350,479</u>	2.4%
Operations and Maintenance											
Lake City Operations	-	-		-		-		-		-	
Maintenance	204,763	219,562		227,285		243,845		259,885		256,631	
SCADA Control Systems	23,276	21,996		22,475		22,853		23,250		24,091	
Urban Drainage	1,048,272	1,109,596		1,105,853		1,128,942		1,128,837		1,152,760	
Wastewater Collection	80,728	82,594		67,599		68,883		87,447		89,132	
	<u>1,357,039</u>	<u>1,433,748</u>	5.7%	<u>1,423,212</u>	(0.7%)	<u>1,439,523</u>	1.1%	<u>1,499,419</u>	4.2%	<u>1,522,614</u>	1.5%
Administration and Department Support											
	23,498	19,359	(17.6%)	19,668	1.6%	20,067	2.0%	20,048	(0.1%)	20,563	2.6%
Allocation of Centralized Support Costs											
	<u>239,914</u>	<u>209,098</u>	(12.8%)	<u>171,201</u>	(18.1%)	<u>152,879</u>	(10.7%)	<u>139,707</u>	(8.6%)	<u>135,169</u>	(3.2%)
Total Operating Programs	<u>2,984,834</u>	<u>2,229,659</u>	<u>(25.3%)</u>	<u>2,102,921</u>	<u>(5.7%)</u>	<u>2,109,688</u>	<u>0.3%</u>	<u>2,167,614</u>	<u>2.7%</u>	<u>2,196,502</u>	<u>1.3%</u>
Contribution to Capital											
	-	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%
TOTAL EXPENDITURES	\$ 2,984,834	\$ 2,229,659	(25.3%)	\$ 2,102,921	(5.7%)	\$ 2,109,688	0.3%	\$ 2,167,614	2.7%	\$ 2,196,502	1.3%

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
CAPITAL PROGRAMS AND PROJECT TOTALS
LIQUID WASTE SERVICES
2020-2024 CAPITAL PLAN

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
CAPITAL EXPENDITURES							
SD Infrastructure Growth Capital							
AIWWTP Site Construction Layout							
AIWWTP Site Construction Layout	\$ 150,000	\$ 150,000	\$ -	\$ -	\$ -	300,000	\$ 600,000
AIWWTP Stage 5 Expansion & Outfall System							
Annacis Outfall System	89,000,000	47,200,000	28,000,000	55,000,000	56,050,000	275,250,000	378,000,000
Annacis Stage 5 Expansion Phase 1 T1 & T2	16,000,000	3,000,000	-	-	-	19,000,000	243,500,000
Annacis Stage 5 Expansion Phase 2	4,650,000	2,200,000	150,000	-	-	7,000,000	22,000,000
Annacis Stage 5 Expansion Phase 2a	21,000,000	16,000,000	-	-	-	37,000,000	180,000,000
Annacis Stage 5 Expansion Phase 2b	22,000,000	31,000,000	36,000,000	40,250,000	15,750,000	145,000,000	150,000,000
Annacis Stage 5 Expansion Phase 2c	-	-	1,000,000	35,000,000	40,000,000	76,000,000	90,000,000
Albert Street Trunk Sewer							
Albert Street Trunk Sewer	150,000	1,550,000	1,500,000	100,000	-	3,300,000	5,550,000
Burnaby Lake North Interceptor							
Burnaby Lake North Interceptor Cariboo Section	1,050,000	1,800,000	500,000	15,000,000	10,500,000	28,850,000	41,000,000
Burnaby Lake North Interceptor Winston Section	21,150,000	50,000,000	26,600,000	10,000,000	-	107,750,000	116,950,000
Burnaby South Slope Interceptor							
Burnaby South Slope Interceptor West Branch Extension	-	250,000	750,000	650,000	3,500,000	5,150,000	13,200,000
Cloverdale Pump Station Capacity Upgrade							
Cloverdale Pump Station Capacity Upgrade	450,000	1,500,000	1,200,000	8,000,000	8,000,000	19,150,000	36,400,000
Cloverdale Trunk Sewer Capacity Upgrade							
Cloverdale Trunk Sewer Capacity Upgrade	-	-	300,000	1,050,000	1,200,000	2,550,000	29,000,000
Glenbrook Combined Trunk Kingsway Sanitary Section							
Glenbrook Combined Trunk Kingsway Sanitary Section	100,000	200,000	2,000,000	2,000,000	-	4,300,000	4,500,000
Hastings Sanitary Trunk Sewer							
Hastings Sanitary Trunk Sewer	3,000,000	-	-	-	-	3,000,000	15,031,000
Hastings Sanitary Trunk Sewer No. 2	6,100,000	550,000	-	-	-	6,650,000	20,000,000
Hastings-Cassiar Intake Connection							
Hastings-Cassiar Intake Connection	2,100,000	100,000	-	-	-	2,200,000	2,350,000
LIWWTP Digester No 3							
Lulu Island WWTP Digester No 3	300,000	50,000	-	-	100,000	450,000	53,300,000

**GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
CAPITAL PROGRAMS AND PROJECT TOTALS
LIQUID WASTE SERVICES
2020-2024 CAPITAL PLAN**

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
Marshend Pump Station							
Marshend Pump Station Capacity Upgrade	1,400,000	5,200,000	3,000,000	3,000,000	650,000	13,250,000	13,775,000
North Road Trunk Sewer							
North Road Trunk Sewer	4,600,000	1,500,000	200,000	-	-	6,300,000	11,675,000
North Road Trunk Sewer Phase 2	100,000	100,000	4,050,000	3,400,000	100,000	7,750,000	8,438,000
North Vancouver Interceptor - Lynn Branch Pre-build							
North Vancouver Interceptor - Lynn Branch Pre-build	50,000	-	-	-	-	50,000	3,950,000
Northwest Langley Wastewater Treatment Projects							
Golden Ears Forcemain and River Crossing	2,100,000	31,000,000	38,900,000	6,000,000	-	78,000,000	86,000,000
Golden Ears Pump Station	11,650,000	15,000,000	7,100,000	100,000	200,000	34,050,000	50,200,000
Golden Ears SSO Storage	16,000,000	3,000,000	10,000,000	-	-	29,000,000	51,500,000
NLWWTP Ground Improvements	22,000,000	3,000,000	-	15,000,000	9,000,000	49,000,000	83,000,000
NLWWTP Outfall	1,500,000	6,500,000	4,000,000	3,000,000	50,000,000	65,000,000	159,000,000
NLWWTP Property Purchase	-	12,000,000	-	-	-	12,000,000	12,000,000
NLWWTP Stage 1	12,000,000	27,000,000	53,000,000	150,000,000	196,000,000	438,000,000	889,000,000
NSI 104th Ave Extension							
NSI 104th Ave Extension	150,000	50,000	50,000	50,000	1,600,000	1,900,000	6,800,000
NSI Flow Management							
NSI Flow Management	6,100,000	30,000,000	20,000,000	350,000	350,000	56,800,000	63,200,000
Port Moody Pump Station Capacity Upgrade							
Port Moody Pump Station Capacity Upgrade	1,100,000	750,000	4,500,000	3,800,000	-	10,150,000	10,550,000
Port Moody South Interceptor Capacity Upgrade							
Port Moody South Interceptor Capacity Upgrade	-	150,000	350,000	1,000,000	1,000,000	2,500,000	3,450,000
Rosemary Heights Pressure Sewer Capacity Upgrade							
Rosemary Heights Pressure Sewer Capacity Upgrade	-	150,000	500,000	650,000	4,800,000	6,100,000	10,750,000
Sapperton Pump Station							
Sapperton Pump Station	8,000,000	11,400,000	-	-	-	19,400,000	82,003,000
South Surrey Interceptor Twinning							
South Surrey Interceptor Johnston Section	17,000,000	10,000,000	-	-	-	27,000,000	84,026,000
SSI - King George Section - Odor Control Facility (OCF) and Grit Chamber	3,500,000	500,000	-	-	-	4,000,000	19,500,000
Sperling Pump Station							
Sperling PS Increase Pump Capacity	100,000	-	-	-	-	100,000	3,150,000

**GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
CAPITAL PROGRAMS AND PROJECT TOTALS
LIQUID WASTE SERVICES
2020-2024 CAPITAL PLAN**

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
	\$ 294,550,000	\$ 312,850,000	\$ 243,650,000	\$ 353,400,000	\$ 398,800,000	\$ 1,603,250,000	\$ 3,053,348,000
SD Infrastructure Maintenance Capital							
AIWWTP CDACS Replacement Program							
AIWWTP CDACS Replacement Program	\$ 1,100,000	\$ 1,700,000	\$ 1,650,000	\$ 1,650,000	\$ 1,600,000	\$ 7,700,000	\$ 14,350,000
AIWWTP Cogen Building Refurbishment							
AIWWTP Cogen Building Refurbishment	1,500,000	-	-	-	-	1,500,000	1,500,000
AIWWTP Fibre Optic Infrastructure							
AIWWTP Fibre Optic Infrastructure	100,000	-	-	-	-	100,000	1,500,000
AIWWTP Influent System Remediation							
AIWWTP Influent System Remediation	500,000	600,000	13,000,000	18,000,000	20,000,000	52,100,000	82,600,000
AIWWTP IPS Pump Building Roof Replacement Phase 2							
AIWWTP IPS Pump Building Roof Replacement Phase 2	-	-	-	-	800,000	800,000	830,000
AIWWTP Outfall Repair							
AIWWTP Outfall Repair	150,000	800,000	750,000	-	-	1,700,000	1,800,000
AIWWTP Replacement of CDAC Equipment							
AIWWTP Replacement of CDAC Equipment in Galleries	750,000	300,000	100,000	-	-	1,150,000	2,895,000
AIWWTP Scheduled 64kV Potential & Current Transformer Replacements							
AIWWTP Scheduled 64kV Potential & Current Transformer Replacements	350,000	100,000	-	-	-	450,000	800,000
AIWWTP Scum Pump Replacement							
AIWWTP Scum Pump Replacement	-	-	-	-	200,000	200,000	1,350,000
AIWWTP Secondary Clarifier Corrosion Repair							
AIWWTP SCL Flow Balancing	100,000	-	1,350,000	-	-	1,450,000	2,450,000
AIWWTP SCL Flow Control	6,000,000	6,000,000	6,000,000	2,700,000	10,000,000	30,700,000	31,500,000
Annacis Secondary Clarifier Corrosion Repair and Leveling Phase 2	1,150,000	1,000,000	1,000,000	750,000	10,400,000	14,300,000	22,000,000
AIWWTP Secondary Effluent Discharge Flowmeter Replacement							
AIWWTP Secondary Effluent Discharge Flowmeter Replacement	200,000	50,000	-	-	-	250,000	400,000
AIWWTP Spare Trickling Filter Pump & Motor Purchase							
AIWWTP Spare Trickling Filter Pump & Motor Purchase	300,000	-	-	-	-	300,000	1,950,000
AIWWTP Station Battery Replacement							
AIWWTP Station Battery Replacement - PHASE 2	300,000	-	-	-	-	300,000	400,000

**GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
CAPITAL PROGRAMS AND PROJECT TOTALS
LIQUID WASTE SERVICES
2020-2024 CAPITAL PLAN**

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
AIWWTP Trickling Filter Media & Distributor Arms & Ducting Replacement							
AIWWTP Trickling Filter Media & Distributor Arms & Ducting Replacement	22,350,000	23,250,000	22,100,000	20,000,000	-	87,700,000	90,700,000
Annacis MCC 80 051, 80 070, 80 071 Replacement							
Annacis MCC 80 051, 80 070, 80 071 Replacement	850,000	150,000	100,000	-	-	1,100,000	2,844,000
Big Bend Forcemain - Gate Replacement							
Big Bend Forcemain - Gate Replacement	-	-	-	-	600,000	600,000	2,680,000
Cambie Trunk Sewer Relocation for Broadway Subway Project							
Cambie Trunk Sewer Relocation for Broadway Subway Project	2,000,000	1,500,000	-	-	-	3,500,000	4,500,000
Combined Sewer Overflow Sampling Station Enhancements							
Combined Sewer Overflow Sampling Station Enhancements	400,000	500,000	400,000	-	-	1,300,000	1,900,000
Cost Allocation Billing Network (Combined 96 F4)							
Cost Allocation Billing Network (Combined 96 F4)	50,000	-	-	-	-	50,000	5,230,000
Crescent Beach FM - Replacement							
Crescent Beach FM - Replacement	6,300,000	6,000,000	-	-	-	12,300,000	25,570,000
English Bay/Balaclava Outfalls Improvement							
English Bay/Balaclava Outfalls Improvement	-	250,000	500,000	150,000	-	900,000	900,000
FSA Flow Metering Program							
FSA Flow Metering Program	800,000	900,000	800,000	300,000	-	2,800,000	3,500,000
Gilbert/Brighthouse Trunk Pressure Sewer							
Gilbert/Brighthouse Trunk Pressure Sewer Rehab Phase 5	-	-	-	200,000	3,000,000	3,200,000	23,200,000
Gilbert/Brighthouse Trunk Pressure Sewer Twinning Phase 2	9,500,000	-	-	-	-	9,500,000	50,501,000
Gilbert/Brighthouse Trunk Pressure Sewer Twinning Phase 3	50,000	23,300,000	20,000,000	-	-	43,350,000	44,400,000
Gilbert/Brighthouse Trunk Pressure Sewer Twinning Phase 4	10,400,000	25,000,000	5,400,000	-	-	40,800,000	41,400,000
Glen Eagles Forcemain Replacement							
Glen Eagles Forcemains Replacement Phase 2	250,000	2,150,000	2,500,000	2,500,000	-	7,400,000	7,750,000
Glen Eagles Pump Stations							
Glen Eagles Pump Stations Phase 1	1,300,000	6,300,000	3,750,000	5,500,000	5,000,000	21,850,000	22,500,000
Glen Eagles Pump Stations Phase 2	-	-	200,000	1,000,000	1,000,000	2,200,000	5,000,000
Harbour West & East Interceptors Reloc & Protect							
Harbour West & East Interceptors Reloc & Protect	9,750,000	5,300,000	-	-	-	15,050,000	19,500,000

**GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
CAPITAL PROGRAMS AND PROJECT TOTALS
LIQUID WASTE SERVICES
2020-2024 CAPITAL PLAN**

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
IIWWTP CDAC IPS Control Replacement							
IIWWTP CDAC IPS Control Replacement	950,000	-	-	-	-	950,000	1,750,000
IIWWTP CDACS Replacement Program							
IIWWTP CDACS Replacement Program	350,000	300,000	100,000	-	-	750,000	750,000
IIWWTP Influent Gate Refurbishment							
IIWWTP Influent Gate Refurbishment	350,000	350,000	250,000	-	-	950,000	1,350,000
IIWWTP IPS Drive Remediation							
IIWWTP IPS Drive Remediation	500,000	150,000	150,000	-	-	800,000	800,000
IIWWTP MCC/Power Distribution Assess/Replace - Phase 2							
IIWWTP MCC/Power Distribution Assess/Replace - Phase 2	200,000	-	-	-	-	200,000	1,000,000
IIWWTP PA-Sed Tank & Gallery Wall Refurbishment							
IIWWTP PA-Sed Tank & Gallery Wall Refurbishment	500,000	300,000	-	-	-	800,000	1,375,000
IIWWTP Replacement of CoGen Control System							
IIWWTP Replacement of CoGen Control System	800,000	300,000	-	-	-	1,100,000	2,470,000
IIWWTP Siphon Chamber Refurbishment							
IIWWTP Siphon Chamber Refurbishment	850,000	850,000	450,000	-	-	2,150,000	2,200,000
IIWWTP Solids Handling Refurbishment							
IIWWTP Digester 4 Roof Replacement & Mixing Replacement	4,750,000	1,000,000	2,500,000	2,700,000	-	10,950,000	24,800,000
IIWWTP Grit System Refurbishment	50,000	500,000	-	-	-	550,000	8,100,000
IIWWTP Solids Handling Refurbishment	300,000	-	-	-	-	300,000	30,500,000
Iona Island Control & Instrumentation Replacement 2011							
Iona Island Control & Instrumentation Replacement 2011	450,000	-	-	-	-	450,000	2,750,000
LIWWTP CCT Isolation Gates							
LIWWTP CCT Isolation Gates	350,000	550,000	600,000	450,000	-	1,950,000	2,050,000
LIWWTP CDACS Replacement Program							
LIWWTP CDACS Replacement Program	1,400,000	1,650,000	1,300,000	1,000,000	1,100,000	6,450,000	6,750,000
LIWWTP High Efficiency Boiler							
LIWWTP High Efficiency Boiler	100,000	-	800,000	250,000	100,000	1,250,000	1,330,000
LIWWTP PA-Sed Tank Refurbishment							
LIWWTP PA-Sed Tank Refurbishment	1,050,000	1,050,000	900,000	-	-	3,000,000	4,115,000
LSA Flow Metering Program							
LSA Flow Metering Program	50,000	50,000	50,000	50,000	-	200,000	300,000

**GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
CAPITAL PROGRAMS AND PROJECT TOTALS
LIQUID WASTE SERVICES
2020-2024 CAPITAL PLAN**

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
Marshend PS Rehab							
Marshend PS Rehab	-	2,200,000	2,000,000	1,950,000	-	6,150,000	7,000,000
New West Interceptor - Annacis Section 2							
NWI - Annacis Section 2 Improvement	1,500,000	10,200,000	16,300,000	16,000,000	-	44,000,000	45,000,000
New West Interceptor Grit Chamber							
New West Interceptor Grit Chamber	-	3,000,000	5,000,000	-	-	8,000,000	8,250,000
New Westminster Interceptor Repair Columbia St. Section							
New Westminster Interceptor Repair Columbia St. Section	3,300,000	5,150,000	1,100,000	-	-	9,550,000	10,882,000
NLWWTP Screw Pump Replacement							
NLWWTP Screw Pump Replacement	500,000	500,000	450,000	-	-	1,450,000	1,550,000
NSA Flow Metering Program							
NSA Flow Metering Program	250,000	300,000	200,000	-	-	750,000	900,000
NSI Rehab or Replacement							
NSI Rehab or Replacement	9,150,000	20,750,000	11,200,000	1,500,000	3,000,000	45,600,000	46,950,000
NWL WWTP 25 kV Substation Replacement							
NWL WWTP 25 kV Substation Replacement	2,500,000	1,000,000	1,000,000	-	-	4,500,000	10,025,000
Ocean Park Trunk Crescent Section (OPC) Pipe Rehabilitation/Replacement							
Ocean Park Trunk Crescent Section (OPC) Pipe Rehabilitation/Replacement	2,150,000	1,050,000	-	-	-	3,200,000	4,953,000
Ocean Park Trunk Manholes Lining							
Ocean Park Trunk Manholes Lining	-	50,000	350,000	150,000	-	550,000	550,000
Port Coquitlam Pump Station Refurbishment							
Port Coquitlam Pump Station Refurbishment	-	250,000	1,000,000	2,000,000	4,000,000	7,250,000	9,250,000
Royal Ave PS Rehabilitation							
Royal Ave PS Rehabilitation	2,000,000	2,000,000	1,500,000	-	-	5,500,000	7,238,000
Sewer Relocations and Protections at Fraser Surrey Docks							
Sewer Relocations and Protections at Fraser Surrey Docks	750,000	15,000,000	5,000,000	3,200,000	-	23,950,000	25,800,000
Sewer Relocations and Protections for Pattullo Bridge Replacement Project							
Sewer Relocations and Protections for Pattullo Bridge Replacement Project	750,000	5,250,000	500,000	250,000	-	6,750,000	7,000,000
SSI Influent Control Chamber Repair and Replace Gates							
SSI Influent Control Chamber Repair and Replace Gates	750,000	-	-	-	-	750,000	1,305,000

**GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
CAPITAL PROGRAMS AND PROJECT TOTALS
LIQUID WASTE SERVICES
2020-2024 CAPITAL PLAN**

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
Surrey Corrosion Control Facility Replacement							
Surrey Corrosion Control Facility Replacement	1,200,000	1,200,000	-	-	-	2,400,000	2,900,000
VSA Flow Metering Program							
VSA Flow Metering Program	900,000	1,600,000	1,650,000	900,000	-	5,050,000	5,800,000
Westridge FM Replacement							
Westridge FM Replacement	2,050,000	700,000	300,000	-	-	3,050,000	3,650,000
Westridge Pump Stations 1 & 2 Refurbishment							
Westridge Pump Stations 1 & 2 Refurbishment	1,000,000	5,300,000	5,000,000	3,000,000	1,650,000	15,950,000	16,250,000
Works Yard							
Works Yard	32,000,000	-	-	-	-	32,000,000	32,000,000
	\$ 150,250,000	\$ 187,700,000	\$ 139,250,000	\$ 86,150,000	\$ 62,450,000	\$ 625,800,000	\$ 858,043,000
SD Infrastructure Resilience Capital							
AIWWTP Cogeneration Backup Power							
AIWWTP 69 kV Substation Modifications	\$ 2,550,000	\$ 2,700,000	\$ 1,750,000	\$ -	\$ -	\$ 7,000,000	\$ 8,500,000
AIWWTP Cogeneration Backup Power	3,000,000	4,150,000	-	-	-	7,150,000	75,003,000
AIWWTP PST Area Walkway & Column Remediation							
AIWWTP PST Area Walkway & Column Remediation	500,000	100,000	-	-	-	600,000	3,100,000
AIWWTP UPS Condition Monitoring System							
AIWWTP UPS Condition Monitoring System	300,000	100,000	150,000	-	-	550,000	550,000
IIWWTP - Biogas Lines Relocation							
IIWWTP - Biogas Lines Relocation	550,000	-	-	-	-	550,000	5,780,000
IIWWTP Standby Diesel Generators							
IIWWTP Standby Diesel Generators	250,000	850,000	1,900,000	1,000,000	700,000	4,700,000	5,000,000
LIWWTP Power Reliability							
LIWWTP Power Reliability	4,700,000	2,300,000	-	-	-	7,000,000	8,202,000
SSI Sulfide Odour and Corrosion Control							
SSI Sulfide Odour and Corrosion Control	4,300,000	2,300,000	-	-	-	6,600,000	7,700,000
VSA Emergency Backup Power							
VSA Emergency Backup Power	8,550,000	8,100,000	-	-	-	16,650,000	24,310,000
	\$ 24,700,000	\$ 20,600,000	\$ 3,800,000	\$ 1,000,000	\$ 700,000	\$ 50,800,000	\$ 138,145,000

**GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
CAPITAL PROGRAMS AND PROJECT TOTALS
LIQUID WASTE SERVICES
2020-2024 CAPITAL PLAN**

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
SD Infrastructure Upgrade Capital							
AIWWTP Ammonia Removal – Sidestream							
AIWWTP Ammonia Removal – Sidestream	\$ -	\$ -	\$ 150,000	\$ -	\$ -	\$ 150,000	\$ 125,900,000
AIWWTP DAF Polymer Building Replacement							
AIWWTP DAF Polymer Building Replacement	50,000	-	-	-	-	50,000	550,000
AIWWTP Electrical Distribution System Protection Control and Monitoring							
AIWWTP Electrical Distribution System Protection Control and Monitoring	600,000	900,000	450,000	400,000	-	2,350,000	2,650,000
AIWWTP Replacement of Protective Relays							
AIWWTP Replacement of Protective Relays	1,000,000	-	-	-	-	1,000,000	3,258,000
All WWTPs Power Quality Monitoring & Outage Alarming Network							
All WWTPs Power Quality Monitoring & Outage Alarming Network	550,000	400,000	150,000	-	-	1,100,000	2,870,000
Biosolids Dryer							
Biosolids Dryer	7,700,000	2,000,000	-	-	-	9,700,000	14,700,000
IIWWTP Biosolids Dewatering Facility							
IIWWTP Biosolids Dewatering Facility	36,550,000	6,250,000	2,000,000	-	-	44,800,000	61,300,000
IIWWTP Sludge Lagoons Dewatering Facility							
IIWWTP Sludge Lagoons Dewatering Facility	2,350,000	500,000	-	-	-	2,850,000	2,850,000
New CSO Management Gates for New Westminster Interceptor							
New CSO Management Gates for New Westminster Interceptor	200,000	600,000	800,000	2,000,000	2,200,000	5,800,000	5,925,000
WWTPs Electrical System Studies & Upgrades							
WWTPs Electrical System Studies & Upgrades	200,000	450,000	400,000	500,000	250,000	1,800,000	1,900,000
	\$ 49,200,000	\$ 11,100,000	\$ 3,950,000	\$ 2,900,000	\$ 2,450,000	\$ 69,600,000	\$ 221,903,000
SD Infrastructure Upgrade: Secondary Treatment Capital							
Iona Secondary Wastewater Treatment							
Iona Secondary Treatment Upgrade	\$ 7,400,000	\$ 13,000,000	\$ 60,000,000	\$ 100,000,000	\$ 155,000,000	\$ 335,400,000	\$ 1,904,500,000
North Shore WWTP Secondary Upgrade and Conveyance							
North Shore WWTP Secondary Upgrade and Conveyance	345,470,000	207,240,000	75,210,000	72,320,000	11,600,000	711,840,000	881,900,000
	\$ 352,870,000	\$ 220,240,000	\$ 135,210,000	\$ 172,320,000	\$ 166,600,000	\$ 1,047,240,000	\$ 2,786,400,000
Metro Vancouver Board Budget Workshop							

**GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
CAPITAL PROGRAMS AND PROJECT TOTALS
LIQUID WASTE SERVICES
2020-2024 CAPITAL PLAN**

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
SD Opportunity Capital							
AIWWTP Hydrothermal Processing Pilot							
AIWWTP Hydrothermal Processing Pilot	\$ 1,750,000	\$ 4,500,000	\$ 2,000,000	\$ -	\$ -	\$ 8,250,000	\$ 8,980,000
Fraser Sewerage Area Integrated Resource Recovery (IRR) Study							
Fraser Sewerage Area Integrated Resource Recovery (IRR) Study	100,000	500,000	500,000	-	-	1,100,000	1,200,000
LIWWTP Biogas Clean-up Project							
LIWWTP Biogas Clean-up Project	7,800,000	1,300,000	-	-	-	9,100,000	13,800,000
LIWWTP Pilot Digestion Optimization Facility							
LIWWTP Pilot Digestion Optimization Facility	2,000,000	100,000	-	-	-	2,100,000	3,100,000
North Surrey Interceptor - Port Mann Section - Odour Control							
North Surrey Interceptor - Port Mann Section - Odour Control	200,000	1,000,000	1,100,000	2,000,000	3,050,000	7,350,000	7,500,000
	<u>\$ 11,850,000</u>	<u>\$ 7,400,000</u>	<u>\$ 3,600,000</u>	<u>\$ 2,000,000</u>	<u>\$ 3,050,000</u>	<u>\$ 27,900,000</u>	<u>\$ 34,580,000</u>
TOTAL CAPITAL EXPENDITURES							
	<u>\$ 883,420,000</u>	<u>\$ 759,890,000</u>	<u>\$ 529,460,000</u>	<u>\$ 617,770,000</u>	<u>\$ 634,050,000</u>	<u>\$ 3,424,590,000</u>	<u>\$ 7,092,419,000</u>

CAPITAL FUNDING							
New External Borrowing	\$ 552,270,000	\$ 474,990,000	\$ 356,860,000	\$ 437,870,000	\$ 459,950,000	\$ 2,281,940,000	
Contribution to Capital	86,800,000	94,100,000	105,000,000	115,300,000	128,700,000	529,900,000	
Surplus from Prior Year/ Reserves/ DCC	55,950,000	49,600,000	39,400,000	56,300,000	45,400,000	246,650,000	
External Funding - Interagency	188,400,000	141,200,000	28,200,000	8,300,000	-	366,100,000	
Total	<u>\$ 883,420,000</u>	<u>\$ 759,890,000</u>	<u>\$ 529,460,000</u>	<u>\$ 617,770,000</u>	<u>\$ 634,050,000</u>	<u>\$ 3,424,590,000</u>	

DEBT SERVICING TOTALS/RATIO							
Operating Programs - Liquid Waste Services	\$ 184,200,000	\$ 195,600,000	\$ 202,400,000	\$ 211,100,000	\$ 204,400,000	\$ 997,700,000	
Debt Service - Existing	55,500,000	57,000,000	80,800,000	117,800,000	148,300,000	459,400,000	
Debt Service - New	1,700,000	24,600,000	37,100,000	31,700,000	37,000,000	132,100,000	
Contribution to Capital	86,800,000	94,100,000	105,000,000	115,300,000	128,700,000	529,900,000	
Total	<u>\$ 328,200,000</u>	<u>\$ 371,300,000</u>	<u>\$ 425,300,000</u>	<u>\$ 475,900,000</u>	<u>\$ 518,400,000</u>	<u>\$ 2,119,100,000</u>	
% Debt Service	17%	22%	28%	31%	36%	28%	

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
SOLID WASTE
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN

	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES											
Solid Waste Tipping Fees	\$ 98,362,329	\$ 105,822,892	7.6%	\$ 112,531,210	6.3%	\$ 117,787,451	4.7%	\$ 125,918,930	6.9%	\$ 130,900,548	4.0%
Energy Sales	5,927,304	5,681,540		6,239,530		6,401,758		6,568,204		6,738,977	
Other External Revenues	2,868,134	2,584,192		3,492,679		3,579,902		3,654,275		3,731,250	
TOTAL REVENUES	\$ 107,157,767	\$ 114,088,624	6.5%	\$ 122,263,419	7.2%	\$ 127,769,111	4.5%	\$ 136,141,409	6.6%	\$ 141,370,775	3.8%
EXPENDITURES											
Operating Programs:											
Solid Waste Operations											
Allocated Quality Control	\$ 26,437	\$ 19,032		\$ 19,777		\$ 20,271		\$ 20,376		\$ 20,670	
Ashcroft Ranch	587,543	515,127		372,485		380,013		387,733		395,646	
Engineers in Training	130,725	103,806		105,901		108,027		110,199		112,418	
Landfills	33,507,835	33,342,259		31,396,072		31,480,313		33,692,586		31,905,257	
Transfer Station System	34,391,750	35,599,324		39,022,009		38,421,465		39,395,572		40,443,566	
Waste to Energy Facility	22,646,504	23,615,873		24,220,370		24,952,707		26,346,839		27,009,931	
	91,290,794	93,195,421	2.1%	95,136,614	2.1%	95,362,796	0.2%	99,953,305	4.8%	99,887,488	(0.1%)
Solid Waste Planning											
Policy and Facility Development	836,841	726,126		738,728		751,521		756,594		769,957	
Zero Waste Implementation	1,741,398	2,559,193		2,600,003		2,640,582		1,882,137		1,932,723	
Programs and Public Involvement	369,758	695,157		704,792		714,582		524,594		534,823	
	2,947,997	3,980,476	35.0%	4,043,523	1.6%	4,106,685	1.6%	3,163,325	(23.0%)	3,237,503	2.3%
Administration and Department Support	657,069	637,780	(2.9%)	649,108	1.8%	660,604	1.8%	672,348	1.8%	677,829	0.8%
Environmental Regulation and Enforcement	962,853	958,874	(0.4%)	978,013	2.0%	997,119	2.0%	1,016,636	2.0%	1,036,790	2.0%
Allocation of Centralized Support Costs	4,674,251	4,690,785	0.4%	4,642,345	(1.0%)	4,808,758	3.6%	4,711,392	(2.0%)	4,792,076	1.7%
Total Operating Programs	100,532,964	103,463,336	2.9%	105,449,603	1.9%	105,935,962	0.5%	109,517,006	3.4%	109,631,686	0.1%
Debt Service	2,494,949	4,837,308	93.9%	11,366,161	130.0%	17,761,696	56.3%	21,337,485	20.1%	23,537,606	10.3%
Total Contribution to Capital	4,129,854	5,787,980	40.1%	5,447,655	(5.9%)	4,071,453	(25.3%)	5,286,918	29.9%	8,201,483	55.1%
TOTAL EXPENDITURES	\$ 107,157,767	\$ 114,088,624	6.5%	\$ 122,263,419	7.2%	\$ 127,769,111	4.5%	\$ 136,141,409	6.6%	\$ 141,370,775	3.8%

**GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
SOLID WASTE REGULATION
2020-2024 FINANCIAL PLAN**

	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES											
Solid Waste Revenues	\$ 962,853	\$ 958,874	(0.4%)	\$ 978,013	2.0%	\$ 997,119	2.0%	\$ 1,016,636	2.0%	\$ 1,036,790	2.0%
TOTAL REVENUES	\$ 962,853	\$ 958,874	(0.4%)	\$ 978,013	2.0%	\$ 997,119	2.0%	\$ 1,016,636	2.0%	\$ 1,036,790	2.0%
EXPENDITURES											
Operating Programs:											
Environmental Regulation and Enforcement	\$ 901,103	\$ 834,503		\$ 851,109		\$ 867,638		\$ 884,521		\$ 901,982	
Administration and Department Support	61,750	124,371		126,904		129,481		132,115		134,808	
TOTAL EXPENDITURES	\$ 962,853	\$ 958,874	(0.4%)	\$ 978,013	2.0%	\$ 997,119	2.0%	\$ 1,016,636	2.0%	\$ 1,036,790	2.0%

**GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
CAPITAL PROGRAMS AND PROJECT TOTALS
SOLID WASTE SERVICES
2020-2024 CAPITAL PLAN**

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
CAPITAL EXPENDITURES							
SW Landfills Capital							
Alternative Fuel and Recyclables Recovery Centre							
Alternative Fuel and Recyclables Recovery Centre	\$ -	\$ -	\$ 1,500,000	\$ 15,000,000	\$ 33,500,000	\$ 50,000,000	\$ 60,000,000
Coquitlam Landfill Closure							
Coquitlam Landfill Closure	3,000,000	-	-	-	-	3,000,000	5,000,000
Coquitlam Landfill East Closure							
Coquitlam Landfill East Closure	-	-	400,000	3,500,000	1,100,000	5,000,000	5,000,000
Coquitlam Landfill Fly Ash Cell 2 Closure Final Cover							
Coquitlam Landfill Fly Ash Cell 2 Closure Final Cover	1,820,000	-	-	-	-	1,820,000	3,200,000
Coquitlam Landfill Gas Collection Upgrades							
Coquitlam Landfill Gas Collection Upgrades	100,000	-	-	-	-	100,000	3,100,000
Coquitlam Landfill Gas Collection Upgrades Phase II	2,380,000	-	-	-	-	2,380,000	3,600,000
Coquitlam Landfill Lot 3 Development							
Coquitlam Landfill Lot 3 Development	4,000,000	1,000,000	-	-	-	5,000,000	5,000,000
Coquitlam Landfill Pump Station Upgrade							
Coquitlam Landfill Pump Station Upgrade	400,000	-	-	-	-	400,000	600,000
Coquitlam Landfill: Leachate Collection System Grade Realignment							
Coquitlam Landfill: Leachate Collection System Grade Realignment	550,000	300,000	-	-	-	850,000	1,000,000
	<u>\$ 12,250,000</u>	<u>\$ 1,300,000</u>	<u>\$ 1,900,000</u>	<u>\$ 18,500,000</u>	<u>\$ 34,600,000</u>	<u>\$ 68,550,000</u>	<u>\$ 86,500,000</u>
SW Opportunity Capital							
WTE Facility District Heating Opportunities							
WTE Facility District Heating Opportunities	\$ 2,250,000	\$ -	\$ -	\$ -	\$ -	2,250,000	\$ 2,300,000
	<u>\$ 2,250,000</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 2,250,000</u>	<u>\$ 2,300,000</u>
SW Transfer Stations Capital							
Coquitlam Transfer Station Compactor Replacement							
Coquitlam Transfer Station Compactor Replacement	\$ 2,500,000	\$ -	\$ -	\$ -	\$ -	2,500,000	\$ 2,500,000
Coquitlam Transfer Station Replacement							
Coquitlam Transfer Station Replacement	35,000,000	15,000,000	-	-	-	50,000,000	77,600,000

**GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
CAPITAL PROGRAMS AND PROJECT TOTALS
SOLID WASTE SERVICES
2020-2024 CAPITAL PLAN**

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
Maple Ridge Transfer Station Upgrades							
Maple Ridge Transfer Station Upgrades	-	2,000,000	-	-	-	2,000,000	2,000,000
North Shore Transfer Station Compactor Replacement							
North Shore Transfer Station Compactor Replacement	-	-	-	-	2,500,000	2,500,000	2,500,000
Surrey Recycling and Waste Drop-Off							
Surrey Recycling and Waste Drop-Off	20,300,000	18,000,000	10,000,000	-	-	48,300,000	62,300,000
Surrey Transfer Station Compactor Replacement							
Surrey Transfer Station Compactor Replacement	-	-	2,500,000	-	-	2,500,000	2,500,000
	\$ 57,800,000	\$ 35,000,000	\$ 12,500,000	\$ -	\$ 2,500,000	\$ 107,800,000	\$ 149,400,000
SW Waste to Energy Facility Capital							
Acid Gas Reduction							
Acid Gas Reduction	\$ 2,800,000	\$ 17,750,000	\$ 20,000,000	\$ -	\$ -	\$ 40,550,000	\$ 41,000,000
Biosolids Processing							
Biosolids Processing	400,000	10,000,000	10,000,000	-	-	20,400,000	20,500,000
Boiler Grate and Feed Table Supports Replacement							
Boiler Grate and Feed Table Supports Replacement	-	-	-	-	4,500,000	4,500,000	4,500,000
Bottom Ash Crane Replacement							
Bottom Ash Crane Replacement	-	1,500,000	-	-	-	1,500,000	1,500,000
Carbon Silo Replacement							
Carbon Silo Replacement	-	1,200,000	1,200,000	-	-	2,400,000	2,400,000
Feed Hopper/Chute							
Feed Hopper/Chute	1,800,000	-	-	-	-	1,800,000	2,600,000
Feedwater Pump Replacement							
Feedwater Pump Replacement	720,000	-	-	-	-	720,000	1,000,000
Generation Bank Replacement							
Generation Bank Replacement	-	6,000,000	3,000,000	-	-	9,000,000	9,000,000
Lime Silo Replacement							
Lime Silo Replacement	-	1,800,000	1,800,000	-	-	3,600,000	3,600,000
Primary Economizer Replacement							
Primary Economizer Replacement	2,000,000	3,000,000	-	-	-	5,000,000	5,000,000

**GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
CAPITAL PROGRAMS AND PROJECT TOTALS
SOLID WASTE SERVICES
2020-2024 CAPITAL PLAN**

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
Refuse Crane							
Refuse Crane	7,000,000	-	-	-	-	7,000,000	7,000,000
Second Pass Superheater Replacement							
Second Pass Superheater Replacement	1,500,000	-	-	-	-	1,500,000	5,500,000
Secondary Economizers Replacement							
Secondary Economizers Replacement	-	4,000,000	2,000,000	-	-	6,000,000	6,000,000
Stack Refurbishment							
Stack Refurbishment	-	-	-	350,000	-	350,000	350,000
	\$ 16,220,000	\$ 45,250,000	\$ 38,000,000	\$ 350,000	\$ 4,500,000	\$ 104,320,000	\$ 109,950,000
TOTAL CAPITAL EXPENDITURES	\$ 88,520,000	\$ 81,550,000	\$ 52,400,000	\$ 18,850,000	\$ 41,600,000	\$ 282,920,000	\$ 348,150,000

CAPITAL FUNDING							
New External Borrowing	\$ 84,060,000	\$ 78,250,000	\$ 49,400,000	\$ 17,150,000	\$ 38,700,000	\$ 267,560,000	
Surplus from Prior Year/Reserves	4,460,000	3,300,000	3,000,000	1,700,000	2,900,000	15,360,000	
Total	\$ 88,520,000	\$ 81,550,000	\$ 52,400,000	\$ 18,850,000	\$ 41,600,000	\$ 282,920,000	

DEBT SERVICING TOTALS/RATIO							
Operating Programs - Solid Waste Services	\$ 103,500,000	\$ 105,400,000	\$ 105,900,000	\$ 109,500,000	\$ 109,600,000	\$ 533,900,000	
Debt Service - Existing	4,100,000	4,800,000	11,400,000	17,800,000	21,300,000	59,400,000	
Debt Service - New	700,000	6,600,000	6,400,000	3,500,000	2,200,000	19,400,000	
Contribution to Capital	5,800,000	5,400,000	4,100,000	5,300,000	8,200,000	28,800,000	
Total	\$ 114,100,000	\$ 122,200,000	\$ 127,800,000	\$ 136,100,000	\$ 141,300,000	\$ 641,500,000	
% Debt Service	4%	9%	14%	16%	17%	12%	

METRO VANCOUVER HOUSING CORPORATION
HOUSING
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN

	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES											
Housing Rents	\$ 39,309,579	\$ 40,392,325	2.8%	\$ 41,544,306	2.9%	\$ 45,130,135	8.6%	\$ 46,338,026	2.7%	\$ 50,049,662	8.0%
Housing Mortgage Subsidies	1,088,554	2,103,014		2,099,058		2,153,023		1,901,688		1,950,519	
Other External Revenues	870,086	794,413		834,522		768,190		768,294		766,830	
Transfer from Reserves	10,001,242	9,000,000		9,000,000		9,000,000		9,000,000		9,000,000	
TOTAL REVENUES	\$ 51,269,461	\$ 52,289,752	2.0%	\$ 53,477,886	2.3%	\$ 57,051,348	6.7%	\$ 58,008,008	1.7%	\$ 61,767,011	6.5%
EXPENDITURES											
Operating Programs:											
Property Operations	\$ 17,243,436	\$ 18,023,965		\$ 18,590,645		\$ 19,430,849		\$ 20,525,164		\$ 22,296,624	
Maintenance	1,265,069	1,166,883		1,201,431		1,224,889		1,248,681		1,273,055	
Housing Finance Operations	670,587	671,410		690,313		698,609		712,617		733,730	
Tenant Program and Services	578,388	732,273		674,698		688,781		703,184		717,951	
Site Administration	1,474,480	1,868,170		1,905,468		1,943,433		1,982,271		2,022,000	
Engineers in Training	-	11,534		11,767		12,003		12,244		12,491	
Administration and Department Support	1,210,353	1,190,329		1,215,360		1,240,757		1,267,154		1,293,744	
	22,442,313	23,664,564	5.4%	24,289,682	2.6%	25,239,321	3.9%	26,451,315	4.8%	28,349,595	7.2%
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	2,119,752	2,071,404	(2.3%)	2,098,851	1.3%	2,006,987	(4.4%)	1,891,093	(5.8%)	1,855,652	(1.9%)
Total Operating Programs	24,602,065	25,775,968	4.8%	26,428,533	2.5%	27,286,308	3.2%	28,382,408	4.0%	30,245,247	6.6%
Asset Maintenance and Replacement	10,001,242	9,000,000	(10.0%)	9,000,000	0.0%	9,000,000	0.0%	9,000,000	0.0%	9,000,000	0.0%
Debt Service	6,201,762	5,333,392	(14.0%)	5,149,561	(3.4%)	6,041,513	17.3%	6,742,393	11.6%	8,393,865	24.5%
Contribution to Capital Replacement Reserve	1,720,636	1,720,546	0.0%	1,720,546	0.0%	1,720,546	0.0%	1,720,546	0.0%	1,720,546	0.0%
Contribution to Reserve	8,743,756	10,459,846	19.6%	11,179,246	6.9%	13,002,981	16.3%	12,162,661	(6.5%)	12,407,353	2.0%
TOTAL EXPENDITURES	\$ 51,269,461	\$ 52,289,752	2.0%	\$ 53,477,886	2.3%	\$ 57,051,348	6.7%	\$ 58,008,008	1.7%	\$ 61,767,011	6.5%

**METRO VANCOUVER HOUSING CORPORATION
CAPITAL PROGRAMS AND PROJECT DETAILS
HOUSING DEVELOPMENT
2020-2024 CAPITAL PLAN**

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
CAPITAL EXPENDITURES							
Housing Development-Capital							
Heather Place - Building A	\$ 2,500,000	\$ -	\$ -	\$ -	\$ -	2,500,000	\$ 28,500,000
Heather Place - Building B	2,000,000	10,000,000	19,100,000	6,600,000	-	37,700,000	37,700,000
Kingston Gardens - Phase 1	14,828,342	12,250,000	-	-	-	27,078,342	29,000,000
Welcher Ave.	6,015,500	9,234,500	-	-	-	15,250,000	16,000,000
TOTAL CAPITAL EXPENDITURES	\$ 25,343,842	\$ 31,484,500	\$ 19,100,000	\$ 6,600,000	\$ -	\$ 82,528,342	\$ 111,200,000

CAPITAL FUNDING							
Reserve Funding *	\$ -	\$ 1,491,641	\$ -	\$ 4,000,000	\$ -	\$ 5,491,641	
Grant	8,500,000	-	-	-	-	8,500,000	
Mortgage Proceeds	16,843,842	29,992,859	19,100,000	2,600,000	-	68,536,701	
	\$ 25,343,842	\$ 31,484,500	\$ 19,100,000	\$ 6,600,000	\$ -	\$ 82,528,342	

* Reserves are currently funded by a combination of annual surplus in excess of the capital maintenance and operating requirements and MVRD tax requisition.

**METRO VANCOUVER DISTRICTS
REGIONAL DISTRICT SUMMARY
2020-2024 FINANCIAL PLAN**

	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES											
Metro Vancouver Regional District Requisitions	\$ 61,188,452	\$ 71,779,890	17.3%	\$ 79,456,410	10.7%	\$ 86,572,835	9.0%	\$ 93,397,733	7.9%	\$ 100,374,202	7.5%
Compensation Services Revenue	478,280	483,893	1.2%	502,980	3.9%	503,373	0.1%	509,285	1.2%	516,934	1.5%
Collective Bargaining Services Revenue	867,558	887,536	2.3%	922,506	3.9%	924,552	0.2%	936,360	1.3%	951,277	1.6%
Electoral Area Requisition	366,510	376,943	2.8%	398,979	5.8%	425,310	6.6%	443,219	4.2%	458,992	3.6%
Regional Global Positioning System User Fees	314,180	292,221	(7.0%)	294,175	0.7%	299,252	1.7%	303,846	1.5%	309,310	1.8%
User Fees	2,853,741	2,747,586	(3.7%)	2,737,416	(0.4%)	2,746,791	0.3%	2,756,253	0.3%	2,758,684	0.1%
Non-Road Diesel Permit Fees	2,450,000	1,760,000	(28.2%)	1,710,000	(2.8%)	1,615,000	(5.6%)	1,565,000	(3.1%)	1,465,000	(6.4%)
Love Food Hate Waste	556,000	406,800	(26.8%)	499,500	22.8%	547,200	9.5%	502,200	(8.2%)	502,200	0.0%
Zero Waste Conference	180,000	230,000	27.8%	325,000	41.3%	337,000	3.7%	350,500	4.0%	366,200	4.5%
Other External Revenues	3,436,836	3,642,354	6.0%	3,606,424	(1.0%)	3,578,591	(0.8%)	3,587,930	0.3%	3,596,465	0.2%
Transfer from Sustainability Innovation Fund Reserves	598,505	110,000	(81.6%)	-	(100.0%)	-	0.0%	-	0.0%	-	0.0%
Transfer from Reserves	3,120,877	3,543,005	13.5%	1,540,805	(56.5%)	931,745	(39.5%)	788,162	(15.4%)	730,579	(7.3%)
TOTAL REVENUES	\$ 76,410,939	\$ 86,260,228	12.9%	\$ 91,994,195	6.6%	\$ 98,481,649	7.1%	\$ 105,140,488	6.8%	\$ 112,029,843	6.6%
EXPENDITURES											
Metro Vancouver Regional District											
Affordable Housing	\$ 1,839,479	\$ 5,833,504	217.1%	\$ 5,847,990	0.2%	\$ 5,859,978	0.2%	\$ 5,870,428	0.2%	\$ 5,870,445	0.0%
Air Quality	11,147,867	11,258,492	1.0%	10,888,637	(3.3%)	10,959,742	0.7%	11,100,594	1.3%	11,394,762	2.7%
E911 Emergency Telephone Service	4,411,585	4,521,227	2.5%	4,643,773	2.7%	4,774,193	2.8%	4,927,854	3.2%	5,074,228	3.0%
Electoral Area Service	1,230,484	808,417	(34.3%)	678,453	(16.1%)	732,784	8.0%	648,693	(11.5%)	652,466	0.6%
General Government Administration	5,548,594	5,879,900	6.0%	5,925,061	0.8%	6,019,674	1.6%	6,066,192	0.8%	6,138,863	1.2%
General Government Zero Waste Collaboration Initiatives	1,445,409	1,679,923	16.2%	1,897,152	12.9%	1,975,718	4.1%	1,904,399	(3.6%)	1,913,618	0.5%
Labour Relations	2,849,713	3,164,558	11.0%	2,860,674	(9.6%)	2,872,976	0.4%	2,912,142	1.4%	2,959,956	1.6%
Regional Economic Prosperity	484,500	1,020,000	110.5%	1,530,000	50.0%	2,040,000	33.3%	2,550,000	25.0%	2,550,000	0.0%
Regional Emergency Management	228,104	237,868	4.3%	222,945	(6.3%)	198,745	(10.9%)	189,162	(4.8%)	178,579	(5.6%)
Regional Global Positioning System	549,880	328,849	(40.2%)	381,792	16.1%	337,885	(11.5%)	343,522	1.7%	350,057	1.9%
Regional Parks	42,679,709	46,820,308	9.7%	52,817,157	12.8%	58,513,760	10.8%	64,229,903	9.8%	70,529,644	9.8%
Regional Planning	3,656,687	3,763,393	2.9%	3,951,867	5.0%	3,842,497	(2.8%)	3,895,795	1.4%	3,907,212	0.3%
Sasamat Fire Protection Service	338,928	943,789	178.5%	348,694	(63.1%)	353,697	1.4%	501,804	41.9%	510,013	1.6%
TOTAL EXPENDITURES	\$ 76,410,939	\$ 86,260,228	12.9%	\$ 91,994,195	6.6%	\$ 98,481,649	7.1%	\$ 105,140,488	6.8%	\$ 112,029,843	6.6%

**METRO VANCOUVER REGIONAL DISTRICT
AFFORDABLE HOUSING
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN**

	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES											
Metro Vancouver Regional District Requisitions	\$ 1,839,479	\$ 5,833,504	217.1%	\$ 5,847,990	0.2%	\$ 5,859,978	0.2%	\$ 5,870,428	0.2%	\$ 5,870,445	0.0%
TOTAL REVENUES	\$ 1,839,479	\$ 5,833,504	217.1%	\$ 5,847,990	0.2%	\$ 5,859,978	0.2%	\$ 5,870,428	0.2%	\$ 5,870,445	0.0%
EXPENDITURES											
Operating Programs:											
Housing Policy and Planning	\$ 724,823	\$ 743,031		\$ 757,915		\$ 773,017		\$ 788,453		\$ 791,225	
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		4,000,000		4,000,000		4,000,000	
	1,724,823	5,743,031	233.0%	5,757,915	0.3%	5,773,017	0.3%	5,788,453	0.3%	5,791,225	0.0%
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	89,656	65,473	(27.0%)	65,075	(0.6%)	61,961	(4.8%)	56,975	(8.0%)	54,220	(4.8%)
TOTAL EXPENDITURES	\$ 1,839,479	\$ 5,833,504	217.1%	\$ 5,847,990	0.2%	\$ 5,859,978	0.2%	\$ 5,870,428	0.2%	\$ 5,870,445	0.0%

**METRO VANCOUVER REGIONAL DISTRICT
AIR QUALITY
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN**

	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES											
Metro Vancouver Regional District Requisitions	\$ 4,878,970	\$ 5,567,235	14.1%	\$ 6,187,551	11.1%	\$ 6,475,804	4.7%	\$ 6,638,767	2.5%	\$ 7,033,009	5.9%
User Fees	1,800,000	1,900,000		1,900,000		1,900,000		1,900,000		1,900,000	
Non-Road Diesel Permit Fees	2,450,000	1,760,000		1,710,000		1,615,000		1,565,000		1,465,000	
Other External Revenues	517,400	649,271		656,086		602,938		604,827		601,753	
Transfer from Sustainability Innovation Fund Reserve	469,550	110,000		-		-		-		-	
Transfer from Reserves	1,031,947	1,271,986		435,000		366,000		392,000		395,000	
TOTAL REVENUES	\$ 11,147,867	\$ 11,258,492	1.0%	\$ 10,888,637	(3.3%)	\$ 10,959,742	0.7%	\$ 11,100,594	1.3%	\$ 11,394,762	2.7%
EXPENDITURES											
Operating Programs:											
Ambient Air Quality Monitoring	\$ 2,186,944	\$ 2,209,366		\$ 2,103,425		\$ 2,141,084		\$ 2,179,520		\$ 2,220,743	
Air Quality and Climate Change Policy	1,637,057	2,359,552		2,307,897		2,317,934		2,382,893		2,418,861	
Air Quality Bylaw and Regulation Development	1,786,193	1,185,883		1,136,054		1,161,524		1,182,439		1,203,884	
Engineers in Training	-	34,602		35,300		36,009		36,733		37,473	
Regional Sustainability Initiatives	469,550	110,000		-		-		-		-	
Administration and Department Support	425,330	618,228		630,528		643,037		655,820		668,880	
	6,505,074	6,517,631	0.2%	6,213,204	(4.7%)	6,299,588	1.4%	6,437,405	2.2%	6,549,841	1.7%
Communications Program	106,000	158,000	49.1%	138,000	(12.7%)	138,000	0.0%	138,000	0.0%	168,000	21.7%
Environmental Regulation and Enforcement	3,033,392	3,525,618		3,423,088		3,498,605		3,565,791		3,750,963	
Contribution to Non-Road Diesel Reserve	625,000	250,000		250,000		250,000		250,000		250,000	
	3,658,392	3,775,618	3.2%	3,673,088	(2.7%)	3,748,605	2.1%	3,815,791	1.8%	4,000,963	4.9%
Allocation of Centralized Support Costs	878,401	807,243	(8.1%)	864,345	7.1%	773,549	(10.5%)	709,398	(8.3%)	675,958	(4.7%)
TOTAL EXPENDITURES	\$ 11,147,867	\$ 11,258,492	1.0%	\$ 10,888,637	(3.3%)	\$ 10,959,742	0.7%	\$ 11,100,594	1.3%	\$ 11,394,762	2.7%

**METRO VANCOUVER REGIONAL DISTRICT
AIR QUALITY REGULATION
2020-2024 FINANCIAL PLAN**

	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES											
Air Quality Revenues	\$ 3,658,392	\$ 3,775,618	3.2%	\$ 3,673,088	(2.7%)	\$ 3,748,605	2.1%	\$ 3,815,791	1.8%	\$ 4,000,963	4.9%
TOTAL REVENUES	\$ 3,658,392	\$ 3,775,618	3.2%	\$ 3,673,088	(2.7%)	\$ 3,748,605	2.1%	\$ 3,815,791	1.8%	\$ 4,000,963	4.9%
EXPENDITURES											
Operating Programs:											
Environmental Regulation and Enforcement	\$ 2,836,160	\$ 3,207,872		\$ 3,098,871		\$ 3,167,804		\$ 3,228,260		\$ 3,406,553	
Non Road Diesel Provision	625,000	250,000		250,000		250,000		250,000		250,000	
Administration and Department Support	197,232	317,746		324,217		330,801		337,531		344,410	
TOTAL EXPENDITURES	\$ 3,658,392	\$ 3,775,618	3.2%	\$ 3,673,088	(2.7%)	\$ 3,748,605	2.1%	\$ 3,815,791	1.8%	\$ 4,000,963	4.9%

**METRO VANCOUVER REGIONAL DISTRICT
E911 EMERGENCY TELEPHONE SERVICE
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN**

	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES											
Metro Vancouver Regional District Requisitions	\$ 4,344,017	\$ 4,446,846	2.4%	\$ 4,567,380	2.7%	\$ 4,695,565	2.8%	\$ 4,847,491	3.2%	\$ 4,991,943	3.0%
Other External Revenues	67,568	74,381		76,393		78,628		80,363		82,285	
TOTAL REVENUES	\$ 4,411,585	\$ 4,521,227	2.5%	\$ 4,643,773	2.7%	\$ 4,774,193	2.8%	\$ 4,927,854	3.2%	\$ 5,074,228	3.0%
EXPENDITURES											
Operating Programs:											
Emergency Telephone Service	\$ 4,325,083	\$ 4,432,575		\$ 4,552,719		\$ 4,680,581		\$ 4,831,229		\$ 4,974,733	
Allocation of Centralized Support Costs	86,502	88,652		91,054		93,612		96,625		99,495	
TOTAL EXPENDITURES	\$ 4,411,585	\$ 4,521,227	2.5%	\$ 4,643,773	2.7%	\$ 4,774,193	2.8%	\$ 4,927,854	3.2%	\$ 5,074,228	3.0%

**METRO VANCOUVER REGIONAL DISTRICT
ELECTORAL AREA SERVICE
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN**

	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES											
Electoral Area Requisition	\$ 366,510	\$ 376,943	2.8%	\$ 398,979	5.8%	\$ 425,310	6.6%	\$ 443,219	4.2%	\$ 458,992	3.6%
User Fees	10,000	10,000		10,000		10,000		10,000		10,000	
Other External Revenues	171,474	171,474		171,474		171,474		171,474		171,474	
Transfer from Reserves	682,500	250,000		98,000		126,000		24,000		12,000	
TOTAL REVENUES	\$ 1,230,484	\$ 808,417	(34.3%)	\$ 678,453	(16.1%)	\$ 732,784	8.0%	\$ 648,693	(11.5%)	\$ 652,466	0.6%
EXPENDITURES											
Operating Programs:											
Community Planning	\$ 295,634	\$ 339,443	14.8%	\$ 346,098		\$ 353,006		\$ 360,492		\$ 367,599	
Electoral Area Projects and Studies	637,500	190,000	(70.2%)	50,000		-		-		-	
Building Inspection	20,966	22,104		22,480		22,863		23,241		23,611	
Local Government Election	45,000	-		-		122,141		-		-	
Fraser Valley Library Services	2,000	2,067		2,067		2,067		2,067		2,067	
Emergency Planning	12,000	18,000		24,000		30,000		30,000		30,000	
	1,013,100	571,614	(43.6%)	444,645	(22.2%)	530,077	19.2%	415,800	(21.6%)	423,277	1.8%
Contribution to Election Reserve	-	30,000		30,000		-		30,000		30,000	
Contribution to Reserve	171,474	171,474		171,474		171,474		171,474		171,474	
	171,474	201,474	17.5%	201,474	0.0%	171,474	(14.9%)	201,474	17.5%	201,474	0.0%
Allocation of Centralized Support Costs	45,910	35,329	(23.0%)	32,334	(8.5%)	31,233	(3.4%)	31,419	0.6%	27,715	(11.8%)
TOTAL EXPENDITURES	\$ 1,230,484	\$ 808,417	(34.3%)	\$ 678,453	(16.1%)	\$ 732,784	8.0%	\$ 648,693	(11.5%)	\$ 652,466	0.6%

**METRO VANCOUVER REGIONAL DISTRICT
GENERAL GOVERNMENT ADMINISTRATION
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN**

	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES											
Metro Vancouver Regional District Requisitions	\$ 4,233,594	\$ 4,440,990	4.9%	\$ 4,659,693	4.9%	\$ 4,786,799	2.7%	\$ 4,865,759	1.6%	\$ 4,950,822	1.7%
Other External Revenues	1,010,000	972,910		975,368		977,875		980,433		1,003,041	
Transfer from Reserves	305,000	466,000		290,000		255,000		220,000		185,000	
TOTAL REVENUES	\$ 5,548,594	\$ 5,879,900	6.0%	\$ 5,925,061	0.8%	\$ 6,019,674	1.6%	\$ 6,066,192	0.8%	\$ 6,138,863	1.2%
EXPENDITURES											
Operating Programs:											
Audit and Insurance	\$ 110,929	\$ 69,680		\$ 70,670		\$ 77,098		\$ 72,760		\$ 73,860	
Board Administrative Services	2,524,121	2,828,319		2,771,556		2,842,354		2,914,931		2,989,314	
External Contributions	435,000	445,000		455,000		455,000		455,000		455,000	
Leadership and Engagement	488,440	502,498		520,134		533,401		539,772		553,568	
Mosquito Control Contract	135,000	117,810		120,166		122,569		125,021		127,519	
Regional Culture	36,077	36,825		37,464		38,111		38,773		39,449	
Contribution to Sustainability Innovation Fund Reserve	347,000	347,000		347,000		347,000		347,000		347,000	
	4,076,567	4,347,132	6.6%	4,321,990	(0.6%)	4,415,533	2.2%	4,493,257	1.8%	4,585,710	2.1%
Communications Program	1,032,000	1,117,000	8.2%	1,169,500	4.7%	1,197,000	2.4%	1,197,000	0.0%	1,197,000	0.0%
Allocation of Centralized Support Costs	440,027	415,768	(5.5%)	433,571	4.3%	407,141	(6.1%)	375,935	(7.7%)	356,153	(5.3%)
TOTAL EXPENDITURES	\$ 5,548,594	\$ 5,879,900	6.0%	\$ 5,925,061	0.8%	\$ 6,019,674	1.6%	\$ 6,066,192	0.8%	\$ 6,138,863	1.2%

**METRO VANCOUVER REGIONAL DISTRICT
GENERAL GOVERNMENT ZERO WASTE COLLABORATION INITIATIVES
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN**

	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES											
Metro Vancouver Regional District Requisitions	\$ 709,409	\$ 797,923	12.5%	\$ 817,152	2.4%	\$ 830,718	1.7%	\$ 795,899	(4.2%)	\$ 789,418	(0.8%)
Other External Revenues	-	245,200		255,500		260,800		255,800		255,800	
Love Food Hate Waste	556,000	406,800		499,500		547,200		502,200		502,200	
Zero Waste Conference	180,000	230,000		325,000		337,000		350,500		366,200	
TOTAL REVENUES	\$ 1,445,409	\$ 1,679,923	16.2%	\$ 1,897,152	12.9%	\$ 1,975,718	4.1%	\$ 1,904,399	(3.6%)	\$ 1,913,618	0.5%
EXPENDITURES											
Operating Programs:											
National Zero Waste Council	\$ 120,700	\$ 365,900		\$ 376,200		\$ 381,500		\$ 376,500		\$ 376,500	
Love Food Hate Waste	556,000	406,800		499,500		547,200		502,200		502,200	
Zero Waste Conference	392,000	442,000		537,000		549,000		562,500		578,200	
Circular Economy	32,500	32,500		32,500		32,500		-		-	
Coordination and Project Development	262,428	313,654		319,702		325,842		332,114		338,518	
	1,363,628	1,560,854	14.5%	1,764,902	13.1%	1,836,042	4.0%	1,773,314	(3.4%)	1,795,418	1.2%
Allocation of Centralized Support Costs	81,781	119,069	45.6%	132,250	11.1%	139,676	5.6%	131,085	(6.2%)	118,200	(9.8%)
TOTAL EXPENDITURES	\$ 1,445,409	\$ 1,679,923	16.2%	\$ 1,897,152	12.9%	\$ 1,975,718	4.1%	\$ 1,904,399	(3.6%)	\$ 1,913,618	0.5%

**METRO VANCOUVER REGIONAL DISTRICT
LABOUR RELATIONS
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN**

	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES											
Metro Vancouver Regional District Requisitions	\$ 946,739	\$ 986,140	4.2%	\$ 1,014,022	2.8%	\$ 1,010,228	(0.4%)	\$ 1,020,251	1.0%	\$ 1,048,491	2.8%
Compensation Services Revenue	478,280	483,893		502,980		503,373		509,285		516,934	
Collective Bargaining Services Revenue	867,558	887,536		922,506		924,552		936,360		951,277	
Other External Revenues	391,190	430,270		421,166		434,823		446,246		443,254	
Transfer from Reserves	165,946	376,719		-		-		-		-	
TOTAL REVENUES	\$ 2,849,713	\$ 3,164,558	11.0%	\$ 2,860,674	(9.6%)	\$ 2,872,976	0.4%	\$ 2,912,142	1.4%	\$ 2,959,956	1.6%
EXPENDITURES											
Operating Programs:											
Information and Advisory Services	\$ 1,199,104	\$ 1,469,529		\$ 1,115,803		\$ 1,139,195		\$ 1,163,124		\$ 1,187,588	
Compensation Services	516,329	530,507		541,280		552,215		563,391		574,807	
Collective Bargaining	910,279	935,251		954,886		974,852		995,268		1,016,141	
	2,625,712	2,935,287	11.8%	2,611,969	(11.0%)	2,666,262	2.1%	2,721,783	2.1%	2,778,536	2.1%
Allocation of Centralized Support Costs	224,001	229,271	2.4%	248,705	8.5%	206,714	(16.9%)	190,359	(7.9%)	181,420	(4.7%)
TOTAL EXPENDITURES	\$ 2,849,713	\$ 3,164,558	11.0%	\$ 2,860,674	(9.6%)	\$ 2,872,976	0.4%	\$ 2,912,142	1.4%	\$ 2,959,956	1.6%

**METRO VANCOUVER REGIONAL DISTRICT
REGIONAL ECONOMIC PROSPERITY
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN**

	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES											
Metro Vancouver Regional District Requisitions	\$ 409,500	\$ 1,020,000	150.0%	\$ 1,530,000	50.0%	\$ 2,040,000	33.3%	\$ 2,550,000	25.0%	\$ 2,550,000	0.0%
Transfer from Reserves	75,000	-		-		-		-		-	
TOTAL REVENUES	\$ 484,500	\$ 1,020,000	110.0%	\$ 1,530,000	50.0%	\$ 2,040,000	33.3%	\$ 2,550,000	25.0%	\$ 2,550,000	0.0%
EXPENDITURES											
Operating Programs:											
Collaboration	\$ -	\$ -		\$ 200,000		\$ 200,000		\$ 200,000		\$ 200,000	
Regional Data Collection and Research	-	200,000		200,000		400,000		400,000		400,000	
Attracting Investment	-	400,000		700,000		1,000,000		1,500,000		1,500,000	
Leadership and Administration	400,000	400,000		400,000		400,000		400,000		400,000	
Transition	75,000	-		-		-		-		-	
	475,000	1,000,000	110.0%	1,500,000	50.0%	2,000,000	33.3%	2,500,000	25.0%	2,500,000	0.0%
Allocation of Centralized Support Costs	9,500	20,000	110.0%	30,000	50.0%	40,000	33.3%	50,000	25.0%	50,000	0.0%
TOTAL EXPENDITURES	\$ 484,500	\$ 1,020,000	110.0%	\$ 1,530,000	50.0%	\$ 2,040,000	33.3%	\$ 2,550,000	25.0%	\$ 2,550,000	0.0%

**METRO VANCOUVER REGIONAL DISTRICT
REGIONAL EMERGENCY MANAGEMENT
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN**

	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES											
Metro Vancouver Regional District Requisitions	\$ 159,000	\$ 163,000	2.5%	\$ 167,000	2.5%	\$ 170,000	1.8%	\$ 173,000	1.8%	\$ 176,000	1.7%
Transfer from Reserves	69,104	74,868		55,945		28,745		16,162		2,579	
TOTAL REVENUES	\$ 228,104	\$ 237,868	4.3%	\$ 222,945	(6.3%)	\$ 198,745	(10.9%)	\$ 189,162	(4.8%)	\$ 178,579	(5.6%)
EXPENDITURES											
Operating Programs:											
Regional Emergency Management	\$ 217,242	\$ 226,541		\$ 212,329		\$ 189,281		\$ 180,154		\$ 170,075	
Allocation of Centralized Support Costs	10,862	11,327		10,616		9,464		9,008		8,504	
TOTAL EXPENDITURES	\$ 228,104	\$ 237,868	4.3%	\$ 222,945	(6.3%)	\$ 198,745	(10.9%)	\$ 189,162	(4.8%)	\$ 178,579	(5.6%)

**METRO VANCOUVER REGIONAL DISTRICT
REGIONAL GLOBAL POSITIONING SYSTEM
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN**

	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES											
Regional Global Positioning System User Fees	\$ 314,180	\$ 292,221	(7.0%)	\$ 294,175	0.7%	\$ 299,252	1.7%	\$ 303,846	1.5%	\$ 309,310	1.8%
Other External Revenues	35,700	36,628		37,617		38,633		39,676		40,747	
Transfer from Reserves	200,000	-		50,000		-		-		-	
TOTAL REVENUES	\$ 549,880	\$ 328,849	(40.2%)	\$ 381,792	16.1%	\$ 337,885	(11.5%)	\$ 343,522	1.7%	\$ 350,057	1.9%
EXPENDITURES											
Operating Programs:											
Regional Global Positioning System	\$ 488,844	\$ 250,848		\$ 306,386		\$ 262,034		\$ 267,809		\$ 273,719	
Contribution to Reserve	31,949	52,780		54,152		55,560		57,005		58,487	
Allocation of Centralized Support Costs	29,087	25,221		21,254		20,291		18,708		17,851	
TOTAL EXPENDITURES	\$ 549,880	\$ 328,849	(40.2%)	\$ 381,792	16.1%	\$ 337,885	(11.5%)	\$ 343,522	1.7%	\$ 350,057	1.9%

**METRO VANCOUVER REGIONAL DISTRICT
REGIONAL PARKS
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN**

	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES											
Metro Vancouver Regional District Requisitions	\$ 40,231,084	\$ 44,842,070	11.5%	\$ 50,798,061	13.3%	\$ 56,617,549	11.5%	\$ 62,328,539	10.1%	\$ 68,636,849	10.1%
User Fees	1,043,741	837,586		827,416		836,791		846,253		848,684	
Other External Revenues	1,233,504	1,052,220		1,002,820		1,003,420		999,111		988,111	
Transfer from Reserves	171,380	88,432		188,860		56,000		56,000		56,000	
TOTAL REVENUES	\$ 42,679,709	\$ 46,820,308	9.7%	\$ 52,817,157	12.8%	\$ 58,513,760	10.8%	\$ 64,229,903	9.8%	\$ 70,529,644	9.8%
EXPENDITURES											
Operating Programs:											
Systems Planning and Engineering Services											
Planning and Research	\$ 1,123,834	\$ 1,072,532		\$ 1,091,073		\$ 1,242,329		\$ 1,263,987		\$ 1,347,407	
Engineering Services	1,303,096	1,331,710		1,354,867		1,379,758		1,402,149		1,433,878	
Engineers in Training	-	11,534		11,767		12,003		12,244		12,491	
	<u>2,426,930</u>	<u>2,415,776</u>	(0.5%)	<u>2,457,707</u>	1.7%	<u>2,634,090</u>	7.2%	<u>2,678,380</u>	1.7%	<u>2,793,776</u>	4.3%
Systems Visitor and Operations Services											
Visitor Services	1,752,235	1,487,643		1,503,354		1,541,559		1,558,144		1,575,030	
Operations Services	2,113,664	2,322,375		2,359,997		2,464,183		2,568,863		2,414,427	
	<u>3,865,899</u>	<u>3,810,018</u>	(1.4%)	<u>3,863,351</u>	1.4%	<u>4,005,742</u>	3.7%	<u>4,127,007</u>	3.0%	<u>3,989,457</u>	(3.3%)
Central Area Services											
Operations and Maintenance	4,809,481	5,091,071		5,406,193		5,577,407		5,782,359		5,865,979	
Area Visitor Services	672,698	587,941		632,322		639,880		675,269		686,911	
Area Management and Administration	541,978	664,277		676,868		689,644		702,700		716,029	
Area Resource Management	261,334	267,057		269,693		274,311		279,626		284,235	
Area Planning	154,031	156,992		159,441		161,926		164,465		167,057	
Burns Bog Ecological Conservancy Area	353,124	385,089		374,539		381,100		390,248		396,984	
Contribution to Reserve	23,000	23,000		23,000		23,000		23,000		23,000	
	<u>6,815,846</u>	<u>7,175,427</u>	5.3%	<u>7,542,056</u>	5.1%	<u>7,747,268</u>	2.7%	<u>8,017,667</u>	3.5%	<u>8,140,195</u>	1.5%
East Area Services											
Operations and Maintenance	4,189,494	4,272,463		4,383,506		4,452,357		4,544,081		4,654,883	
Area Visitor Services	706,235	625,382		653,766		664,115		674,673		685,460	
Area Management and Administration	552,500	673,314		686,011		698,897		712,066		725,512	
Area Resource Management	247,393	252,498		256,852		261,270		265,785		270,394	
Area Planning	152,091	153,962		156,411		158,896		161,435		164,027	
	<u>5,847,713</u>	<u>5,977,619</u>	2.2%	<u>6,136,546</u>	2.7%	<u>6,235,535</u>	1.6%	<u>6,358,040</u>	2.0%	<u>6,500,276</u>	2.2%
West Area Services											
Operations and Maintenance	4,008,383	4,047,668		4,120,254		4,192,167		4,268,433		4,344,526	
Area Visitor Services	702,524	689,289		717,376		729,570		742,013		754,565	
Area Management and Administration	812,988	942,647		955,491		968,526		981,845		995,444	
Area Resource Management	269,739	278,379		282,252		286,941		291,730		296,616	
Area Planning	149,721	152,592		155,041		157,526		160,065		162,657	
Contribution to Reserve	-	-		-		-		-		-	
	<u>5,943,355</u>	<u>6,110,575</u>	2.8%	<u>6,230,414</u>	2.0%	<u>6,334,730</u>	1.7%	<u>6,444,086</u>	1.7%	<u>6,553,808</u>	1.7%
Administration and Department Support	1,532,352	1,221,577	(20.3%)	1,252,362	2.5%	1,268,375	1.3%	1,504,737	18.6%	1,521,444	1.1%
Communications Program	110,000	110,000	0.0%	110,000	0.0%	110,000	0.0%	110,000	0.0%	110,000	0.0%
Utility Voice Radio	82,306	82,997	0.8%	84,386	1.7%	85,420	1.2%	86,503	1.3%	88,754	2.6%
Quality Control Allocated	51,385	53,591	4.3%	54,901	2.4%	57,735	5.2%	59,127	2.4%	59,941	1.4%
Allocation of Centralized Support Costs	3,898,216	3,610,728	(7.4%)	3,533,434	(2.1%)	3,482,865	(1.4%)	3,292,356	(5.5%)	3,219,993	(2.2%)
Total Operating Programs	<u>30,573,802</u>	<u>30,568,308</u>	0.0%	<u>31,265,157</u>	2.3%	<u>31,961,760</u>	2.2%	<u>32,677,903</u>	2.2%	<u>32,977,644</u>	0.9%
Debt Service	53,907	-	(100.0%)	-	0.0%	-	0.0%	-	0.0%	-	0.0%
Contribution to Capital Infrastructure Reserve	4,482,000	4,682,000		5,982,000		6,982,000		7,982,000		9,982,000	
Contribution to Parkland Acquisition Reserve	7,570,000	11,570,000		15,570,000		19,570,000		23,570,000		27,570,000	
	<u>12,052,000</u>	<u>16,252,000</u>	34.8%	<u>21,552,000</u>	32.6%	<u>26,552,000</u>	23.2%	<u>31,552,000</u>	18.8%	<u>37,552,000</u>	19.0%
TOTAL EXPENDITURES	\$ 42,679,709	\$ 46,820,308	9.7%	\$ 52,817,157	12.8%	\$ 58,513,760	10.8%	\$ 64,229,903	9.8%	\$ 70,529,644	9.8%

**METRO VANCOUVER REGIONAL DISTRICT
CAPITAL PROGRAMS AND PROJECT DETAILS
REGIONAL PARKS
2020-2024 FINANCIAL PLAN**

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
CAPITAL EXPENDITURES							
Parks-Capital Replacement and Development							
Widgeon Marsh - New Park Development	\$ 1,400,000	\$ 3,000,000	\$ 3,000,000	\$ 1,500,000	\$ -	\$ 8,900,000	\$ 9,000,000
Capilano - New Service Yard	1,000,000	-	-	-	-	1,000,000	1,500,000
Crippen - New Service yard	750,000	-	-	-	-	750,000	750,000
Burns Bog - DNR Boardwalk	500,000	-	-	-	-	500,000	500,000
Pacific Spirit - Service Yard Replacement	350,000	-	-	-	-	350,000	480,000
Grouse - BCMC Realignment + Improvement	100,000	100,000	100,000	100,000	100,000	500,000	1,400,000
Pacific Spirit - Geotechnical Risk Mitigation	100,000	100,000	100,000	100,000	100,000	500,000	500,000
Colony Farm - Sheep Paddocks Trail Rebuild	100,000	100,000	-	-	-	200,000	3,450,000
Belcarra - Connection to Water	40,000	400,000	-	-	-	440,000	440,000
Aldergrove - Rock'n Horse Trail Connector	-	350,000	-	-	-	350,000	350,000
Derby Reach - Full Service Washroom	-	280,000	1,540,000	-	-	1,820,000	1,820,000
Tynehead - Perimeter Trail Connection	-	50,000	400,000	-	-	450,000	450,000
Pacific Spirit - Foreshore Trail Development	-	50,000	-	200,000	200,000	450,000	450,000
Campbell Valley - Replacement of Little River Loop Boardwalk	-	40,000	-	400,000	-	440,000	440,000
Deas Island - Floating Dock Replacement	-	30,000	300,000	-	-	330,000	330,000
Campbell Valley - Vine Maple Trail Improvements	-	25,000	250,000	-	-	275,000	275,000
Burnaby Lake - Nature House	-	-	200,000	-	-	200,000	2,200,000
Burns Bog Delta Nature Reserve Development	-	-	150,000	750,000	750,000	1,650,000	1,650,000
Campbell Valley - Maintenance Storage Facility Replacement	-	-	20,000	200,000	-	220,000	220,000
Crippen - Davies Orchard Cabins	-	-	-	1,000,000	1,000,000	2,000,000	2,000,000
Belcarra - Washroom Renovation / Replacement Picnic Area & White Pine	-	-	-	200,000	-	200,000	1,400,000
Campbell Valley - Nature House	-	-	-	200,000	-	200,000	2,200,000
Belcarra - South Picnic Area, Cabins	-	-	-	100,000	1,000,000	1,100,000	4,600,000
Grouse - Trailhead Development	-	-	-	70,000	250,000	320,000	320,000
Boundary Bay - Service Yard Improvements	-	-	-	50,000	350,000	400,000	400,000
Service Yard Program	-	-	-	20,000	200,000	220,000	220,000
DHAP Day Use Area Improvements	-	-	-	10,000	100,000	110,000	110,000
Campbell Valley - Park Development	-	-	-	-	200,000	200,000	1,700,000
Kanaka Creek - Cliff Falls Staging Area	-	-	-	-	60,000	60,000	630,000
Aldergrove - Flush Washroom BG005 Refurbishment	-	-	-	-	50,000	50,000	300,000

**METRO VANCOUVER REGIONAL DISTRICT
CAPITAL PROGRAMS AND PROJECT DETAILS
REGIONAL PARKS
2020-2024 FINANCIAL PLAN**

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
Kanaka - Parkway trail	-	-	-	-	50,000	50,000	450,000
Lynn Headwaters - Parking and Access Improvements	-	-	-	-	50,000	50,000	300,000
Lynn Valley - Water Intake Repair and Interp	-	-	-	-	50,000	50,000	450,000
Burns Bog - Fire Restoration	-	-	-	-	25,000	25,000	275,000
Pacific Spirit - Spanish Creek Interpretive Boardwalk	-	-	-	-	20,000	20,000	170,000
	\$ 4,340,000	\$ 4,525,000	\$ 6,060,000	\$ 4,900,000	\$ 4,555,000	\$ 24,380,000	\$ 41,730,000
Regional Parks Land Acquisition							
Regional Parks Land Acquisition	\$ 11,570,000	\$ 15,570,000	\$ 19,570,000	\$ 23,570,000	\$ 27,570,000	\$ 97,850,000	\$ 97,850,000
	\$ 11,570,000	\$ 15,570,000	\$ 19,570,000	\$ 23,570,000	\$ 27,570,000	\$ 97,850,000	\$ 97,850,000
Capital Maintenance Projects							
Capital Maintenance Projects	\$ 3,960,000	\$ 3,760,000	\$ 3,760,000	\$ 3,760,000	\$ 5,210,000	\$ 20,450,000	\$ 20,450,000
	\$ 3,960,000	\$ 3,760,000	\$ 3,760,000	\$ 3,760,000	\$ 5,210,000	\$ 20,450,000	\$ 20,450,000
TOTAL CAPITAL EXPENDITURES	\$ 19,870,000	\$ 23,855,000	\$ 29,390,000	\$ 32,230,000	\$ 37,335,000	\$ 142,680,000	\$ 160,030,000
CAPITAL FUNDING							
Reserve Funding	\$ 19,870,000	\$ 23,855,000	\$ 29,390,000	\$ 32,230,000	\$ 37,335,000	\$ 142,680,000	
	\$ 19,870,000	\$ 23,855,000	\$ 29,390,000	\$ 32,230,000	\$ 37,335,000	\$ 142,680,000	

**METRO VANCOUVER REGIONAL DISTRICT
REGIONAL PLANNING
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN**

	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES											
Metro Vancouver Regional District Requisitions	\$ 3,107,732	\$ 3,348,393	7.7%	\$ 3,528,867	5.4%	\$ 3,742,497	6.1%	\$ 3,815,795	2.0%	\$ 3,827,212	0.3%
Transfer from Sustainability Innovation Fund Reserve	128,955	-		-		-		-		-	
Transfer from Reserves	420,000	415,000		423,000		100,000		80,000		80,000	
TOTAL REVENUES	\$ 3,656,687	\$ 3,763,393	2.9%	\$ 3,951,867	5.0%	\$ 3,842,497	(2.8%)	\$ 3,895,795	1.4%	\$ 3,907,212	0.3%
EXPENDITURES											
Operating Programs:											
Environment	\$ 775,070	\$ 931,329		\$ 1,064,194		\$ 951,274		\$ 966,681		\$ 982,417	
Growth Management and Transportation	1,360,783	1,197,824		1,226,548		1,251,643		1,301,050		1,292,870	
Planning Analytics	538,966	713,799		719,946		702,271		714,863		717,722	
Regional Sustainability Initiatives	128,955	-		-		-		-		-	
Administration and Department Support	511,277	555,254		566,473		577,877		589,529		601,438	
	3,315,051	3,398,206	2.5%	3,577,161	5.3%	3,483,065	(2.6%)	3,572,123	2.6%	3,594,447	0.6%
Communications Program	80,000	80,000	0.0%	80,000	0.0%	70,000	(12.5%)	70,000	0.0%	70,000	0.0%
Allocation of Centralized Support Costs	261,636	285,187	9.0%	294,706	3.3%	289,432	(1.8%)	253,672	(12.4%)	242,765	(4.3%)
TOTAL EXPENDITURES	\$ 3,656,687	\$ 3,763,393	2.9%	\$ 3,951,867	5.0%	\$ 3,842,497	(2.8%)	\$ 3,895,795	1.4%	\$ 3,907,212	0.3%

**METRO VANCOUVER REGIONAL DISTRICT
SASAMAT FIRE PROTECTION SERVICE
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN**

	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES											
Metro Vancouver Regional District Requisitions	\$ 328,928	\$ 333,789	1.5%	\$ 338,694	1.5%	\$ 343,697	1.5%	\$ 491,804	43.1%	\$ 500,013	1.7%
Other External Revenues	10,000	10,000		10,000		10,000		10,000		10,000	
Transfer from Reserves	-	600,000		-		-		-		-	
TOTAL REVENUES	\$ 338,928	\$ 943,789	178.5%	\$ 348,694	(63.1%)	\$ 353,697	1.4%	\$ 501,804	41.9%	\$ 510,013	1.6%
EXPENDITURES											
Operating Programs:											
Sasamat Fire Protection Service	\$ 224,389	\$ 228,808		\$ 233,267		\$ 237,815		\$ 372,458		\$ 379,921	
Apparatus Acquisitions	-	600,000		-		-		-		-	
Contribution to Reserves	92,100	92,100		92,100		92,100		92,100		92,100	
	316,489	920,908	190.0%	325,367	(64.7%)	329,915	1.4%	464,558	40.8%	472,021	1.6%
Allocation of Centralized Support Costs	22,439	22,881	2.0%	23,327	1.9%	23,782	2.0%	37,246	56.6%	37,992	2.0%
TOTAL EXPENDITURES	\$ 338,928	\$ 943,789	178.5%	\$ 348,694	(63.1%)	\$ 353,697	1.4%	\$ 501,804	41.9%	\$ 510,013	1.6%

**METRO VANCOUVER DISTRICTS
CENTRALIZED SUPPORT PROGRAM SUMMARY
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN**

	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES											
Allocated to Functional Departments (net)	\$ 59,918,029	\$ 61,482,800	2.6%	\$ 63,207,992	2.8%	\$ 64,452,050	2.0%	\$ 64,862,858	0.6%	\$ 67,093,474	3.4%
Other External Revenues	7,179,159	7,084,361	(1.3%)	7,251,952	2.4%	7,320,286	0.9%	7,381,485	0.8%	7,443,938	0.8%
Transfer from Reserves	6,778,309	7,683,639	13.4%	6,038,700	(21.4%)	5,672,775	(6.1%)	3,241,850	(42.9%)	3,320,925	2.4%
TOTAL REVENUES	\$ 73,875,497	\$ 76,250,800	3.2%	\$ 76,498,644	0.3%	\$ 77,445,111	1.2%	\$ 75,486,193	(2.5%)	\$ 77,858,337	3.1%
EXPENDITURES											
Corporate Services	42,408,872	43,112,040	1.7%	42,780,137	(0.8%)	43,166,340	0.9%	40,534,755	(6.1%)	42,241,633	4.2%
External Relations	6,106,370	5,964,312	(2.3%)	6,138,966	2.9%	6,252,617	1.9%	6,370,747	1.9%	6,489,320	1.9%
Financial Services	12,122,277	12,960,688	6.9%	13,267,143	2.4%	13,413,341	1.1%	13,681,878	2.0%	13,945,466	1.9%
Human Resources	8,617,039	9,518,728	10.5%	9,508,290	(0.1%)	9,716,997	2.2%	9,909,243	2.0%	10,096,549	1.9%
Indigenous Relations	572,196	583,698	2.0%	595,400	2.0%	607,283	2.0%	619,425	2.0%	631,822	2.0%
Legislative Services	4,048,743	4,111,334	1.5%	4,208,708	2.4%	4,288,533	1.9%	4,370,145	1.9%	4,453,547	1.9%
TOTAL EXPENDITURES	\$ 73,875,497	\$ 76,250,800	3.2%	\$ 76,498,644	0.3%	\$ 77,445,111	1.2%	\$ 75,486,193	(2.5%)	\$ 77,858,337	3.1%
ALLOCATED TO FUNCTIONAL DEPARTMENTS											
Water	\$ 23,857,580	\$ 23,818,111	(0.2%)	\$ 24,792,994	4.1%	\$ 24,654,199	(0.6%)	\$ 24,516,670	(0.6%)	\$ 25,445,718	3.8%
Liquid Waste	23,188,428	25,166,351	8.5%	25,893,131	2.9%	27,402,386	5.8%	28,490,917	4.0%	29,909,762	5.0%
Solid Waste	4,674,251	4,690,785	0.4%	4,642,345	(1.0%)	4,808,758	3.6%	4,711,392	(2.0%)	4,792,076	1.7%
Housing	2,119,752	2,071,404	(2.3%)	2,098,851	1.3%	2,006,987	(4.4%)	1,891,093	(5.8%)	1,855,652	(1.9%)
Affordable Housing	89,656	65,473	(27.0%)	65,075	(0.6%)	61,961	(4.8%)	56,975	(8.0%)	54,220	(4.8%)
Air Quality	878,401	807,243	(8.1%)	864,345	7.1%	773,549	(10.5%)	709,398	(8.3%)	675,958	(4.7%)
E911 Emergency Telephone Service	86,502	88,652	2.5%	91,054	2.7%	93,612	2.8%	96,625	3.2%	99,495	3.0%
Electoral Area Service	45,910	35,329	(23.0%)	32,334	(8.5%)	31,233	(3.4%)	31,419	0.6%	27,715	(11.8%)
General Government Administration	440,027	415,768	(5.5%)	433,571	4.3%	407,141	(6.1%)	375,935	(7.7%)	356,153	(5.3%)
General Government Zero Waste Collaboration Initiatives	81,781	119,069	45.6%	132,250	11.1%	139,676	5.6%	131,085	(6.2%)	118,200	(9.8%)
Labour Relations	224,001	229,271	2.4%	248,705	8.5%	206,714	(16.9%)	190,359	(7.9%)	181,420	(4.7%)
Regional Economic Prosperity	9,500	20,000	110.0%	30,000	50.0%	40,000	33.3%	50,000	25.0%	50,000	0.0%
Regional Emergency Management	10,862	11,327	4.3%	10,616	(6.3%)	9,464	(10.9%)	9,008	(4.8%)	8,504	(5.6%)
Regional Global Positioning System	29,087	25,221	(13.3%)	21,254	(15.7%)	20,291	(4.5%)	18,708	(7.8%)	17,851	(4.6%)
Regional Parks	3,898,216	3,610,728	(7.4%)	3,533,434	(2.1%)	3,482,865	(1.4%)	3,292,356	(5.5%)	3,219,993	(2.2%)
Regional Planning	261,636	285,187	9.0%	294,706	3.3%	289,432	(1.8%)	253,672	(12.4%)	242,765	(4.3%)
Sasamat Fire Protection Service	22,439	22,881	2.0%	23,327	1.9%	23,782	2.0%	37,246	56.6%	37,992	2.0%
	\$ 59,918,029	\$ 61,482,800	2.6%	\$ 63,207,992	2.8%	\$ 64,452,050	2.0%	\$ 64,862,858	0.6%	\$ 67,093,474	3.4%

**METRO VANCOUVER REGIONAL DISTRICT
CORPORATE SERVICES
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN**

	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES											
Allocated to Functional Departments	\$ 29,227,705	\$ 29,299,254	0.2%	\$ 30,106,735	2.8%	\$ 30,580,779	1.6%	\$ 30,279,170	(1.0%)	\$ 31,864,770	5.2%
Other External Revenues	6,804,152	6,887,361		7,054,702		7,122,786		7,183,735		7,245,938	
Transfer from Reserves	6,377,015	6,925,425		5,618,700		5,462,775		3,071,850		3,130,925	
TOTAL REVENUES	\$ 42,408,872	\$ 43,112,040	1.7%	\$ 42,780,137	(0.8%)	\$ 43,166,340	0.9%	\$ 40,534,755	(6.1%)	\$ 42,241,633	4.2%
EXPENDITURES											
Operating Programs:											
Business Systems	\$ 9,012,414	\$ 7,053,453		\$ 7,329,859		\$ 7,899,161		\$ 7,611,936		\$ 7,946,372	
Corporate Projects and Facilities	7,302,169	6,618,456		6,763,685		6,970,326		7,234,790		8,062,127	
Digital Strategy and Project Management	-	3,293,212		4,655,795		4,271,561		2,263,688		2,307,221	
Security and Emergency Management	1,881,618	1,605,468		1,568,538		1,430,125		1,468,392		1,506,676	
Technical Services	7,174,994	7,045,203		7,266,452		7,389,657		7,485,194		7,638,360	
Administration and Department Support	690,895	552,681		562,241		571,943		581,854		591,976	
	26,062,090	26,168,473	0.4%	28,146,570	7.6%	28,532,773	1.4%	26,645,854	(6.6%)	28,052,732	5.3%
Debt Service	13,976,782	14,383,567	2.9%	14,383,567	0.0%	14,383,567	0.0%	13,638,901	(5.2%)	13,638,901	0.0%
Head Office Capital	2,370,000	2,560,000	8.0%	250,000	(90.2%)	250,000	0.0%	250,000	0.0%	550,000	120.0%
TOTAL EXPENDITURES	\$ 42,408,872	\$ 43,112,040	1.7%	\$ 42,780,137	(0.8%)	\$ 43,166,340	0.9%	\$ 40,534,755	(6.1%)	\$ 42,241,633	4.2%

**METRO VANCOUVER REGIONAL DISTRICT
EXTERNAL RELATIONS
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN**

	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES											
Allocated to Functional Departments	\$ 5,743,742	\$ 5,964,312	3.8%	\$ 6,138,966	2.9%	\$ 6,252,617	1.9%	\$ 6,370,747	1.9%	\$ 6,489,320	1.9%
Other External Revenues	362,628	-		-		-		-		-	
TOTAL REVENUES	\$ 6,106,370	\$ 5,964,312	(2.3%)	\$ 6,138,966	2.9%	\$ 6,252,617	1.9%	\$ 6,370,747	1.9%	\$ 6,489,320	1.9%
EXPENDITURES											
Operating Programs:											
Corporate Communications	\$ 1,279,844	\$ 1,448,731		\$ 1,474,116		\$ 1,499,869		\$ 1,526,184		\$ 1,553,054	
Media Relations	624,434	939,447		958,041		976,882		996,193		1,015,771	
Multi-Media Services	2,032,018	2,144,507		2,248,828		2,291,146		2,336,345		2,380,590	
Stakeholder Engagement	760,098	-		-		-		-		-	
Collaboration Initiatives	622,118	614,008		625,111		636,382		647,898		659,665	
Administration and Department Support	787,858	817,619		832,870		848,338		864,127		880,240	
	6,106,370	5,964,312	(2.3%)	6,138,966	2.9%	6,252,617	1.9%	6,370,747	1.9%	6,489,320	1.9%
TOTAL EXPENDITURES	\$ 6,106,370	\$ 5,964,312	(2.3%)	\$ 6,138,966	2.9%	\$ 6,252,617	1.9%	\$ 6,370,747	1.9%	\$ 6,489,320	1.9%

**METRO VANCOUVER REGIONAL DISTRICT
FINANCIAL SERVICES
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN**

	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES											
Allocated to Functional Departments	\$ 12,022,277	\$ 12,400,688	3.1%	\$ 12,697,143	2.4%	\$ 13,073,341	3.0%	\$ 13,341,878	2.1%	\$ 13,605,466	2.0%
Other External Revenues	-	190,000		190,000		190,000		190,000		190,000	
Transfer from Reserves	100,000	370,000		380,000		150,000		150,000		150,000	
TOTAL REVENUES	\$ 12,122,277	\$ 12,960,688	6.9%	\$ 13,267,143	2.4%	\$ 13,413,341	1.1%	\$ 13,681,878	2.0%	\$ 13,945,466	1.9%
EXPENDITURES											
Operating Programs:											
Purchasing and Risk Management	\$ 3,919,446	\$ 4,251,221		\$ 4,379,624		\$ 4,259,227	(2.7%)	\$ 4,340,423		\$ 4,423,315	
Financial Planning and Operations	5,325,148	5,624,674		5,740,964		5,974,627	4.1%	6,097,644		6,212,621	
Property Services	2,050,971	2,209,487		2,254,413		2,300,038	2.0%	2,346,672		2,394,312	
Administration and Department Support	826,712	875,306		892,142		879,449	(1.4%)	897,139		915,218	
TOTAL EXPENDITURES	\$ 12,122,277	\$ 12,960,688	6.9%	\$ 13,267,143	2.4%	\$ 13,413,341	1.1%	\$ 13,681,878	2.0%	\$ 13,945,466	1.9%

**METRO VANCOUVER REGIONAL DISTRICT
HUMAN RESOURCES
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN**

	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES											
Allocated to Functional Departments	\$ 8,315,745	\$ 9,130,514	9.8%	\$ 9,468,290	3.7%	\$ 9,656,997	2.0%	\$ 9,889,243	2.4%	\$ 10,056,549	1.7%
Transfer from Reserves	301,294	388,214		40,000		60,000		20,000		40,000	
TOTAL REVENUES	\$ 8,617,039	\$ 9,518,728	10.5%	\$ 9,508,290	(0.1%)	\$ 9,716,997	2.2%	\$ 9,909,243	2.0%	\$ 10,096,549	1.9%
EXPENDITURES											
Operating Programs:											
Employee and Labour Relations	\$ 1,323,646	\$ 1,468,403		\$ 1,354,488		\$ 1,387,901		\$ 1,397,891		\$ 1,414,978	
Talent Management & Organization Development	2,264,283	2,390,396		2,398,466		2,449,525		2,466,644		2,544,961	
Corporate Safety	3,150,307	3,635,321		3,770,593		3,855,294		3,942,031		4,030,653	
Systems and Processes	1,000,465	1,124,763		1,068,592		1,089,738		1,149,342		1,133,409	
Administration and Department Support	878,338	899,845		916,151		934,539		953,335		972,548	
TOTAL EXPENDITURES	\$ 8,617,039	\$ 9,518,728	10.5%	\$ 9,508,290	(0.1%)	\$ 9,716,997	2.2%	\$ 9,909,243	2.0%	\$ 10,096,549	1.9%

**METRO VANCOUVER REGIONAL DISTRICT
INDIGENOUS RELATIONS
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN**

	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES											
Allocated to Functional Departments	\$ 572,196	\$ 583,698	2.0%	\$ 595,400	2.0%	\$ 607,283	2.0%	\$ 619,425	2.0%	\$ 631,822	2.0%
TOTAL REVENUES	\$ 572,196	\$ 583,698	2.0%	\$ 595,400	2.0%	\$ 607,283	2.0%	\$ 619,425	2.0%	\$ 631,822	2.0%
EXPENDITURES											
Operating Programs:											
Indigenous Relations	\$ 572,196	\$ 583,698	2.0%	\$ 595,400	2.0%	\$ 607,283	2.0%	\$ 619,425	2.0%	\$ 631,822	2.0%
TOTAL EXPENDITURES	\$ 572,196	\$ 583,698	2.0%	\$ 595,400	2.0%	\$ 607,283	2.0%	\$ 619,425	2.0%	\$ 631,822	2.0%

**METRO VANCOUVER REGIONAL DISTRICT
LEGISLATIVE SERVICES
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN**

	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES											
Allocated to Functional Departments	\$ 4,048,743	\$ 4,104,334	1.4%	\$ 4,201,458	2.4%	\$ 4,281,033	1.9%	\$ 4,362,395	1.9%	\$ 4,445,547	1.9%
Other External Revenues	-	7,000		7,250		7,500		7,750		8,000	
TOTAL REVENUES	\$ 4,048,743	\$ 4,111,334	1.5%	\$ 4,208,708	2.4%	\$ 4,288,533	1.9%	\$ 4,370,145	1.9%	\$ 4,453,547	1.9%
EXPENDITURES											
Operating Programs:											
Corporate Planning	979,030	1,097,420		1,113,969		1,130,762		1,147,920		1,165,440	
Legal Services	1,807,624	1,713,309		1,748,576		1,784,415		1,821,058		1,858,505	
Information Management	1,262,089	1,300,605		1,346,163		1,373,356		1,401,167		1,429,602	
TOTAL EXPENDITURES	\$ 4,048,743	\$ 4,111,334	1.5%	\$ 4,208,708	2.4%	\$ 4,288,533	1.9%	\$ 4,370,145	1.9%	\$ 4,453,547	1.9%

METRO VANCOUVER DISTRICTS
2020-2024 PROJECTED RESERVES

OPERATING RESERVES

	2019	2020				2020	2021	2022	2023	2024
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Water Services	\$ 16,889,798	\$ 16,889,798	\$ -	\$ (118,178)	\$ 340,014	\$ 17,111,634	\$ 17,058,203	\$ 17,690,087	\$ 18,131,536	\$ 18,569,153
Liquid Waste Services	16,537,336	16,537,336	785,607	-	342,023	17,664,965	18,301,410	19,438,155	20,129,275	20,984,463
Solid Waste Services	14,633,768	14,633,768	149,040	-	297,137	15,079,945	15,519,500	15,817,440	15,890,394	16,427,551
Metro Vancouver Housing Corporation	2,370,149	2,370,149	41,754	-	48,304	2,460,207	2,577,597	2,642,853	2,728,631	2,838,241
Affordable Housing	52,045	52,045	-	(11,011)	940	41,974	241,675	242,400	242,999	243,521
Air Quality	523,605	523,605	-	(7,960)	10,497	526,143	550,425	531,932	535,487	542,530
E911 Emergency Telephone Service	215,229	215,229	992	-	4,358	220,579	226,061	232,189	238,710	246,393
Electoral Area Service	26,763	26,763	25,390	-	797	52,951	31,847	25,349	28,066	23,861
General Government Administration	308,786	308,786	-	(54,395)	5,689	260,080	276,645	278,903	283,634	285,960
General Government Zero Waste Collaboration Initiatives	-	-	71,548	-	723	72,270	83,996	94,858	98,786	95,220
Labour Relations	130,787	130,787	752	-	2,650	134,188	139,392	143,034	143,649	145,607
Regional Economic Prosperity	14,069	14,069	6,060	-	345	20,475	51,000	76,500	102,000	127,500
Regional Emergency Management	10,117	10,117	1,073	-	215	11,405	11,893	11,147	9,937	9,458
Regional Global Positioning System	15,718	15,718	1,444	-	332	17,494	16,442	16,590	16,894	17,176
Regional Parks	1,518,192	1,518,192	-	(21,109)	30,457	1,527,540	1,527,265	1,562,108	1,596,938	1,632,745
Regional Planning	158,663	158,663	3,845	-	3,244	165,753	169,910	178,858	174,153	178,606
Sasamat Fire Protection Service	11,953	11,953	146	-	243	12,341	12,584	12,830	13,080	20,485
West Nile Virus	353,016	353,016	-	-	7,060	360,076	367,278	374,623	382,116	389,758
Total	\$ 53,769,992	\$ 53,769,992	\$ 1,087,651	\$ (212,652)	\$ 1,095,030	\$ 55,740,021	\$ 57,163,125	\$ 59,369,854	\$ 60,737,284	\$ 62,778,228

DISCRETIONARY RESERVES

	2019	2020				2020	2021	2022	2023	2024
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Liquid Waste Services										
Biosolids Inventory Reserve	\$ 15,755,598	\$ 15,755,598	\$ 12,748,967	\$ (17,500,900)	\$ 267,593	\$ 11,271,258	\$ 6,416,596	\$ 3,222,199	\$ 740,986	\$ 755,806
Liquid Waste General Debt Reserve Fund	584,913	584,913	-	-	11,698	596,611	608,543	620,714	633,129	645,791
Lions Gate Contingency	971,157	971,157	-	-	19,423	990,580	1,010,391	1,030,599	1,051,211	1,072,235
Drainage General Reserve	5,175,408	5,175,408	-	(115,000)	102,358	5,162,766	5,240,771	5,320,337	5,401,493	5,484,273
Solid Waste Services										
Solid Waste General Reserve	32,944,040	32,944,040	-	-	658,881	33,602,920	34,274,979	34,960,478	35,659,688	36,372,882
Landfill Post Closure Reserve	10,913,540	10,913,540	-	-	218,271	11,131,811	11,354,447	11,581,536	11,813,167	12,049,430
Housing										
MVHC Capital Replacement Reserve	2,779,911	2,779,911	11,220,089	(9,000,000)	77,799	5,077,800	5,100,778	5,101,008	5,101,010	5,101,010
MVHC Capital Development Reserve	456,200	456,200	960,303	-	18,727	1,435,231	3,974,746	9,936,789	11,129,581	16,633,371
Air Quality										
Air Quality General Reserve	1,601,340	1,601,340	250,000	(1,271,986)	21,807	601,161	426,334	317,701	180,635	37,797
Electoral Area Service										
Electoral Area General Reserve	1,450,660	1,450,660	50,000	(250,000)	27,013	1,277,673	1,254,747	1,264,692	1,316,246	1,380,951
Emergency 911 Telephone Service (E911)										
E911 General Reserve	719,031	719,031	-	-	14,381	733,412	748,080	763,042	778,303	793,869
General Government Administration										
General Government General Reserve	5,063,726	5,063,726	-	-	101,275	5,165,000	5,268,300	5,373,666	5,481,140	5,590,762
Labour Relations										
Labour Relations General Reserve	1,946,580	1,946,580	-	(376,719)	35,164	1,605,025	1,637,125	1,669,868	1,703,265	1,737,331
Regional Emergency Management (REM)										
REM General Reserve	246,085	246,085	-	(74,868)	4,173	175,390	122,393	95,808	81,401	80,424
Regional Planning										
Regional Planning General Reserve	3,444,709	3,444,709	-	(415,000)	64,744	3,094,454	2,729,113	2,682,695	2,655,549	2,627,860
Centralized Support Reserve										
Centralized Support Reserve	20,262,304	20,262,304	800,000	(7,683,639)	336,410	13,715,075	8,799,289	4,255,772	2,177,619	79,037
Total	\$ 104,315,202	\$ 104,315,202	\$ 28,029,359	\$ (36,688,112)	\$ 1,979,717	\$ 95,636,165	\$ 88,966,633	\$ 88,196,904	\$ 85,904,422	\$ 90,442,829

STATUTORY RESERVES

	2019	2020				2020	2021	2022	2023	2024
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Water Services										
Water Laboratory Equipment Reserve	\$ 571,339	\$ 571,339	\$ 46,000	\$ (91,000)	\$ 10,977	\$ 537,316	\$ 497,562	\$ 544,884	\$ 555,781	\$ 613,357
Water Sustainability Innovation Fund Reserve	12,396,296	12,396,296	723,000	(230,000)	252,856	13,142,152	14,135,225	15,148,160	16,181,353	17,235,210
Liquid Waste Services										
Liquid Waste Laboratory Equipment Reserve	683,420	683,420	99,854	(150,000)	13,167	646,440	762,340	882,720	1,007,679	1,135,854
Liquid Waste Sustainability Innovation Fund Reserve	16,125,078	16,125,078	1,127,000	(555,000)	328,222	17,025,300	18,236,426	19,582,874	21,112,802	22,673,328
Affordable Housing										
Affordable Housing Re-development Reserve	1,010,000	1,010,000	1,000,000	-	30,200	2,040,200	3,091,004	4,162,824	5,256,081	6,371,202
Affordable Housing Development Reserve	-	-	4,000,000	-	40,000	4,040,000	8,160,800	12,364,016	16,651,296	21,024,322
Electoral Area Service										
Community Works Reserve	166,660	166,660	121,474	-	-	288,134	416,586	547,606	681,247	817,561
Electoral Area Election Reserve	-	-	30,000	-	300	30,300	61,206	820	31,137	62,059
General Government Administration										
MVRD Sustainability Innovation Fund Reserve	11,504,105	11,504,105	347,000	(110,000)	232,452	11,973,558	12,563,499	13,165,239	13,779,013	14,405,064
Grants Reserve Fund	2,195,468	2,195,468	(130,000)	(466,000)	37,949	1,637,417	1,377,266	1,147,261	948,006	780,116
Regional Global Positioning System										
Regional Geospatial Reference System Reserve	865,752	865,752	52,780	-	17,843	936,375	959,296	1,034,597	1,112,864	1,194,193
Regional Parks										
Regional Parks Infrastructure Reserve	3,804,230	3,804,230	4,682,000	(8,332,432)	39,580	193,378	1,078,107	1,579,419	2,762,407	3,363,055
Regional Parkland Acquisition Reserve Fund	15,071,350	15,071,350	11,570,000	(11,570,000)	301,427	15,372,777	12,650,232	9,873,237	8,555,702	8,726,816
Delta Airpark Reserve	100,795	100,795	23,000	-	2,246	126,041	151,792	178,057	204,849	232,176
Regional Parks Legacy Fund	2,681,864	2,681,864	-	(56,000)	53,077	2,678,941	2,675,960	2,672,919	2,669,817	2,666,654
Sasamat Fire Protection Service (SFPS)										
SFPS Capital Reserve Fund	768,804	768,804	92,100	(600,000)	10,297	271,201	369,646	470,060	572,482	676,952
SFPS Communications Capital Reserve Fund	56,630	56,630	-	-	1,133	57,763	58,918	60,097	61,299	62,525
SFPS Emergency Equipment Reserve Fund	5,702	5,702	-	-	114	5,816	5,932	6,051	6,172	6,295
Corporate Self Insurance Reserve										
Corporate Self Insurance Reserve	2,570,273	2,570,273	-	-	51,405	2,621,678	2,674,112	2,727,594	2,782,146	2,837,789
Corporate Fleet Reserve										
Corporate Fleet Reserve	11,800,391	11,800,391	4,864,884	(4,697,000)	237,687	12,205,962	12,659,807	13,121,140	13,611,119	14,108,861
Total	\$ 82,378,156	\$ 82,378,156	\$ 28,649,992	\$ (26,857,432)	\$ 1,660,932	\$ 85,830,748	\$ 92,585,714	\$ 99,269,574	\$ 108,543,252	\$ 118,993,390



5-Year Outlook 2019 – 2023



FRONT COVER: COQUITLAM WATER TREATMENT PLANT



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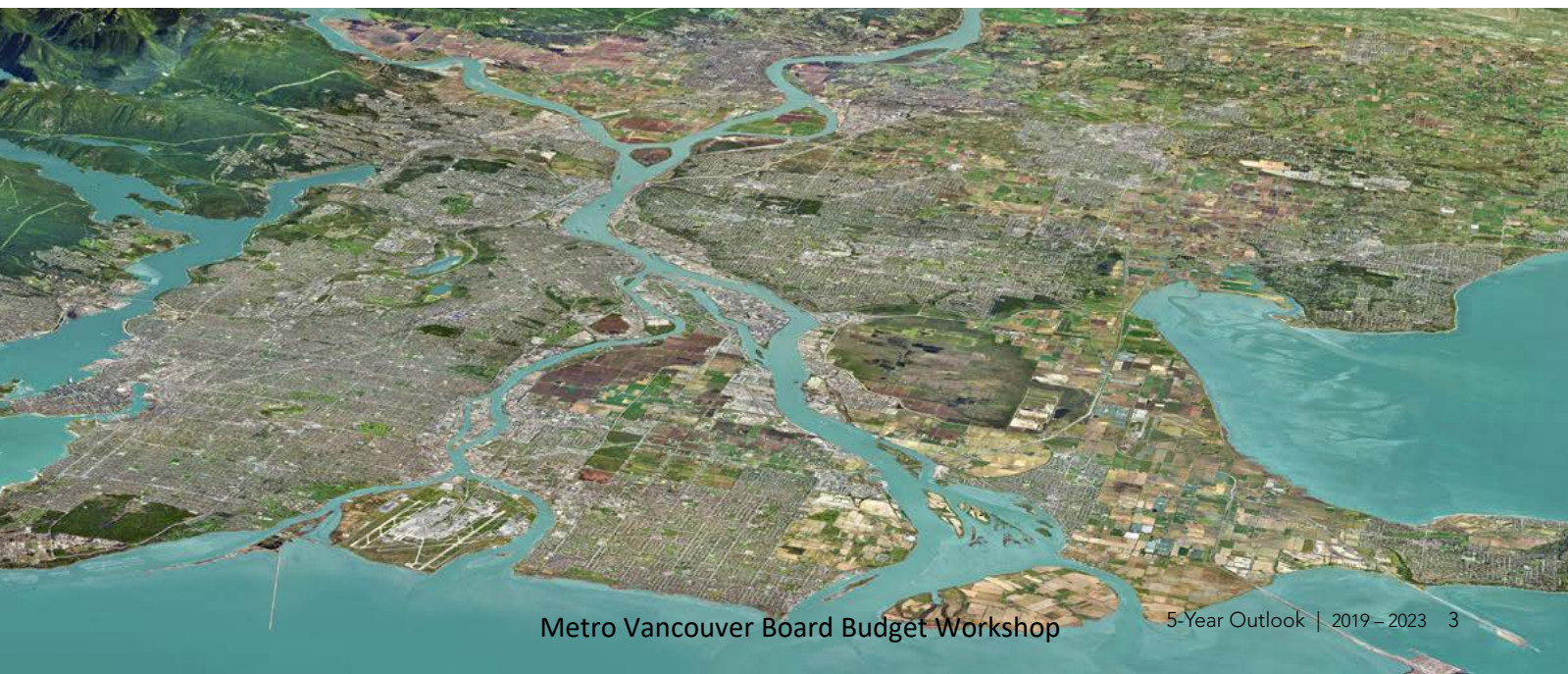
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Message from the Chair



Every time you turn on a tap, flush a toilet or walk your dog through a regional park, you're accessing one of Metro Vancouver's regional services. Add clean air, affordable housing, recycling, garbage and environmental regulation and you get a fuller picture of the work Metro Vancouver does every day to provide critical services to more than half the population of B.C.

Metro Vancouver oversees a combined capital and operating budget of more than \$1.7 billion in 2019 to build, maintain and upgrade the infrastructure to ensure it meets federal and provincial regulations and has the resiliency and capacity to serve our growing population of 2.5 million residents.

Building and maintaining infrastructure, such as water and sewer pipes, as well as providing services like transfer stations for garbage, organics and recyclables, and regional parkland and affordable housing, are crucial to the prosperity and livability of Metro Vancouver, both today and in the future.

Members deliver the services best provided at the local level while Metro Vancouver is a collaborative platform that allows members to work together in areas where there are economies of scale or value in speaking with a collective voice.

Our financial planning strategy focuses on ensuring financial sustainability for the region. In 2018, the Board brought forward a number of measures, including increased [Development Cost Charges](#) and a Financial Management Policy, which allows us to fund the necessary infrastructure and services for our growing region. We have also approved new Asset Management Policies to help us better manage and maintain our critical assets.

Our [2019-2023 Financial Plan](#) highlights key steps toward financial sustainability that will allow the region to remain one of the most livable and prosperous in the world.

*Sav Dhaliwal
Board Chair*

Message from the Commissioner/CAO



Metro Vancouver is continually growing, welcoming 35,000 people every year. As the regional utility responsible for providing essential services such as water, sewer, affordable housing and solid waste disposal, we must maintain and upgrade our infrastructure to serve our rapidly increasing population.

In order to address this growth, the Metro Vancouver Board and staff have worked together to develop a [2019-2023 Financial Plan](#), a five-year plan that covers operations and infrastructure costs for the region's four legal entities: Metro Vancouver Regional District, Greater Vancouver Water District, Greater Vancouver Sewerage & Drainage District and Metro Vancouver Housing Corporation.

The Financial Plan is guided by the [Board Strategic Plan](#) and regional management plans, which set the direction of future annual budgets and provide key information to members on future capital projects, anticipated expenditures and funding projections.

This [Five-Year Financial Plan](#), based on the priorities identified by our member jurisdictions, residents and businesses in our region, aims to ensure the financial sustainability of the organization's assets and operations, in a way that strikes a balance of stability, responsibility and innovation. It is built on four central themes that guide the development of Metro Vancouver's long-term plans and budgets:

- Regional Growth
- System Stewardship
- Environmental Protection and Climate Change
- Regulatory and Legislative Environment

Metro Vancouver's strong commitment to financial sustainability has allowed for utility and service fee rates that provide value for the region while still supporting the vision and mission as articulated in the *Board Strategic Plan* and corresponding Regional Management Plans. That same commitment to financial sustainability means that we are proactively managing our debt levels to ensure that utility rates remain affordable for current and future generations.

Carol Mason

Commissioner/Chief Administrative Officer



THE METRO VANCOUVER
REGION BOUNDARIES





2019 METRO VANCOUVER BOARD OF DIRECTORS

Metro Vancouver Members

Metro Vancouver comprises 23 members: 21 municipalities, one treaty First Nation and one electoral area.

Village of Anmore

Village of Belcarra

Bowen Island Municipality

City of Burnaby

City of Coquitlam

City of Delta

City of Langley

Township of Langley

Village of Lions Bay

City of Maple Ridge

City of New Westminster

City of North Vancouver

District of North Vancouver

City of Pitt Meadows

City of Port Coquitlam

City of Port Moody

City of Richmond

City of Surrey

Tsawwassen First Nation

City of Vancouver

District of West Vancouver

City of White Rock

Electoral Area A

Metro Vancouver at a Glance

The Metro Vancouver Regional District (MVRD) is a federation of 21 municipalities, one Electoral Area and one Treaty First Nation, providing core utility services to more than 2.5 million people. Essential services include [drinking water](#), [sewage treatment](#), and [solid waste disposal](#), along with regional services like [regional parks](#), [housing](#), [land use planning](#) and [air quality monitoring](#) that help keep the region one of the most livable in the world.

The Metro Vancouver Board oversees a combined [annual capital and operating budget](#) of more than \$1.7 billion in 2019. As the regional government, Metro Vancouver operates within a highly regulated environment and one that is responsive to legislative change, as it maintains and enhances infrastructure and services to meet the needs of a growing population.

The operating budget is funded by five main sources: water sales, sewer levy, solid waste tipping fees, regional district tax requisitions and housing rents.

The *Five-Year Financial Plan* combines the long-term budgets for each of the regional district's four legal entities: Metro Vancouver Regional District (MVRD), Greater Vancouver Water District (GVWD), Greater Vancouver Sewerage & Drainage District (GVSD&DD) and Metro Vancouver Housing Corporation (MVHC).

The annual budgets and long-term financial plan provide our residents and member jurisdictions with detailed projections of the operating and capital budgets for all Metro Vancouver services while focusing on financial sustainability, prioritizing affordability and meeting the changing needs of our region.

▶ WATCH THIS VIDEO ABOUT METRO VANCOUVER: [HTTPS://VIMEO.COM/296121577](https://vimeo.com/296121577)



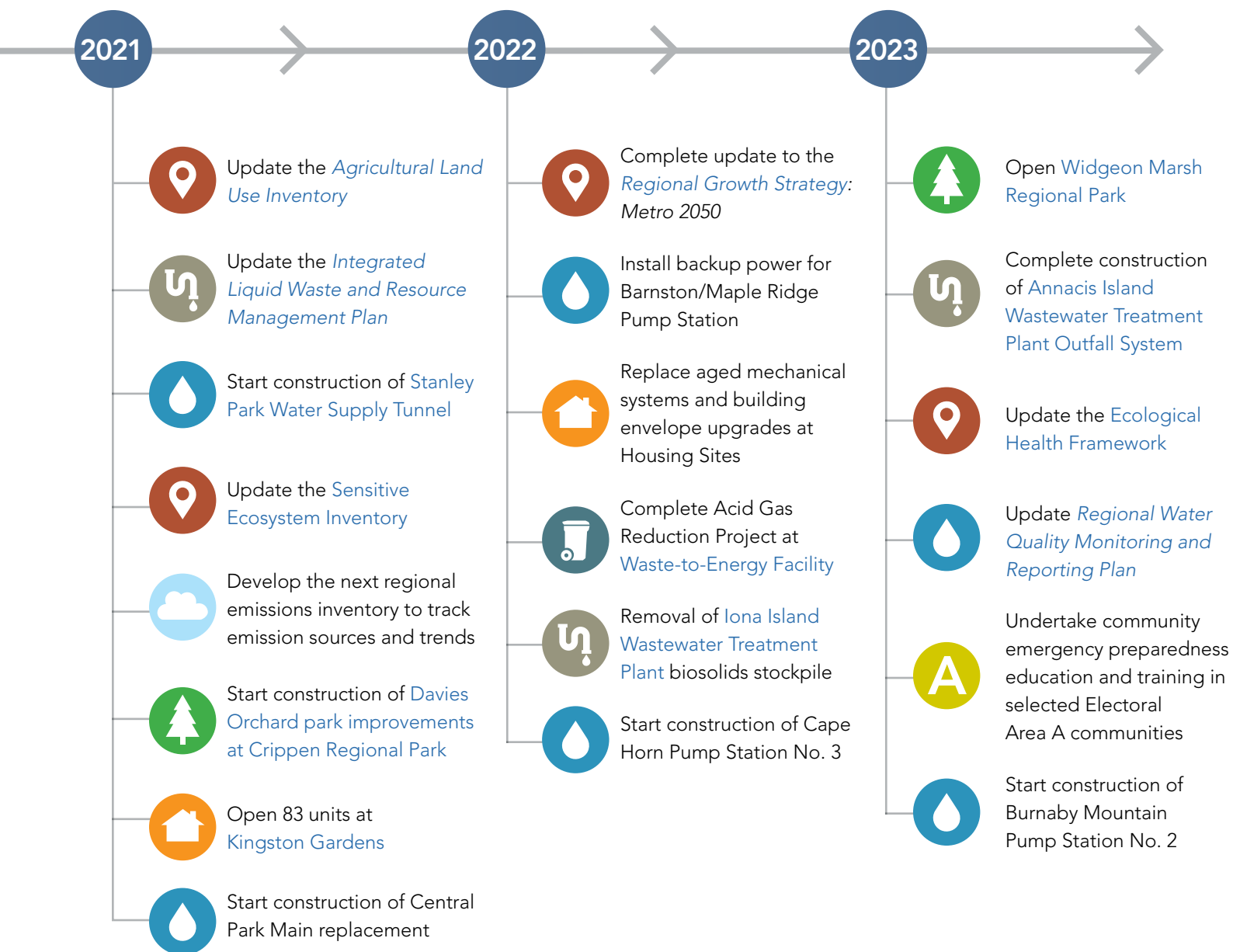
Services Delivered in 2018



For more information visit metrovancover.org/dashboards

Looking Ahead: 2019-2023 Priorities







Overview: 5-Year Outlook

Over the next five years, Metro Vancouver will see significant investments in sewer, water and solid waste services, largely driven by the growing population and necessary upgrades to ensure our assets meet regulatory standards and are resilient to earthquakes and other impacts. [Liquid Waste Services](#), for instance, will require \$3.17 billion worth of necessary infrastructure upgrades – mainly to its wastewater treatment plants – over the next five years, while [Water Services](#) is anticipated to spend \$2.03 billion on new water mains and other infrastructure.

In 2019 the average household will pay just \$534 for all regional services, up \$28 from the previous year.

The [Five-Year Financial Plan](#) anticipates a cumulative household increase of \$215 over the five-year period, with the cost to the typical household rising by about \$43 per year.

These increases are driven by essential upgrades to the region's utilities or major capital projects that are vital to make our infrastructure more resilient to climate change and natural hazards, accommodate future population growth, and to meet federal requirements for mandatory secondary wastewater treatment.

Over the past decade, Metro Vancouver rates have risen an average of only \$12 per year. By working collaboratively at the regional level and providing vital services to all members, it is more affordable for everybody. This allows us to keep valuable assets in public trust to take advantage of economies of scale as well as share sources of information, technical expertise and professional capacity.

The number of investments coming on stream means the percentage of spending needed to service debt will increase over the next five years – from 16 per cent in 2019 to 31 per cent in 2023.

Process

Effective and transparent financial and strategic planning are critical to the success of local governments. At Metro Vancouver, financial plans, budgets, and work plans are developed to respond to:

- Regional priorities
- Levels of service for future years
- Assumptions on labour and other inflationary factors

The [Five-Year Financial Plan](#) aims to respond to future trends, both positive and negative, while providing a full picture of future increases to households in the region.

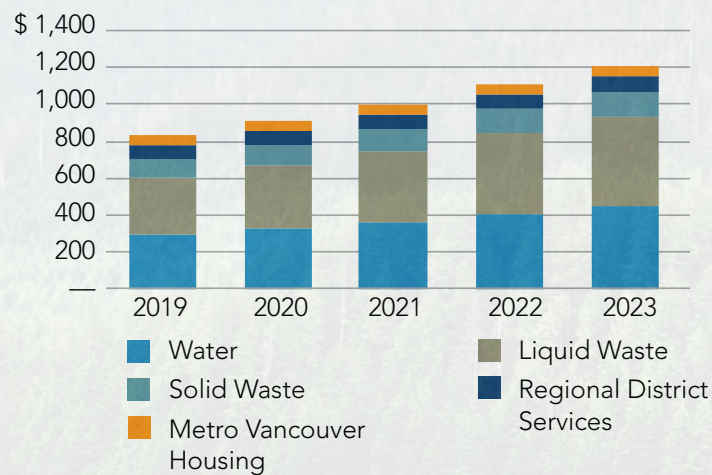
On October 26, 2018, the Metro Vancouver Board approved the 2019 budget and [2019-2023 Financial Plan](#). The [Five-Year Financial Plan](#) is guided by the [Board Strategic Plan and regional management plans](#), which set the direction of future annual budgets, and provides key information to members on future capital projects, anticipated expenditures, and funding projections.

Metro Vancouver's budgets are prepared by each internal business group, and reviewed by the senior management team, standing committees, key advisory committees comprised of member representatives, and finally, the Board. At every stage in the process we focus on balancing the affordability of our services, with ensuring that we are making the necessary investments for the future.

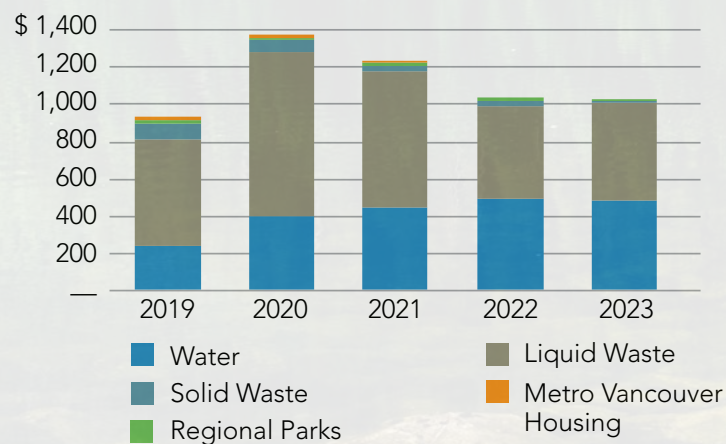


2019-2023 Financials

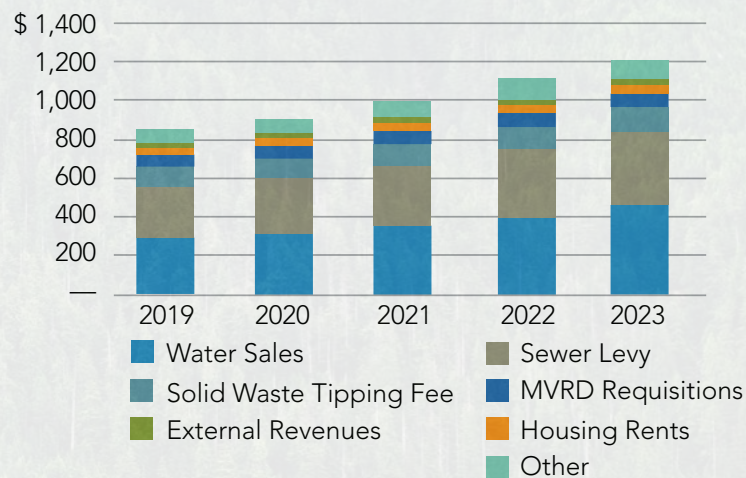
**2019-2023 METRO VANCOUVER
TOTAL OPERATING EXPENDITURES
(MILLIONS)**



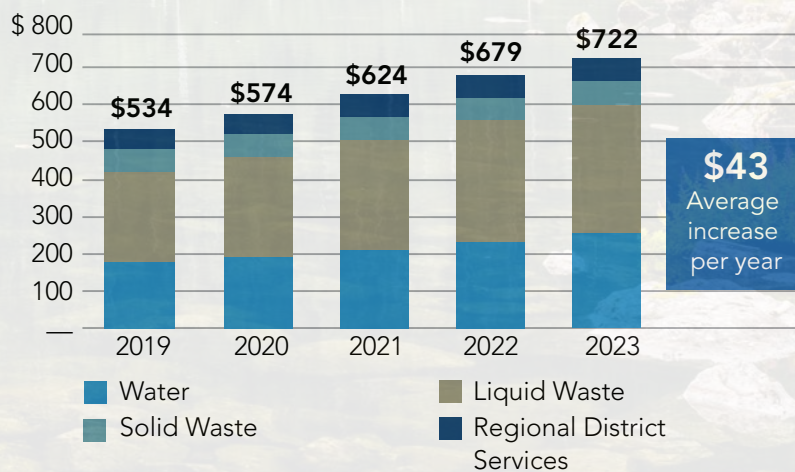
**2019-2023 METRO VANCOUVER
TOTAL CAPITAL EXPENDITURES
(MILLIONS)**



2019-2023 METRO VANCOUVER TOTAL REVENUES BY SOURCE (MILLIONS)



2019-2023 METRO VANCOUVER TOTAL HOUSEHOLD COST



*Housing has no household impact

Financial Plan Drivers

The Metro Vancouver [2019-2023 Financial Plan](#) is built upon four central themes, which guide the development of Metro Vancouver's long-term plans and budgets. At every step of the way, financial sustainability is emphasized to ensure that utility and service fee rates remain affordable for households throughout the region. These drivers include:

- **Regional Growth:** The region's increasing population, projected to grow by about 35,000 per year, will require core utility services and regional services to expand and optimize to respond to new growth.
- **System Stewardship:** Critical regional infrastructure must be sufficiently maintained or replaced to meet current and future service needs and to be resilient to impacts from seismic events, wildfires, power failures, and natural disasters.
- **Environmental Protection and Climate Change:** Our region is dependent on healthy, functioning ecosystems and requires actions to reduce pollutants, including greenhouse gases, to prevent waste and to conserve our natural ecosystems.
- **Regulatory and Legislative Environment:** Core utility services and regional services will anticipate and meet regulatory requirements and respond to legislative change.





Water

Metro Vancouver provides clean, safe drinking water to 2.5 million residents. The water originates from rain and snowmelt from [three protected watersheds](#) – Capilano, Seymour and Coquitlam – and is distributed to residents and businesses throughout the region. [The regional system treats and distributes an average of one billion litres per day](#). Metro Vancouver's current water rate is \$0.7395/m³.

Over the next five years, the Water Services financial plan calls for an increase in the operating budget at an average of \$36.1 million per year. Funding related to the expanding capital program (debt servicing and contribution to capital) will increase by \$33.3 million on average, while operating programs will rise, on average, by \$2.8 million per year. The 2019-2023 Water Services financial plan includes \$2.03 billion in major capital investments, focused primarily on upgrades to drinking water infrastructure to meet the needs of a growing population, increasing system resilience, and maintaining aging infrastructure.

 WATCH THIS VIDEO ABOUT WATER SERVICES: [HTTPS://VIMEO.COM/284267193](https://vimeo.com/284267193)

Regional Growth

Metro Vancouver must ensure its world-class water system has the capacity to meet future needs. Metro Vancouver will complete a regional assessment of residential water metering in 2019 as well as continue other projects.

Key initiatives:

- [Annacis Water Supply Tunnel](#), 2.3-kilometre long tunnel under the Fraser River between New Westminster and Surrey: \$217 million (completion 2025, total cost: \$448 million)
- Coquitlam Main No. 4: \$236 million (completion 2026, total cost \$485 million)
- Coquitlam Reservoir Intake No. 2, Tunnel and Treatment: \$100 million (completion 2035, total cost: \$2.3 billion)

System Stewardship

Operating our vast drinking water system requires constant upgrades, improvements, maintenance and expansion. Metro Vancouver is developing an Asset Management for Water Services Policy to more effectively monitor performance and risks of our assets to continue to provide high quality drinking water services at an affordable price.

Key initiatives:

- [Second Narrows Water Supply Tunnel](#), 1.1-kilometre long tunnel under Burrard Inlet between North Vancouver and Burnaby: \$351 million (completion 2024, total cost \$469 million)
- Seismic Upgrade Program for Water Infrastructure. Upcoming projects include seismic upgrading of Sunnyside and Pebble Hill Reservoirs in Surrey and Delta

Environmental Protection and Climate Change

As climate change puts more pressure on our region, Metro Vancouver must use its water wisely. Campaigns such as *We Love Water* help to expand awareness of the value of the region's drinking water and encourage year-round reductions in indoor and outdoor consumption.

Key initiatives:

- Update the [Comprehensive Regional Water System Plan](#) to guide the water utility for the next century.
- Capilano Raw Water Pump Station Standby Power
- Implement [Joint Water Use Plan](#) for Capilano and Seymour Watersheds

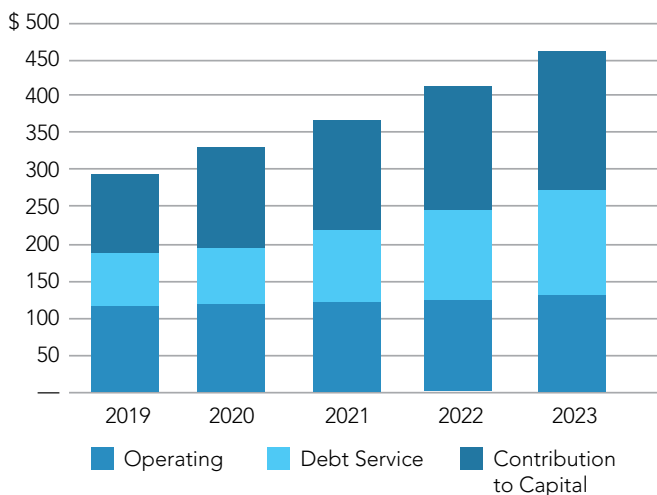
Regulatory and Legislative Environment

Metro Vancouver faces regulatory requirements from other levels of government as part of its mandate to provide clean, safe drinking water. Metro Vancouver analyzes more than 30,000 water samples annually from strategic locations throughout the regional water system to ensure water quality standards meet the Guidelines for Canadian Drinking Water Quality and the B.C. Drinking Water Protection Regulation.

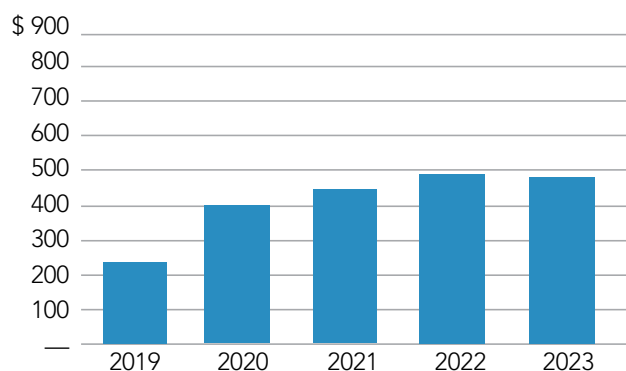
Key initiatives:

- Regional Water Quality Monitoring and Reporting
- Inter-agency infrastructure projects impacting the Water utility
- Update [Drinking Water Management Plan](#)

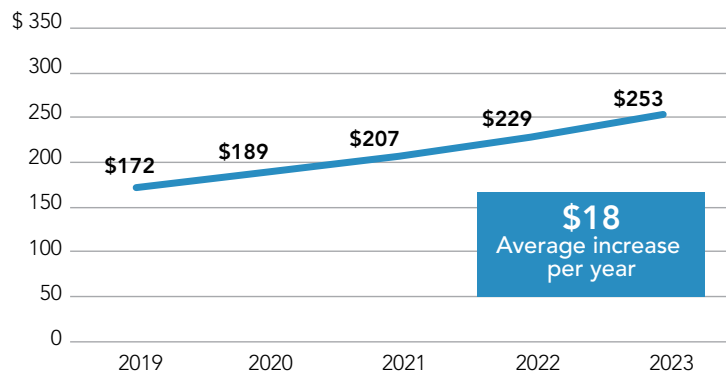
2019-2023 WATER OPERATING EXPENDITURES (MILLIONS)



2019-2023 WATER CAPITAL EXPENDITURES (MILLIONS)



2019-2023 WATER AVERAGE HOUSEHOLD COST





Featured Project:

Second Narrows Water Supply Tunnel

Metro Vancouver supplies about one billion litres of treated drinking water from its three source reservoirs – Capilano, Seymour and Coquitlam – every day to the region’s 2.5 million residents. To ensure enough water can be collected, treated and conveyed in a safe and reliable manner well into the future, Metro Vancouver is in the midst of replacing several major water mains that connect the reservoirs with the region’s member jurisdictions.

The Second Narrows Water Supply Tunnel, a 1.1 km-long tunnel deep under Burrard Inlet between the District of North Vancouver and the City of Burnaby, is one of the larger investments in the Water Services five-year budget for 2019-2023. Construction is slated to start in 2019 on 6.5-metre-diameter tunnel, estimated to cost \$351 million over the next five years and \$469 million when it’s completed in 2024. The project will be excavated deep underground using a tunnel boring machine and include vertical shafts drilled 60 metres deep on the north side and more than 110 metres deep on the south side.

This project is one of five new regional water supply tunnels that are being designed to meet current seismic standards and to ensure the reliable delivery of drinking water in the region in the event of a major earthquake. The tunnel will also increase the capacity of the existing system to serve the long-term needs of the growing population. Other replacement and upgrade projects being designed to strengthen the water system’s resiliency include the Annacis, Haney Main No. 4 and Cambie-Richmond Main marine crossings.

Metro Vancouver continues to implement its long-term strategy to ensure its water system remains resilient through the next century.



WATCH THIS VIDEO ABOUT THE SECOND NARROWS
WATER SUPPLY TUNNEL: [HTTPS://VIMEO.COM/345126879](https://vimeo.com/345126879)



PROJECT AT A GLANCE



\$469 MILLION



COMPLETION
2024

The Second Narrows Water Supply Tunnel will boost water delivery capacity and strengthen the water system's ability to withstand a major earthquake.

Liquid Waste

Metro Vancouver is responsible for collecting and treating about one billion litres of the region's wastewater every day at its five wastewater treatment plants. That's about [340 litres per person every day](#) that results from flushing, brushing or anything else that sends water down a drain.

Over the next five years, Liquid Waste Services' financial plan calls for an increase in the operating budget at an average of \$43.1 million per year. Funding related to the expanding capital program (debt servicing and contribution to capital) will rise \$39.1 million on average, while operating programs will increase on average by \$4 million per year. Liquid Waste Services' financial plan includes \$3.17-billion in major capital investments, largely driven by [federally mandated upgrades to the two primary wastewater treatment plants](#), system expansions to meet the needs of a growing population, and maintenance of aging infrastructure.

 WATCH THIS VIDEO ABOUT LIQUID WASTE SERVICES [HTTPS://VIMEO.COM/287534999](https://vimeo.com/287534999)

Regional Growth

Metro Vancouver's continued growth means increasing demands for new wastewater treatment plants and pump stations as well as upgrades and expansions.

Key initiatives:

- [Annacis Island Stage 5 expansion and new outfall](#): \$538 million (completion: 2027, total cost \$1.1 billion)
- [Northwest Langley Wastewater Treatment Plant](#): \$489.1 million (completion 2026, total cost: \$1.3 billion)

System Stewardship

Continual upgrades, improvements, repairs and expansion are needed to operate our vast liquid waste system.

Key initiatives:

- *Comprehensive Plan for Liquid Waste Services* to identify infrastructure needs over the next century
- Asset Management and Condition Assessment Program, which ensures existing assets remain in a state of good repair to provide quality and affordable services to the community

Environmental Protection and Climate Change

Protecting public health and the environment and using wastewater as a resource are among the main goals of Liquid Waste Services.

Key initiatives:

- Environmental monitoring of Burrard Inlet, Fraser River, and English Bay
- Energy and resource recovery projects, such as the Hydrothermal Liquefaction Processing Plant Facility

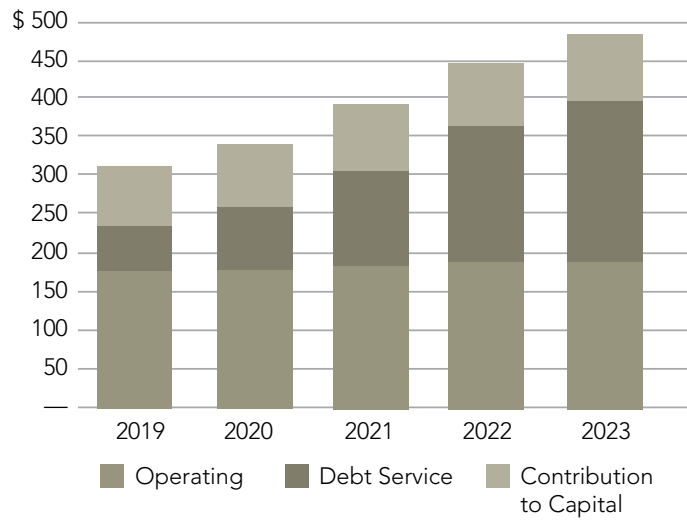
Regulatory and Legislative Environment

Liquid Waste Services must meet regulatory requirements from other levels of government, including federally mandated upgrades to its wastewater treatment plants.

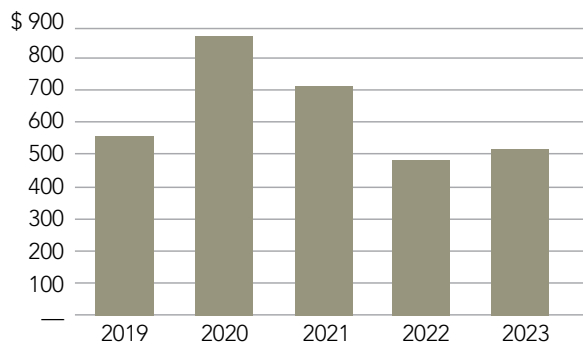
Key initiatives:

- Update the [Integrated Liquid Waste and Resource Management Plan](#)
- [Upgrade Iona Wastewater Treatment Plant](#), \$179 million (completion 2032, total cost \$1.9 billion)
- [Upgrade North Shore \(formerly Lions Gate\) Wastewater Treatment Plant](#) and conveyance, \$741.3 million (completion 2023, total cost \$778 million)

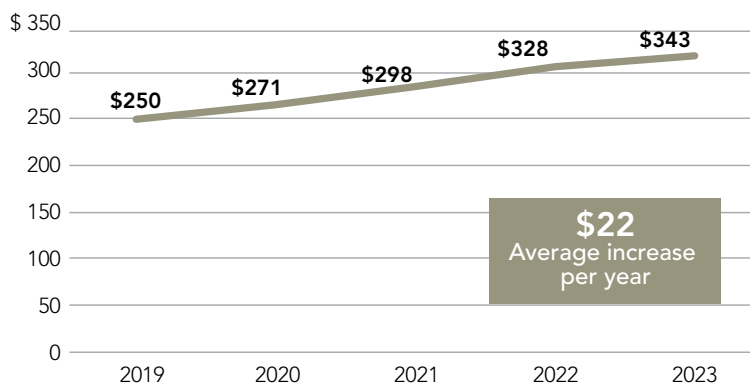
2019-2023 LIQUID WASTE OPERATING EXPENDITURES (MILLIONS)



2019-2023 LIQUID WASTE CAPITAL EXPENDITURES (MILLIONS)



2019-2023 LIQUID WASTE AVERAGE HOUSEHOLD COST



Featured Project:

Northwest Langley Wastewater Treatment Plant

Metro Vancouver is expanding its Northwest Langley Wastewater Treatment Plant to include Maple Ridge and Pitt Meadows to serve the growing populations in those two communities and the Township of Langley and to continue to protect human health and the environment.

Built in 1978, the Northwest Langley Wastewater Treatment Plant currently provides secondary treatment in the Township of Langley. The expansion of the plant and related infrastructure will cost an estimated \$1.3 billion and serve 230,000 people – up from 30,000 today – once it's completed in 2026. The project includes a new pump station and storage tank in Maple Ridge, as well as a new outfall. Two new pipes under the Fraser River will carry wastewater from Maple Ridge and Pitt Meadows to the Northwest Langley Wastewater Treatment Plant.

The improvements will help to prevent untreated wastewater back-ups and overflows as well as strengthen the wastewater plant to ensure it can continue to operate in the event of an earthquake, adapt to sea-level rise, reduce treatment plant water and energy use and continue to treat wastewater to the level designed to protect the environment set by provincial and federal regulations.

They will also provide enhanced environmental protection for the Fraser River and accommodate projected population growth. Solids removed from the treatment process at the Northwest Langley plant are trucked to the Annacis Island wastewater treatment plant for processing.

▶ WATCH THIS VIDEO ON THE NORTHWEST LANGLEY WASTEWATER TREATMENT PLANT: [HTTPS://VIMEO.COM/270732010](https://vimeo.com/270732010)



PROJECT AT A GLANCE



\$1.3 BILLION



**ESTIMATED COMPLETION
2026**

The Northwest Langley Wastewater Treatment Plant expansion will serve the growing communities of Maple Ridge, Pitt Meadows and Langley.

Solid Waste

Metro Vancouver is responsible for waste reduction and recycling planning along with operating the solid waste disposal system, which includes [five transfer stations](#) and a [Waste-to-Energy facility](#) in Burnaby. It also includes two City of Vancouver-owned and operated facilities: the Vancouver South Transfer Station and Vancouver Landfill. The solid waste system is primarily funded through tipping fees. The average household cost for solid waste services is expected to rise an average of \$2 per year.

Over the next five years, the Solid Waste financial plan calls for an increase in the operating budget at an average of \$5.7 million per year. Funding related to the expanding capital program (debt servicing and contribution to the capital) will increase by \$3.7 million on average over the next five years. Operating programs will rise, on average, by \$2 million. The 2019-2023 Solid Waste Services capital plan totals \$210.8 million, largely driven by the need to replace and build new transfer stations and upgrade the Waste-to-Energy facility to meet regulatory requirements and replace aging systems.

▶ WATCH THIS VIDEO ABOUT SOLID WASTE SERVICES: [HTTPS://VIMEO.COM/291003425](https://vimeo.com/291003425)

Regional Growth

As Metro Vancouver welcomes more people to the region, it must also provide necessary services such as garbage and recycling.

Key initiatives:

- New [Surrey Recycling and Waste Drop-off facility](#) to increase recycling opportunities and reduce illegal dumping: \$42.3 million (completion 2020)
- Launch new behaviour change campaigns such as [Think Thrice About Your Clothes](#) to encourage reuse, repair and recycling of textiles

System Stewardship

Ensuring the region's solid waste system remains in good repair is a major focus of Metro Vancouver's solid waste division.

Key initiatives:

- [Coquitlam Transfer Station replacement](#): \$70.2 million (completion 2020)
- Upgrade Waste-to-Energy facility in Burnaby: \$82 million (completion 2023)
- Asset Management and Condition Assessment Program, which ensures existing assets remain in a state of good repair to provide quality and affordable services to the community

Environmental Protection and Climate Change

Metro Vancouver's solid waste division is committed to protecting the environment and conserving resources across the region.

Key initiatives:

- Organics and waste diversion activities
- Encourage residents to consume less or to reuse, reduce, repair, recycle and recover materials through waste behaviour-change campaigns such as [Create Memories, Not Garbage](#) and [Love Food Hate Waste Canada](#)

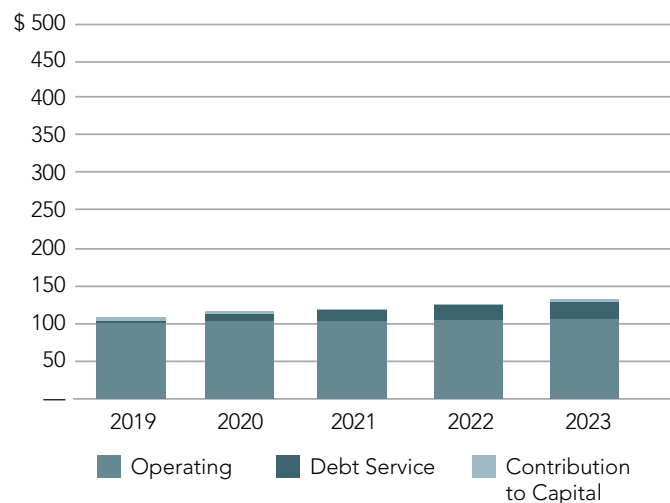
Regulatory and Legislative Environment

Metro Vancouver is required to implement solid waste management plans, while its Environmental Regulation and Enforcement division issues solid waste licenses and enforces solid waste bylaws. These regulatory costs are recovered through fees. Metro Vancouver also levies surcharges on loads containing excessive recyclables at its disposal facilities to encourage recycling.

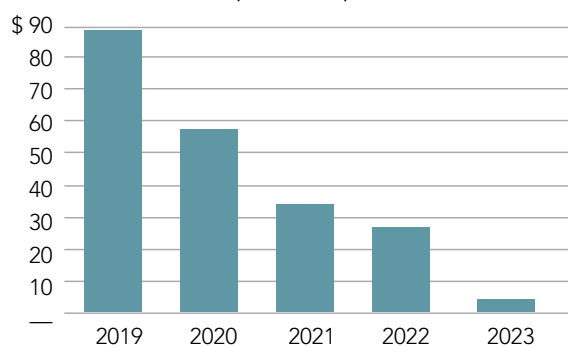
Key initiatives:

- Finalize the [Solid Waste Regulatory Framework](#)
- Update the [Integrated Solid Waste and Resource Management Plan \(2020-2023\)](#)

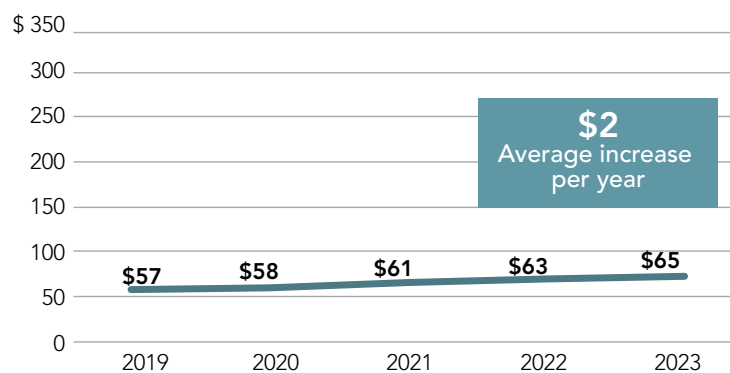
2019-2023 SOLID WASTE OPERATING EXPENDITURES (MILLIONS)



2019-2023 SOLID WASTE CAPITAL EXPENDITURES (MILLIONS)



2019-2023 SOLID WASTE AVERAGE HOUSEHOLD COST



Featured Project:

Coquitlam Transfer Station Replacement

Metro Vancouver has started construction of a new transfer station on the former Coquitlam Landfill site at 995 United Boulevard.

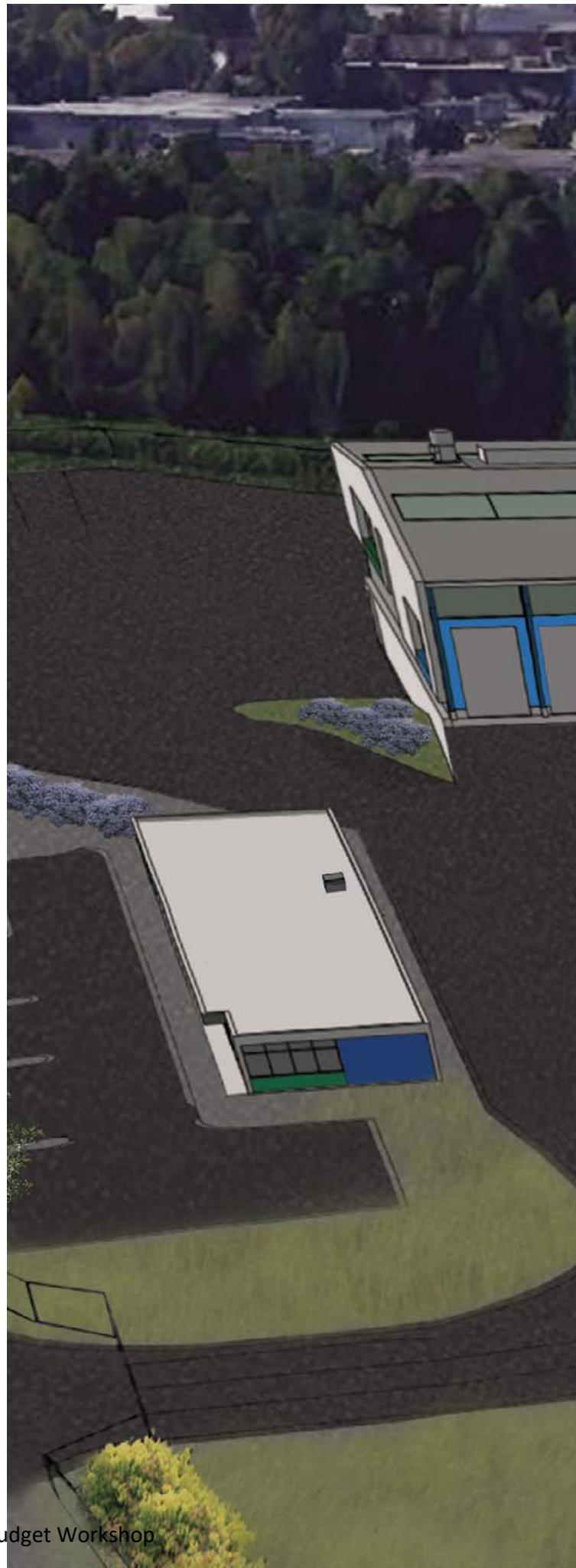
The new \$70.2-million transfer station, expected to be operating by mid-2020, will replace the existing transfer station facility, located on land about one kilometre away, which Metro Vancouver has leased for 30 years. The current lease will expire in late 2020.

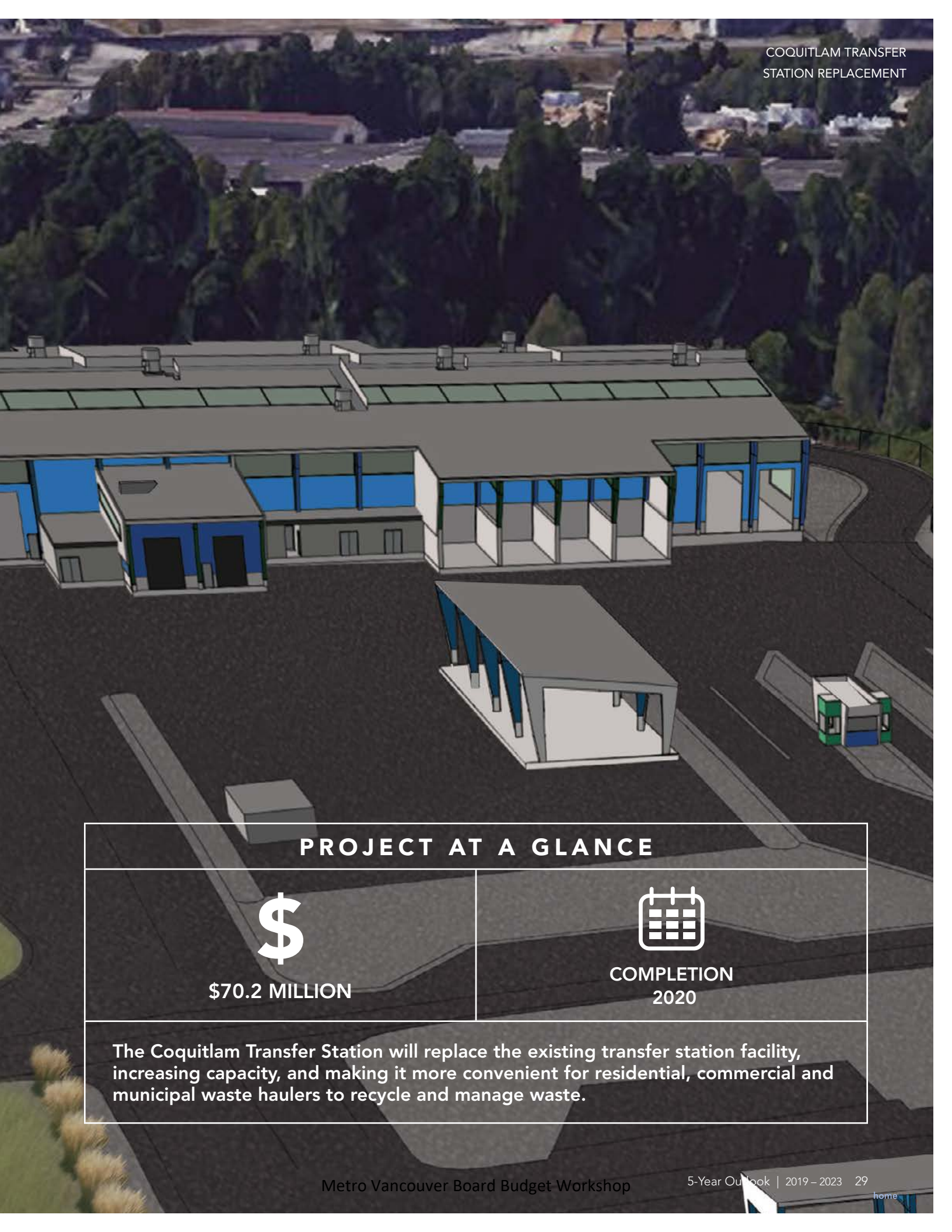
The Coquitlam Transfer Station is a key part of Metro Vancouver's solid waste system, with the existing facility handling, on average, around 150,000 tonnes of waste per year. Open 363 days a year, the transfer station welcomes 200,000 customers annually. The new replacement facility will be a full-service transfer station and recycling centre for residential, commercial and municipal waste haulers. Traffic will be segregated into large and small vehicle queues and the recycling area will be three times bigger than it is now with room to expand.

The new transfer station will also feature high efficiency and natural lighting, stormwater and landfill gas management, native landscaping and use of recovered materials, while focusing on odour management, with fully enclosed waste handling, roof-top ventilation and regular wash down and cleanout.



WATCH THIS VIDEO ABOUT THE COQUITLAM TRANSFER STATION REPLACEMENT: [HTTPS://VIMEO.COM/294462326](https://vimeo.com/294462326)





PROJECT AT A GLANCE



\$70.2 MILLION



**COMPLETION
2020**

The Coquitlam Transfer Station will replace the existing transfer station facility, increasing capacity, and making it more convenient for residential, commercial and municipal waste haulers to recycle and manage waste.

Metro Vancouver Housing

The Metro Vancouver Housing Corporation provides subsidized and low end-of-market housing across the region, serving more than 9,000 residents in [49 housing sites](#). Funding related to the expanding capital program (debt servicing and contribution to reserve) is increasing \$300,000 on average over the next five years while the operating programs are increasing, on average, by \$1.5 million.

Funded primarily by rental revenue, the capital program for Metro Vancouver Housing in 2019-2023 totals \$41.4 million and is driven by the development of [Heather Place Building A](#) and [Kingston Gardens Phase 1](#). Significant work is also underway to develop a Metro Vancouver Affordable Housing Plan with initiatives that will include the examination of potential housing development projects over the next five years. Development of housing in the region is guided by the strategies and plans undertaken by the Affordable Housing Program.



WATCH THIS VIDEO ABOUT METRO VANCOUVER HOUSING: [HTTPS://VIMEO.COM/294470895](https://vimeo.com/294470895)

Regional Growth

The demand for affordable housing continues to grow along with Metro Vancouver's increasing population.

Key initiatives:

- Redevelop [Heather Place Building A](#) in Vancouver, which will provide 67 rental homes: \$13.2 million (completion 2020, total cost: \$28.5 million)
- Redevelop [Kingston Gardens](#) in Surrey, which will provide 85 new units: \$28.2 million (completion, 2021, total cost \$29 million).
- Assess and identify potential housing development and redevelopment projects, while establishing funding for new development opportunities

System Stewardship

The average Metro Vancouver housing unit is 35 years old, which means maintaining our portfolio is a top priority.

Key initiatives:

- Asset Management and Condition Assessment Program to address the challenges of aging infrastructure and balance the performance, risk and cost of our assets.
- Prioritize and plan maintenance projects on a portfolio-wide scale to ensure buildings remain in a state of good repair while keeping rents as affordable as possible

Environmental Protection and Climate Change

As Metro Vancouver looks to redevelop or build new housing, it considers climate change in every decision.

Key initiatives:

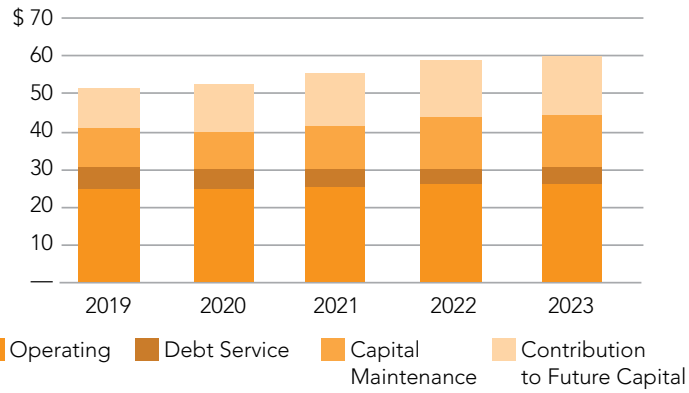
- Study the feasibility of electric vehicle charging stations
- Reduce building energy loss and consumption by replacing aged mechanical systems and building envelope upgrades (2020-2023)
- Pursue continuous improvement in energy efficiency in line with the *Sustainable Infrastructure and Buildings Policy*

Regulatory and Legislative Environment

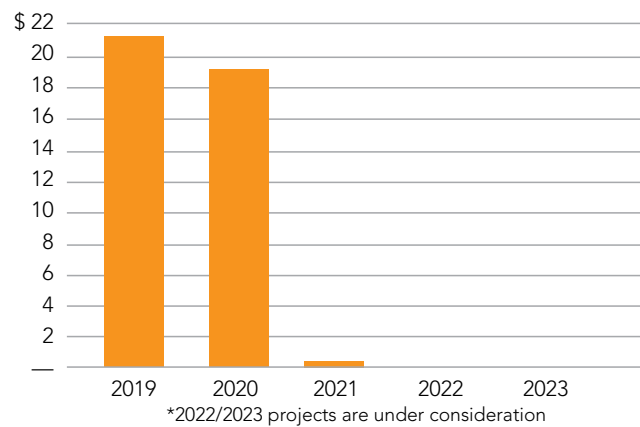
Key initiatives:

- Policies and practices in compliance with the [Residential Tenancy Act](#)
- Meeting requirements of the [B.C. Building Code](#)

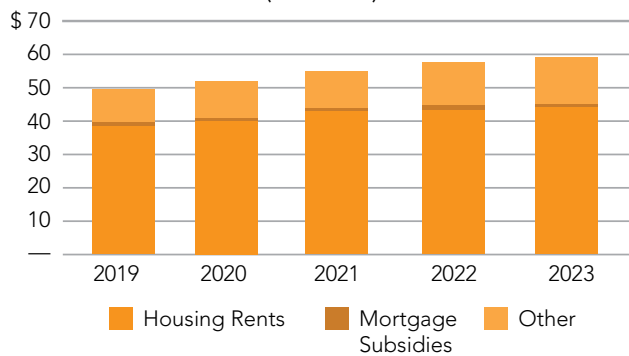
2019-2023 MV HOUSING OPERATING EXPENDITURES (MILLIONS)



2019-2023 MV HOUSING CAPITAL EXPENDITURES (MILLIONS)



2019-2023 MV HOUSING REVENUES (MILLIONS)



Featured Projects:

Heather Place Redevelopment

With residential vacancy rates at record lows across Metro Vancouver, the need for purpose-built affordable rental housing has never been greater.

As a result, Metro Vancouver is undertaking the redevelopment of Heather Place in Vancouver, an 86-unit townhouse development of one-, two- and three-bedroom homes that occupy almost the entire block bound by Heather Street on the east, Willow Street on the west, 13th Avenue on the north and 14th Avenue on the south.

The project will replace the 86 aging housing units with 230 new rental homes by 2021. The units will be oriented to a diverse population of families, couples, singles and seniors with a mix of incomes, and disabled-accessible homes. A portion of the units will be rent-geared-to-income, meaning rents will not exceed 30 per cent of a tenant's income.

This project also takes into account local neighbourhood needs, including aesthetics, trees and green space, access to community amenities, changing demographics and traffic and parking. Tenants affected by the first phase of the Heather Place redevelopment have been offered the opportunity to move back into the facility once the new building is constructed.

Metro Vancouver Housing is funded through rents. Established in 1974, it currently houses more than 9,000 people at 49 housing sites across the region in diverse, mixed-income communities that include families, seniors and people with disabilities.



WATCH THE ANNOUNCEMENT OF THE
HEATHER PLACE REDEVELOPMENT: [HTTPS://VIMEO.COM/260136977](https://vimeo.com/260136977)



PROJECT AT A GLANCE



\$28.5 MILLION



ESTIMATED COMPLETION
2020/2021

The Heather Place redevelopment will replace 86 aging housing units with 230 new rental homes serving a diverse population with a mix of incomes.



Regional District Services

The Metro Vancouver Regional District budget includes 10 regional services and one sub-regional service, which are focused on delivering regional district services. The primary driver of the regional district's capital plan is within our Regional Parks function.

Over the next five years, Regional District Services operating expenditures will increase by \$2.2 million. Capital funding related to the Regional Parks program (contribution to capital reserves) will rise \$800,000 on average over the next five years, while the operating programs for all Regional District Services will increase, on average, by \$1.4 million.

Metro Vancouver also acts as the local government for Electoral Area A, and is responsible for providing land use planning, building inspections, bylaw enforcement and management to the rural areas of Electoral Area A and provides emergency planning and government to all of Electoral Area A, which includes UBC and the University Endowment Lands as well as Barnston Island and other unincorporated areas.

Regional Services:

- [Regional Parks](#)
- [Regional Planning](#)
- [Air Quality and Climate Change](#)
- [Affordable Housing](#)
- [General Government](#)
- [9-1-1 Emergency Telephone Service](#)
- [Regional Employers' Service](#)
- [Regional Emergency Management](#)
- [Regional GPS](#)
- [Regional Prosperity](#)

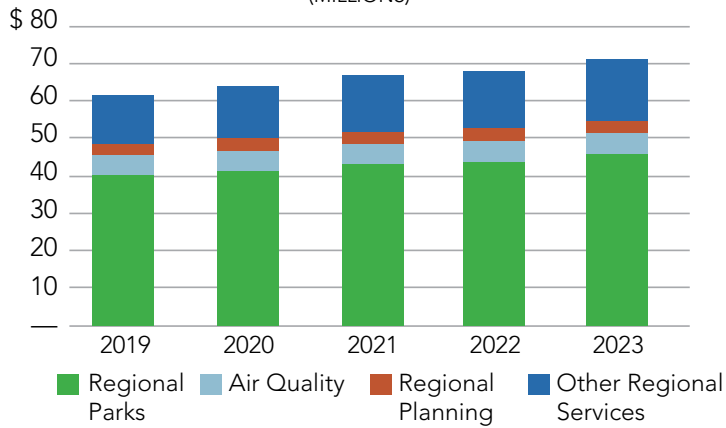
Sub-Regional Service:

- [Sasamat Fire Protection](#)

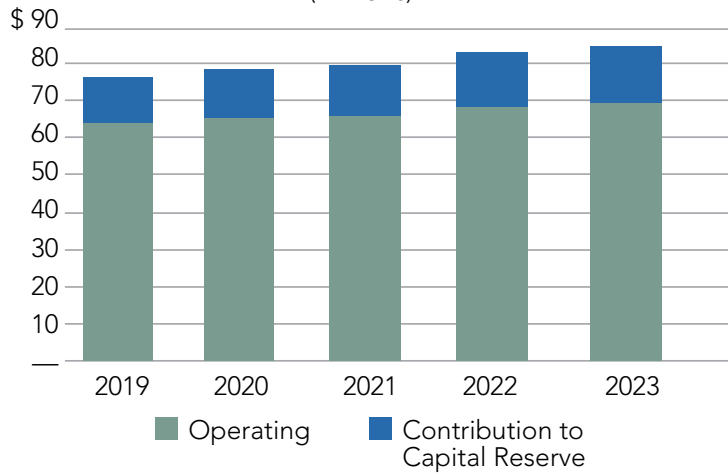
Local Government:

- [Electoral Area A Services](#)

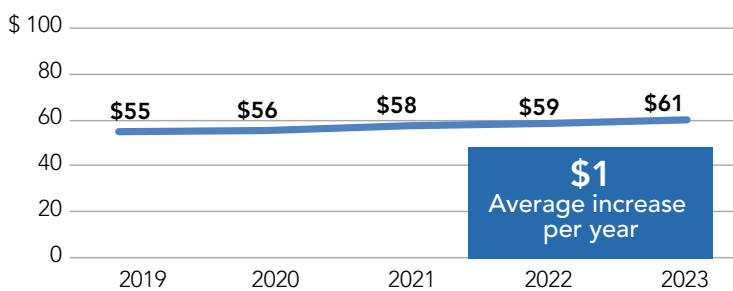
**2019-2023 MVRD
TAX REQUISITIONS
(MILLIONS)**



**2019-2023 MVRD
EXPENDITURES
(MILLIONS)**



**2019-2023 MVRD
AVERAGE HOUSEHOLD COST**





Regional Parks

Metro Vancouver's Regional Parks system includes [22 regional parks](#), [three park reserves](#), [two ecological conservancy areas](#) and [five greenways](#), drawing more than 11 million visits every year. Capital expenditures within the Regional Parks function are funded on a 'pay as you go' basis through contribution to capital reserves.

The capital program for Regional Parks over the next five years is largely driven by park land acquisition projects and capital replacement and development programs. The capital plan for 2019-2023 totals \$78.9 million, an average of \$15.8 million per year. This includes \$37.9 million for land acquisition, \$23.7 million for capital replacement and development and \$17.3 million for capital maintenance.

 WATCH THE VIDEO ABOUT OUR REGIONAL PARKS: [HTTPS://VIMEO.COM/279576806](https://vimeo.com/279576806)

Regional Growth

Metro Vancouver's population is expected to grow from 2.5 million to 3.7 million by 2050, and visits to regional parks have been growing at double the population growth rate. Metro Vancouver recently doubled its annual contribution to the Regional Park Land Acquisition Fund to protect more ecologically sensitive areas.

Key initiatives:

- Implement the [Regional Parks Land Acquisition 2050 Strategy](#) to help grow the regional parks system
- Development and adoption of the [Widgeon Marsh Regional Park](#) and [Campbell Valley Regional Park](#) Management Plans

System Stewardship

Ensuring regional ecosystems are protected, healthy and resilient is central to the Metro Vancouver region retaining its unique sense of place. Metro Vancouver will continue to forecast the needs for maintenance and replacement of regional structures and assets.

Key initiatives:

- Pacific Spirit Regional Park Service Yard replacement: \$1.7 million (completion 2023)
- [Sheep Paddock's Trail](#) – Colony Farm: \$750,000 (total cost \$3.3 million)
- Asset Management and Condition Assessment Program

Environmental Protection and Climate Change

Metro Vancouver continues to prepare for the impacts of climate change, such as increased flooding and drought, decreased snowpack, proliferation of invasive species and at least one metre of sea level rise by 2100. Forests, wetlands, and other ecosystems help regulate the global climate by removing and storing carbon dioxide from the atmosphere.

Key initiatives:

- Initiate Regional Greenways Plan
- Complete the [Brunette Fraser Greenway](#) – Sapperton Landing

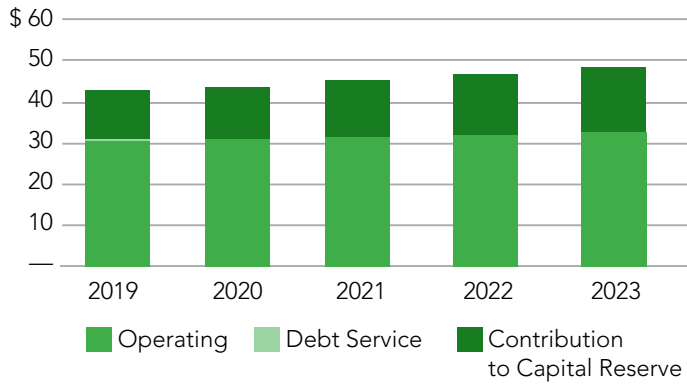
Regulatory and Legislative Environment

The *Regional Parks Plan* guides the work of the Metro Vancouver Regional Parks division and outlines directions for the future. The plan is supported by bylaws that outline rules and regulations for parks use and policies that guide the organization on park matters.

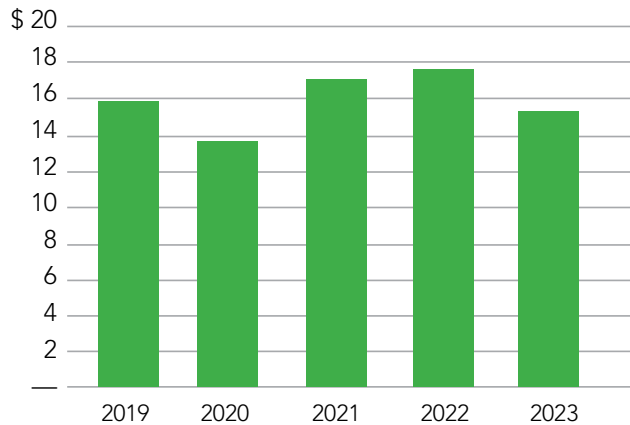
Key initiatives:

- Continuous improvement of regulations to improve park safety and visitor experiences

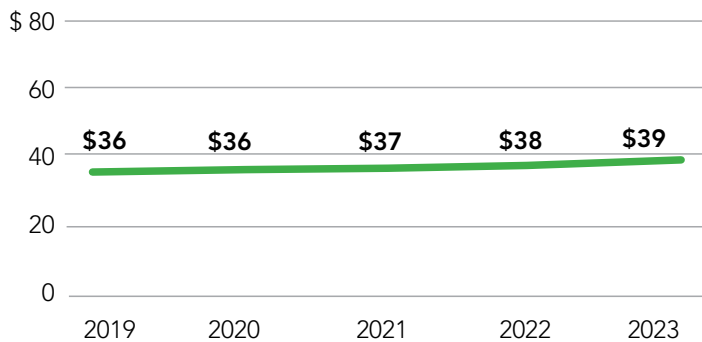
2019-2023 REGIONAL PARKS OPERATING EXPENDITURES (MILLIONS)



2019-2023 REGIONAL PARKS CAPITAL EXPENDITURES (MILLIONS)



2019-2023 REGIONAL PARKS AVERAGE HOUSEHOLD COST





Featured Project:

Widgeon Marsh Regional Park Management Plan

Within the next five years, the public will be able to enjoy Widgeon Marsh Regional Park Reserve, a 620-hectare site on the largest freshwater marsh in southwest B.C.

Metro Vancouver is in the midst of developing a regional park management plan for the Widgeon Marsh reserve, as well as one for [Campbell Valley Regional Park](#), to ensure it can continue to meet the growing demand for recreational use across the region, while caring for the natural assets protected in the park system. A management plan for [Grouse Mountain Regional Park](#) was approved in 2018.

The [Widgeon Marsh Regional Park Reserve](#), located on the Pitt River, and bordered by the City of Coquitlam, Pinecone-Burke Provincial Park, Golden Ears Provincial Park and Coquitlam Watershed, has been closed to the public while the management plan is being drawn up and implemented. The management plan aims to give people opportunities to connect with nature in Widgeon Marsh, while protecting the site's sensitive wetlands and ecosystems. A park plan will determine how public use and facilities can be accommodated.

More than 11 million visits are recorded at Metro Vancouver's regional parks every year. As such, Metro Vancouver has set up a regional parks acquisition fund to ensure it has the land to provide recreational greenspaces for the growing population.



WATCH THIS VIDEO ABOUT THE WIDGEON MARSH REGIONAL PARK MANAGEMENT PLAN: [HTTPS://VIMEO.COM/218984589](https://vimeo.com/218984589)



PROJECT AT A GLANCE



\$6.5 MILLION



**PARK OPEN
2023**

The Widgeon Marsh Regional Park Management Plan will guide how the public can connect with nature, while protecting the site's sensitive wetlands and ecosystems.

Regional Planning

Metro Vancouver is home to just over 2.5 million people – roughly half the province’s population – and undertakes long-range regional land use planning in partnership with 21 municipalities, one Electoral Area, and one Treaty First Nation. Regional land use planning strives to contain and structure the continuing growth coming to our region, protect important lands, and ensure the efficient provision of infrastructure such as utilities, transit and community amenities. Metro Vancouver’s regional growth strategy, [Metro Vancouver 2040: Shaping our Future](#), uses policy research and data analysis to advance the strategy’s goals.

▶ CHECK OUT THIS OVERVIEW OF REGIONAL PLANNING: [HTTPS://VIMEO.COM/297212857](https://vimeo.com/297212857)

Regional Growth

Metro Vancouver will welcome another million people – and 500,000 new jobs – by 2040. Through [Metro 2040](#), Metro Vancouver aims to make sure growth and development happens in the right places to use our limited land base efficiently while protecting important lands for future generations.

Key initiatives:

- [Long Range Growth Scenarios](#) that project population, housing and employment in the face of a changing future
- Update *Regional Growth Strategy - Metro 2050*

System Stewardship

As the region continues to grow, demand is increasing for Metro Vancouver’s constrained land base, putting pressure on areas such as industrial land. Metro Vancouver is taking steps to ensure it can accommodate both the growing population and the economy.

Key initiatives:

- Partner with member jurisdictions and industry to develop a [Regional Industrial Lands Strategy](#), which aims to ensure there is a sufficient supply of industrial land to meet the needs of a growing and evolving regional economy to 2050
- Update the [Agricultural Land Use Inventory](#)

Environmental Protection and Climate Change

About 50 percent of Metro Vancouver’s land base consists of sensitive terrestrial ecosystems. Between 2009 and 2014, more than 1,600 hectares of sensitive ecosystems in Metro Vancouver were lost – the equivalent of losing four Stanley Parks.

Key initiatives:

- Update the [Sensitive Ecosystem Inventory](#), which includes wetlands, older forests and woodlands, and explores the implications of continued loss of sensitive ecosystems through the review of [Metro 2040](#)
- Implement [Ecological Health Framework](#)

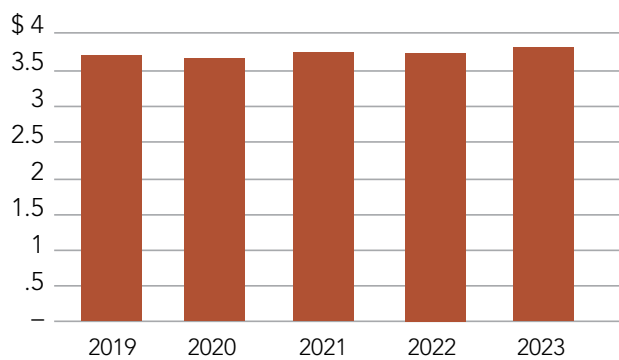
Regulatory and Legislative Environment

Under the Local Government Act, Metro Vancouver has adopted [Metro Vancouver 2040: Shaping our Future](#), the regional growth strategy, for the purpose of guiding decisions on growth, change and development within the regional district. Regional Planning continues to develop and implement effective and adaptive tools to achieve the goals in [Metro 2040](#).

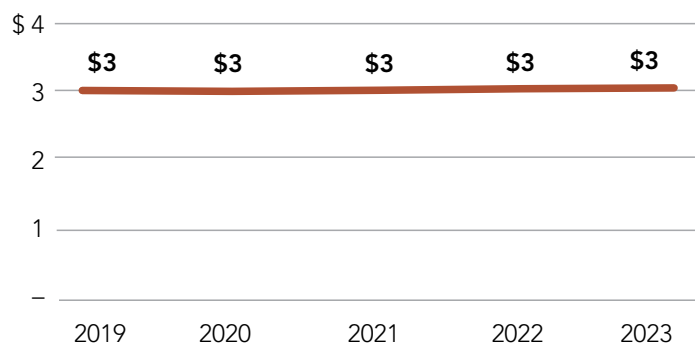
Key initiatives:

- Policy reviews related to [Urban Centres and Frequent Transit Development Areas](#), Industrial and Mixed Employment Lands, Agriculture, Environment and Climate Action in preparation for a significant update to the regional growth strategy in 2022
- Respond to Federal and Provincial initiatives or legislation changes

2019-2023 REGIONAL PLANNING OPERATING EXPENDITURES (MILLIONS)



2019-2023 REGIONAL PLANNING AVERAGE HOUSEHOLD COST



Featured Project:

Regional Industrial Lands Strategy

Metro Vancouver is leading the development of a Regional Industrial Lands Strategy to provide a vision for the future of industrial lands across the region to the year 2050.

Industrial lands are crucial for a prosperous and sustainable regional economy; however, the region's industrial land supply is under significant pressure for conversion to residential, retail, commercial and other uses, and the non-industrial use of industrial lands continues to be a significant challenge.

An [Industrial Lands Strategy Task Force](#) – involving member jurisdictions, and other stakeholders including the Port of Vancouver, TransLink, the Province of BC, and industry representatives – has been struck to provide advice and recommendations to the Board on the development of the strategy. It is anticipated the strategy will be completed by the end of 2019.

The [Regional Industrial Lands Strategy](#) will build a collective understanding of the challenges and issues facing industrial lands, provide a vision of how to ensure sufficient industrial lands to meet the needs of our growing and evolving regional economy, and recommend actions for a broad range of stakeholders to achieve that vision.

About 27 percent (365,000) of the region's jobs are located on industrial lands. Metro Vancouver's industrial lands are used mainly for transportation, warehousing, wholesale trade, retail trade, manufacturing and professional and technical services.



PROJECT AT A GLANCE



\$120,000
(FOR STRATEGY DEVELOPMENT IN 2019)



COMPLETION
2019

The Industrial Lands Strategy will provide a vision of how to ensure sufficient industrial lands to meet the needs of our growing and evolving regional economy.

Air Quality & Climate Change

Metro Vancouver develops and implements plans, policies, regulations and projects that improve air quality and reduce greenhouse gas emissions across the region. These plans and policies are supported by comprehensive monitoring of outdoor air quality, and tracking of emissions in the Lower Fraser Valley airshed. Staff provide early detection of issues and ongoing surveillance of air quality through monitoring stations from Hope to Horseshoe Bay and, when necessary, Metro Vancouver issues air quality advisories for the entire region, including the Fraser Valley.

▶ WATCH A VIDEO ABOUT METRO VANCOUVER'S WORK IN AIR QUALITY & CLIMATE CHANGE: [HTTPS://VIMEO.COM/295488069](https://vimeo.com/295488069)

Regional Growth

The growing population means Metro Vancouver is facing more encounters between residents and sources of emissions, particularly over odour complaints.

Key initiatives:

- Update [Regional Air Quality Management Plan](#), which guides improvements in air quality despite rapid population growth
- Develop additional air quality monitoring capabilities

System Stewardship

Metro Vancouver operates a comprehensive network of 29 air quality monitoring stations within Metro Vancouver and the Fraser Valley, using the data to assess the effectiveness of initiatives to improve air quality, guide new actions, and to report air quality to the public through measures such as the [Air Quality Health Index \(AQHI\)](#), which provides information about the effects of air quality on health. This allows Metro Vancouver to effectively inform the public about air quality – which is especially important during periods of deteriorated air quality due to smog, smoke from forest fires and winter temperature inversions.

Key initiatives:

- Air Quality Monitoring Station Asset Management and Condition Assessment
- Air Quality Monitoring Network Review

Environmental Protection and Climate Change

Metro Vancouver and our member jurisdictions are leaders in climate action and are taking measures to protect the environment.

Key initiatives:

- Implementation of the [Climate 2050 Strategic Framework](#) to guide our region's policies and collective actions to transition to a low carbon future, and one that is resilient to the impacts of climate change
- Develop and strengthen air quality regulations related to odour management, residential wood burning, and cannabis production facilities
- Tracking of regional emissions of air contaminants and greenhouse gases, with 20 year projections

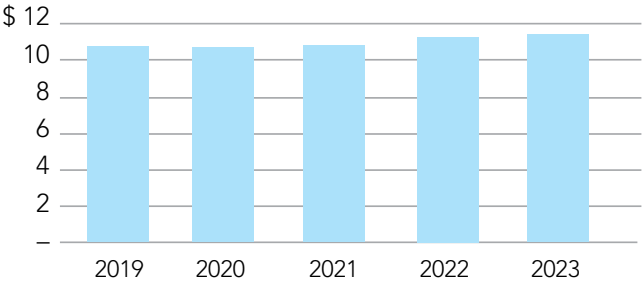
Regulatory and Legislative Environment

Under the *Environmental Management Act*, Metro Vancouver has the delegated authority for air quality within our region. Metro Vancouver is working with communities, businesses and government partners to improve its framework for managing odorous air contaminants, an important priority for the region as the number of odour complaints has increased.

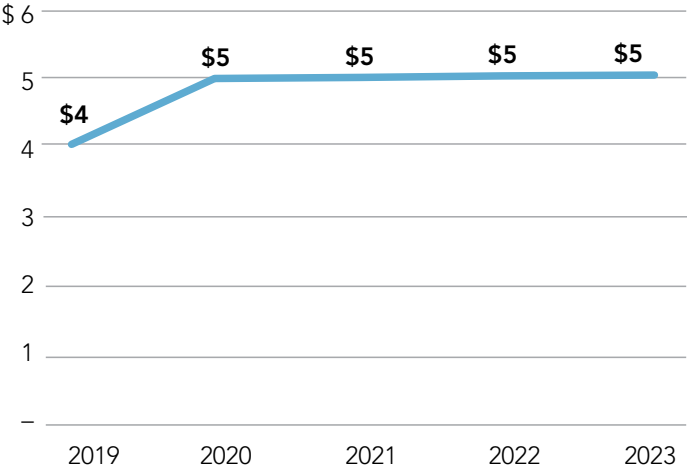
Key initiatives:

- Review Air Quality Permit and Regulation Fees System
- Respond to changes in Federal Ambient Air Quality Standards
- Expand [non-road diesel engine program](#) to promote compliance and provide incentives for cleaner engines

2019-2023 AIR QUALITY
OPERATING EXPENDITURES
(MILLIONS)



2019-2023 AIR QUALITY
AVERAGE HOUSEHOLD COST



Featured Project:

Climate 2050

Wildfires, flooding and other extreme weather events are expected to worsen by 2050 as the Metro Vancouver region experiences hotter, drier summers and wetter and warmer winters, which will impact our regional systems and services.

Metro Vancouver, which is responsible for air quality in the region, is increasing its measures to adapt to these impacts and reduce greenhouse gas emissions, by implementing *Climate 2050*, a new regional climate action strategy.

Following on the heels of its *Climate 2050 Strategic Framework* (approved in 2018), Metro Vancouver over the next two years will develop Climate 2050 Roadmaps, with specific goals, strategies and actions for 10 issue areas. These include nature and ecosystems, infrastructure, human health and well-being, buildings, transportation, energy, waste, industry, agriculture, and land-use and growth management.

The region is already a leader in responding to climate change: low-carbon buildings are more comfortable and have better indoor air quality; walkable communities get us moving and improve our physical and mental health; and reducing greenhouse gas emissions helps to cut other pollutants at the same time. The *Climate 2050 Roadmaps* will build on and accelerate our progress to date.

The *Roadmaps* will outline how to achieve deep emissions reductions and how the region can prepare for impacts like flooding from storms, drier growing seasons for crops, increased risk of wildfires and the associated air quality and health impacts, warmer waters for fisheries, and shifts in natural areas. For more information, visit www.metrovancouver.org/climate2050

▶ WATCH THIS VIDEO ON CLIMATE 2050: [HTTPS://VIMEO.COM/237969579](https://vimeo.com/237969579)



AT A GLANCE



\$220,000
(FOR STRATEGY DEVELOPMENT IN 2019)



**ESTIMATED
IMPLEMENTATION
2020**

Climate 2050 identifies specific goals, strategies and actions for 10 issue areas to reduce GHG emissions and adapt to the effects of climate change.



Other Regional District Services

Affordable Housing: The Affordable Housing program is responsible for undertaking activities that support and increase the availability of a stable regional supply of affordable housing, with a special emphasis on low and moderate income households. This function also contributes to decisions around the development of affordable housing projects, particularly related to redevelopment of mixed-income housing complexes within the Metro Vancouver Housing portfolio and the development of vacant lands owned by local government.

General Government: The General Government service covers Committee and Board meeting related administration, expenses, and travel. Additionally, the service area includes programs that provide a regional benefit such as the [Love Food Hate Waste Canada](#) behaviour change campaign, the annual [Zero Waste Conference](#) and the [Regional Culture program](#) that provides grants to non-profit organizations across the region.

9-1-1 Emergency Telephone Service:

Metro Vancouver is responsible for 9-1-1 call answer services within the Metro Vancouver region and we provide this service through our business partner and service provider: E-Comm.

E-Comm receives and processes about 1 million emergency calls each year. They collect the needed information from the caller and then they transfer the call to the appropriate municipal or provincial dispatch agency who is responsible to direct first responders to assist with the caller's emergency.

Regional Employers Service: Metro Vancouver provides information and advisory, compensation, and collective bargaining services to municipalities within the Metro


Vancouver region and acts as a forum where municipalities can connect, share, and leverage information. Municipalities work together on matters of common interest, benefiting from coordination and leadership, and can access workforce data, research, advice, advocacy, and service tailored to the strategic needs and goals of their municipalities.

Regional Emergency Management: Regional Emergency Management is conducted through the Integrated Partnership for Regional Emergency Management (IPREM) which was created as a Partnership between Metro Vancouver and the Province through a Memorandum of Understanding and Board approval in the spring of 2009. In order to create a disaster resilient region, the regional exercise program conducts region wide emergency exercises.

Regional GPS: The purpose of the GPS Program is to provide a high-accuracy and consistent platform for engineering and other surveys in the Metro Vancouver region, using Global Navigation Satellite Systems (GNSS). The platform allows users in the field to accurately locate and/or layout various infrastructure (such as water and sewer lines, roadways, rights-of-way location, topographic mapping, bathymetric surveys).

Regional Prosperity: A growing group of stakeholders in the Metro Vancouver region committed to improving and expanding the prosperity of the Metro Vancouver region through the creation of a collaborative initiative bringing together businesses, local governments, academia, professional associations and civic organizations.

Sasamat Fire Protection: Sasamat Fire Protection Service is responsible for providing fire protection services to the Villages of Anmore and Belcarra.

An aerial photograph of Metro Vancouver, highlighting the Fraser River and Burrard Inlet. The river flows from the bottom left towards the top right, with its delta visible in the foreground. The Burrard Inlet is located in the upper left, surrounded by steep, forested mountains. The city of Vancouver is visible in the center, with its grid-like street pattern and surrounding green spaces. The Fraser River is a prominent feature, winding through the landscape and emptying into the Pacific Ocean. The water in the river and inlet is a deep blue, contrasting with the green land and the grey urban areas.

METRO VANCOUVER'S TWO MAJOR WATERWAYS,
BURRARD INLET AND THE FRASER RIVER



Electoral Area A Service

Metro Vancouver acts as the local government for Electoral Area A, and is responsible for providing certain land use planning, building inspections, emergency planning, bylaw enforcement and general administration services to the Electoral Area residents. The Electoral Area includes UBC and University Endowment Lands as well as Barnston Island, Howe Sound Mainland (Ocean Point, Strachan Point and Montizambert Wynd), Indian Arm, Boulder Island and Carraholly Point, the west side of Pitt Lake, Passage Island and Bowyer Island.

Key services include emergency planning, training and response, administering grant funds for community projects, providing local land use planning that includes zoning and community planning, and running elections every four years.

All of these services are funded through the Metro Vancouver property tax, divided into two portions – one for Electoral Area A local government services and another for regional services – collected within Electoral Area A. The 2019-2023 Electoral Area A financial plan totals \$3.2 million, with the average household cost about \$70 per year – an average increase of \$2 per year.

Regional Growth

Electoral Area A's largest urban area consists of UBC and the University Endowment Lands, which welcomes most of the new growth, recording 15,890 residents in the last Census in 2016. The population of the remaining area was approximately 243.

Key initiatives:

- Implement actions in the [Official Community Plan](#)
- Engage the UBC/UEL communities on Metro Vancouver-related initiatives, such as emergency planning, liquor license and retail cannabis referrals

System Stewardship

Electoral Area A encompasses a mix of different communities, from the urban centres of UBC and UEL to the small island communities of Bowyer Island and Passage Island in Howe Sound, to water-access only cabins in Pitt Lake and Indian Arm.

Key initiatives:

- [Barnston Island Agricultural Study](#)
- Coordinate clean up events for Pitt Lake and Indian Arm communities to ensure proper disposal of large items, removing their potential to pollute land and water in these remote water access communities
- Barnston Island Flood Construction Level Study, \$15,000 (2020)

Environmental Protection and Climate Change

Metro Vancouver is responsible for emergency management in Electoral Area A and works side by side with First Nations, member jurisdictions and Provincial authorities in emergencies. Emergency planning and preparedness, whether for flooding, wildfire or earthquake, are ongoing priorities.

Key initiatives:

- Geotechnical study of the Electoral Area, \$50,000 (2021)
- Facilitate emergency preparedness for residents
- Building Inspection Service Review (2019)

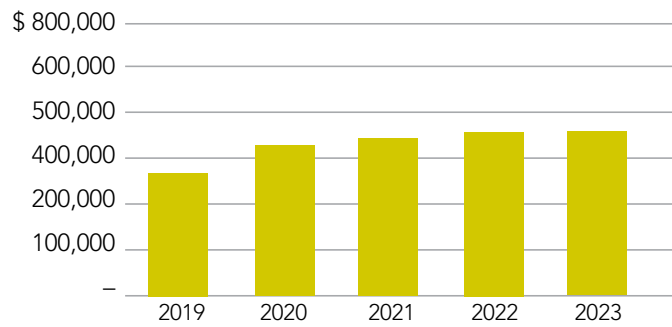
Regulatory and Legislative Environment

Metro Vancouver provides local government administration, planning, building inspection and emergency services to certain areas of Electoral Area A, in conjunction with other service providers including the Province, RCMP, and school districts.

Key initiatives:

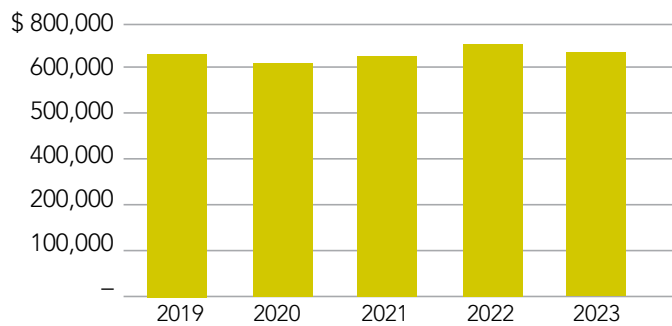
- Continue to administer the building, zoning, and unsightly premise and nuisance bylaws
- Undertake a review of the Electoral Area Zoning Bylaw with input from residents where the bylaw applies
- Local government elections

2019-2023 ELECTORAL AREA A TAX REQUISITIONS

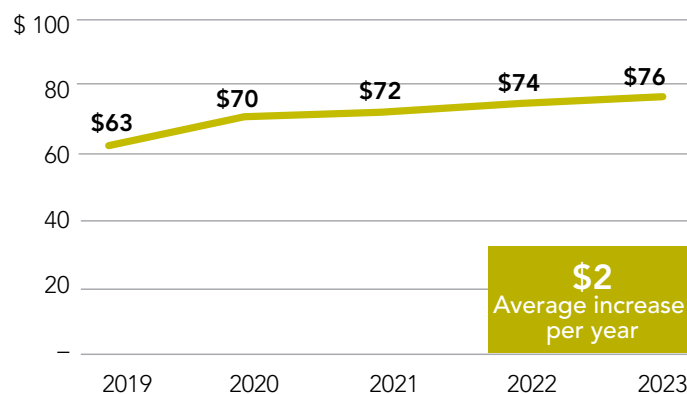


*Only levied on Electoral Area A residents

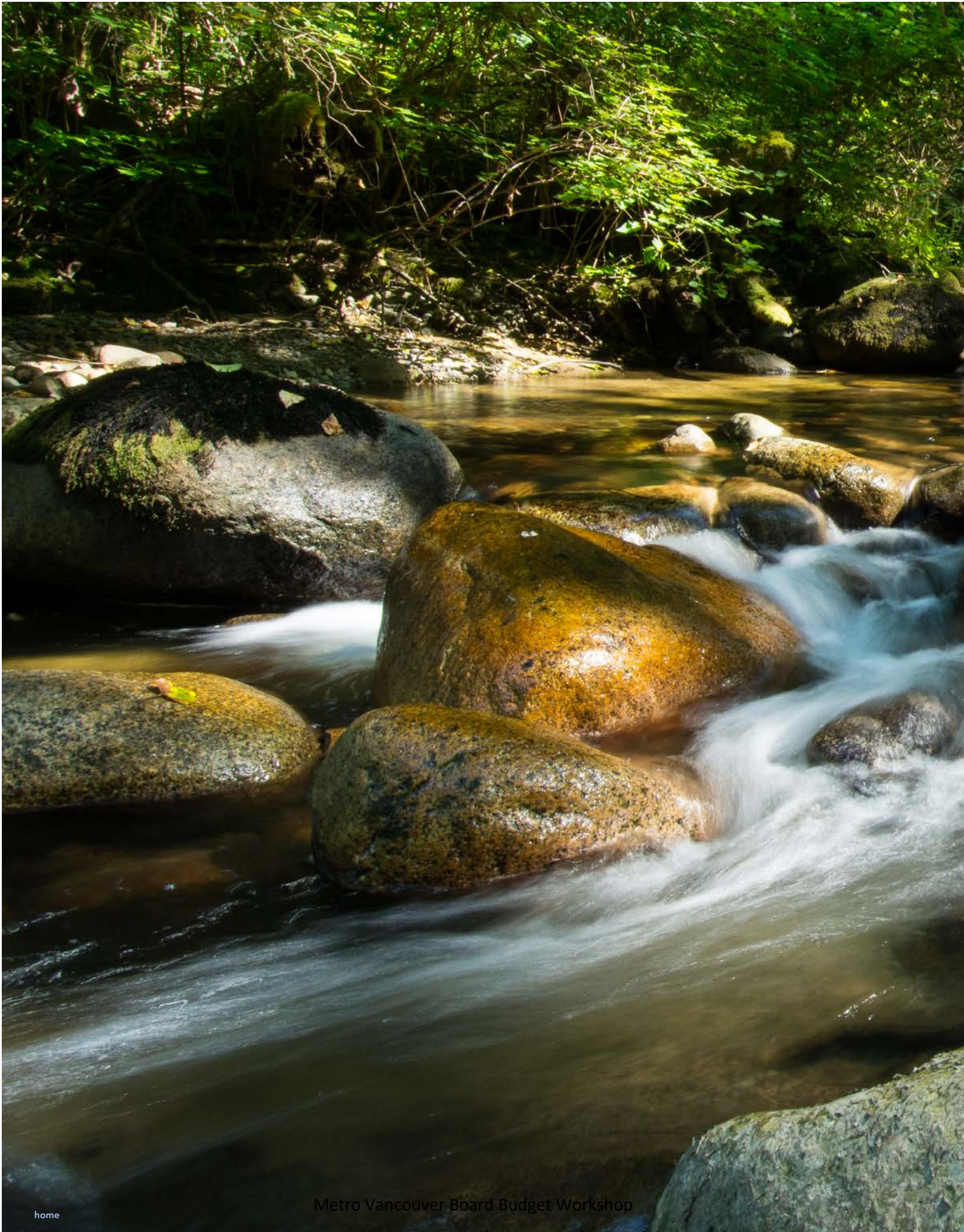
2019-2023 ELECTORAL AREA A OPERATING EXPENDITURES



2019-2023 ELECTORAL AREA A AVERAGE HOUSEHOLD COST



*Only applicable to households in Electoral Area A





Financial Information

2019 – 2023

Revenue & Expenditure Summary

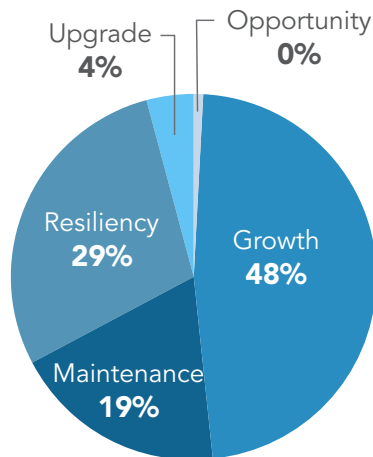
2019-2023 FINANCIAL PLAN

	2019 BUDGET	2020 FORECAST	2021 FORECAST	2022 FORECAST	2023 FORECAST
REVENUES					
Water Sales	\$ 286,909,000	\$ 321,208,000	\$ 357,747,000	\$ 401,957,000	\$ 451,327,000
GVS&DD Levy	255,811,000	281,802,000	315,510,000	353,685,000	376,134,000
Tipping Fees	98,362,000	103,181,000	108,758,000	114,321,000	119,946,000
Housing Rents	39,310,000	40,750,000	42,126,000	43,167,000	44,245,000
MVRD Requisitions	61,188,000	63,535,000	66,130,000	68,506,000	71,379,000
Electoral Area Requisition	367,000	411,000	418,000	433,000	443,000
Other Revenues	89,455,000	96,523,000	113,208,000	132,438,000	146,883,000
TOTAL REVENUES	\$ 831,402,000	\$ 907,410,000	\$ 1,003,897,000	\$ 1,114,507,000	\$ 1,210,357,000
EXPENDITURES					
Operating Programs:					
Greater Vancouver Water District	\$ 289,120,000	\$ 323,154,000	\$ 359,466,000	\$ 403,681,000	\$ 453,015,000
Greater Vancouver Sewerage & Drainage District:					
Liquid Waste	308,581,000	341,968,000	390,559,000	445,539,000	482,398,000
Solid Waste	107,158,000	112,465,000	118,660,000	124,447,000	130,050,000
Metro Vancouver Housing Corporation	51,269,000	52,734,000	55,562,000	58,739,000	59,887,000
Metro Vancouver Regional District					
Regional Parks	42,680,000	43,355,000	45,078,000	46,527,000	48,242,000
Regional District Services	17,696,000	18,927,000	19,462,000	20,158,000	21,200,000
Regional Planning	3,528,000	3,520,000	3,580,000	3,570,000	3,652,000
Air Quality & Climate Change	10,748,000	10,680,000	10,881,000	11,141,000	11,289,000
Electoral Area Service	622,000	607,000	649,000	705,000	624,000
	75,274,000	77,089,000	79,650,000	82,101,000	85,007,000
TOTAL EXPENDITURES	\$ 831,402,000	\$ 907,410,000	\$ 1,003,897,000	\$ 1,114,507,000	\$ 1,210,357,000

2019-2023 Water Services Capital Program

CAPITAL EXPENDITURES	2019	2020	2021	2022	2023	2019-2023 TOTAL
Growth	\$ 60,850,000	\$ 160,850,000	\$ 218,250,000	\$ 269,700,000	\$ 272,000,000	\$ 981,650,000
Maintenance	52,450,000	75,700,000	77,200,000	87,300,000	88,650,000	381,300,000
Resiliency	92,800,000	138,700,000	127,600,000	112,900,000	106,500,000	578,500,000
Upgrade	24,600,000	18,450,000	16,800,000	16,100,000	10,000,000	85,950,000
Opportunity	700,000	2,000,000	1,000,000	-	-	3,700,000
TOTAL	\$ 231,400,000	\$ 395,700,000	\$ 440,850,000	\$ 486,000,000	\$ 477,150,000	\$ 2,031,100,000

2019 – 2023 Capital Program is \$ 2.03 B



2019 – 2023 Major Capital Projects

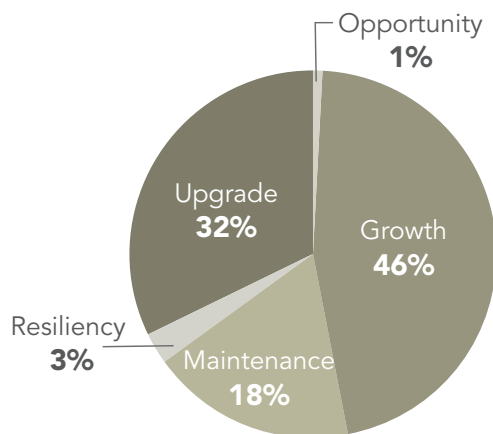
- Second Narrows Marine Crossing (\$351.0 M)
- Annacis Marine Crossing (\$217.0 M)
- Kennedy Newton Main (\$131.8 M)
- Coquitlam Main No. 4 (Central Section) (\$104.0 M)
- Coquitlam Intake No. 2 (Tunnel and Treatment) (\$100.0 M)
- Coquitlam Main No. 4 (South Section) (\$98.3 M)
- Capilano Main No. 5 (South Shaft to Lost Lagoon) (\$71.5 M)

CAPITAL FUNDING	2019	2020	2021	2022	2023	2019-2023 TOTAL
External Borrowing	\$ 74,150,000	\$ 247,100,000	\$ 279,900,000	\$ 312,000,000	\$ 283,750,000	\$ 1,196,900,000
Pay-as-you-go-Funding	157,250,000	148,600,000	160,950,000	174,000,000	193,400,000	834,200,000
TOTAL	\$ 231,400,000	\$ 395,700,000	\$ 440,850,000	\$ 486,000,000	\$ 477,150,000	\$ 2,031,100,000

2019-2023 Liquid Waste Capital Program

CAPITAL EXPENDITURES	2019	2020	2021	2022	2023	2019-2023 TOTAL
Growth	\$ 223,350,000	\$ 294,550,000	\$ 336,200,000	\$ 265,800,000	\$ 339,700,000	\$ 1,459,600,000
Maintenance	85,600,000	152,200,000	150,000,000	104,400,000	64,050,000	556,250,000
Resiliency	32,200,000	22,250,000	17,100,000	21,400,000	17,500,000	110,450,000
Upgrade	214,100,000	390,550,000	211,800,000	100,400,000	100,650,000	1,017,500,000
Opportunity	9,600,000	13,500,000	3,450,000	700,000	-	27,250,000
TOTAL	\$ 564,850,000	\$ 873,050,000	\$ 718,550,000	\$ 492,700,000	\$ 521,900,000	\$ 3,171,050,000

2019-2023 Capital Program is \$ 3.17 B



2019-2023 Major Capital Projects

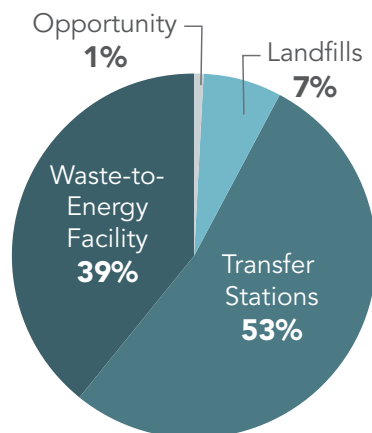
- North Shore WWTP Secondary Upgrade Project and Conveyance (\$741.3 M)
- Annacis WWTP Stage 5 Expansion (\$538.3 M)
- Northwest Langley WWTP and Golden Ears Projects (537.6 M)
- Iona WWTP Secondary Upgrade design (\$179.0 M)
- Burnaby Lake North Interceptor (\$154.5 M)
- Gilbert/Brighthouse Trunk Sewer Twinning (\$114.5 M)
- Annacis WWTP Secondary Clarifier Corrosion Repair (\$65.8 M)

CAPITAL FUNDING	2019	2020	2021	2022	2023	2019-2023 TOTAL
External Borrowing	\$ 375,650,000	\$ 584,650,000	\$ 534,100,000	\$ 383,300,000	\$ 433,600,000	\$ 2,311,300,000
Pay-as-you-go-Funding	189,200,000	288,400,000	184,450,000	109,400,000	88,300,000	859,750,000
TOTAL	\$ 564,850,000	\$ 873,050,000	\$ 718,550,000	\$ 492,700,000	\$ 521,900,000	\$ 3,171,050,000

2019-2023 Solid Waste Capital Program

CAPITAL EXPENDITURES	2019	2020	2021	2022	2023	2019-2023 TOTAL
Landfills	\$ 9,400,000	\$ 980,000	\$ 320,000	-	\$ 3,500,000	\$ 14,200,000
Transfer Stations	65,000,000	35,800,000	9,500,000	2,000,000	-	112,300,000
Waste to Energy Facility	14,600,000	18,550,000	24,000,000	24,500,000	350,000	82,000,000
Opportunity	210,000	2,090,000	-	-	-	2,300,000
TOTAL	\$ 89,210,000	\$ 57,420,000	\$ 33,820,000	\$ 26,500,000	\$ 3,850,000	\$ 210,800,000

2019-2023 Capital Program is \$ 210.8 M



2019-2023 Major Capital Projects

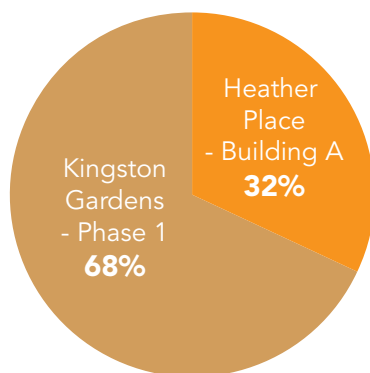
- Coquitlam Transfer Station Replacement (\$70.2M)
- Surrey Recycling and Waste Drop-off (\$42.3M)
- WTEF Scrubber (\$47.0M)
- WTEF Infrastructure Allowance (\$12.9M)

CAPITAL FUNDING	2019	2020	2021	2022	2023	2019-2023 TOTAL
External Borrowing	\$ 86,010,000	\$ 53,320,000	\$ 31,620,000	\$ 26,100,000	\$ 3,250,000	\$ 200,300,000
Pay-as-you-go-Funding	3,200,000	4,100,000	2,200,000	400,000	600,000	10,500,000
TOTAL	\$89,210,000	\$ 57,420,000	\$ 33,820,000	\$ 26,500,000	\$ 3,850,000	\$ 210,800,000

2019-2023 Metro Vancouver Housing Corporation Capital Program

CAPITAL EXPENDITURES	2019	2020	2021	2022	2023	2019-2023 TOTAL
Housing Development						
Heather Place - Bldg A	\$ 12,150,000	\$ 1,000,000	–	–	–	\$ 13,150,000
Kingston Gardens - Phase 1	9,167,000	18,333,000	750,000			28,250,000
Total	\$ 21,317,000	\$ 19,333,000	\$ 750,000	–	–	\$ 41,400,000

2019-2023 Capital Program is \$ 41.4 M



2019-2023 Major Capital Projects

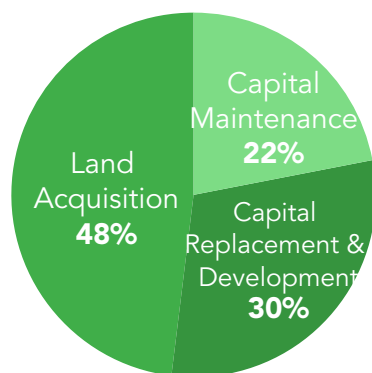
- Heather Place Development (\$13.2M)
- Kingston Gardens Development (\$28.2M)

CAPITAL FUNDING	2019	2020	2021	2022	2023	2019-2023 TOTAL
Reserve Funding	\$ 21,317,000	\$ 19,333,000	\$ 750,000	–	–	\$ 41,400,000
TOTAL	\$ 21,317,000	\$ 19,333,000	\$ 750,000	–	–	\$ 41,400,000

2019-2023 Regional Parks Capital Program

CAPITAL EXPENDITURES	2019	2020	2021	2022	2023	2019-2023 TOTAL
Capital Replacement and Development	\$ 5,110,000	\$ 2,730,000	\$ 5,500,000	\$ 6,310,000	\$ 4,100,000	\$ 23,750,000
Land Acquisition	7,570,000	7,570,000	7,570,000	7,570,000	7,570,000	37,850,000
Capital Maintenance	3,175,000	3,410,000	3,605,000	3,555,000	3,570,000	17,315,000
TOTAL	\$ 15,855,000	\$ 13,710,000	\$ 16,675,000	\$ 17,435,000	\$ 15,240,000	\$ 78,915,000

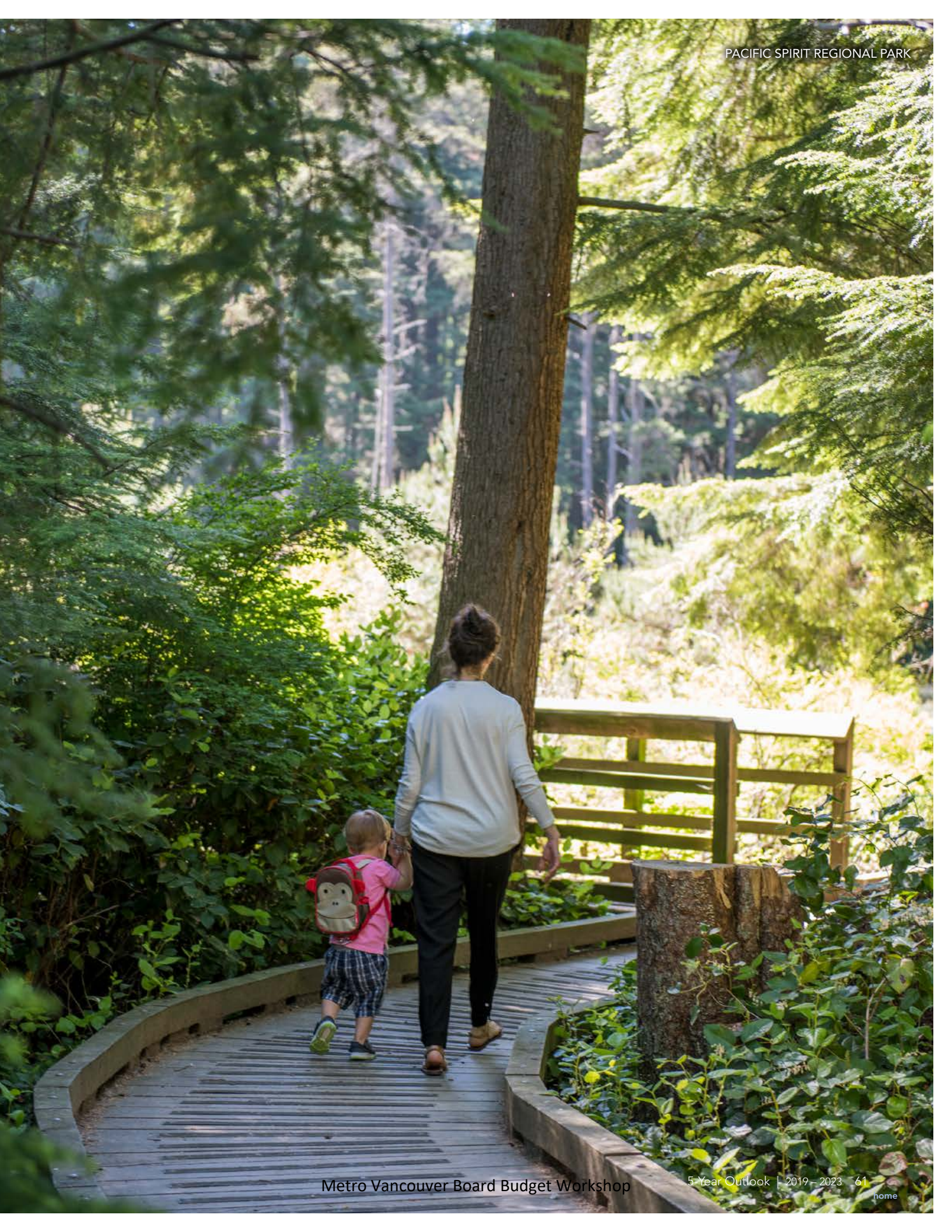
2019-2023 Capital Program is \$ 78.9 M



2019-2023 Major Capital Projects

- Colony Farm Sheep Paddocks Trail (\$3.3M)
- Widgeon Marsh Management Plan Implementation (\$6.5M)
- Pacific Spirit Service Yard Replacement (\$1.7M)

CAPITAL FUNDING	2019	2020	2021	2022	2023	2019-2023 TOTAL
Reserve Funding	\$ 15,855,000	\$ 13,710,000	\$ 16,675,000	\$ 17,435,000	\$ 15,240,000	\$ 78,915,000
TOTAL	\$ 15,855,000	\$ 13,710,000	\$ 16,675,000	\$ 17,435,000	\$ 15,240,000	\$ 78,915,000





Metro Vancouver is a federation of 21 municipalities, one Electoral Area and one Treaty First Nation that collaboratively plans for and delivers regional-scale services in the greater Vancouver region of British Columbia. Its core services are drinking water, wastewater treatment and solid waste management. Metro Vancouver also provides affordable housing, regulates air quality, plans for urban growth and manages a regional parks system.

www.metrovancover.org

Metro Vancouver Board Budget Workshop

To: Board of Directors

From: Carol Mason, Commissioner/Chief Administrative Officer
Dean Rear, Acting General Manager, Financial Services/CFO

Date: October 15, 2019 Meeting Date: October 23, 2019

Subject: **Proposed 2020 Metro Vancouver Position Requests**

Provided to the Board below, is additional information regarding the rationale for proposed new permanent positions to be considered as part of the 2020 Metro Vancouver Budget process.

WATER SERVICES:**Senior Project Engineer – Engineering and Construction**

- This position is required to support projects that will provide the ability to deliver drinking water in the event of a prolonged power outage.
- Key facilities and projects include:
 - Westburnco Pump Station Back-Up Power
 - Barnston/Maple Ridge Pump Station Back-Up Power
 - CWTP Ozone Back-Up Power
 - Rechlorination Station Back-up Power
- Other activities will include ongoing treatment related projects at the SFCP and CWTP.

Senior Project Engineer – Operations and Maintenance

- The new Senior Project Engineer will be dedicated to O&M Asset Management with duties that will include:
 - Analyzing Level 1 asset condition information and determine the need for further more detailed Level 2 assessments.
 - Analyzing the data collected from Level 2 assessments to determine cost-effective repair or replacement strategies.
 - Managing external consultants and contractors performing Level 2 condition assessments.
 - Optimizing current work processes to promote capture of asset condition information during regular operations and maintenance activities.
 - Developing and maintaining an inventory of WS building structures for condition assessment and long term budget planning.

Engineering Technician II – Operations and Maintenance

- This proposed new position will provide a technical resource to focus on meeting new Provincial and Federal regulations which require that a written report be submitted by the “responsible person” within 30 calendar days when a spill to the environment occurs. This position will manage these reports including the following duties:
 - Preparing the written report and manage the review / approval process for each report prior to final submittal (both End-of-Spill and Updates to Minister reports).
 - Completing and submitting all reports in a timely manner to ensure Water Services continues to meet regulatory obligations.

- Conducting workshop sessions and collaborating with subject matter experts from Water Services Divisions that are focused on the environmental review and Qualified Environmental Professional reports.

Utility System Operator II - Operations and Maintenance

- This position is proposed to support the increased workload related to Asset Management Level 1 and Level 2 inspections and facility condition inspections for transmission infrastructure. Duties will include:
 - Performing Level 1 assessments involving non-intrusive visual assessments (i.e. water main and chamber maintenance).
 - Supporting Engineering Specialist Level 2 assessment planning duties such as system isolation planning, lockout of equipment and systems, and confined space entries related to these inspections.
 - Supporting ongoing work for field operations including commissioning of new capital works, reservoir cleaning and line maintenance.

Senior Project Engineer - Management Systems

- Based on the volume and timelines of work expected, WS Management Systems is requesting one Senior Project Engineer to support implementation of the Asset Management Program and execution of the work plan. This new position will have the following responsibilities:
 - Writing and maintaining Facility Level Asset Management Plans
 - Maintaining asset inventory in the Asset Registry
 - Facilitating criticality and risk assessments for horizontal and vertical assets
 - Maintaining a linear risk assessment tool

LIQUID WASTE

Senior Project Engineer - Management Systems

- Based on the volume and timelines of work expected, one Senior Project Engineer is requested to help implement the Asset Management Program and execute the work plan. This new position will have the following responsibilities:
 - Writing and maintaining Facility Level Asset Management Plans
 - Maintaining asset inventory in the Asset Registry
 - Facilitating criticality and risk assessments for horizontal and vertical assets
 - Maintaining a linear risk assessment tool

Project Engineer - North Shore WWTP/ Iona WWTP

- A Project Engineer is requested under Project Delivery for the North Shore and Iona Wastewater Treatments Plant projects. Key responsibilities will include:
 - Providing technical support in responding to submissions from contractors and consultants.
 - Active participation in various project meetings and follow up actions.
 - Assisting with review of project submittals and coordination of input from various MV stakeholders.
 - Providing support to Senior Project Engineers on all three components (Pump Station/ Conveyance, WWTP and Decommissioning).

Project Engineer - Northwest Langley WWTP

- A Project Engineer is requested under Project Delivery for the Northwest Langley Wastewater Treatment Plant project. Key responsibilities will include:
 - Providing technical support in responding to submissions from contractors and consultants.
 - Active participation in various project meetings and follow up actions.
 - Assisting with review of project submittals and coordination of input from various MV stakeholders.
 - Providing support to Senior Project Engineers on all three components (Pump Station/ Conveyance, WWTP and Decommissioning).

Senior Project Engineer - Operations and Maintenance

- A Senior Project Engineer is requested for O & M that will support a wide variety of operational activities including:
 - Small capital projects for operations improvements
 - Odour control monitoring/management
 - Execution and management of service contracts for chemicals
 - Janitorial services and plant process improvement projects such as water conservation efforts at Iona
- This position will also have the following responsibilities:
 - Providing operational engineering technical support for all wastewater capital projects currently underway in LWS including project definition, detailed design, construction and startup commissioning services.
 - Providing input into benchmarking and performance monitoring activities.

Project Engineer - Operations and Maintenance

- A Senior Project Engineer is requested for O & M that will provide ongoing mechanical engineering technical support for new and existing LWS and WS assets. Responsibilities include:
 - Provision of technical maintenance related start-up and commissioning services for new assets including maintenance program development.
 - Overseeing predictive maintenance activities and programs.
 - Provide troubleshooting, failure analysis and maintenance task analysis across both utilities.

Engineering Technician I - Operations and Maintenance

- An Engineering Technician I position is proposed for O&M services. Key responsibilities will include:
 - Providing asset data collection services including confirming inspection technologies
 - Procuring and managing contracted assessment services.
 - Coordination and management of storage of assessment data and identifying priority infrastructure repair, rehabilitation and replacement work tasks.
 - Managing the assignment of identified repair, rehabilitation and replacement work activities to appropriate groups for execution and monitoring progress of these activities.

Clerk Stenographer – Project Delivery

- The position is required to provide administrative support for the large infrastructure projects in Project Delivery (PD) including the North Shore Wastewater Treatment Plant Project, the Iona WWTP project and the Northwest Langley WWTP project.
- A dedicated position will provide consistency and administrative expertise to support the management for all major projects.

Trades Foreman – Operations and Maintenance

- A Maintenance Foreman is proposed to oversee O&M activities at the Seymour Capilano Filtration Plant (SCFP) and Coquitlam Water Treatment Plant (CWTP). The position is classified under Liquid Waste Services as a “shared service” with Water Services.
- This position will provide supervision, technical expertise for maintenance work, assistance with planning, scheduling, prioritizing, and coordinating of work and ensure proper work practices and safety procedures are followed.
- Current KPI’s are indicating maintenance levels at SCFP are back-logged in the mechanical, electrical and instrumentation areas.
- The position will help reduce the current back-log to the KPI target of <50 days for each trade and includes the following specific responsibilities:
 - Review and close completed work orders
 - Assist SCFP Maintenance Supervisor with safety audits and work plan execution
 - Provide technical, planning and scheduling support to the trades staff
 - Develop, implement and enforce safe work procedures

HOUSING SERVICES – TENANT PROGRAMS

Community Development Coordinator

- This position is proposed to support the 30 Tenant Associations in the Metro Vancouver Housing Corporation (MVHC) portfolio. Key responsibilities include:
 - Expanding and enhancing tenant program offerings
 - Creating capacity to support new Tenant Associations
 - Assisting in the redevelopment of existing MVHC sites, supporting the tenant relocation process and providing property management services for municipalities in new developments with rental requirements.

REGIONAL PLANNING

Policy Coordinator (Interagency Projects)

- A Policy Coordinator position is proposed as a centralized dedicated resource to ensure a consistent approach to dealing with the increasing volume of external projects that have impacts on Metro Vancouver assets, operational interests and legislated responsibilities.
- The position will ensure a coordinated response among Metro Vancouver entities on projects being undertaken by external agencies such as Translink, Port of Vancouver, and the Ministry of Transportation and Infrastructure.

BOARD AND INFORMATION SERVICES

Legislative Services Analyst

- This position is proposed to provide additional, dedicated support in responding to the increasing volumes, complexities of new technology, and requirements under the *Freedom of Information and Protection of Privacy Act*.
- FOI requests have increased and become more complex, and privacy requirements more stringent. These areas have been increasing year over year:
 - FOI requests have increased from 65 in 2014 to 90 in 2019
 - Privacy matters have increased from 23 in 2014 to 62 in 2019
- Specific activities will include:
 - Responses to FOI requests
 - Preparations for privacy compliance i.e. Privacy Impact Assessments (PIA's) etc.

FINANCIAL SERVICES

Financial Systems Analyst

- An additional Financial System Analyst is requested as a technical resource to effectively design, configure, test and implement ongoing changes and improvements to the Finance related enterprise wide systems. Responsibilities will also include:
 - Providing ongoing user support
 - Report development
 - User training for new users and upgrades
 - Troubleshooting for all enterprise wide financial systems

#33159485

To: Climate Action Committee

From: Roger Quan, Director, Air Quality and Climate Change

Date: October 8, 2019

Meeting Date: October 18, 2019

Subject: **2020 - 2024 Financial Plan – Air Quality**

RECOMMENDATION

That the Climate Action Committee endorse the 2020 - 2024 Financial Plan for Air Quality as presented in the report “2020 - 2024 Financial Plan – Air Quality” dated October 8, 2019 and forward it to the Metro Vancouver Regional District Board Budget Workshop on October 23, 2019 for consideration.

PURPOSE

To present the 2020-2024 Financial Plan for Air Quality for consideration by the Committee.

BACKGROUND

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

This report focuses on the Air Quality function and presents the 2020 annual budget and the updated five year plan for the years 2020 to 2024 for committee consideration.

AIR QUALITY SERVICE

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

- Air Quality and Climate Change (policy and planning), including the development and implementation of air quality management and climate action plans and policies, air quality bylaws and regulations, and supporting activities such as environmental assessment, the operation of a network of air quality monitoring stations located throughout the airshed, and communications and outreach;
- Air Quality Regulation and Enforcement, including the negotiation and issuance 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 provided in the *Board Strategic Plan*, the Board-adopted *Integrated Air Quality and Greenhouse Gas Management Plan*, and the Board-adopted *Climate 2050 Strategic Framework*, 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.

Integrated Air Quality and Greenhouse Gas Management Plan:

- Goal 1 - Protect public health and the environment.
- Goal 2 - Improve visual air quality.
- Goal 3 - Minimize the region's contribution to global climate change.

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.

2020 BUDGET AND 2020 - 2024 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:

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

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 2020-2024 Air Quality Financial Plan is included as Attachment 1. The 2020 Annual Work Plan for Air Quality presented in this report is included in Attachment 2 and the “What’s Happening” highlights for the years 2020 – 2024 are included in Attachment 3.

Operating Budget Highlights

The Air Quality 2020 operating budget is proposed to increase by \$110,625 for a total budget of \$11,258,492 (Attachment 1). This increase is primarily due to increased legal fees relating to permits and regulations in Regulation and Enforcement, and one proposed new temporary full-time position for Air Quality and Climate Change which is funded by partially funded by Fortis BC. The overall increase is partially offset by a projected decrease in user fee revenues from the Non-Road Diesel Engine program.

The 2020 operating budget includes the following key actions:

- Continue to implement the *Climate 2050 Strategy*;
- Complete development of the next regional air quality management plan, the *Clean Air Plan*;
- Develop new air quality bylaws, regulations and standards, towards goals for protection of human health and environment and continuous improvement in air quality, for Board adoption; and
- 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.

As noted above, there is one new temporary full-time staff position proposed for 2020, a Project Engineer intended to lead the development of the Energy Roadmap under Climate 2050, interfacing with other issue areas including waste, industry, agriculture, buildings and utility infrastructure. This temporary position is funded by Fortis BC with a contribution of \$100,000 in 2020 and \$80,000 in 2021.

Over the next five years, expenditures are increasing by \$246,895, or an average of 0.5% per year. In addition to those noted above, key projects through 2024 include:

- Implementation of the Climate 2050 Roadmaps and actions related to greenhouse gas reduction and climate adaptation;
- Outreach and engagement on new air quality regulations; and
- Upgrades to air quality monitoring infrastructure.

Communications Program

The 2020 Air Quality Communications Program of \$158,000 is framed around the following initiatives:

- Supporting AQ&CC outreach programs related to electric vehicles, bylaw and regulation development, Climate 2050 and the Clean Air Plan; and
- Supporting non-road diesel engine emissions regulatory compliance promotion.

Reserve Funds

The financial plan for Air Quality includes the utilization of reserves to annually fund one-time initiatives. This is consistent with the Board *Operating, Statutory and Discretionary Reserves Policy*.

The 2020 – 2024 Projected Reserves for Air Quality are included in Attachment 4.

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 2020 Work Plan for Air Quality is presented in this report. Within the Air Quality Work Plan, four performance indicators have been developed and are being tracked. These include:

- Net corporate greenhouse gas emissions annually (tonnes of carbon dioxide equivalent, CO₂e);
- Regional greenhouse gas emissions annually (tonnes of CO₂e per capita);
- Reliability of air quality monitoring network (% of annual hours with monitoring data available for priority pollutants); and
- Air quality advisories (number of days under an advisory due to emission sources within airshed).

The trend in these performance measures supports the Board direction to reduce the carbon footprint of Metro Vancouver operations, and greenhouse gas emissions in the region. This can be achieved 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 will need to respond to new challenges such as wildfire events and new sources of emissions such as cannabis cultivation facilities.

CONSISTENCY WITH THE 2019-2023 FINANCIAL PLAN

The updated five year financial plan has been developed to be consistent with the 2019-2023 financial plan. The MVRD Requisition for Air Quality is projected to be \$5,567,235 for 2020, which is 2.9% higher than that projected for 2020 in the last planning cycle and is primarily due to the reduction in the projected Non-Road Diesel Engine user fee revenues which was not contemplated in the 2019 – 2023 financial plan. The household impact of the Air Quality function remains relatively consistent with the prior year at just under \$5.

APPROVAL PROCESS

The proposed 2020-2024 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 2020 – 2024 Financial Plan and Annual Work Plan will be presented for consideration at the Board Budget Workshop on October 23, 2019.
- The Board will consider adoption of the 2020 Budget and endorsement of the 2020 - 2024 Financial Plan on November 1, 2019.

ALTERNATIVES

1. That the Climate Action Committee endorse the 2020 - 2024 Financial Plan for Air Quality as presented in the report “2020 - 2024 Financial Plan – Air Quality” dated October 8, 2019 and forward it to the Metro Vancouver Regional District Board Budget Workshop on October 23, 2019 for consideration.
2. That the Climate Action Committee make recommendations and endorse an amended 2020 - 2024 Financial Plan for Air Quality and forward the amended Financial Plan to the Finance and Intergovernment Committee on October 16, 2019 and to the Metro Vancouver Regional District Board Budget Workshop on October 23, 2019 for consideration.

FINANCIAL IMPLICATIONS

If the MVRD Board endorses the 2020 – 2024 Financial Plan for Air Quality, as presented under Alternative 1, in 2020 the Air Quality requisition will increase by \$688,265 (14.1%) for a total requisition of \$5,567,235.

Over the term of the five year plan, the annual Air Quality requisition is projected to increase by an average of \$430,808 per year (7.7%) to provide the required revenue to offset projected expenditures. It is anticipated that the cost to the average regional household over the next five years for the Air Quality function will rise from just over \$4 in 2019 to slightly under \$6 in 2024.

Under Alternative 2, the Committee may wish to consider recommending amendments to the 2020 Budget and Five Year Financial Plan for consideration at the Board Budget Workshop. Any changes to the plan may have an impact on the MVRD Financial Plan.

SUMMARY / CONCLUSION

The Air Quality 2020 Budget and Five Year Financial Plan has been prepared 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 2020 to 2024 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 2020 - 2024 Financial Plan and Annual Work Plan for Air Quality as presented under alternative one.

Attachments:

1. 2020 – 2024 Financial Plan (Doc. 33029456)
2. 2020 Work Plan (Doc. 31690525)
3. 2020 – 2024 “What’s Happening”
4. 2020 – 2024 Projected Reserves – Air Quality
5. Organizational Chart

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**METRO VANCOUVER REGIONAL DISTRICT
AIR QUALITY
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN**

	2017 ACTUAL	2018 ACTUAL	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES													
Metro Vancouver Regional District Requisitions	\$ 3,950,376	\$ 4,545,845	\$ 4,878,970	\$ 5,567,235	14.1%	\$ 6,187,551	11.1%	\$ 6,475,804	4.7%	\$ 6,638,767	2.5%	\$ 7,033,009	5.9%
User Fees	2,103,071	2,031,267	1,800,000	1,900,000		1,900,000		1,900,000		1,900,000		1,900,000	
Non-Road Diesel Permit Fees	2,046,817	1,807,034	2,450,000	1,760,000		1,710,000		1,615,000		1,565,000		1,465,000	
Other External Revenues	544,248	511,987	517,400	649,271		656,086		602,938		604,827		601,753	
Transfer from Sustainability Innovation Fund Reserve	38,227	339,806	469,550	110,000		-		-		-		-	
Transfer from Reserves	544,973	1,126,728	1,031,947	1,271,986		435,000		366,000		392,000		395,000	
TOTAL REVENUES	\$ 9,227,712	\$ 10,362,667	\$ 11,147,867	\$ 11,258,492	1.0%	\$ 10,888,637	(3.3%)	\$ 10,959,742	0.7%	\$ 11,100,594	1.3%	\$ 11,394,762	2.7%
EXPENDITURES													
Operating Programs:													
Ambient Air Quality Monitoring	\$ 1,870,565	\$ 1,950,880	\$ 2,186,944	\$ 2,209,366		\$ 2,103,425		\$ 2,141,084		\$ 2,179,520		\$ 2,220,743	
Air Quality and Climate Change Policy	2,009,755	1,575,640	1,637,057	2,359,552		2,307,897		2,317,934		2,382,893		2,418,861	
Air Quality Bylaw and Regulation Development	826,438	1,407,439	1,786,193	1,185,883		1,136,054		1,161,524		1,182,439		1,203,884	
Engineers in Training	-	-	-	34,602		35,300		36,009		36,733		37,473	
Regional Sustainability Initiatives	38,227	339,806	469,550	110,000		-		-		-		-	
Administration and Department Support	429,315	446,764	425,330	618,228		630,528		643,037		655,820		668,880	
	5,174,300	5,720,529	6,505,074	6,517,631	0.2%	6,213,204	(4.7%)	6,299,588	1.4%	6,437,405	2.2%	6,549,841	1.7%
Communications Program	55,836	132,573	106,000	158,000	49.1%	138,000	(12.7%)	138,000	0.0%	138,000	0.0%	168,000	21.7%
Environmental Regulation and Enforcement	2,741,153	3,281,903	3,033,392	3,525,618		3,423,088		3,498,605		3,565,791		3,750,963	
Contribution to Non-Road Diesel Reserve	524,812	522,384	625,000	250,000		250,000		250,000		250,000		250,000	
	3,265,965	3,804,287	3,658,392	3,775,618	3.2%	3,673,088	(2.7%)	3,748,605	2.1%	3,815,791	1.8%	4,000,963	4.9%
Allocation of Centralized Support Costs	590,504	953,910	878,401	807,243	(8.1%)	864,345	7.1%	773,549	(10.5%)	709,398	(8.3%)	675,958	(4.7%)
TOTAL EXPENDITURES	\$ 9,086,605	\$ 10,611,299	\$ 11,147,867	\$ 11,258,492	1.0%	\$ 10,888,637	(3.3%)	\$ 10,959,742	0.7%	\$ 11,100,594	1.3%	\$ 11,394,762	2.7%

**METRO VANCOUVER REGIONAL DISTRICT
AIR QUALITY REGULATION
2020-2024 FINANCIAL PLAN**

	2017 ACTUAL	2018 ACTUAL	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES													
Air Quality Revenues	\$ 3,724,081	\$ 3,736,309	\$ 3,658,392	\$ 3,775,618	3.2%	\$ 3,673,088	(2.7%)	\$ 3,748,605	2.1%	\$ 3,815,791	1.8%	\$ 4,000,963	4.9%
TOTAL REVENUES	\$ 3,724,081	\$ 3,736,309	\$ 3,658,392	\$ 3,775,618	3.2%	\$ 3,673,088	(2.7%)	\$ 3,748,605	2.1%	\$ 3,815,791	1.8%	\$ 4,000,963	4.9%
EXPENDITURES													
Operating Programs:													
Environmental Regulation and Enforcement	\$ 2,580,815	\$ 3,096,145	\$ 2,836,160	\$ 3,207,872		\$ 3,098,871		\$ 3,167,804		\$ 3,228,260		\$ 3,406,553	
Non Road Diesel Provision	524,812	522,384	625,000	250,000		250,000		250,000		250,000		250,000	
Administration and Department Support	160,338	185,759	197,232	317,746		324,217		330,801		337,531		344,410	
TOTAL EXPENDITURES	\$ 3,265,965	\$ 3,804,288	\$ 3,658,392	\$ 3,775,618	3.2%	\$ 3,673,088	(2.7%)	\$ 3,748,605	2.1%	\$ 3,815,791	1.8%	\$ 4,000,963	4.9%

AIR QUALITY

Description of services

Air Quality is a Metro Vancouver Regional District function established under the *Environmental Management Act* with the responsibility for managing air quality and developing 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 integral 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 negotiation and 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.

- Update Metro Vancouver's greenhouse gas emission targets.
- Develop and advocate for actions fundamental to meeting regional greenhouse gas emission targets and ensuring our region is resilient to the impacts of climate change.
- Undertake corporate climate action 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	2020 performance objective
Net corporate greenhouse gas emissions (tonnes of carbon dioxide equivalent, CO ₂ e)	1997: 13,900 2015: 0 (100% carbon neutral) 2016: 3,321 (60% carbon neutral)	2018: 14,223 (4% carbon neutral)	2020: 0 (100% carbon neutral)
Regional greenhouse gas emissions (tonnes of CO ₂ e per capita)	2010: 6.3 2015: 5.8	2018: 5.6	2020: 4.2
Reliability of air quality monitoring network (% of annual hours with monitoring data available for priority pollutants)	97% (3 year average)	2018: 97%	2020: 95% or higher
Air quality advisories (number of days under an advisory due to emission sources within airshed)	5 air quality advisory days; 14 in total including wildfire activity outside of airshed (3 year average)	2019: zero air quality advisory days	2020: zero air quality advisory days

2020 key actions

- Continue to implement the Climate 2050 Strategy including:
 - roadmaps for climate action (reducing greenhouse gas emissions and adapting to climate change) in ten issue areas approved by the Board, including transportation, buildings and infrastructure;
 - implementation of additional energy and greenhouse gas reduction offset projects that will contribute to Metro Vancouver's corporate carbon neutrality goal;
 - advancement of corporate policies related to energy and climate change; and
 - partnerships and collaboration with member jurisdictions, academia and others on climate action.
- Complete development of the next regional air quality management plan.
- Develop new air quality bylaws, regulations and standards, towards goals for protection of human health and environment and continuous improvement in air quality, for Board adoption, including:
 - consultation on new emission regulation bylaws for prioritized sources;
 - development and implementation of regulatory approaches for cannabis production facilities and indoor residential wood burning with consideration of input from consultation programs; and
 - adoption of new ambient air quality objectives for ground-level ozone, nitrogen dioxide and carbon monoxide.
- Enhance the odour management framework based on consultation on new and amended air quality bylaws and regulations, increased community outreach, and technical capacity-building through partnerships with industry and other levels of government.
- Continue to expand the non-road diesel engine program, addressing additional engines and utilizing partnerships with other levels of government.
- Review system of user fees from permits and regulations to recover costs of developing regulations, monitoring compliance, and enforcement, while ensuring that fees provide incentives to reduce emissions and impacts.
- Improve public understanding of air quality and climate change, including outreach and progress reporting on Climate 2050, the air quality management 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.

2020 to 2024 – 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
2020		
Climate 2050	Complete development of initial roadmaps for the issue areas identified in Climate 2050. Undertake climate action projects based on roadmaps and complete online reporting and communications tool.	Environmental Sustainability
Clean Air Plan	Board adoption of the next regional air quality and greenhouse gas management plan.	Environmental Sustainability
Bylaws and Regulations	Complete development of regulatory approaches for cannabis production facilities and indoor residential wood burning with consideration of input from consultation programs.	Regulatory and Legislative Environment
Bylaws and Regulations	Review permit and regulatory fee system to recover costs of developing regulations, monitoring compliance, and enforcement, while ensuring that fees provide incentives to reduce emissions and impacts.	Financial Sustainability
Monitoring and Indicators	Complete air quality monitoring network review.	System Stewardship
2021		
Climate 2050	Ongoing implementation of projects and actions based on Climate 2050 roadmaps, with reporting on performance and sharing of best practices.	Environmental Sustainability
Bylaws and Regulations	Ongoing development of new and amended air quality regulations. Initiate development of amendments to non-road diesel engine regulation to address Tier 2 engines and higher.	Regulatory and Legislative Environment
Monitoring and Indicators	Act on recommendations of air quality monitoring network review completed in 2020.	System Stewardship
Sustainability Innovation Fund	Fund applications for climate action and air quality projects.	Environmental Sustainability
2022		
Climate 2050	Ongoing implementation of projects and actions based on Climate 2050 roadmaps, with reporting on performance and sharing of best practices.	Environmental Sustainability
Bylaws and Regulations	Ongoing development of new and amended air quality regulations, supporting Climate 2050, the Clean Air Plan and the Regional Ground Level Ozone Strategy.	Regulatory and Legislative Environment

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 air quality projects.	Environmental Sustainability
2023		
Climate 2050	Ongoing implementation of projects and actions based on Climate 2050 roadmaps, with reporting on performance and sharing of best practices.	Environmental Sustainability
Bylaws and Regulations	Ongoing development of new and amended air quality regulations, supporting Climate 2050, the Clean Air Plan and the Regional Ground Level Ozone Strategy.	Regulatory and Legislative Environment
Sustainability Innovation Fund	Fund applications for climate action and air quality projects.	Environmental Sustainability
2024		
Climate 2050	Ongoing implementation of projects and actions based on Climate 2050 roadmaps, with reporting on performance and sharing of best practices.	Environmental Sustainability
Bylaws and Regulations	Ongoing development of new and amended air quality regulations, supporting Climate 2050, the Clean Air Plan and the Regional Ground Level Ozone Strategy.	Regulatory and Legislative Environment
Sustainability Innovation Fund	Fund applications for climate action and air quality projects.	Environmental Sustainability

METRO VANCOUVER DISTRICTS
2020-2024 PROJECTED RESERVES - AIR QUALITY

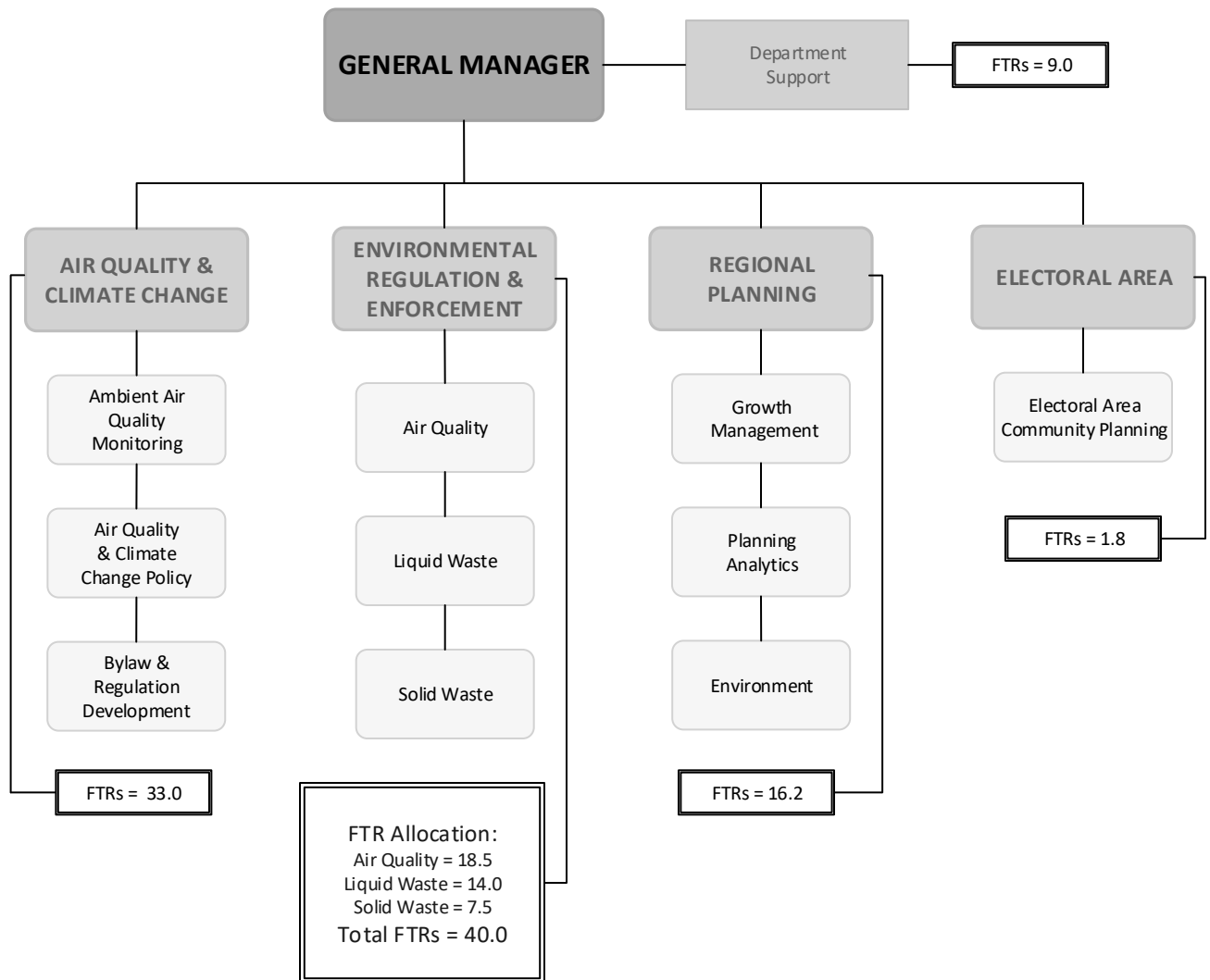
OPERATING RESERVES

	2019 ENDING BALANCE	2020 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2020 ENDING BALANCE	2021 ENDING BALANCE	2022 ENDING BALANCE	2023 ENDING BALANCE	2024 ENDING BALANCE
Air Quality	\$ 523,605	\$ 523,605	\$ -	\$ (7,960)	\$ 10,497	\$ 526,143	\$ 550,425	\$ 531,932	\$ 535,487	\$ 542,530

DISCRETIONARY RESERVES

	2019 ENDING BALANCE	2020 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2020 ENDING BALANCE	2021 ENDING BALANCE	2022 ENDING BALANCE	2023 ENDING BALANCE	2024 ENDING BALANCE
Air Quality										
Air Quality General Reserve	\$ 1,601,340	\$ 1,601,340	\$ 250,000	\$ (1,271,986)	\$ 21,807	\$ 601,161	\$ 426,334	\$ 317,701	\$ 180,635	\$ 37,797

2019



Planning and Environment
 2019 Total FTRs = 101.0
 2020 Proposed FTRs = 101.0

To: Electoral Area Committee

From: Marcin Pachcinski, Division Manager, Electoral Area and Environment

Date: October 2, 2019

Meeting Date: October 9, 2019

Subject: **2020 - 2024 Financial Plan – Electoral Area A Service**

RECOMMENDATION

That the Electoral Area Committee endorse the 2020 - 2024 Financial Plan for the Electoral Area A Service as presented in the report “2020 - 2024 Financial Plan – Electoral Area A Service” dated October 2, 2019 and forward it to the Metro Vancouver Regional District Board Budget Workshop on October 23, 2019 for consideration.

PURPOSE

To present the 2020 - 2024 Financial Plan for the Electoral Area A 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) and related functions.

This report focuses on the Electoral Area A Service and presents the 2020 annual budget and the updated five year plan for the years 2020 to 2024 for committee consideration.

ELECTORAL AREA A SERVICE

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

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

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

2020 BUDGET AND 2020 - 2024 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:

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

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 2020 - 2024 Electoral Area A Service Financial Plan is included as Attachment 1. The 2020 Annual Work Plan for the Electoral Area A Service presented in this report is included in Attachment 2 and the “What’s Happening” highlights for the years 2020 - 2024 are included in Attachment 3.

Operating Budget Highlights

The Electoral Area A Service 2020 operating budget is proposed to decrease by \$422,067 for a total budget of \$808,417 (Attachment 1). This decrease is primarily due to two one-time projects funded by the Community Works Fund of almost \$564,000 which were approved by the Board and expended in 2019. The proposed 2020 budget also includes a number of one-time projects and studies funded from reserves, however not to the same extent as that for 2019. Budget increases for 2020 include the initiation of an annual contribution to a reserve for election costs, and the restructuring of department support provided by the Planning and Environment department.

The 2020 operating budget includes the following key actions:

- Complete the review of the Electoral Area A Zoning Bylaw and Building Administration Bylaw
- Undertake a Fire Service Options and Costs Study for Howe Sound and Barnston Island
- Conduct a Barnston Island flood construction level study
- Coordinate a clean-up event for Electoral Area A Pitt Lake communities
- Continue to administer the building, zoning, official community plan, and unsightly premise and nuisance bylaws
- Communicate with Electoral Area residents through the Electoral Area A Bulletin and Electoral Area A Director's Update
- Engage the UBC/UEL communities on liquor license and retail cannabis referrals
- Continue to offer staff support to Electoral Area Board Director
- Facilitate emergency management education for residents.

There are no new full-time staff positions proposed for 2020.

Over the next five years, operating programs (not including election costs or one-time studies and projects) are increasing by \$104,482, or an average of 3.7% per year. This includes the phase in of

the Electoral Area Emergency planning program which will be fully funded by 2022. At this time, only one specific project is identified beyond 2020: the geotechnical study of the Electoral Area (\$50,000). The need for projects and studies and other one-time actions are evaluated as part of the annual process with input from electoral area communities. Budgets for any proposed initiatives will be added in future cycles. These are generally funded from reserves and do not have an impact on the Electoral Area Requisition.

Reserve Funds

Electoral Area A receives two annual grants from the Province. These amounts, \$121,474 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 addition, \$30,000 will be contributed annually to an election reserve. Every four years, this election reserve is to be used to fund the Electoral Area A local government election.

The financial plan for Electoral Area A 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 2020 – 2024 Projected Reserves for Electoral Area A is included in Attachment 4.

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 2020 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;
- Number of visits to the Electoral Area A 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 A website visits have remained above 10,000 hits per year and are expected to remain steady in coming years.

CONSISTENCY WITH THE 2019-2023 FINANCIAL PLAN

The updated five year financial plan has been developed to be consistent with the 2019-2023 financial plan. The 2020 impact on the average electoral area household is generally consistent with prior year projections for Electoral Area A with an average regional household cost of \$59 (2019 projection: \$58).

APPROVAL PROCESS

The proposed 2020 - 2024 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 2020 - 2024 Financial Plan and Annual Work Plan will be presented for consideration at the Board Budget Workshop on October 23, 2019.
- The Board will consider adoption of the 2020 Budget and endorsement of the 2020 - 2024 Financial Plan on November 1, 2019.

ALTERNATIVES

1. That the Electoral Area Committee endorse the 2020 - 2024 Financial Plan for the Electoral Area A Service as presented in the report “2020 - 2024 Financial Plan – Electoral Area A Service” dated October 2, 2019 and forward it to the Metro Vancouver Regional District Board Budget Workshop on October 23, 2019 for consideration.
2. That the Electoral Area Committee make recommendations and endorse an amended 2020 - 2024 Financial Plan for the Electoral Area A Service and forward the amended Financial Plan to the Finance and Intergovernment Committee on October 16, 2019 and to the Metro Vancouver Regional District Board Budget Workshop on October 23, 2019 for consideration.

FINANCIAL IMPLICATIONS

If the MVRD Board endorses the 2020 - 2024 Financial Plan for the Electoral Area A Service, as presented under Alternative 1, in 2020 the Electoral Area A requisition will increase by \$10,433 (2.8%) for a total requisition of \$376,943. The increase in the Electoral Area A requisition represents a \$1 increase in the cost to the average Electoral Area A household to \$59.

Over the term of the five year plan, the annual Electoral Area A requisition is projected to increase by an average of \$18,496 per year (4.6%) to provide the required revenue to offset projected expenditures. It is anticipated that the cost to the average Electoral Area A household over the next five years for electoral area services will rise from \$58 in 2019 to \$68 in 2024 representing an average annual increase of \$2 (3.1%).

Under Alternative 2, the Committee may wish to consider recommending amendments to the 2020 Budget and Five Year Financial Plan for consideration at the Board Budget Workshop. Any changes to the plan may have an impact on the MVRD Financial Plan.

SUMMARY / CONCLUSION

The Electoral Area Service 2020 Budget and Five Year Financial Plan has been prepared 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 2020 to 2024 for Electoral Area A Services.

The presentation of this year’s five year financial plan for Electoral Area A 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 2020 - 2024 Financial Plan and Annual Work Plan for Electoral Area A Service as presented under alternative one.

Attachments:

1. 2020 - 2024 Financial Plan (Doc. 32895496)
2. 2020 Work Plan (Doc. 31661339)
3. 2020 - 2024 “What’s Happening”
4. 2020 - 2024 Projected Reserves – Electoral Area A Service
5. Organizational Chart

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METRO VANCOUVER REGIONAL DISTRICT
ELECTORAL AREA SERVICE
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN

	2017 ACTUAL	2018 ACTUAL	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES													
Electoral Area Requisition	\$ 371,734	\$ 382,424	\$ 366,510	\$ 376,943	2.8%	\$ 398,979	5.8%	\$ 425,310	6.6%	\$ 443,219	4.2%	\$ 458,992	3.6%
User Fees	13,584	10,174	10,000	10,000		10,000		10,000		10,000		10,000	
Other External Revenues	58,330	299,803	171,474	171,474		171,474		171,474		171,474		171,474	
Transfer from Reserves	17,514	73,272	682,500	250,000		98,000		126,000		24,000		12,000	
TOTAL REVENUES	\$ 461,162	\$ 765,673	\$ 1,230,484	\$ 808,417	(34.3%)	\$ 678,453	(16.1%)	\$ 732,784	8.0%	\$ 648,693	(11.5%)	\$ 652,466	0.6%
EXPENDITURES													
Operating Programs:													
Community Planning	\$ 242,656	\$ 253,523	\$ 295,634	\$ 339,443		\$ 346,098		\$ 353,006		\$ 360,492		\$ 367,599	
Electoral Area Projects and Studies	17,514	73,272	74,000	190,000		50,000		-		-		-	
Building Inspection	13,246	12,161	20,966	22,104		22,480		22,863		23,241		23,611	
Local Government Election	-	51,435	45,000	-		-		122,141		-		-	
Fraser Valley Library Services	1,500	2,000	2,000	2,067		2,067		2,067		2,067		2,067	
Emergency Planning	-	674	12,000	18,000		24,000		30,000		30,000		30,000	
	274,916	393,065	449,600	571,614	27.1%	444,645	(22.2%)	530,077	19.2%	415,800	(21.6%)	423,277	1.8%
Contribution to Election Reserve	-	-	-	30,000		30,000		-		30,000		30,000	
Contribution to Reserve	58,330	165,834	734,974	171,474		171,474		171,474		171,474		171,474	
	58,330	165,834	734,974	201,474	(72.6%)	201,474	0.0%	171,474	(14.9%)	201,474	17.5%	201,474	0.0%
Allocation of Centralized Support Costs	32,329	38,939	45,910	35,329	(23.0%)	32,334	(8.5%)	31,233	(3.4%)	31,419	0.6%	27,715	(11.8%)
TOTAL EXPENDITURES	\$ 365,575	\$ 597,838	\$ 1,230,484	\$ 808,417	(34.3%)	\$ 678,453	(16.1%)	\$ 732,784	8.0%	\$ 648,693	(11.5%)	\$ 652,466	0.6%

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 non-contiguous unincorporated areas of the MVRD, excluding Point Grey. Electoral Area A is an unincorporated area comprising 818 km² of land area, stretching from Point Grey and Howe Sound in the west, to Pitt Lake in the east, and includes Barnston Island and the northern part of Indian Arm.

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

Strategic directions and high level goals supported

2019-2022 Board Strategic Plan

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

Performance indicators

Indicator	Historical and/or industry benchmark	Current performance	2019 performance objective
Number of public meetings and engagement events	2016: 17 2017: 9 2018: 8	2019 YTD: 3	10
Number of visits to the Electoral Area A Website	2016: 10,585 2017: 10,816 2018: 16,092	2019 YTD: 9,946	10,000

2020 key actions

- Complete the review of the Electoral Area A Zoning Bylaw and Building Administration Bylaw
- Undertake a Fire Service Options and Costs Study for Howe Sound and Barnston Island
- Conduct a Barnston Island flood construction level study
- Coordinate a clean-up event for Electoral Area A Pitt Lake communities
- Continue to administer the building, zoning, official community plan, and unsightly premise and nuisance bylaws
- Communicate with Electoral Area residents through the Electoral Area A Bulletin and Electoral Area A Director's Update
- Engage the UBC/UEL communities on liquor license and retail cannabis referrals
- Continue to offer staff support to Electoral Area Board Director
- Facilitate emergency management education for residents

2020 to 2024 – WHAT'S HAPPENING

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

Initiative	Description	Theme
2020		
Zoning & Building Bylaw Review	Complete the review the Electoral Area A Zoning Bylaw and Building Administration Bylaws. The Zoning Bylaw Review will ensure regulations reflect, and are consistent with, the newly adopted official community plan.	Regulatory & Legislative Environment
Barnston Island Flood Construction Level Study	Engage a professional consultant to determine a standard flood construction level for various construction activities (e.g. residential, farm, accessory buildings, etc.).	Regional Growth
Emergency Preparedness	Undertake a fire service options and costs study for select Electoral Area communities and reimburse purchases of community firefighting equipment.	System Stewardship
Community Works Fund	Work with UBC and UEL communities to assess projects funded through the Community Works Fund to date and investigate potential new projects.	Financial Sustainability
Community Clean-up Events	Undertake barge clean-up event for the west side of Pitt Lake.	Environmental Sustainability
2021		
Geotechnical Study	Engage a geotechnical consultant to assess rural portions of Electoral Area A lands to determine hazard potential and recommend policies related to development requirements (e.g. geotechnical covenants) and restrictions.	Regional Growth
Emergency Preparedness	Undertake community emergency preparedness education and training activities in selected Electoral Area A communities.	System Stewardship
Regional District Basic Grant	Identify potential projects in the rural portions of Electoral Area A for funding through the Regional District Basic Grant.	Financial Sustainability
2022		
Emergency Preparedness	Undertake community emergency preparedness education and training activities in selected Electoral Area A communities.	System Stewardship
Regional District Basic Grant	Identify potential projects in the rural portions of Electoral Area A for funding through the Regional District Basic Grant.	Financial Sustainability
2023		
Emergency Preparedness	Undertake community emergency preparedness education and training activities in selected Electoral Area A communities.	System Stewardship

Community Clean-up Events	Explore need for additional clean-up events in rural Electoral Area A communities.	Environmental Sustainability
2024		
Policy and Bylaw Review	Undertake a review of existing policies and bylaws to confirm on-going effectiveness and to identify gaps and need for amendments.	Regulatory & Legislative Environment
Emergency Preparedness	Undertake community emergency preparedness education and training activities in selected Electoral Area A communities.	System Stewardship
Community Clean-up Events	Explore need for additional clean-up events in rural Electoral Area A communities.	Environmental Sustainability

METRO VANCOUVER DISTRICTS
2020-2024 PROJECTED RESERVES - ELECTORAL AREA SERVICE

OPERATING RESERVES

	2019	2020				2020	2021	2022	2023	2024
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Electoral Area Service	\$ 26,763	\$ 26,763	\$ 25,390	\$ -	\$ 797	\$ 52,951	\$ 31,847	\$ 25,349	\$ 28,066	\$ 23,861

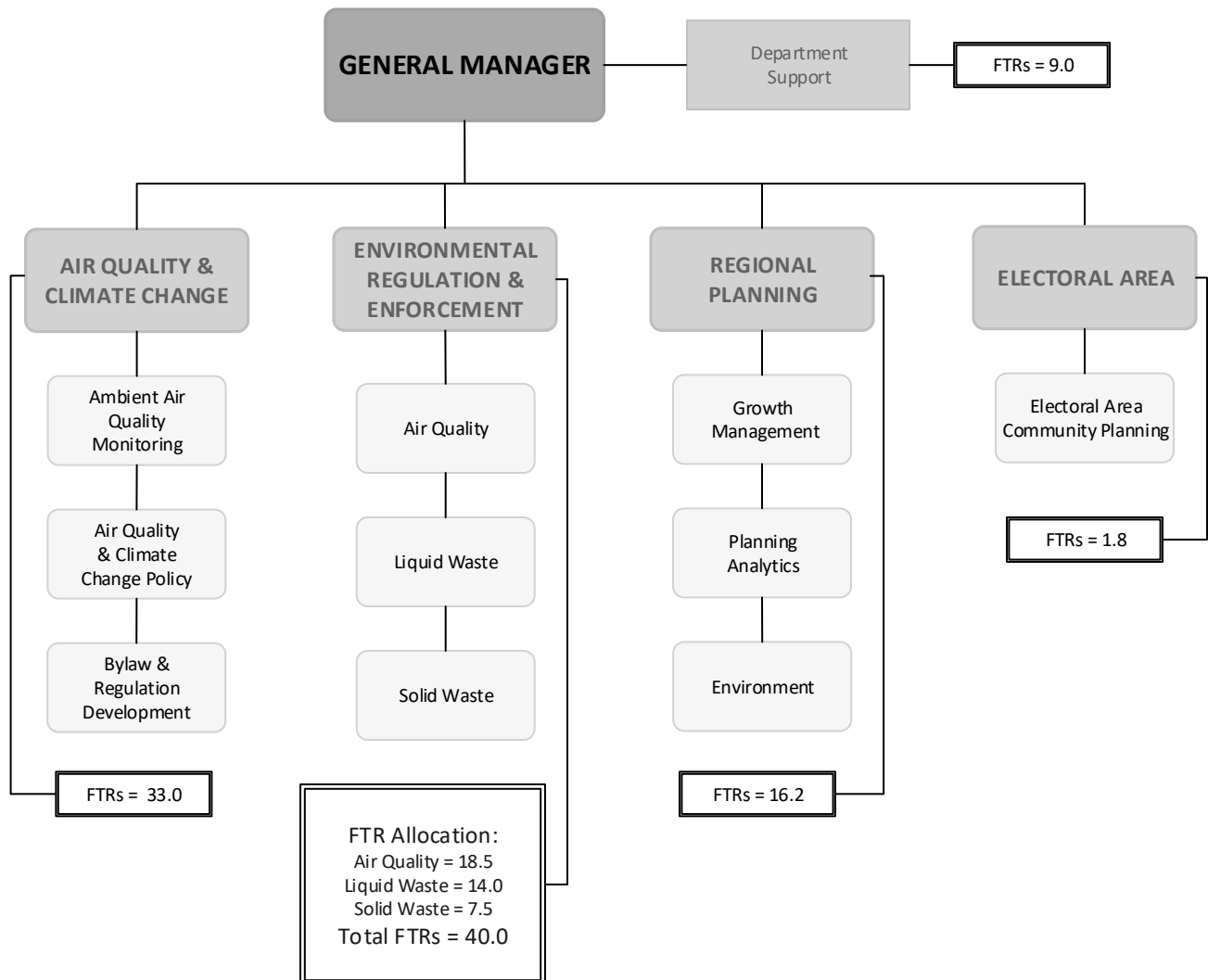
DISCRETIONARY RESERVES

	2019	2020				2020	2021	2022	2023	2024
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Electoral Area Service										
Electoral Area General Reserve	\$ 1,450,660	\$ 1,450,660	\$ 50,000	\$ (250,000)	\$ 27,013	\$ 1,277,673	\$ 1,254,747	\$ 1,264,692	\$ 1,316,246	\$ 1,380,951

STATUTORY RESERVES

	2019	2020				2020	2021	2022	2023	2024
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Electoral Area Service										
Community Works Reserve	\$ 166,660	\$ 166,660	\$ 121,474	\$ -		\$ 288,134	\$ 416,586	\$ 547,606	\$ 681,247	\$ 817,561
Electoral Area Election Reserve	-	-	30,000	-	300	30,300	61,206	820	31,137	62,059

2019



Planning and Environment
 2019 Total FTRs = 101.0
 2020 Proposed FTRs = 101.0

To: Finance and Intergovernment Committee

From: Carol Mason, Commissioner/Chief Administrative Officer
Dean Rear, Acting General Manager, Financial Services/Chief Financial Officer

Date: October 8, 2019 Meeting Date: October 16, 2019

Subject: **2020 - 2024 Financial Plan – Regional District Service Areas**

RECOMMENDATION

That the Finance and Intergovernment Committee endorse the 2020 - 2024 Financial Plan for the Regional District Service Areas as presented in the report titled “2020 - 2024 Financial Plan – Regional District Service Areas” dated October 8, 2019 and forward it to the Metro Vancouver Regional District Board Budget Workshop on October 23, 2019 for consideration.

PURPOSE

To present the 2020-2024 Financial Plan for Regional District Service Areas of E911 Emergency Telephone Service, General Government Administration, General Government Zero Waste Collaboration Initiatives, Labour Relations, Regional Emergency Management, Regional GPS, Regional Economic Prosperity and Sasamat Fire Protection Service for consideration by the Finance and Intergovernment 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) and related functions.

This report focuses on the Regional District Service Areas and presents the 2020 annual budget and the updated five year plan for the years 2020 to 2024 for committee consideration.

REGIONAL DISTRICT SERVICE AREAS

Regional District services within the Metro Vancouver Regional District (MVRD) represent functions that include either all 21 member municipalities, the Tsawwassen First Nation and Electoral Area A as participants, or alternatively include a portion of the MVRD members as participants in the service.

These service areas include the following functions:

- E911 Emergency Telephone Service
- General Government Administration
- General Government Zero Waste Collaboration Initiatives
- Labour Relations
- Regional Emergency Management
- Regional Global Positioning System
- Regional Economic Prosperity

- Sasamat Fire Protection Service

The financial plans for the Regional District Service Areas contribute to the overall projected MVRD Financial Plan and are combined with plans for the MVRD statutory functions of Affordable Housing, Air Quality, Regional Parks, and Regional Planning. 2020 – 2024 Financial Plans for those functions have been presented separately to their respective Standing Committees, along with a presentation to the Electoral Area A Standing Committee of the Electoral Area A Financial Plan.

The regional district functions highlighted in this report are guided by direction provided in the *Board Strategic Plan*, specifically:

- Continue to engage with members on processes and initiatives that contribute to an effective and well functioning organization.
- Build resilience in communities to prepare for and adapt to changing physical and environmental conditions.
- 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.
- Enhance relationships between Metro Vancouver and other orders of government, First Nations, adjacent regional districts, and key stakeholders.

2020 BUDGET AND 2020 - 2024 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:

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

Attached is the overall Regional District Summary for 2020 – 2024 (Attachment 1) and the 2020 - 2024 Financial Plans for the Regional District Service Areas presented in this report (Attachment 2).

Also, 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. The 2020 Annual Work Plans for the Regional District Service Areas presented in this report are included in Attachment 3.

A summary of the Regional District Service Areas program highlights, 2020 - 2024 “What’s Happening”, is included under Attachment 4.

Regional District Summary

The Regional District Summary presented in Attachment 1 includes all thirteen regional district functions of which 11 services are apportioned to all MVRD members through the tax requisition and two services which are apportioned to either a single jurisdiction (Electoral Area A) or to two municipalities (Belcarra and Anmore – Sasamat Fire Protection Service). The MVRD functions are also

funded through a variety of other sources including permit revenues and user fees. The thirteen regional district functions are as follows:

Affordable Housing	Regional Emergency Management
Air Quality	Regional Global Positioning System
E911 Emergency Telephone Service	Regional Parks
Electoral Area Service	Regional Planning
General Government Administration	Regional Economic Prosperity
General Government Zero Waste Collaboration	Sasamat Fire Protection Service
Initiatives	
Labour Relations	

The full MVRD 2020 – 2024 Financial Plan for the next five years is summarized below:

REGIONAL DISTRICT SERVICES FIVE YEAR FINANCIAL PLAN OVERVIEW							
\$ Millions	2019	2020	2021	2022	2023	2024	5 Year Ave
Tax requisition	\$61.2	\$71.8	\$79.5	\$86.6	\$93.4	\$100.4	
% Change		17.3%	10.7%	9.0%	7.9%	7.5%	10.5%
Total Expenditures	\$76.4	\$86.3	\$92.0	\$98.5	\$105.1	\$112.0	
% Change		12.9%	6.6%	7.1%	6.8%	6.6%	8.0%
Total Capital Expenditures	\$15.9	\$19.9	\$23.9	\$29.4	\$32.2	\$37.3	\$28.5
Household Impact (\$)	\$55	\$64	\$69	\$74	\$79	\$84	
% Change		15.5%	9.0%	7.3%	6.3%	6.0%	8.8%

The Regional District Service Areas, along with the statutory functions of Affordable Housing, Air Quality, Regional Parks, and Regional Planning, form the MVRD which is primarily funded through tax requisitions. To support the Regional District for the years 2020 - 2024, MVRD tax requisitions are increasing \$39.2 million over the five-year period, from \$61.2 million in 2019 to \$100.4 million, representing an average annual increase of \$7.8 million. The majority of this change is driven by new dedicated funding in the Affordable Housing function to support the development of new affordable housing projects in partnership with member jurisdictions, an increase to the Regional Parks function park acquisition reserve to support the expansion of new parks and greenways within the region, and finally, the full implementation of the new Regional Economic Prosperity function which will be phased in over the next five years.

Operating Budget Highlights

In 2020, total expenditures for the Regional District Service Areas not presented separately to other standing committees are proposed to increase \$1.9 million for total expenditures of \$17.8 million (Attachment 2).

Over the five year plan, the projected expenditures for Regional District Service Areas are as follows:

Regional District Service Area	Total Expenditures 2020 – 2024 \$ Millions	Average Annual Expenditures \$ Millions	Average Annual Increase (Decrease)
911 Emergency Telephone Service	\$ 23.9	\$ 4.79	2.8%
General Government Administration	\$ 30.0	\$ 6.00	2.1%
General Government Zero Waste Collaboration Initiatives	\$ 9.4	\$1.87	6.0%
Labour Relations	\$ 14.8	\$ 2.95	1.0%
Regional Emergency Management	\$ 1.0	\$ 0.21	(4.7%)
Regional Global Positioning System (*)	\$ 1.7	\$ 0.36	0.4%
Regional Economic Prosperity	\$9.7	\$1.94	43.8%
Sasamat Fire Protection Service (*)	\$ 2.1	\$ 0.41	9.5%

(*) Adjusted for one-time equipment purchases funded from reserves

With above noted Regional District Service Areas, the primary focus is one of stewardship in maintaining an established level of service. For 2020, the Zero Waste Collaboration Initiatives budget, which was previously presented under the overall General Government Service function, is now being presented as a separate General Government budget to provide greater transparency in financial reporting. The 2020 work plan for this program includes an expansion to the National Love Food Hate Waste campaign and additional resources to lengthen the National Zero Waste Conference to a two-day conference. The Labour Relations budget has been endorsed by the Labour Relations Function Oversight Committee with a key action to complete the work of the Regional Workforce Strategy Initiative. And finally, the Sasamat Fire Protection Service contemplates the planned replacement of an apparatus with a one time expenditure of \$600,000 funded through reserves.

There is one new full-time staff position proposed for 2020, a Legislative Services Analyst in General Government Administration intended to manage the legislative requirements under the Freedom of Information and Protection of Privacy Act. The position is in response to FOI requests increasing in both number and complexity as well as privacy requirements becoming more stringent.

2020 – 2024 Financial Plans for the Regional District Service Areas are included in Attachment 2.

Reserve Funds

The services within the Regional District Service Areas include one-time equipment purchases or upgrades as well as one-time initiatives which are delivered through contract services. In accordance with the Board *Operating, Statutory and Discretionary Reserves Policy*, these items are funded using reserves. In 2020, \$1.5 million in reserve funding has been applied in these Regional District Service Areas. This includes \$140,000 for grants to cultural organizations, \$175,000 funding for the Metro Vancouver newsletters, \$151,000 for anticipated one-time adjustments for Director remuneration, \$376,719 to fund one-time initiatives in Labour Relations, \$74,868 to fund initiatives under Regional Emergency Management, and as noted above \$600,000 for the replacement of a fire apparatus for the Sasamat Fire Protection Service.

The 2020 – 2024 Projected Reserves for the Regional District Service Areas are included in Attachment 4.

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 2020 Regional District Service Area Work Plans for E911 Emergency Telephone, General Government Administration (Board and Legislative Services), General Government Zero Waste Collaboration Initiatives, Labour Relations, Regional Emergency Management, Regional Global Positioning System, Regional Economic Prosperity and Sasamat Volunteer Fire Protection Service are presented in this report. Within these Work Plans, 19 performance indicators have been developed and are being tracked. These include:

E911 Emergency Telephone Service:

- Number of days per year where E-Comm failed to meet 95% of calls within 5 seconds.

Labour Relations:

- Total number of collective agreements serviced by RES.
- Average turnaround time for job evaluation reviews (in calendar days).

General Government Administration (Board and Legislative Services)

- Percentage of Board and Committee minutes produced without correction
- Number of Freedom of Information access requests delivered on time

General Government Zero Waste Collaboration Initiatives

- Number of attendees at the Zero Waste Conference
- Number of members in the National Zero Waste Council (NZWC)

Regional Emergency Management:

- Conduct one region wide emergency exercise per year

Regional Global Positioning System

- Percent of service uptime – Post-mission data availability

Regional Economic Prosperity:

- Number of events organized to advance regional collaboration on new strategic investment
- Number of trade missions supported/executed

Sasamat Volunteer Fire Protection Service:

- Respond to all calls for assistance received through Surrey Fire dispatch within 15 minutes

The trend in these performance measures suggests that these Regional District Service Areas continue to work on meeting and improving on service provisions. More specifically, E911 Emergency Telephone Service has seen improvements in the call answering system efficiency in recent years, Labour Relations continues to expand services to member jurisdictions in the Region, indicating the value of services provided, Board and Legislative Services is striving to meet service delivery expectations in busy legislative environment, there is increasing engagement on several Zero Waste Collaboration Initiatives, and Regional Emergency Management experiences broad support among member jurisdictions and partner agencies to work cooperatively on regional emergency preparedness.

CONSISTENCY WITH THE 2019 – 2023 FINANCIAL PLAN

The updated five year financial plan has been developed to be consistent with the 2019 - 2023 financial plan. The requisitions for these Regional District Service Areas form part of the overall MVRD tax requisition, eight of 13 statutory functions within the Regional District. The 2020 impact on the average regional household is increased by \$8 from prior year projections for the Metro Vancouver Regional District with an average regional household cost of \$64 (2019 projection: \$56). This change is due to new reserve contributions in Affordable Housing for member jurisdiction development

partnerships and in Regional Parks for contributions to reserves for Parkland Acquisition which each have an estimated household impact of \$4.

For the years 2021, 2022 and 2023 the MVRD household impact is projected to increase by an average of \$15 compared to the previous five year projection, again primarily due to the above noted adjustments for Affordable Housing and Regional Parks.

APPROVAL PROCESS

The proposed 2020-2024 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 2020 – 2024 Financial Plan and Annual Work Plan will be presented for consideration to the Finance and Intergovernment Committee on October 16, 2019 and at the Board Budget Workshop on October 23, 2019
- The Board will consider adoption of the 2020 Budget and endorsement of the 2020-2024 Financial Plan on November 1, 2019

ALTERNATIVES

1. That the Finance and Intergovernment Committee endorse the 2020 - 2024 Financial Plan for the Regional District Service Areas as presented in the report titled “2020 - 2024 Financial Plan – Regional District Service Areas” dated October 8, 2019 and forward it to the Metro Vancouver Regional District Board Budget Workshop on October 23, 2019 for consideration.
2. That the Finance and Intergovernment Committee make recommendations and endorse an amended 2020 - 2024 Financial Plan for the Regional District Service Areas and forward to the Metro Vancouver Regional District Board Budget Workshop on October 23, 2019 for consideration.

FINANCIAL IMPLICATIONS

If the MVRD Board endorses the 2020 – 2024 Financial Plan for the Regional District Service Areas, as presented under Alternative 1, in 2020 the requisitions for the service areas outlined in this report will increase by \$1.06 million comprising part of the overall MVRD requisition. The Regional District Service Area requisitions form part of the overall MVRD tax requisition which is projected to be \$71.8 million in 2020, representing a \$9 increase (15.5%) to the average regional household for an annual cost of \$64 after taking into account regional population growth.

Over the term of the five year plan, the annual requisitions for the Regional District Service Areas outlined in this report are projected to increase by an average of \$775,101 per year. It is anticipated that the cost to the average regional household over the next five years for all MVRD services, including these Regional District Service Areas, will rise from \$55 in 2019 to \$84 in 2024 representing an average annual increase of \$6.

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

SUMMARY / CONCLUSION

The 2020 - 2024 Financial Plans for the Regional District Service Areas has been prepared 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 2020 to 2024 for the Regional District Service Areas of E911 Emergency Telephone Service, General Government Administration, General Government Zero Waste Collaboration Initiatives, Labour Relations, Regional Emergency Management, Regional GPS, Regional Economic Prosperity and Sasamat Fire Protection Service.

The presentation of this year's five year financial plans for the Regional District Service Areas provides the opportunity for Metro Vancouver to share with its member jurisdictions the proposed planning 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 Metro Vancouver residents while keeping pace with our critical requirements.

Staff recommend endorsing the 2020 - 2024 Financial Plans for Regional District Service Areas as presented under alternative one.

Attachments:

1. 2020 – 2024 Financial Plans - Regional District Summary
2. 2020 – 2024 Financial Plans
 - E911 Emergency Telephone Service
 - General Government Administration
 - General Government Zero Waste Collaboration Initiatives
 - Labour Relations
 - Regional Emergency Management
 - Regional Global Positioning System
 - Regional Economic Prosperity
 - Sasamat Fire Protection Service
3. 2020 Work Plans
4. 2020 – 2024 “What’s Happening”
5. 2020 – 2024 Projected Reserves – Regional District

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**METRO VANCOUVER DISTRICTS
REGIONAL DISTRICT SUMMARY
2020-2024 FINANCIAL PLAN**

	2017 ACTUAL	2018 ACTUAL	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES													
Metro Vancouver Regional District Requisitions	\$ 51,870,510	\$ 58,792,185	\$ 61,188,452	\$ 71,779,890	17.3%	\$ 79,456,410	10.7%	\$ 86,572,835	9.0%	\$ 93,397,733	7.9%	\$ 100,374,202	7.5%
Compensation Services Revenue	330,835	359,960	478,280	483,893	1.2%	502,980	3.9%	503,373	0.1%	509,285	1.2%	516,934	1.5%
Collective Bargaining Services Revenue	813,019	763,645	867,558	887,536	2.3%	922,506	3.9%	924,552	0.2%	936,360	1.3%	951,277	1.6%
Electoral Area Requisition	371,734	382,424	366,510	376,943	2.8%	398,979	5.8%	425,310	6.6%	443,219	4.2%	458,992	3.6%
Regional Global Positioning System User Fees	340,719	310,688	314,180	292,221	(7.0%)	294,175	0.7%	299,252	1.7%	303,846	1.5%	309,310	1.8%
User Fees	3,216,748	3,058,237	2,853,741	2,747,588	(3.7%)	2,737,416	(0.4%)	2,746,791	0.3%	2,756,253	0.3%	2,758,684	0.1%
Non-Road Diesel Permit Fees	2,046,817	1,807,034	2,450,000	1,760,000	(28.2%)	1,710,000	(2.8%)	1,615,000	(5.6%)	1,565,000	(3.1%)	1,465,000	(6.4%)
Love Food Hate Waste	76,438	194,764	556,000	406,800	(26.8%)	499,500	22.8%	547,200	9.5%	502,200	(8.2%)	502,200	0.0%
Zero Waste Conference	115,961	374,845	180,000	230,000	27.8%	325,000	41.3%	337,000	3.7%	350,500	4.0%	366,200	4.5%
Other External Revenues	3,925,691	3,709,365	3,436,836	3,642,354	6.0%	3,606,424	(1.0%)	3,578,591	(0.8%)	3,587,930	0.3%	3,596,465	0.2%
Transfer from Sustainability Innovation Fund Reserves	121,414	410,851	598,505	110,000	(81.6%)	-	(100.0%)	-	0.0%	-	0.0%	-	0.0%
Transfer from Reserves	1,644,212	2,945,669	3,120,877	3,543,005	13.5%	1,540,805	(56.5%)	931,745	(39.5%)	788,162	(15.4%)	730,579	(7.3%)
TOTAL REVENUES	\$ 64,874,098	\$ 73,109,667	\$ 76,410,939	\$ 86,260,228	12.9%	\$ 91,994,195	6.6%	\$ 98,481,649	7.1%	\$ 105,140,488	6.8%	\$ 112,029,843	6.6%
EXPENDITURES													
Metro Vancouver Regional District													
Affordable Housing	\$ 119,164	\$ 1,459,815	\$ 1,839,479	\$ 5,833,504	217.1%	\$ 5,847,990	0.2%	\$ 5,859,978	0.2%	\$ 5,870,428	0.2%	\$ 5,870,445	0.0%
Air Quality	9,086,605	10,611,299	11,147,867	11,258,492	1.0%	10,888,637	(3.3%)	10,959,742	0.7%	11,100,594	1.3%	11,394,762	2.7%
E911 Emergency Telephone Service	4,184,972	4,245,846	4,411,585	4,521,227	2.5%	4,643,773	2.7%	4,774,193	2.8%	4,927,854	3.2%	5,074,228	3.0%
Electoral Area Service	365,575	597,838	1,230,484	808,417	(34.3%)	678,453	(16.1%)	732,784	8.0%	648,693	(11.5%)	652,466	0.6%
General Government Administration	4,666,513	4,179,212	5,548,594	5,879,900	6.0%	5,925,061	0.8%	6,019,674	1.6%	6,066,192	0.8%	6,138,863	1.2%
General Government Zero Waste Collaboration Initiatives	708,962	984,296	1,445,409	1,679,923	16.2%	1,897,152	12.9%	1,975,718	4.1%	1,904,399	(3.6%)	1,913,618	0.5%
Labour Relations	2,421,834	2,359,139	2,849,713	3,164,558	11.0%	2,860,674	(9.6%)	2,872,976	0.4%	2,912,142	1.4%	2,959,956	1.6%
Regional Economic Prosperity	-	-	484,500	1,020,000	110.5%	1,530,000	50.0%	2,040,000	33.3%	2,550,000	25.0%	2,550,000	0.0%
Regional Emergency Management	188,345	132,002	228,104	237,868	4.3%	222,945	(6.3%)	198,745	(10.9%)	189,162	(4.8%)	178,579	(5.6%)
Regional Global Positioning System	257,659	266,431	549,880	328,849	(40.2%)	381,792	16.1%	337,885	(11.5%)	343,522	1.7%	350,057	1.9%
Regional Parks	35,482,626	41,075,373	42,679,709	46,820,308	9.7%	52,817,157	12.8%	58,513,760	10.8%	64,229,903	9.8%	70,529,644	9.8%
Regional Planning	2,703,612	2,933,322	3,656,687	3,763,393	2.9%	3,951,867	5.0%	3,842,497	(2.8%)	3,895,795	1.4%	3,907,212	0.3%
Sasamat Fire Protection Service	866,261	363,495	338,928	943,789	178.5%	348,694	(63.1%)	353,697	1.4%	501,804	41.9%	510,013	1.6%
TOTAL EXPENDITURES	\$ 61,052,128	\$ 69,208,068	\$ 76,410,939	\$ 86,260,228	12.9%	\$ 91,994,195	6.6%	\$ 98,481,649	7.1%	\$ 105,140,488	6.8%	\$ 112,029,843	6.6%
Household Impact (\$)			\$ 55	\$ 64	15.5%	\$ 69	9.0%	\$ 74	7.3%	\$ 79	6.3%	\$ 84	6.0%

METRO VANCOUVER REGIONAL DISTRICT
E911 EMERGENCY TELEPHONE SERVICE
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN

	2017 ACTUAL	2018 ACTUAL	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES													
Metro Vancouver Regional District Requisitions	\$ 4,118,674	\$ 4,236,501	\$ 4,344,017	\$ 4,446,846	2.4%	\$ 4,567,380	2.7%	\$ 4,695,565	2.8%	\$ 4,847,491	3.2%	\$ 4,991,943	3.0%
Other External Revenues	66,426	68,582	67,568	74,381		76,393		78,628		80,363		82,285	
TOTAL REVENUES	\$ 4,185,100	\$ 4,305,083	\$ 4,411,585	\$ 4,521,227	2.5%	\$ 4,643,773	2.7%	\$ 4,774,193	2.8%	\$ 4,927,854	3.2%	\$ 5,074,228	3.0%
EXPENDITURES													
Operating Programs:													
Emergency Telephone Service	\$ 4,102,857	\$ 4,161,442	\$ 4,325,083	\$ 4,432,575		\$ 4,552,719		\$ 4,680,581		\$ 4,831,229		\$ 4,974,733	
Allocation of Centralized Support Costs	82,115	84,404	86,502	88,652		91,054		93,612		96,625		99,495	
TOTAL EXPENDITURES	\$ 4,184,972	\$ 4,245,846	\$ 4,411,585	\$ 4,521,227	2.5%	\$ 4,643,773	2.7%	\$ 4,774,193	2.8%	\$ 4,927,854	3.2%	\$ 5,074,228	3.0%

**METRO VANCOUVER REGIONAL DISTRICT
GENERAL GOVERNMENT ADMINISTRATION
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN**

	2017 ACTUAL	2018 ACTUAL	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES													
Metro Vancouver Regional District Requisitions	\$ 4,245,425	\$ 4,253,086	\$ 4,233,594	\$ 4,440,990	4.9%	\$ 4,659,693	4.9%	\$ 4,786,799	2.7%	\$ 4,865,759	1.6%	\$ 4,950,822	1.7%
Other External Revenues	1,489,650	699,993	1,010,000	972,910		975,368		977,875		980,433		1,003,041	
Transfer from Reserves	110,000	262,374	305,000	466,000		290,000		255,000		220,000		185,000	
TOTAL REVENUES	\$ 5,845,075	\$ 5,215,453	\$ 5,548,594	\$ 5,879,900	6.0%	\$ 5,925,061	0.8%	\$ 6,019,674	1.6%	\$ 6,066,192	0.8%	\$ 6,138,863	1.2%
EXPENDITURES													
Operating Programs:													
Audit and Insurance	\$ 115,652	\$ 102,067	\$ 110,929	\$ 69,680		\$ 70,670		\$ 77,098		\$ 72,760		\$ 73,860	
Board Administrative Services	2,361,937	1,589,181	2,524,121	2,828,319		2,771,556		2,842,354		2,914,931		2,989,314	
External Contributions	415,000	428,950	435,000	445,000		455,000		455,000		455,000		455,000	
Leadership and Engagement	252,025	138,152	488,440	502,498		520,134		533,401		539,772		553,568	
Mosquito Control Contract	109,128	132,340	135,000	117,810		120,166		122,569		125,021		127,519	
Regional Culture	36,480	33,108	36,077	36,825		37,464		38,111		38,773		39,449	
Contribution to Sustainability Innovation Fund Reserve	347,000	347,000	347,000	347,000		347,000		347,000		347,000		347,000	
	3,637,222	2,770,798	4,076,567	4,347,132	6.6%	4,321,990	(0.6%)	4,415,533	2.2%	4,493,257	1.8%	4,585,710	2.1%
Communications Program	476,958	873,930	1,032,000	1,117,000	8.2%	1,169,500	4.7%	1,197,000	2.4%	1,197,000	0.0%	1,197,000	0.0%
Allocation of Centralized Support Costs	552,333	534,484	440,027	415,768	(5.5%)	433,571	4.3%	407,141	(6.1%)	375,935	(7.7%)	356,153	(5.3%)
TOTAL EXPENDITURES	\$ 4,666,513	\$ 4,179,212	\$ 5,548,594	\$ 5,879,900	6.0%	\$ 5,925,061	0.8%	\$ 6,019,674	1.6%	\$ 6,066,192	0.8%	\$ 6,138,863	1.2%

**METRO VANCOUVER REGIONAL DISTRICT
GENERAL GOVERNMENT ZERO WASTE COLLABORATION INITIATIVES
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN**

	2017 ACTUAL	2018 ACTUAL	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES													
Metro Vancouver Regional District Requisitions	\$ 524,231	\$ 595,128	\$ 709,409	\$ 797,923	12.5%	\$ 817,152	2.4%	\$ 830,718	1.7%	\$ 795,899	(4.2%)	\$ 789,418	(0.8%)
Other External Revenues	-	449,138	-	245,200		255,500		260,800		255,800		255,800	
Love Food Hate Waste	76,438	194,764	556,000	406,800		499,500		547,200		502,200		502,200	
Zero Waste Conference	115,961	374,845	180,000	230,000		325,000		337,000		350,500		366,200	
TOTAL REVENUES	\$ 716,630	\$ 1,613,875	\$ 1,445,409	\$ 1,679,923	16.2%	\$ 1,897,152	12.9%	\$ 1,975,718	4.1%	\$ 1,904,399	(3.6%)	\$ 1,913,618	0.5%
EXPENDITURES													
Operating Programs:													
National Zero Waste Council	\$ 101,713	\$ 152,259	\$ 120,700	\$ 365,900		\$ 376,200		\$ 381,500		\$ 376,500		\$ 376,500	
Love Food Hate Waste	76,438	194,764	556,000	406,800		499,500		547,200		502,200		502,200	
Zero Waste Conference	268,383	374,845	392,000	442,000		537,000		549,000		562,500		578,200	
Circular Economy	-	-	32,500	32,500		32,500		32,500		-		-	
Coordination and Project Development	262,428	262,428	262,428	313,654		319,702		325,842		332,114		338,518	
	708,962	984,296	1,363,628	1,560,854	14.5%	1,764,902	13.1%	1,836,042	4.0%	1,773,314	(3.4%)	1,795,418	1.2%
Allocation of Centralized Support Costs	-	-	81,781	119,069	45.6%	132,250	11.1%	139,676	5.6%	131,085	(6.2%)	118,200	(9.8%)
TOTAL EXPENDITURES	\$ 708,962	\$ 984,296	\$ 1,445,409	\$ 1,679,923	16.2%	\$ 1,897,152	12.9%	\$ 1,975,718	4.1%	\$ 1,904,399	(3.6%)	\$ 1,913,618	0.5%

**METRO VANCOUVER REGIONAL DISTRICT
LABOUR RELATIONS
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN**

	2017 ACTUAL	2018 ACTUAL	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES													
Metro Vancouver Regional District Requisitions	\$ 1,054,360	\$ 1,086,930	\$ 946,739	\$ 986,140	4.2%	\$ 1,013,615	2.8%	\$ 1,009,337	(0.4%)	\$ 1,019,687	1.0%	\$ 1,048,211	2.8%
Compensation Services Revenue	330,835	359,960	478,280	483,893		502,783		502,942		509,011		516,798	
Collective Bargaining Services Revenue	813,019	763,645	867,558	887,536		922,159		923,791		935,877		951,037	
Other External Revenues	437,730	405,082	391,190	430,270		421,166		434,823		446,246		443,254	
Transfer from Reserves	18,865	11,770	165,946	376,719		-		-		-		-	
TOTAL REVENUES	\$ 2,654,809	\$ 2,627,387	\$ 2,849,713	\$ 3,164,558	11.0%	\$ 2,859,723	(9.6%)	\$ 2,870,893	0.4%	\$ 2,910,821	1.4%	\$ 2,959,300	1.7%
EXPENDITURES													
Operating Programs:													
Information and Advisory Services	\$ 1,064,789	\$ 1,023,682	\$ 1,199,104	\$ 1,469,529		\$ 1,115,803		\$ 1,139,195		\$ 1,163,124		\$ 1,187,588	
Compensation Services	319,479	407,272	516,329	530,507		541,280		552,215		563,391		574,807	
Collective Bargaining	743,791	684,120	910,279	935,251		954,886		974,852		995,268		1,016,141	
	2,128,059	2,115,074	2,625,712	2,935,287	11.8%	2,611,969	(11.0%)	2,666,262	2.1%	2,721,783	2.1%	2,778,536	2.1%
Allocation of Centralized Support Costs	293,775	244,065	224,001	229,271	2.4%	247,754	8.1%	204,631	(17.4%)	189,038	(7.6%)	180,764	(4.4%)
TOTAL EXPENDITURES	\$ 2,421,834	\$ 2,359,139	\$ 2,849,713	\$ 3,164,558	11.0%	\$ 2,859,723	(9.6%)	\$ 2,870,893	0.4%	\$ 2,910,821	1.4%	\$ 2,959,300	1.7%

**METRO VANCOUVER REGIONAL DISTRICT
REGIONAL EMERGENCY MANAGEMENT
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN**

	2017 ACTUAL	2018 ACTUAL	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES													
Metro Vancouver Regional District Requisitions	\$ 150,000	\$ 155,000	\$ 159,000	\$ 163,000	2.5%	\$ 167,000	2.5%	\$ 170,000	1.8%	\$ 173,000	1.8%	\$ 176,000	1.7%
Transfer from Reserves	38,345	-	69,104	74,868		55,945		28,745		16,162		2,579	
TOTAL REVENUES	\$ 188,345	\$ 155,000	\$ 228,104	\$ 237,868	4.3%	\$ 222,945	(6.3%)	\$ 198,745	(10.9%)	\$ 189,162	(4.8%)	\$ 178,579	(5.6%)
EXPENDITURES													
Operating Programs:													
Regional Emergency Management	\$ 173,345	\$ 121,889	\$ 217,242	\$ 226,541		\$ 212,329		\$ 189,281		\$ 180,154		\$ 170,075	
Allocation of Centralized Support Costs	15,000	10,113	10,862	11,327		10,616		9,464		9,008		8,504	
TOTAL EXPENDITURES	\$ 188,345	\$ 132,002	\$ 228,104	\$ 237,868	4.3%	\$ 222,945	(6.3%)	\$ 198,745	(10.9%)	\$ 189,162	(4.8%)	\$ 178,579	(5.6%)

**METRO VANCOUVER REGIONAL DISTRICT
REGIONAL GLOBAL POSITIONING SYSTEM
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN**

	2017 ACTUAL	2018 ACTUAL	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES													
Regional Global Positioning System User Fees	\$ 340,719	\$ 310,688	\$ 314,180	\$ 292,221	(7.0%)	\$ 294,175	0.7%	\$ 299,252	1.7%	\$ 303,846	1.5%	\$ 309,310	1.8%
Other External Revenues	58,561	61,448	35,700	36,628		37,617		38,633		39,676		40,747	
Transfer from Reserves	-	-	200,000	-		50,000		-		-		-	
TOTAL REVENUES	\$ 399,280	\$ 372,136	\$ 549,880	\$ 328,849	(40.2%)	\$ 381,792	16.1%	\$ 337,885	(11.5%)	\$ 343,522	1.7%	\$ 350,057	1.9%
EXPENDITURES													
Operating Programs:													
Regional Global Positioning System	\$ 164,527	\$ 203,883	\$ 488,844	\$ 250,848		\$ 306,386		\$ 262,034		\$ 267,809		\$ 273,719	
Contribution to Reserve	30,709	31,323	31,949	52,780		54,152		55,560		57,005		58,487	
Allocation of Centralized Support Costs	62,423	31,225	29,087	25,221		21,254		20,291		18,708		17,851	
TOTAL EXPENDITURES	\$ 257,659	\$ 266,431	\$ 549,880	\$ 328,849	(40.2%)	\$ 381,792	16.1%	\$ 337,885	(11.5%)	\$ 343,522	1.7%	\$ 350,057	1.9%

**METRO VANCOUVER REGIONAL DISTRICT
REGIONAL ECONOMIC PROSPERITY
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN**

	2017 ACTUAL	2018 ACTUAL	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES													
Metro Vancouver Regional District Requisitions	\$ 233,997	\$ 281,382	\$ 409,500	\$ 1,020,000	150.0%	\$ 1,530,000	50.0%	\$ 2,040,000	33.3%	\$ 2,550,000	25.0%	\$ 2,550,000	0.0%
Transfer from Reserves	31,000	-	75,000	-		-		-		-		-	
TOTAL REVENUES	\$ 264,997	\$ 281,382	\$ 484,500	\$ 1,020,000	110.0%	\$ 1,530,000	50.0%	\$ 2,040,000	33.3%	\$ 2,550,000	25.0%	\$ 2,550,000	0.0%
EXPENDITURES													
Operating Programs:													
Collaboration	\$ -	\$ -	\$ -	\$ -		\$ 200,000		\$ 200,000		\$ 200,000		\$ 200,000	
Regional Data Collection and Research	-	-	-	200,000		200,000		400,000		400,000		400,000	
Attracting Investment	-	-	-	400,000		700,000		1,000,000		1,500,000		1,500,000	
Leadership and Administration	201,543	155,933	400,000	400,000		400,000		400,000		400,000		400,000	
Transition	-	-	75,000	-		-		-		-		-	
	201,543	155,933	475,000	1,000,000	110.0%	1,500,000	50.0%	2,000,000	33.3%	2,500,000	25.0%	2,500,000	0.0%
Allocation of Centralized Support Costs	-	-	9,500	20,000	110.0%	30,000	50.0%	40,000	33.3%	50,000	25.0%	50,000	0.0%
TOTAL EXPENDITURES	\$ 201,543	\$ 155,933	\$ 484,500	\$ 1,020,000	110.0%	\$ 1,530,000	50.0%	\$ 2,040,000	33.3%	\$ 2,550,000	25.0%	\$ 2,550,000	0.0%

**METRO VANCOUVER REGIONAL DISTRICT
SASAMAT FIRE PROTECTION SERVICE
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN**

	2017 ACTUAL	2018 ACTUAL	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES													
Metro Vancouver Regional District Requisitions	\$ 325,232	\$ 321,157	\$ 328,928	\$ 333,789	1.5%	\$ 338,694	1.5%	\$ 343,697	1.5%	\$ 491,804	43.1%	\$ 500,013	1.7%
Other External Revenues	15,000	10,000	10,000	10,000		10,000		10,000		10,000		10,000	
Transfer from Reserves	560,680	48,673	-	600,000		-		-		-		-	
TOTAL REVENUES	\$ 900,912	\$ 379,830	\$ 338,928	\$ 943,789	180.0%	\$ 348,694	(63.1%)	\$ 353,697	1.4%	\$ 501,804	41.9%	\$ 510,013	1.6%
EXPENDITURES													
Operating Programs:													
Sasamat Fire Protection Service	\$ 221,718	\$ 269,747	\$ 224,389	\$ 228,808		\$ 233,267		\$ 237,815		\$ 372,458		\$ 379,921	
Apparatus Acquisition	560,680	-	-	600,000		-		-		-		-	
Contribution to Reserves	77,292	68,383	92,100	92,100		92,100		92,100		92,100		92,100	
	859,690	338,130	316,489	920,908	190.0%	325,367	(64.7%)	329,915	1.4%	464,558	40.8%	472,021	1.6%
Allocation of Centralized Support Costs	6,571	25,365	22,439	22,881	2.0%	23,327	1.9%	23,782	2.0%	37,246	56.6%	37,992	2.0%
TOTAL EXPENDITURES	\$ 866,261	\$ 363,495	\$ 338,928	\$ 943,789	180.0%	\$ 348,694	(63.1%)	\$ 353,697	1.4%	\$ 501,804	41.9%	\$ 510,013	1.6%

9-1-1 EMERGENCY TELEPHONE SERVICE

Description of services

9-1-1 Emergency Telephone Service is a Metro Vancouver Regional District function established to provide 9-1-1 emergency telephone service within the Metro Vancouver service area. All 9-1-1 calls placed within the region are answered at the Regional Control Centre which is operated for Metro Vancouver, under contract, by E-Comm. 'Regional' call-takers at E-Comm screen the calls for services required, then confirm the municipality and hand off the calls to the appropriate emergency agency. 9-1-1 service is also provided on contract to the Resort Community of Whistler and to the Sunshine Coast Regional District.

Strategic directions and high level goals supported

Regional Federation

Advancing Effective Regional Governance

- Ensure that Metro Vancouver decision-making is guided by the value of a regional perspective.

Strengthening Our Livable Region

- Continue Metro Vancouver's leadership on environmental stewardship.
- Maintain Metro Vancouver's regional role in emergency preparedness through continued delivery of services.

Fostering Collaboration and Engagement

- Continue to build effective working relationships with key stakeholders.

Performance indicators

Indicator	Historical and/or industry benchmark	Current performance	2020 performance objective
Number of days per year where E-Comm failed to meet 95% of calls within 5 seconds standard	2014: 3 2015: 3 2016: 0 2017: 0 2018:0	2019: 0	2020: 0

2020 key actions

- Continue to provide 9-1-1 emergency telephone service to all callers in Metro Vancouver, currently contracted to the end of 2022.
- Begin planning for transition to NextGen 911 in 2022.

BOARD AND LEGISLATIVE SERVICES

Description of services

Board and Legislative Services is part of the General Government function of the Metro Vancouver Regional District. This service carries out: the statutory responsibilities for corporate administration under the *Local Government Act*; agenda/meeting management; elections and other voting; compliance with the provisions of the *Freedom of Information and Protection of Privacy Act*; board and committee remuneration; bylaw management; correspondence control; and policy management.

The budget for Board and Legislative Services, in the General Government function, in 2020 is \$2,946,940.

Strategic directions and high level goals supported

In support of the *Board Strategic Plan's* strategic direction to strengthen the *Regional Federation* by providing legislative services, the following goals are supported:

- Perform the duties and functions associated with the Corporate Administration provisions in the *Local Government Act*, including those related to the boards and committees, as well as other statutory obligations.

Performance indicators

Indicator	Historical and/or industry benchmark	Current performance	2020 performance objective
Percentage of Board and Committee minutes produced without correction	5-year average: 99%	2019 YTD: 99%	100%
Percentage of regular Board meeting agendas published one week prior to meeting	5-year average: 100%	2019 YTD: 100%	100%
Number of Freedom of Information access requests delivered on time	5-year average: 58 requests/annual average with 95% on time.	2019 YTD 56 requests to August with 95% on time.	100%

2020 key actions

Board and Legislative Services:

- continue to capture and digitize old board and committee agendas, reports and minutes to make them accessible.
- streamline agenda management processes, and publishing on website.
- Improve management of bylaws.

GENERAL GOVERNMENT – ZERO WASTE COLLABORATION INITIATIVES

Description of service

Zero Waste Collaboration Initiatives advances the zero waste objectives of Metro Vancouver with a focus on waste prevention and the transition to a circular economy. Progress on waste prevention involves national and even global cross-sectoral collaboration – driving innovation in the design, production and use of goods in support of a circular economy, learning about best practices in policy development and aligning with important initiatives of global leaders, stimulating and supporting innovation in product design and packaging, and stimulating behaviour change throughout the supply chain and among consumers. Metro Vancouver's interest in the transition to a circular economy is primarily related to how it links to waste prevention and reduction in greenhouse gas emissions.

Bringing together governments, businesses and NGOs to advance a waste prevention agenda maximizes economic opportunities for the benefit of all Canadians.

Zero Waste Collaboration Initiatives include:

- National Zero Waste Council,
- Annual Zero Waste Conference,
- Love Food Hate Waste Canada; and
- Membership in the Ellen MacArthur Foundation Circular Economy leadership group.

Strategic directions and high level goals supported

- Utilize the potential of the National Zero Waste Council and the annual Zero Waste Conference to promote the importance of waste prevention and the value of transitioning to a circular economy.
- Continue Metro Vancouver's leadership on environmental stewardship.

Performance indicators

Indicator	Historical and/or industry benchmark	Current performance	2020 performance objective
Number of attendees at the Zero Waste Conference	2015: 523 attendees 2016: 495 attendees 2017: 452 attendees 2018: 501 attendees	Projected for 2019: 520 attendees	5% increase
Number of partnerships developed to expand the Love Food Hate Waste campaign	2018: 9 partnerships	2019: 9 partnerships	1 new partnership

Number of members in the National Zero Waste Council	61 members in 2015 82 members in 2016 109 members in 2018	132 members in 2019	5% increase
Number of events organized by the National Zero Waste Council that enable knowledge sharing (workshops, webinars, forums)	2018: 7 events	Projected for 2019: 8 events	9 events

2020 key actions

- Leadership to the National Zero Waste Council, including the Secretariat, meetings of the Management Board and AGM, support to Working Groups and Strategic Initiatives such as Food Loss and Waste, Circular Economy, Plastics and others.
- Enhance the scope and influence of the National Zero Waste Council through the identification and engagement of collaborative, partnership opportunities with key stakeholders.
- Host the 2020 Zero Waste Conference continuing to build its well-earned reputation as a place of innovation, compelling speakers, unique perspectives, and valuable insights that help to inform waste prevention actions at Metro Vancouver and contributes to the momentum towards a Circular Canada.
- Continue to implement A Food Loss and Waste Strategy for Canada with a focus on identifying an actionable set of recommendations for policies and other interventions that could motivate optimized packaging solutions in the food supply chain that reduce food loss and waste without generating unnecessary packaging.
- Assess the value and opportunity of a Canada-wide Circular Cities network.
- Expand the reach of the Love Food Hate Waste Canada campaign across Canada through more partnerships and strategic use of social media.
- Provide effective contributions to the cross Canada discussions and initiatives on how to reduce plastics waste and the use of single use items.
- Produce a “Business Case for Waste Prevention” report.
- Establish a Provincial Advisory Group to the National Zero Waste Council

LABOUR RELATIONS

Regional Employers Services

Description of services

Regional Employers Services (RES) provides a range of human resource and labour relations services in support of Metro Vancouver's member jurisdictions under the authority of the Metro Vancouver Regional District Labour Relations function. As part of Metro Vancouver's regional services, RES provides a forum for local government employers to connect, share and leverage information and resources related to issues such as workforce strategy.

Three integrated RES service groups provide complete support to member jurisdictions in the following areas:

- **Information & Advisory Services:** provides in-depth research, advice and support for human resources and labour relations needs to all member jurisdictions, as well as provides a forum for members to pursue matters of common interest.
- **Collective Bargaining Services:** provides strategic, responsive guidance and expertise for all subscribing member jurisdictions as well as for other fee-for-service clients.
- **Compensation Services:** provides advice related to job analysis, organizational design, and dispute resolution to subscribing member jurisdictions and other fee-for-service clients.

Strategic directions and high level goals supported

Board Strategic Plan

- Continue to engage with members on processes and initiatives that contribute to an effective and well-functioning organization.
 - Ensure that Metro Vancouver decision making is guided by the value of a regional perspective.
 - Provide long range projections on population, housing, employment, and land use, and their geographical distributions, to support effective decision-making for the provision of core utilities, transit and other infrastructure projects important to the region.
- Enhance relationships between Metro Vancouver and other orders of government, First Nations, adjacent regional districts, and key stakeholders.
 - Improve public and media understanding of the role of local government.
 - Continue to build effective working relationships with key stakeholders.
 - Promote a regional approach to advancing economic prosperity that complements the economic development work of members.

Performance indicators

Indicator	Historical and/or industry benchmark	Current performance	2020 performance objective
Average turnaround time for job evaluation reviews (calendar days)	Average: 25 2016: 26.5 2017: 24.5 2018: 23.8	2019 YTD July: 28.7 Objective: 28	28
Annual number of attendees at RES educational offerings	Average: 162 2016: 171 2017: 140 2018: 174	2019 YTD July: 210 Objective: 350	200
Total number of page visits to RES website and myRES portal	Average: 14,961 2016: 11,910 2017: 9,452 2018: 23,521	2019 YTD July: 18,081 Objective: 30,000	30,000
Collective agreements serviced	46	49	49

2020 key actions

- Complete phase three of the technology and communications project by further expanding the members' only portal (myRES) to include increased access to online tools, data as well as customized reporting.
- Commence bargaining for renewals of collective agreements for Inside/Outside, Fire and Police collective agreements.
- Continue to advance the Regional Workforce Strategy Initiative by completing the Sector Labour Market Partnership research, launching and refining the Regional Local Government Employer brand and establish secondary and post-secondary partnerships to build capacity.
- Consolidate and deliver regional events and outreach through initiatives such as the Calendar of Educational Offerings, the Regional Employers Symposium and functional roundtables.

REGIONAL EMERGENCY MANAGEMENT

Description of services

Regional Emergency Management is a Metro Vancouver Regional District function established to provide emergency management to the region. This service is delivered in partnership with the Province of BC through the Integrated Partnership for Regional Emergency Management (IPREM).

The service was established through Bylaw 1079, 2008 and provided for the creation of IPREM that would engage Provincial and local government officials in a joint endeavour to coordinate a seamless multi-level emergency management system for the Metro Vancouver area. The service does not replace municipal emergency planning, but assists where these plans impact neighbouring local governments or the region as a whole. IPREM is working with representatives from all levels of government, stakeholders and the private sector determining regional emergency management planning priorities.

IPREM has identified the following goals:

- To improve regional emergency management in the Metro Vancouver region through continued and increased provincial and regional cooperation.
- To develop coordinated plans and a coordinated emergency management strategy.
- To identify and prioritize cross jurisdictional emergency issues affecting Lower Mainland municipalities and the Province.
- To support the development of plans, operational protocols and response and mitigation strategies which provide an interface among and between municipalities, the regional district and provincial ministries.
- To ensure that major emergency or disaster planning that is sub-regional, regional, cross-jurisdictional, or cross agency in nature has a coordinated and collaborative mechanism for issue identification, examination, priority setting, discussion and resolution.
- To facilitate implementation of agreed upon works, including grant applications.
- To create a disaster resilient region.

Strategic directions and high level goals supported

Regional Federation

Advancing Effective Regional Governance

- Ensure that Metro Vancouver decision-making is guided by the value of a regional perspective.

Strengthening Our Livable Region

- Continue Metro Vancouver's leadership on environmental stewardship.
- Maintain Metro Vancouver's regional role in emergency preparedness through continued delivery of services.

Ensuring Financial Sustainability

- Explore sustainable sources of new revenues.

Fostering Collaboration and Engagement

- Continue to build effective working relationships with key stakeholders.

Performance indicators

Indicator	Historical and/or industry benchmark	Current performance	2020 performance objective
Conduct one Region Wide Emergency Exercise per year	1	2 (planned)*	1

2020 key actions

- Test and exercise the Regional Recovery Framework developed in 2019.
- Conduct a regional exercise, as part of the 2018-2021 Regional Exercise Program, that focuses on the theme of 'decision making' and provides an opportunity to test the Regional Concept of Operations.
- Support integration of the regional disaster debris management framework by clarifying local and provincial government roles.
- Deliver one regional forum to collaborate on one of the IPREM core deliverables.
- Review and implement a new strategic plan for 2021.

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	2020 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 (2016-2018): 99% 2018 99% 2017 99% 2016 99%	99%	99%
Percent of service uptime (24 x 7, 365 days / year): Post-mission data availability through Provincial portal	MV 3-year average (2016-2018): 97% 2018 95% 2017 98% 2016 98%	99%	98%

2020 key actions

- Begin the review of the High Precision Network and Active Control Point enhancement requirements for the longer term, in accordance with of the 2019-2023 GPS Program Strategic Plan.
- Complete the cross-over of the old Active Control Point infrastructure to the new infrastructure and actively support users through the transition in 2020.
- Integrate new Active Control Point on Annacis Island into regional Active Control Point infrastructure.

REGIONAL ECONOMIC PROSPERITY SERVICE

Description of service

The primary focus of the regional economic prosperity service, provided to all member jurisdictions of the Metro Vancouver Regional District, is to attract strategic investment across the region that will add well-paying, high quality jobs in the region while generating new tax revenues that support investment in infrastructure that benefits the region. The service is organized around three core functions:

- **Foster collaboration.** Create a strategic approach to regional prosperity through engaging stakeholders, developing protocols for handling qualified prospects with Metro Vancouver members, and communicating the work and success of the service.
- **Conduct regional data collection & research.** Support investment attraction through research and analysis, developing business cases for leads, and providing other information and analysis relevant to identifying target markets and/or sectors for this new service.
- **Attract investment.** Develop a regional brand and marketing campaign, work with federal and provincial staff to identify leads, work with members to develop the pitch and packages that will be effective, and following the developed protocols, work to secure new investment in the region with appropriate aftercare.

Strategic directions and high level goals supported

- Promote a regional approach to advancing economic prosperity that complements the economic development work of members.

Performance indicators

Indicator	Historical and/or industry benchmark	Current performance	2020 performance objective
Number of events (roundtables, working sessions, workshops) organized to advance regional collaboration on new strategic investment	n/a	n/a	4
Number of research and analysis reports received by the Management Board	n/a	n/a	3

Number of trade missions supported/executed	30 in-market visits to meet with qualified leads in 2018/2019 (Toronto Global)	n/a	2
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2020 key actions

- Finalize the membership and terms of reference of the Management Board, Government Advisory Group and Global Advisory Group and organize and implement a schedule of regular meetings for each.
- Engage an Executive Director and support staff.
- Develop a brand and marketing strategy.
- Develop protocols and processes to effectively integrate the service with the operations of the economic development activities of member jurisdictions as well as the trade and investment staff in global offices of the provincial and federal governments.
- Implement, with members, the marketing strategy and use of the brand.
- Initiate the economic analysis required to inform the definition of strategic investment relevant to the Metro Vancouver region as well as the engagement process required to gather key stakeholder input on this definition.

SASAMAT FIRE PROTECTION SERVICE

Description of services

Sasamat Fire Protection Service is a Metro Vancouver Regional District function established to provide fire protection service to the Villages of Anmore and Belcarra. The service has two fire halls and five trucks staffed by approximately 40 trained volunteers. In addition to providing emergency response services, Sasamat Fire Protection Service also provides fire inspection services to the Village of Anmore and issues burning permits for both municipalities. The fire protection service uses the Surrey Fire Dispatch Centre to dispatch the Sasamat Volunteer Fire Department to emergency calls.

The Sasamat Fire Protection Service is responsible for financing all operating costs and the costs of all of its major equipment purchases. In 2018 Sasamat Fire Protection Service responded to approximately 98 calls for service with this volume expected to increase as development continues in the service area.

Strategic directions and high level goals supported

Regional Federation

Strengthening Our Livable Region

- Continue Metro Vancouver's leadership on environmental stewardship.
- Maintain Metro Vancouver's regional role in emergency preparedness through continued delivery of services.

Fostering Collaboration and Engagement

- Continue to build effective working relationships with key stakeholders.

Performance indicators

Indicator	Historical and/or industry benchmark	Current performance	2020 performance objective
Respond to all calls for assistance received through Surrey Fire Dispatch within 15 minutes	95%	100%	100%

2020 key actions

- Determine requirements and purchase new fire truck.
- Commence review of requirements and preparation of job description for anticipated full time Fire Chief in 2023.
- Continue to ensure safety requirements are met by respiratory fit testing, audiometric testing and weekly training.
- Review and ensure equipment continues to support Fire Underwriters standards.
- Review and update Operational Guidelines for inclusion of new Fire Chief.
- Book Fire Department Board of Trustees Meetings as part of regular MVRD Committee calendar, at three per year or as needed.
- Continue evaluation of Fire Hall needs.

2020 – 2024 “WHAT’S HAPPENING” – Regional District Service Areas

Below is a summary of some of the key initiatives to be undertaken by the Regional District Service Area over the next 5 years.

Initiative	Description	Theme
2020 - 2024		
Regional Economic Prosperity	Develop a Brand and Marketing Strategy as well as develop protocols and processes to integrate the service with stakeholders	Financial Sustainability Regional Growth
National Zero Waste Conference	Expand the National Zero waste conference to two days from one and a half days	Environmental Sustainability
Regional Workforce Strategy Initiative	Implement initiatives identified in the Sector Labour Market Partnership such as regional local government branding and outreach to position Metro Vancouver local government employers as a sector of choice	Regional Growth
Emergency Preparedness	Conduct regional exercises that focus on theme of “decision making”, involving local governments, the Province and regional stakeholders	System Stewardship
Zero Waste Communication	Continued and enhanced waste campaigns, including initiating actions on the awareness and reduction of single use items	Environmental Sustainability
Board and Legislative Services	Capture and expand accessibility to old Board and Committee agendas, reports and minutes	Regulatory and Legislative Environment
Outreach and Engagement	Continue to publish semi-annual Metro Vancouver Update newsletter	Regional Growth

METRO VANCOUVER DISTRICTS
2020-2024 PROJECTED RESERVES - E911 EMERGENCY TELEPHONE SERVICE

OPERATING RESERVES

	2019	2020				2020	2021	2022	2023	2024
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
E911 Emergency Telephone Service	\$ 215,229	\$ 215,229	\$ 992	\$ -	\$ 4,358	\$ 220,579	\$ 226,061	\$ 232,189	\$ 238,710	\$ 246,393

DISCRETIONARY RESERVES

	2019	2020				2020	2021	2022	2023	2024
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Emergency 911 Telephone Service (E911)										
E911 General Reserve	\$ 719,031	\$ 719,031	\$ -	\$ -	\$ 14,381	\$ 733,412	\$ 748,080	\$ 763,042	\$ 778,303	\$ 793,869

METRO VANCOUVER DISTRICTS
2020-2024 PROJECTED RESERVES - GENERAL GOVERNMENT ADMINISTRATION

OPERATING RESERVES

	2019	2020				2020	2021	2022	2023	2024
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
General Government Administration	\$ 308,786	\$ 308,786	\$ -	\$ (54,395)	\$ 5,689	\$ 260,080	\$ 276,645	\$ 278,903	\$ 283,634	\$ 285,960

DISCRETIONARY RESERVES

	2019	2020				2020	2021	2022	2023	2024
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
General Government Administration										
General Government General Reserve	\$ 5,063,726	\$ 5,063,726	\$ -	\$ -	\$ 101,275	\$ 5,165,000	\$ 5,268,300	\$ 5,373,666	\$ 5,481,140	\$ 5,590,762

METRO VANCOUVER DISTRICTS
2020-2024 PROJECTED RESERVES - GENERAL GOVERNMENT ZERO WASTE COLLABORATION INITIATIVES

OPERATING RESERVES

	2019	2020				2020	2021	2022	2023	2024
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
General Government Zero Waste Collaboration Initiatives	\$ -	\$ -	\$ 71,548	\$ -	\$ 723	\$ 72,270	\$ 83,996	\$ 94,858	\$ 98,786	\$ 95,220

METRO VANCOUVER DISTRICTS
2020-2024 PROJECTED RESERVES - LABOUR RELATIONS

OPERATING RESERVES

	2019	2020				2020	2021	2022	2023	2024
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Labour Relations	\$ 130,787	\$ 130,787	\$ 752	\$ -	\$ 2,650	\$ 134,188	\$ 139,392	\$ 143,034	\$ 143,649	\$ 145,607

DISCRETIONARY RESERVES

	2019	2020				2020	2021	2022	2023	2024
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Labour Relations										
Labour Relations General Reserve	\$ 1,946,580	\$ 1,946,580	\$ -	\$ (376,719)	\$ 35,164	\$ 1,605,025	\$ 1,637,125	\$ 1,669,868	\$ 1,703,265	\$ 1,737,331

METRO VANCOUVER DISTRICTS
2020-2024 PROJECTED RESERVES - REGIONAL EMERGENCY MANAGEMENT

OPERATING RESERVES

	2019	2020				2020	2021	2022	2023	2024
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Regional Emergency Management	\$ 10,117	\$ 10,117	\$ 1,073	\$ -	\$ 215	\$ 11,405	\$ 11,893	\$ 11,147	\$ 9,937	\$ 9,458

DISCRETIONARY RESERVES

	2019	2020				2020	2021	2022	2023	2024
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Regional Emergency Management (REM)										
REM General Reserve	\$ 246,085	\$ 246,085	\$ -	\$ (74,868)	\$ 4,173	\$ 175,390	\$ 122,393	\$ 95,808	\$ 81,401	\$ 80,424

METRO VANCOUVER DISTRICTS
2020-2024 PROJECTED RESERVES - REGIONAL GLOBAL POSITIONING SYSTEM

OPERATING RESERVES

	2019	2020				2020	2021	2022	2023	2024
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Regional Global Positioning System	\$ 15,718	\$ 15,718	\$ 1,444	\$ -	\$ 332	\$ 17,494	\$ 16,442	\$ 16,590	\$ 16,894	\$ 17,176

STATUTORY RESERVES

	2019	2020				2020	2021	2022	2023	2024
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Regional Global Positioning System										
Regional Geospatial Reference System Reserve	\$ 865,752	\$ 865,752	\$ 52,780	\$ -	\$ 17,843	\$ 936,375	\$ 959,296	\$ 1,034,597	\$ 1,112,864	\$ 1,194,193

METRO VANCOUVER DISTRICTS
2020-2024 PROJECTED RESERVES - REGIONAL ECONOMIC PROSPERITY

OPERATING RESERVES

	2019	2020				2020	2021	2022	2023	2024
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Regional Economic Prosperity	\$ 14,069	\$ 14,069	\$ 6,060	\$ -	\$ 345	\$ 20,475	\$ 51,000	\$ 76,500	\$ 102,000	\$ 127,500

METRO VANCOUVER DISTRICTS
2020-2024 PROJECTED RESERVES - SASAMAT FIRE PROTECTION SERVICE

OPERATING RESERVES

	2019	2020				2020	2021	2022	2023	2024
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Sasamat Fire Protection Service	\$ 11,953	\$ 11,953	\$ 146	\$ -	\$ 243	\$ 12,341	\$ 12,584	\$ 12,830	\$ 13,080	\$ 20,485

STATUTORY RESERVES

	2019	2020				2020	2021	2022	2023	2024
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Sasamat Fire Protection Service (SFPS)										
SFPS Capital Reserve Fund	\$ 768,804	\$ 768,804	\$ 92,100	\$ (600,000)	\$ 10,297	\$ 271,201	\$ 369,646	\$ 470,060	\$ 572,482	\$ 676,952
SFPS Communications Capital Reserve Fund	56,630	56,630	-	-	1,133	57,763	58,918	60,097	61,299	62,525
SFPS Emergency Equipment Reserve Fund	5,702	5,702	-	-	114	5,816	5,932	6,051	6,172	6,295

To: Finance and Intergovernment Committee

From: Carol Mason, Commissioner/Chief Administrative Officer
Dean Rear, Acting General Manager, Financial Services/Chief Financial Officer

Date: October 7, 2019 Meeting Date: October 16, 2019

Subject: **2020 - 2024 Financial Plan – Centralized Support Program**

RECOMMENDATION

That the Finance and Intergovernment Committee endorse the 2020 - 2024 Financial Plan for the Centralized Support Program as presented in the report titled “2020 - 2024 Financial Plan – Centralized Support Program” dated October 7, 2019 and forward it to the Board Budget Workshop on October 23, 2019 for consideration.

PURPOSE

To present the 2020 - 2024 Financial Plan for the Centralized Support Program including Corporate Services, External Relations, Financial Services, Human Resources, Indigenous Relations and Legislative Services, for consideration by the Finance and Intergovernment 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) and related functions.

This report focuses on the Corporate Support Program and presents the 2020 annual budget and the updated five year plan for the years 2020 to 2024 for committee consideration.

CENTRALIZED SUPPORT PROGRAM

Centralized Support Program services support all business activities for the four Metro Vancouver legal entities. These budgets are allocated across the organization and supported by the revenue sources of each function in accordance with the Board *Corporate Allocation Policy* which provides the basis for allocating the Centralized Support Program Services budgets to the benefitting Metro Vancouver service in an equitable, consistent and transparent manner.

These Centralized Support Program comprises the following service areas:

- Corporate Services
- External Relations
- Financial Services
- Human Resources
- Indigenous Relations
- Legislative Services

The Centralized Support Program services are guided by the *Board Strategic Plan* with a primary focus on the following strategic directions:

- Continue to engage with members on processes and initiatives that contribute to an effective and well functioning organization.
- Build resilience in communities to prepare for and adapt to changing physical and environmental conditions.
- 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.
- Enhance relationships between Metro Vancouver and other orders of government, First Nations, adjacent regional districts, and key stakeholders.

As the Centralized Support Program service areas support all business activities of Metro Vancouver entities and functions, the Corporate Support Program provides support in the pursuit of all goals and objectives of that plan.

2020 BUDGET AND 2020 - 2024 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:

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

Attached are summaries of the 2020 - 2024 Financial Plans for the Centralized Support Program service areas (Attachment 1).

Also, 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. The 2020 Annual Work Plans for the Centralized Support Program service areas presented in this report are included in Attachment 2.

A summary of the Centralized Support Program service area program highlights, 2020 - 2024 “What’s Happening”, is included under Attachment 3.

Operating Budget Highlights

In 2020, the Centralized Support Program expenditures are increasing \$2.37 million for total expenditures of \$76.3 million (Attachment 1). This increase is primarily due to, in addition to labour inflationary adjustments, a proposed new position in Financial Services and the addition of temporary resources in Human Resources and in Legislative Services.

The allocation of Centralized Support Program costs, the true impact on the revenue requirements of the plan, is the total expenditures adjusted for external recoveries and reserve applications. In 2020, the allocation of centralized support program costs is increasing by \$1.56 million (2.6%). This increase is largely inflationary, but is also impacted by reduced estimates for third-party lease returns at head office and partially offset by increased reserve funding for projects meeting the criteria for funding in accordance with the *Operating, Statutory and Discretionary Reserves Policy*.

Financial Services is proposing the addition of one Financial Systems Analyst to anchor further client support for the Unit 4 financial management system and the Questica financial planning system.

Over the five years of the plan, the financial impact of the Centralized Support Program services are as follows:

Centralized Support Program Service	Total Expenditures 2020 – 2024 \$ Millions	Average Annual Expenditures \$ Millions	Average Annual Increase (Decrease)
Corporate Services	\$ 211.8	\$ 42.4	0.0%
External Relations	\$ 31.2	\$ 6.2	1.2%
Financial Services	\$ 67.3	\$ 13.5	2.9%
Human Resources	\$ 48.7	\$ 9.7	3.3%
Indigenous Relations	\$ 3.0	\$ 0.6	2.0%
Legislative Services	\$ 21.4	\$ 4.3	1.9%

The 2020 - 2024 Financial Plan details for the Centralized Support Program are included Attachment 1.

Centralized Support Services support the organization and focus on processes, systems and procedures which enhance the business activities of all Metro Vancouver service areas. Some of those enhancements include the following:

- Upgrade the Financial Planning System including an enhanced capital planning module
- Implementation of the Digital Strategy setting out a coordinated direction for IT corporately.
- Completion of the initial Metro Vancouver 30 Year Financial Plan
- Reviewing and revising Corporate Safety Management System Standards
- Continue the development of asset management programs building on the Board approved policies
- Review and update job classifications and generate job descriptions for the Teamsters positions
- Implementation of a Talent Management System and Learning Management System

Reserve Funds

The services provided through the Centralized Support Program include one-time expenditures for head office renovations and improvements, equipment purchases as well as one-time initiatives which are delivered through contract services. In accordance with the *Operating, Statutory and Discretionary Reserves Policy*, these items are funded using reserves.

In 2020, \$7.7 million in reserve funding will be applied in the Centralized Support Program - \$2.7 million for the purchase of computer hardware and one-time software application upgrades, \$2.6 million for continued capital improvements at head office, \$1.6 million to complete the transition of financing on the new Head Office building and \$800,000 to fund one-time initiatives in External Relations, Human Resources and Financial Services. The 2020 – 2024 Projected Reserves for the Centralized Support Program is included in Attachment 4.

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 2020 Centralized Support Program Work Plans are presented in this report. Within these five Work Plans, 25 performance indicators have been developed and are being tracked. These include:

- Metrotower III Energy Star Rating (overall building efficiency)
- COR safety program audit score
- Average hours per employee of Safety Training
- Number of website page visits
- Number of Metro Vancouver followers on twitter
- Number of Metro Vancouver followers on Facebook
- Debt service costs / Total revenue
- Number of job vacancies processed
- Percentage of workforce receiving training
- Participants in health and wellness programs

The Centralized Support Program supports all business activities of the Metro Vancouver entities. The performance indicators for these service areas, as a result, look at the improvement of the environment in which Metro Vancouver services are delivered. These include finding and maintaining resources, maintaining a healthy safe workplace, maintaining a solid financial foundation and enhancing communication and outreach of key Metro Vancouver information. The trend in these performance indicators is consistent and favourable.

CONSISTENCY WITH THE 2019 – 2023 FINANCIAL PLAN

The updated five year financial plan has been developed to be consistent with the 2019 - 2023 Financial Plan. The Centralized Support Program impacts all Metro Vancouver entities and functions through the allocation of costs in accordance to the Corporate Allocation Policy. Taking into consideration the transfer of safety programs from Water Services, Liquid Waste Services and Parks to Human Resources, the total Centralized Support Program costs allocated is generally consistent with prior year projections.

APPROVAL PROCESS

The proposed 2020 - 2024 Financial Plans and Annual Work Plans are presented for consideration and endorsement before being forwarded to the Board for consideration. The next steps of the process are:

- The 2020 - 2024 Financial Plan and Annual Work Plan will be presented at the Board Budget Workshop on October 23, 2019
- The Board will consider adoption of the 2020 Budget and endorsement of the 2020 – 2024 Financial Plan on November 1, 2019

ALTERNATIVES

1. That the Finance and Intergovernment Committee endorse the 2020 - 2024 Financial Plan for the Centralized Support Program as presented in the report titled “2020 - 2024 Financial Plan – Centralized Support Program” dated October 7, 2019 and forward it to the Board Budget Workshop on October 23, 2019 for consideration.
2. That the Finance and Intergovernment Committee make recommendations and endorse an amended 2020 - 2024 Financial Plan for the Centralized Support Program and forward the amended Financial Plan to the Board Budget Workshop on October 23, 2019 for consideration.

FINANCIAL IMPLICATIONS

If the MVRD Board endorses the 2020 – 2024 Financial Plan for the Centralized Support Program, as presented under Alternative 1, in 2020 total expenditures for the Centralized Support Program are proposed to increase \$2.37 million (3.2%) with the allocation to the Metro Vancouver entities and functions, net of other recoveries and reserve applications, increasing \$1.56 million (2.6%). This allocation of costs is applied using the methodology established in the Corporate Allocation Policy.

Over the term of the five year plan, the Centralized Support Program expenditures will fluctuate as a result of one-time expenditures, increasing by an average of 1.1% per year.

Under Alternative 2, the Committee may wish to consider recommending amendments to the five year financial plan for consideration at the Board Budget Workshop. Any changes to the plan may have an impact on the overall financial plan as centralized support program costs are allocated to all Metro Vancouver entities and functions.

SUMMARY / CONCLUSION

The 2020 - 2024 Financial Plans for the Centralized Support Program have been prepared 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 2020 to 2024 for the Centralized Support Program comprising Corporate Services, External Relations, Financial Services, Human Resources, Indigenous Relations and Legislative Services.

The presentation of this year’s five year financial plans for the Centralized Support Program provides the opportunity for Metro Vancouver to share with its member jurisdictions the proposed planning 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 Metro Vancouver residents while keeping pace with our critical requirements.

Staff recommend endorsing the 2020 - 2024 Financial Plans for the Centralized Support Program as presented under alternative one.

Attachments:

1. 2020-2024 Financial Plans
 - Centralized Support Program Summary
 - Corporate Services
 - External Relations
 - Financial Services
 - Human Resources
 - Indigenous Relations
 - Legislative Services
2. 2020 Work Plans
3. 2020 - 2024 “What’s Happening”
4. 2020 – 2024 Projected Reserves – Centralized Support Program
5. Organizational Charts – Centralized Support

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**METRO VANCOUVER DISTRICTS
CENTRALIZED SUPPORT PROGRAM SUMMARY
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN**

	2017 ACTUAL	2018 ACTUAL	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES													
Allocated to Functional Departments (net)	\$ 55,921,033	\$ 60,782,653	\$ 59,918,029	\$ 61,482,800	2.6%	\$ 63,207,992	2.8%	\$ 64,452,050	2.0%	\$ 64,862,858	0.6%	\$ 67,093,474	3.4%
Other External Revenues	6,281,283	6,962,119	7,179,159	7,084,361	(1.3%)	7,251,952	2.4%	7,320,286	0.9%	7,381,485	0.8%	7,443,938	0.8%
Transfer from Reserves	8,245,044	8,245,044	6,778,309	7,683,639	13.4%	6,038,700	(21.4%)	5,672,775	(6.1%)	3,241,850	(42.9%)	3,320,925	2.4%
TOTAL REVENUES	\$ 70,447,360	\$ 75,989,816	\$ 73,875,497	\$ 76,250,800	3.2%	\$ 76,498,644	0.3%	\$ 77,445,111	1.2%	\$ 75,486,193	(2.5%)	\$ 77,858,337	3.1%
EXPENDITURES													
Corporate Services	39,660,825	41,304,636	42,408,872	43,112,040	1.7%	42,780,137	(0.8%)	43,166,340	0.9%	40,534,755	(6.1%)	42,241,633	4.2%
External Relations	5,582,153	5,868,305	6,106,370	5,964,312	(2.3%)	6,138,966	2.9%	6,252,617	1.9%	6,370,747	1.9%	6,489,320	1.9%
Financial Services	10,938,379	11,190,512	12,122,277	12,960,688	6.9%	13,267,143	2.4%	13,413,341	1.1%	13,681,878	2.0%	13,945,466	1.9%
Human Resources	7,436,348	7,437,535	8,617,039	9,518,728	10.5%	9,508,290	(0.1%)	9,716,997	2.2%	9,909,243	2.0%	10,096,549	1.9%
Indigenous Relations	345,802	331,862	572,196	583,698	2.0%	595,400	2.0%	607,283	2.0%	619,425	2.0%	631,822	2.0%
Legislative Services	3,062,543	3,476,271	4,048,743	4,111,334	1.5%	4,208,708	2.4%	4,288,533	1.9%	4,370,145	1.9%	4,453,547	1.9%
TOTAL EXPENDITURES	\$ 67,026,050	\$ 69,609,121	\$ 73,875,497	\$ 76,250,800	3.2%	\$ 76,498,644	0.3%	\$ 77,445,111	1.2%	\$ 75,486,193	(2.5%)	\$ 77,858,337	3.1%
ALLOCATED TO FUNCTIONAL DEPARTMENTS													
Water	\$ 22,571,223	\$ 25,515,486	\$ 23,857,580	\$ 23,818,111	(0.2%)	\$ 24,792,994	4.1%	\$ 24,654,199	(0.6%)	\$ 24,516,670	(0.6%)	\$ 25,445,718	3.8%
Liquid Waste	19,993,419	22,516,896	23,188,428	25,166,351	8.5%	25,893,131	2.9%	27,402,386	5.8%	28,490,917	4.0%	29,909,762	5.0%
Solid Waste	3,976,545	4,348,955	4,674,251	4,690,785	0.4%	4,642,345	(1.0%)	4,808,758	3.6%	4,711,392	(2.0%)	4,792,076	1.7%
Housing	4,124,906	2,417,680	2,119,752	2,071,404	(2.3%)	2,098,851	1.3%	2,006,987	(4.4%)	1,891,093	(5.8%)	1,855,652	(1.9%)
Affordable Housing	-	71,637	89,656	65,473	(27.0%)	65,075	(0.6%)	61,961	(4.8%)	56,975	(8.0%)	54,220	(4.8%)
Air Quality	590,504	953,910	878,401	807,243	(8.1%)	864,345	7.1%	773,549	(10.5%)	709,398	(8.3%)	675,958	(4.7%)
E911 Emergency Telephone Service	82,115	84,404	86,502	88,652	2.5%	91,054	2.7%	93,612	2.8%	96,625	3.2%	99,495	3.0%
Electoral Area Service	32,329	38,939	45,910	35,329	(23.0%)	32,334	(8.5%)	31,233	(3.4%)	31,419	0.6%	27,715	(11.8%)
General Government Administration	552,333	534,484	440,027	415,768	(5.5%)	433,571	4.3%	407,141	(6.1%)	375,935	(7.7%)	356,153	(5.3%)
General Government Zero Waste Collaboration Initiatives	-	-	81,781	119,069	45.6%	132,250	11.1%	139,676	5.6%	131,085	(6.2%)	118,200	(9.8%)
Labour Relations	293,775	244,065	224,001	229,271	2.4%	248,705	8.5%	206,714	(16.9%)	190,359	(7.9%)	181,420	(4.7%)
Regional Economic Prosperity	-	-	9,500	20,000	110.0%	30,000	50.0%	40,000	33.3%	50,000	25.0%	50,000	0.0%
Regional Emergency Management	15,000	10,113	10,862	11,327	4.3%	10,616	(6.3%)	9,464	(10.9%)	9,008	(4.8%)	8,504	(5.6%)
Regional Global Positioning System	62,423	31,225	29,087	25,221	(13.3%)	21,254	(15.7%)	20,291	(4.5%)	18,708	(7.8%)	17,851	(4.6%)
Regional Parks	3,383,278	3,703,078	3,898,216	3,610,728	(7.4%)	3,533,434	(2.1%)	3,482,865	(1.4%)	3,292,356	(5.5%)	3,219,993	(2.2%)
Regional Planning	236,612	286,416	261,636	285,187	9.0%	294,706	3.3%	289,432	(1.8%)	253,672	(12.4%)	242,765	(4.3%)
Sasamat Fire Protection Service	6,571	25,365	22,439	22,881	2.0%	23,327	1.9%	23,782	2.0%	37,246	56.6%	37,992	2.0%
	\$ 55,921,033	\$ 60,782,653	\$ 59,918,029	\$ 61,482,800	2.6%	\$ 63,207,992	2.8%	\$ 64,452,050	2.0%	\$ 64,862,858	0.6%	\$ 67,093,474	3.4%

**METRO VANCOUVER REGIONAL DISTRICT
CORPORATE SERVICES
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN**

	2017 ACTUAL	2018 ACTUAL	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES													
Allocated to Functional Departments	\$ 27,337,805	\$ 35,104,032	\$ 29,227,705	\$ 29,299,254	0.2%	\$ 30,106,735	2.8%	\$ 30,580,779	1.6%	\$ 30,279,170	(1.0%)	\$ 31,864,770	5.2%
Other External Revenues	5,793,253	6,496,012	6,804,152	6,887,361		7,054,702		7,122,786		7,183,735		7,245,938	
Transfer from Reserves	8,245,044	2,749,573	6,377,015	6,925,425		5,618,700		5,462,775		3,071,850		3,130,925	
TOTAL REVENUES	\$ 41,376,102	\$ 44,349,617	\$ 42,408,872	\$ 43,112,040	1.7%	\$ 42,780,137	(0.8%)	\$ 43,166,340	0.9%	\$ 40,534,755	(6.1%)	\$ 42,241,633	4.2%
EXPENDITURES													
Operating Programs:													
Business Systems	\$ 17,707,647	\$ 8,641,817	\$ 9,012,414	\$ 7,053,453		\$ 7,329,859		\$ 7,899,161		\$ 7,611,936		\$ 7,946,372	
Corporate Projects and Facilities	6,644,506	6,800,481	7,302,169	6,618,456		6,763,685		6,970,326		7,234,790		8,062,127	
Digital Strategy and Project Management	-	-	-	3,293,212		4,655,795		4,271,561		2,263,688		2,307,221	
Security and Emergency Management	1,226,639	1,757,161	1,881,618	1,605,468		1,568,538		1,430,125		1,468,392		1,506,676	
Technical Services	42,549	7,495,706	7,174,994	7,045,203		7,266,452		7,389,657		7,485,194		7,638,360	
Administration and Department Support	255,952	662,274	690,895	552,681		562,241		571,943		581,854		591,976	
	25,877,293	25,357,439	26,062,090	26,168,473	0.4%	28,146,570	7.6%	28,532,773	1.4%	26,645,854	(6.6%)	28,052,732	5.3%
Debt Service	11,135,820	15,179,981	13,976,782	14,383,567	2.9%	14,383,567	0.0%	14,383,567	0.0%	13,638,901	(5.2%)	13,638,901	0.0%
Head Office Capital	2,647,712	767,216	2,370,000	2,560,000	8.0%	250,000	(90.2%)	250,000	0.0%	250,000	0.0%	550,000	120.0%
TOTAL EXPENDITURES	\$ 39,660,825	\$ 41,304,636	\$ 42,408,872	\$ 43,112,040	1.7%	\$ 42,780,137	(0.8%)	\$ 43,166,340	0.9%	\$ 40,534,755	(6.1%)	\$ 42,241,633	4.2%

**METRO VANCOUVER REGIONAL DISTRICT
EXTERNAL RELATIONS
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN**

	2017 ACTUAL	2018 ACTUAL	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES													
Allocated to Functional Departments	\$ 5,466,114	\$ 5,688,168	\$ 5,743,742	\$ 5,964,312	3.8%	\$ 6,138,966	2.9%	\$ 6,252,617	1.9%	\$ 6,370,747	1.9%	\$ 6,489,320	1.9%
Other External Revenues	253,531	262,428	362,628	-		-		-		-		-	
TOTAL REVENUES	\$ 5,719,645	\$ 5,950,596	\$ 6,106,370	\$ 5,964,312	(2.3%)	\$ 6,138,966	2.9%	\$ 6,252,617	1.9%	\$ 6,370,747	1.9%	\$ 6,489,320	1.9%
EXPENDITURES													
Operating Programs:													
Corporate Communications	\$ 976,156	\$ 996,846	\$ 1,279,844	\$ 1,448,731		\$ 1,474,116		\$ 1,499,869		\$ 1,526,184		\$ 1,553,054	
Media Relations	577,161	599,482	624,434	939,447		958,041		976,882		996,193		1,015,771	
Multi-Media Services	1,952,344	2,063,037	2,032,018	2,144,507		2,248,828		2,291,146		2,336,345		2,380,590	
Stakeholder Engagement	785,383	843,407	760,098	-		-		-		-		-	
Collaboration Initiatives	716,196	605,162	622,118	614,008		625,111		636,382		647,898		659,665	
Administration and Department Support	574,913	760,371	787,858	817,619		832,870		848,338		864,127		880,240	
	5,582,153	5,868,305	6,106,370	5,964,312	(2.3%)	6,138,966	2.9%	6,252,617	1.9%	6,370,747	1.9%	6,489,320	1.9%
TOTAL EXPENDITURES	\$ 5,582,153	\$ 5,868,305	\$ 6,106,370	\$ 5,964,312	(2.3%)	\$ 6,138,966	2.9%	\$ 6,252,617	1.9%	\$ 6,370,747	1.9%	\$ 6,489,320	1.9%

**METRO VANCOUVER REGIONAL DISTRICT
FINANCIAL SERVICES
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN**

	2017 ACTUAL	2018 ACTUAL	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES													
Allocated to Functional Departments	\$ 11,374,405	\$ 11,813,772	\$ 12,022,277	\$ 12,400,688	3.1%	\$ 12,697,143	2.4%	\$ 13,073,341	3.0%	\$ 13,341,878	2.1%	\$ 13,605,466	2.0%
Other External Revenues	223,389	197,228	-	190,000		190,000		190,000		190,000		190,000	
Transfer from Reserves	-	-	100,000	370,000		380,000		150,000		150,000		150,000	
TOTAL REVENUES	\$ 11,597,794	\$ 12,011,000	\$ 12,122,277	\$ 12,960,688	6.9%	\$ 13,267,143	2.4%	\$ 13,413,341	1.1%	\$ 13,681,878	2.0%	\$ 13,945,466	1.9%
EXPENDITURES													
Operating Programs:													
Purchasing and Risk Management	\$ 3,549,367	\$ 3,775,393	\$ 3,919,446	\$ 4,251,221		\$ 4,379,624		\$ 4,259,227	(2.7%)	\$ 4,340,423		\$ 4,423,315	
Financial Planning and Operations	4,673,583	4,820,309	5,325,148	5,624,674		5,740,964		5,974,627	4.1%	6,097,644		6,212,621	
Property Services	1,866,826	1,797,369	2,050,971	2,209,487		2,254,413		2,300,038	2.0%	2,346,672		2,394,312	
Administration and Department Support	848,603	797,441	826,712	875,306		892,142		879,449	(1.4%)	897,139		915,218	
TOTAL EXPENDITURES	\$ 10,938,379	\$ 11,190,512	\$ 12,122,277	\$ 12,960,688	6.9%	\$ 13,267,143	2.4%	\$ 13,413,341	1.1%	\$ 13,681,878	2.0%	\$ 13,945,466	1.9%

**METRO VANCOUVER REGIONAL DISTRICT
HUMAN RESOURCES
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN**

	2017 ACTUAL	2018 ACTUAL	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES													
Allocated to Functional Departments	\$ 6,631,042	\$ 6,865,753	\$ 8,315,745	\$ 9,130,514	9.8%	\$ 9,468,290	3.7%	\$ 9,656,997	2.0%	\$ 9,889,243	2.4%	\$ 10,056,549	1.7%
Transfer from Reserves	-	-	301,294	388,214		40,000		60,000		20,000		40,000	
TOTAL REVENUES	\$ 6,631,042	\$ 6,865,753	\$ 8,617,039	\$ 9,518,728	10.5%	\$ 9,508,290	(0.1%)	\$ 9,716,997	2.2%	\$ 9,909,243	2.0%	\$ 10,096,549	1.9%
EXPENDITURES													
Operating Programs:													
Employee and Labour Relations	\$ 673,196	\$ 1,072,148	\$ 1,323,646	\$ 1,468,403		\$ 1,354,488		\$ 1,387,901		\$ 1,397,891		\$ 1,414,978	
Talent Management & Organization Development	1,779,231	1,786,146	2,264,283	2,390,396		2,398,466		2,449,525		2,466,644		2,544,961	
Corporate Safety	2,777,468	2,907,649	3,150,307	3,635,321		3,770,593		3,855,294		3,942,031		4,030,653	
Systems and Processes	1,610,571	955,075	1,000,465	1,124,763		1,068,592		1,089,738		1,149,342		1,133,409	
Administration and Department Support	595,882	716,517	878,338	899,845		916,151		934,539		953,335		972,548	
TOTAL EXPENDITURES	\$ 7,436,348	\$ 7,437,535	\$ 8,617,039	\$ 9,518,728	10.5%	\$ 9,508,290	(0.1%)	\$ 9,716,997	2.2%	\$ 9,909,243	2.0%	\$ 10,096,549	1.9%

METRO VANCOUVER REGIONAL DISTRICT
INDIGENOUS RELATIONS
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN

	2017 ACTUAL	2018 ACTUAL	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES													
Allocated to Functional Departments	\$ 373,921	\$ 379,161	\$ 572,196	\$ 583,698	2.0%	\$ 595,400	2.0%	\$ 607,283	2.0%	\$ 619,425	2.0%	\$ 631,822	2.0%
TOTAL REVENUES	\$ 373,921	\$ 379,161	\$ 572,196	\$ 583,698	2.0%	\$ 595,400	2.0%	\$ 607,283	2.0%	\$ 619,425	2.0%	\$ 631,822	2.0%
EXPENDITURES													
Operating Programs:													
Indigenous Relations	\$ 345,802	\$ 331,862	\$ 572,196	\$ 583,698	2.0%	\$ 595,400	2.0%	\$ 607,283	2.0%	\$ 619,425	2.0%	\$ 631,822	2.0%
TOTAL EXPENDITURES	\$ 345,802	\$ 331,862	\$ 572,196	\$ 583,698	2.0%	\$ 595,400	2.0%	\$ 607,283	2.0%	\$ 619,425	2.0%	\$ 631,822	2.0%

**METRO VANCOUVER REGIONAL DISTRICT
LEGISLATIVE SERVICES
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN**

	2017 ACTUAL	2018 ACTUAL	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES													
Allocated to Functional Departments	\$ 3,645,157	\$ 3,849,071	\$ 4,048,743	\$ 4,104,334	1.4%	\$ 4,201,458	2.4%	\$ 4,281,033	1.9%	\$ 4,362,395	1.9%	\$ 4,445,547	1.9%
Other External Revenues	11,110	6,451	-	7,000		7,250		7,500		7,750		8,000	
TOTAL REVENUES	\$ 3,656,267	\$ 3,855,522	\$ 4,048,743	\$ 4,111,334	1.5%	\$ 4,208,708	2.4%	\$ 4,288,533	1.9%	\$ 4,370,145	1.9%	\$ 4,453,547	1.9%
EXPENDITURES													
Operating Programs:													
Corporate Planning	820,551	813,123	979,030	1,097,420		1,113,969		1,130,762		1,147,920		1,165,440	
Legal Services	1,262,003	1,508,007	1,807,624	1,713,309		1,748,576		1,784,415		1,821,058		1,858,505	
Information Management	979,989	1,155,141	1,262,089	1,300,605		1,346,163		1,373,356		1,401,167		1,429,602	
TOTAL EXPENDITURES	\$ 3,062,543	\$ 3,476,271	\$ 4,048,743	\$ 4,111,334	1.5%	\$ 4,208,708	2.4%	\$ 4,288,533	1.9%	\$ 4,370,145	1.9%	\$ 4,453,547	1.9%

BOARD AND INFORMATION SERVICES

Information Management

Description of services

Information Management Services serves as a centralized service providing Information Management Services to all business activities of the Metro Vancouver entities. Information Management Services includes the development of systems and, processes, policies and procedures for effectively managing corporate records and information services. This includes document management systems, library research services, and customer service through the Information Centre.

Strategic directions and high level goals supported

Information Management Services supports the *Board Strategic Plan's* strategic direction to strengthen the *Regional Federation* by providing corporate-wide support for the management of information assets – library, records and customer interactions – in accordance with the board's *Information Management* policy.

Performance indicators

Indicator	Historical and/or industry benchmark	Current performance	2020 performance objective
Number of customer interactions (telephone, email and live chat).	Yearly average: 38,629 interactions	2019 YTD 28,310 interactions	2019 38,629+ interactions
Number of library reference/research requests	5-year average: 1,127 research requests	2019 YTD July: 765 research requests	1,000+ research requests

2020 key actions

Information Management Services

- Continue to digitize paper-based historical library publications to enable this content to be more accessible through searchable repositories
- Coordinate enhancements to the corporate-wide document management system
- Coordinate the implementation of a technology solution for the storage, search, retrieval and overall management of digital photographs
- Coordinate implementation of reference management software for library research citations
- Investigate use of new learning management system for employees to improve compliance with document management, records management, and research search literacy
- Review strategy to facilitate large document disclosure demands from external third parties
- Delivery technology solution to improve the management of customer/citizen inquiries received through the Information Centre

CORPORATE SERVICES

Description of services

Corporate Services is a centralized service providing technical leadership, strategic planning and support to all business activities of the Metro Vancouver entities. The services provided include business systems, corporate facilities, digital strategy and project management, security and emergency management and technical services. Corporate Services is also responsible for providing fleet maintenance and the regional district functions, which each have their own Work Plan, of 9-1-1 Emergency Telephone Service, Regional Emergency Management and the Sasamat Fire Protection Service.

Strategic directions and high level goals supported

Regional Federation

Advancing Effective Regional Governance

- Ensure that Metro Vancouver decision-making is guided by the value of a regional perspective.

Strengthening Our Livable Region

- Continue Metro Vancouver's leadership on environmental stewardship.
- Maintain Metro Vancouver's regional role in emergency preparedness through continued delivery of services.

Ensuring Financial Sustainability

- Develop and implement a 30-year financial framework that serves as the foundation for affordable service provision.
- Explore sustainable sources of new revenues.

Fostering Collaboration and Engagement

- Continue to build effective working relationships with key stakeholders.
- Promote a regional approach to advancing economic prosperity that complements the economic development work of members.

Performance indicators

Indicator	Historical and/or industry benchmark	Current performance	2020 performance objective
Information technology (IT) expenditures (operating) as a percent of total corporate expenditures	Gartner Group: 2019 Benchmark for Local Government: 3.5%	2019 projected: 2.4%	Not to exceed 2.5%
IT expenditures per staff supported	Gartner Group: 2019 Benchmark for Local Government: \$9,502	2019 projected: \$ 9,470	Not to exceed \$10,000
IT staff as % of staff supported	Gartner Group: 2018 Benchmark for Local Government: 3.9%	2019 projected: 3.8%	Not to exceed 3.8%
Building Operations MTIII Energy Star rating (overall building efficiency: electricity, water & gas)	2018 90	2019 YTD 92%	Not less than 90%

2020 key actions

Business Systems

Complete over 90 projects in 2020 involving departmental and work group applications.

Highlights include:

- Continue the migration to the Metro Vancouver private cloud.
- Develop a plan to replace weigh scale software as Autoscale has reached end of life.

Corporate Facilities and Fleet Maintenance

- Implement capital and operational projects at Metrotower III to improve building systems, tenant improvements and fit-up to part of level 8 and 9 for MV space.

Digital Strategy and Project Management

- Mobility for Corporate systems migrated to Metro Cloud.
- Project Management software – Corporate solution with functionality beyond MS Project.
- Business analysis and development of a Corporate Talent Management System.
- Begin implementation of the Utility Asset Management system.

Security and Emergency Management

- Conduct four site security assessments.
- Conduct one corporate EOC exercise.

Technical Services

- WAN upgrades at remote locations (TELUS Fiber to Housing and Parks locations).
- Complete Media Management System.

EXTERNAL RELATIONS

Description of services

External Relations is a centralized support service providing support to all business activities of the Metro Vancouver entities. External Relations centralized support includes Corporate Communications, Multimedia Services, Collaboration and Engagement and Media and Intergovernment Relations. External Relations also provides direct communication programs for Liquid Waste, Water, Regional Parks, Regional Planning, Air Quality and Housing, leads and administers various initiatives under the General Government function – Zero Waste Collaboration Initiatives, Leadership and Engagement International Program and Regional Culture and plays a significant role in the new Regional Economic Prosperity Service.

External Relations provides support and leadership to the organization with three key objectives:

- Increasing public awareness, understanding and alignment with Metro Vancouver services and policies;
- Enhancing communication, engagement and collaboration with member municipalities; and
- More effectively engaging other levels of government and their agencies in support of regional priorities

Strategic directions and high level goals supported

- Enhance relationships between Metro Vancouver and other orders of government, First Nations, adjacent regional districts, and key stakeholders
- Improve public and media understanding of the role of local government
- Continue to build effective working relationships with key stakeholders
- Promote a regional approach to advancing economic prosperity that complements the economic development work of members
- Continue to promote water conservation through public education and stakeholder engagement using messaging that conveys that drinking water is a precious resource
- Expand public awareness of the unique characteristics of the regional drinking water system
- Expand public awareness of the value of the liquid waste management
- Continue to develop programs and related communication campaigns that increase diversion rates of materials that can be reused, repurposed or recycled
- Utilize the potential of the National Zero Waste Council and the annual Zero Waste Conference to promote the importance of waste prevention and the value of transitioning to a circular economy
- Advance initiatives aligned with a transformation to a circular economy
- Work with the provincial government and key stakeholders to expand the products included in extended producer responsibility (EPR) programs
- Continue to expand public education and behavior change campaigns consistent with the objectives of zero waste
- Engage the public and other stakeholders in the update to the regional growth strategy
- Engage members, industry and business associations, community and non-governmental organizations, utilities, post-secondary institutions, and youth in the implementation of Climate 2050

Performance indicators

Indicator	Historical and/or industry benchmark	Current performance	2020 performance objective
Number of website page visits Metro Vancouver website	2018: 4,145,216 2017: 3,979,371 2016: 3,827,000	<i>Projected for 2019:</i> 4,432,246 (6.9 % increase) August 2019: 2,954,831	4,653,858 (5% increase)
Number of video views (YouTube, Facebook, Metro Vancouver website – Vimeo)	2018: 3,970,419 2017: 3,500,000 2016: 2,563,939	<i>Projected for 2019:</i> 4,223,994 (6.4% increase) August 2019: 2,815,996	4,435,193 (5% increase)
Number of mailing lists subscribers – 12 lists in 2016, 26 lists in 2018, 32 lists in 2019	2018: 46,420 2017: 37,844 2016: 19,468	August 2019: 51,140 (10% increase)	53,697 (5% increase)
Number of Metro Vancouver followers on Twitter	2018: 30,000 2017: 28,500 2016: 26,900	August 2019: 30,411 (1.4% increase)	31,019 (2% increase)
Number of Metro Vancouver followers on Facebook	2018: 18,329 2017: 13,439 2016: 9,267	August 2019: 28,827 (57% increase)	30,268 (5% increase)

2020 key actions

- Enhance education, awareness and stakeholder engagement about climate change through Climate 2050, Caring for the Air, Clean Air Plan, EV Programs, and other Air Quality initiatives
- Increase awareness of lawn watering regulations, the quality and source of Metro Vancouver water, the need for conservation through the regional We Love Water campaign
- Reduce liquid waste at source through regional behavior change campaigns, including Unflushables and Fats, Oils and Grease (FOG) and continue strategic communications around biosolids
- Reduce and prevent waste through zero waste regional behavior change campaigns, including: Create Memories, Not Garbage, Waste in its Place, Think Thrice, Food Isn't Garbage, Love Food Hate Waste
- Support efforts to build greater education and awareness of single-use items and plastics
- Leadership of the Zero Waste Collaboration Initiatives program, including the National Zero Waste Council, the 2020 Zero Waste Conference, and the Ellen MacArthur Foundation
- Engage with the public, business communities and other levels of government on Metro Vancouver strategic priorities through proactive media engagement and social media presence
- Support implementation of the Regional Economic Prosperity Service
- Production of monthly Metro Vancouver Update and distribution of biannual Metro Vancouver Update newsletter to all households
- Ensure effective relationships with federal/provincial/local government and other stakeholders on Metro Vancouver priorities and interagency issues
- Host regional Council of Councils on key Metro Vancouver priorities
- Video production / distribution of Community Television shows The Sustainable Region / MV Close Up
- Enhance K-12 program activities in alignment with Metro Vancouver priorities and initiatives
- Enhance international collaboration and profile through study tours and engagement with United Cities and Local Governments (UCLG), Local Governments for Sustainability (ICLEI), and others

FINANCIAL SERVICES

Description of services

Financial Services is responsible for providing support services pertaining to accounting, payroll, financial planning, cash and debt management, procurement, risk management, inventory control, real estate acquisition, disposal and management, process review and fleet vehicle acquisition and management which assists departments in achieving their capital and operational objectives. In addition, the department has a fiduciary/stewardship role regarding developing and maintaining appropriate financial policies, processes and procedures to ensure the overall financial sustainability of the Metro Vancouver Districts and Housing Corporation, safeguarding of the corporation's assets as well as compliance with ongoing finance-related statutory requirements and corporate policies.

Strategic Plan Themes Supported

Financial Sustainability is one of the key themes in the 2019 – 2022 Strategic Plan which focusses on the development of a 30-year Financial Plan for Metro Vancouver.

Financial Services Goals:

- Develop fiscal policy using equity and affordability criteria.
- Ensure that opportunities for increased efficiencies are evaluated and implemented.
- Safeguard/steward the corporation's assets.
- Provide and enhance service to both internal and external customers.
- Provide support to Metro Vancouver operations in achieving their management plan goals.
- Ensure the long-term financial sustainability of the Metro Vancouver Districts and Housing Corporation.

Performance indicators

Indicator	Historical and/or industry benchmark	Current performance	2020 performance objective
Current ratio (current assets / current liabilities)	2013 average ratio for BC municipalities 3.8 to 1	Projected 2019: 5.2 to 1	Minimum 3.8 to 1
Debt service costs / total revenue	Province of BC threshold 25%	Projected 2019: 19%	<20%
Operating Surplus Ratio (operating surplus as a % of own source revenues)	0 - 15%	Projected 2019: 5%	<5%

2020 key actions

Financial Planning and Operations

- Continue with investigation and analysis of moving toward a single sewerage area model.
- Complete upgrade to Questica budget system with enhancements to the capital module.
- Continue with refinements to the financial management system and related reporting processes along with sustainment and enhancement plans to build upon the utilization of Unit 4.
- Continue support of Asset management in Metro Vancouver, focusing on consistent approaches for asset information collection and data supported decision making.
- Coordinate the completion of the initial 30 Year Financial Plan document for Metro Vancouver.
- Continue evolution of Continuous Improvement support services for client departments.
- Work on opportunities for further client training to enhance budget and financial literacy.
- Implement new public sector accounting requirements associated with Asset Retirement Obligations.

Purchasing and Risk Management

- Implement improvements stemming from the Procurement Review conducted in 2015 with a focus on Category Management
- Implement a new E-Bidding solution
- Complete updates, including a legal review of all bid/contract templates
- Conduct an overall review of inventory/stores
- Expand on the Materials Requirement Planning (MRP) project to encompass Annacis Island WWTP in conjunction with Liquid Waste Services.

Properties

- Market and sell Ashcroft Ranch, Cache Creek Properties and former Matsqui Transfer Station
- Complete the utility crossing agreements for the Trans Mountain Expansion Project
- Implement new database - Property Interest Information and Management System

Fleet

- Conduct an overall review of Fleet Services in conjunction with Fleet Maintenance
- Continue implementation of fleet policies and development of related procedures
- Commence the development of energy performance and greenhouse gas emissions performance metrics and reporting tools to align with the Corporate Climate Action Plan
- Implement corporate fleet right sizing protocol to align with the Corporate Climate Action Plan
- Implement Fleet Management software – continuation of 2019 initiative

HUMAN RESOURCES

Description of services

Human Resources is a corporate service providing support to all business activities of the Metro Vancouver entities. The support provided through Human Resources is two-fold. It develops and delivers programs that support both the Metro Vancouver's high level goals and each individual department's goals and objectives. In addition, it works with client departments to attract, build and retain capacity in the achievement of their goals. There are three components within HR that deliver day-to-day services to support the operations of the organization, along with strategic initiatives that address emerging trends, and business opportunities: Talent Management and Organization Development, Employee and Labour Relations, and HR Systems, Benefits & Metrics.

Strategic directions and high level goals supported

Board Strategic Plan – Regional Federation

Advancing Effective Regional Governance

- Ensure that Metro Vancouver decision-making is guided by the value of a regional perspective.

Strengthening Our Livable Region

- Facilitate collaboration with member jurisdictions to create efficiencies and improve alignment between local government policies and actions with those of Metro Vancouver.

Ensuring Financial Sustainability

- Develop and implement a 30-year financial framework that serves as the foundation for affordable service provision.

Fostering Collaboration and Engagement

- Improve public and media understanding of the role of local government.
- Strengthen relationships with First Nations.
- Continue to build effective working relationships with key stakeholders.
- Promote a regional approach to advancing economic prosperity that complements the economic development work of members.

HR Goals

- To deliver Human Resource strategies and services that position Metro Vancouver to recruit and retain the best possible talent needed to meet our evolving business needs and, in the process, help to build a vital and sustainable organization.
- To deliver programs and strategies that support the achievement of organizational goals and objectives.

Performance indicators

Indicator	Historical and/or industry benchmark	2019 Performance Objective	2020 Performance Objective
Number of unique job applicants ¹	MV 3-year average (2016-18): 7,718 2018: 6,366 2017: 7,574 2016: 9,215	2019 YTD: 3,848 Objective 10,200	8,500
Number of job vacancies processed ²	MV 3-year average (2016-18): 619 2018: 588 2017: 670 2016: 599	2019 YTD: 437 Objective 600	600
Staff turnover (FTR, includes resignations, retirements) ³	Staff Retirements: MV 3-year average (2016-18): 3.18% 2018: 2.77% 2017: 2.85% 2016: 3.92%	2019 YTD: 2.29%	<4.5%
	FTR, includes resignations: MV 3-year average (2016-18): 2.60% 2018: _2.56% 2017: _2.85% 2016: _2.40%	2019 YTD: 1.39%	<3%
Percentage of workforce receiving training (FTR, excludes safety training)	MV 3-year average (2016-18): 68% 2018: 75% 2017: 65% 2016: 65%	2019 YTD: 54% Objective 72%	70%
Participants in MetroFit Health and Wellness Programs	MV 3-year average (2016-18): 2,707 2018: 2,536 2017: 2,813 2016: 2,774	2019 YTD: 985 Objective 2,600	2,500

¹ One applicant may apply for multiple vacancies over the course of a year

² Includes all requisitions for staff, including seasonal hires

³ In previous years this benchmark was combined with resignations and retirement of ~6%

2020 key actions

- Further develop and implement partnership with colleges/universities to bring a Water and Wastewater Operator Certification/Diploma program to a local Metro Vancouver post- secondary institution with a targeted launch date of September 2020.
- Embed Diversity and Inclusion initiatives into all relevant MV programs.
- Implement new Talent Management system and Learning Management System (LMS) as part of Talent Management strategy.
- Comprehensive exempt salary review.
- Prepare for and commence 2020 Collective Bargaining.
- Review and amend Teamster job classifications and create job descriptions when required.
- Conduct Job Demands Analysis to assist return to work and accommodation scenarios.

LEGAL SERVICES AND INDIGENOUS RELATIONS

Indigenous Relations

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:

- 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	2020 performance objective
Number of local government interests represented at treaty table meetings.	MV 4-year average (2015-2018): 10	Projected 2019: 4	6
Number of special Indigenous Relations events hosted by Metro Vancouver (e.g. Community to Community Forums, workshops, lunch and learns)	MV 4-year average (2015-2018): 3	Projected 2019: 6	7
Number of bilateral meetings between Metro Vancouver and the nine area First Nations with lands	MV 4-year average (2015-2018): 19	Projected 2019: 20	20
External requests for information or advice related to First Nations and/or Indigenous Relations	MV 4-year average (2015-2018): 96	Projected 2019: 200	100
Total requests for information or advice related to First Nations and/or Indigenous Relations	MV 4-year average (2015-2018): 805	Projected 2019: 1,724	1500

2020 key actions

- Complete an annual review/update of Metro Vancouver's *Guide to First Nation Communities* document.
- Host a Regional Gathering involving members of the Indigenous Relations Committee, MVRD Board, and respective First Nation Chiefs and Councils from 10 First Nations in the region.
- Host an annual event (e.g. workshop) involving staff of First Nations and local governments on a topical issue in local government-Indigenous relations.
- Host and/or participate in reconciliation activities (e.g. "Orange Shirt Day", National Indigenous Peoples Day events).
- Participate in active treaty table meetings in the region as part of the provincial negotiating teams.
- Provide training sessions for Metro Vancouver staff on the 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.

LEGAL SERVICES AND INDIGENOUS RELATIONS

Legal Services

Description of services

Legal Services is a centralized service providing support to all business activities of the Metro Vancouver entities. This service provides legal advice and support to Metro Vancouver departments on a wide range of project related issues, including procurement, contract awards, contract claims and compliance with contracts; works to ensure Metro Vancouver satisfies its legislative obligations, reduces its exposure to risk, and enters into commercial terms that optimize the corporation's objectives in its dealings with other entities; provides advice and guidance to regulatory programs, including training for enforcement staff; represents the organization in dispute resolution proceedings.

Strategic directions and high level goals supported

Legal Services supports the *Board Strategic Plan 2019-2022* by:

- ensuring that Metro Vancouver entities meet legislative and regulatory requirements, and anticipate and prepare for upcoming changes.
- using value for service to guide Metro Vancouver's operations and service provision.
- supporting Metro Vancouver departments in achieving management plan goals.

Performance indicators

Indicator	Historical and/or industry benchmark	Current performance	2020 performance objective
Number of legal queries responded to annually	1,500	Projected 2019: 1350	1,500

2020 key actions

- Support major procurement/construction projects including Annacis Island Wastewater Treatment Plant Stage 5 Expansion, Annacis Outfall, North Shore Wastewater Treatment Plant, Sapperton Pump Station, Second Narrows Water Supply Tunnel, Annacis Water Supply Tunnel, Capilano Main No. 5, Coquitlam Transfer Station, Surrey Recycling and Waste Drop-off Facility.
- Support development of Metro 2050, new Liquid Waste Management Plan, new Solid Waste Management Plan, Climate 2050 roadmaps.
- Support staff drafting various bylaws: updates to Parks Regulatory Bylaw, amendments to Food Sector (Grease Interceptor) Bylaw, Fermentation Operations Bylaw, Trucked Liquid Waste Bylaw, developing cannabis production emissions regulation, updates to Electoral Area A Zoning Bylaw.
- Support Purchasing Division in finalizing procurement document templates.
- Support ongoing environmental incident reporting.
- Support various contract negotiations: Sustainability Innovation Fund projects, financial contribution agreements, collaborative research agreements.
- Support ongoing litigation.

2020 – 2024 “WHAT’S HAPPENING” – Centralized Support Program

Below is a summary of some of the key initiatives to be undertaken by the Centralized Support Program over the next 5 years.

Initiative	Description	Theme
2020 - 2024		
Long-term Financial Planning	Complete and publish 30 Year Financial Plan focused on financial policy	Financial Sustainability
Technology and Communications	Implement a new E-Bidding solution to streamline procurement processes for proponents and Metro Vancouver	Financial Sustainability
Updated Contract Templates	Implement new updated contract templates for Purchasing and Properties	Financial Sustainability
Diversity and Inclusion	Embed the Diversity and Inclusion initiative into all relevant MV programs	Regulatory & Legislative Environment
Teamsters Job Descriptions	Review and amend Teamster job classifications and create new job descriptions when required	Regulatory & Legislative Environment
Corporate Safety Initiatives	Complete and evaluate the Motor Vehicle Accident Reduction Initiative	Regulatory & Legislative Environment
Strategic Planning	Implementation of the IT Corporate Strategy	System Stewardship
Corporate Facilities	Increase the number of Electric Vehicle charging stations	Environmental Sustainability
Outreach and Engagement	A forum to be co-hosted by the MVRD Board with 10 First Nation communities’ political leaders in the region	Regional Growth
Technology and Communications	Commence development of planning for implementation of utility asset management software initiative	System Stewardship
Technology and Communications	Implement Talent Management System and Learning Management System as part of Talent Management Strategy	Regional Growth
Staff Training and Development	Further develop and implement partnership to bring Water and Wastewater certification programs to Metro Vancouver	Regional Growth
Process Review	Conduct an overall review of inventory and stores processes	System Stewardship
Outreach and Engagement	Continue with awareness campaigns regarding waste reduction, water conservation, climate change and Liquid Waste source control	Environmental Sustainability

METRO VANCOUVER DISTRICTS
2020-2024 PROJECTED RESERVES - CENTRALIZED SUPPORT PROGRAMS

DISCRETIONARY RESERVES

	2019	2020	2020	2020	2020	2020	2021	2022	2023	2024
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Centralized Support Reserve	\$ 20,262,304	\$ 20,262,304	\$ 800,000	\$ (7,683,639)	\$ 336,410	\$ 13,715,075	\$ 8,799,289	\$ 4,255,772	\$ 2,177,619	\$ 79,037

STATUTORY RESERVES

	2019	2020	2020	2020	2020	2020	2021	2022	2023	2024
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Corporate Self Insurance Reserve	\$ 2,570,273	\$ 2,570,273	\$ -	\$ -	\$ 51,405	\$ 2,621,678	\$ 2,674,112	\$ 2,727,594	\$ 2,782,146	\$ 2,837,789
Corporate Fleet Reserve	11,800,391	11,800,391	4,864,884	(4,697,000)	237,687	12,205,962	12,659,807	13,121,140	13,611,119	14,108,861

2019

**COMMISSIONER/
CHIEF ADMINISTRATIVE OFFICER**

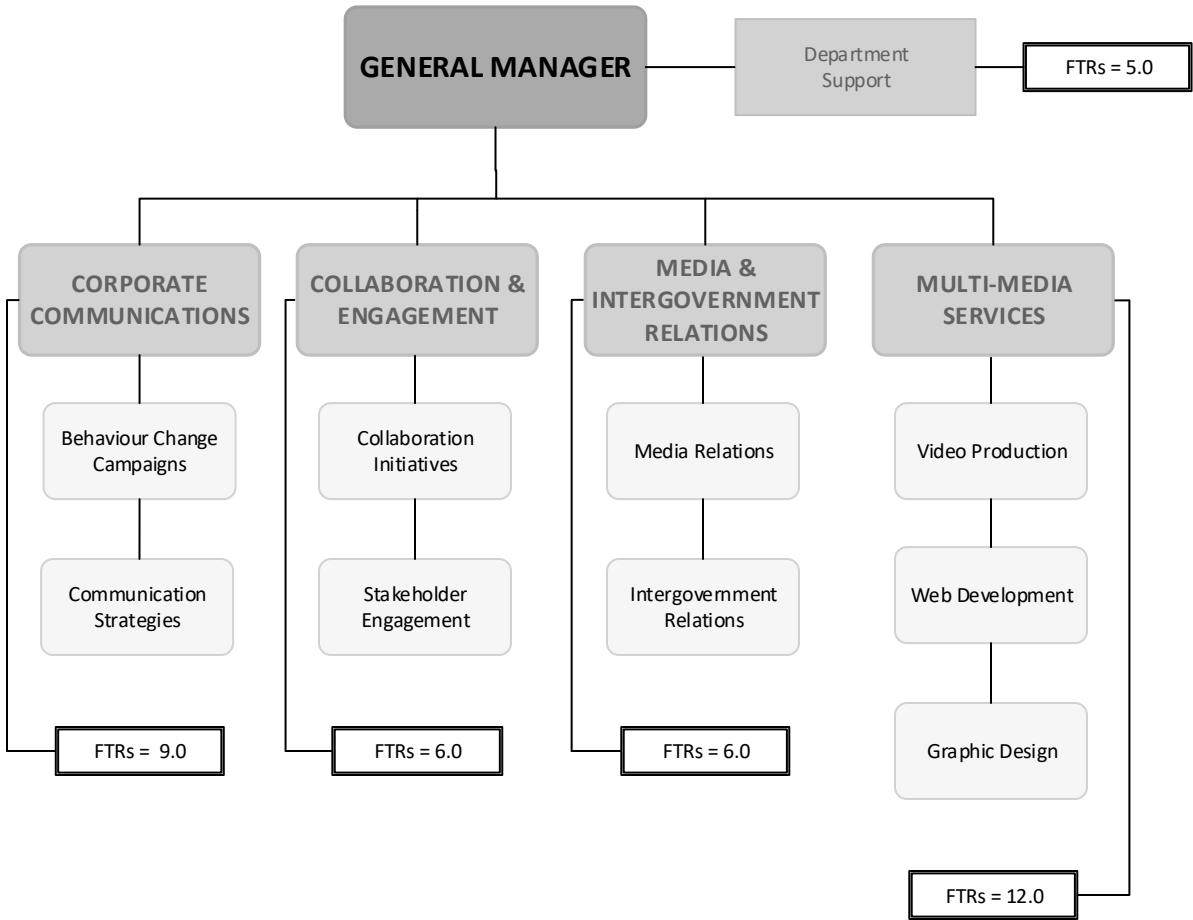
**CORPORATE
PLANNING**

FTRs = 4.0

30042662
September 30, 2019

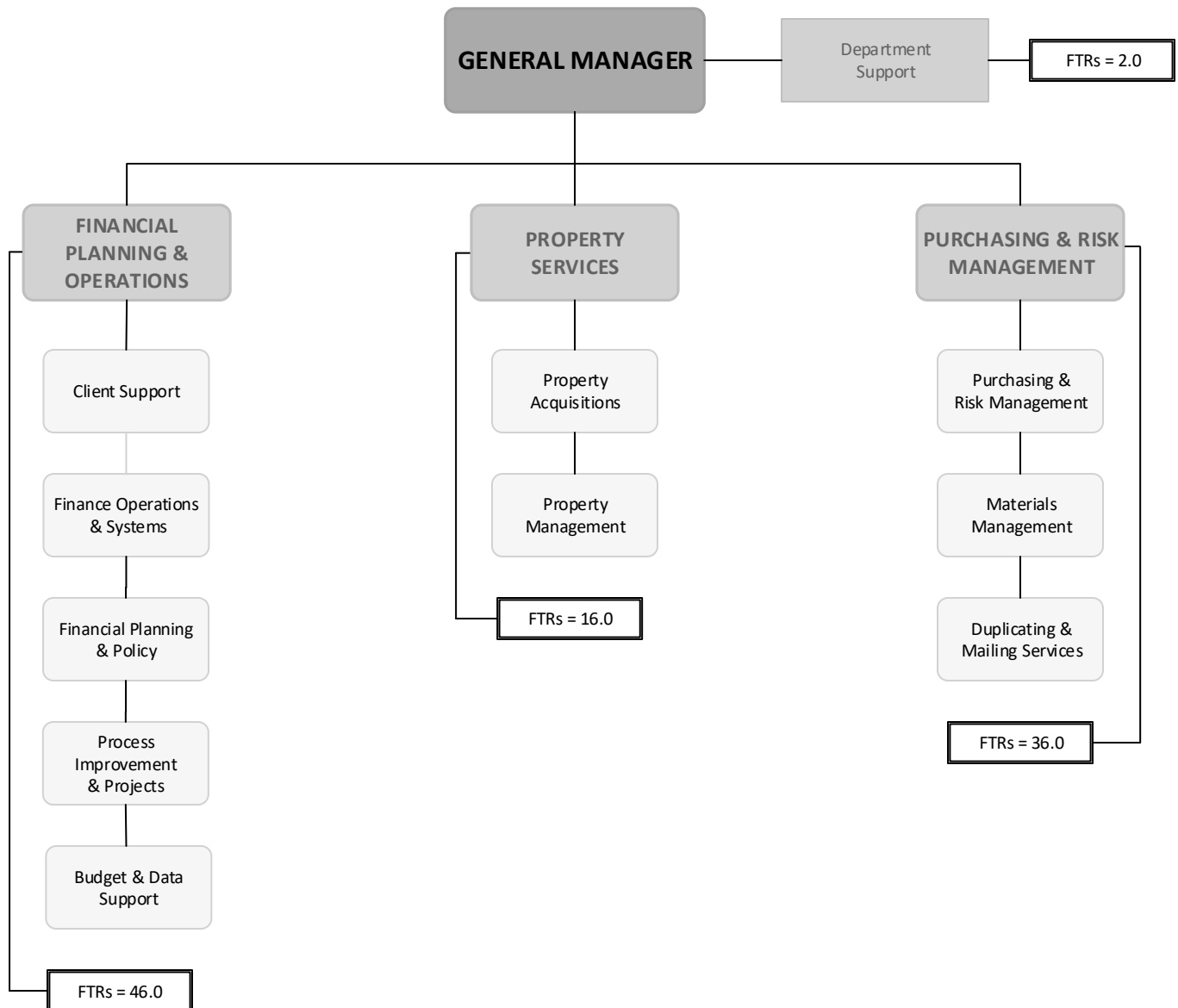
**Corporate Planning
2019 Total FTRs = 5.0
2020 Proposed FTRs = 5.0**

2019



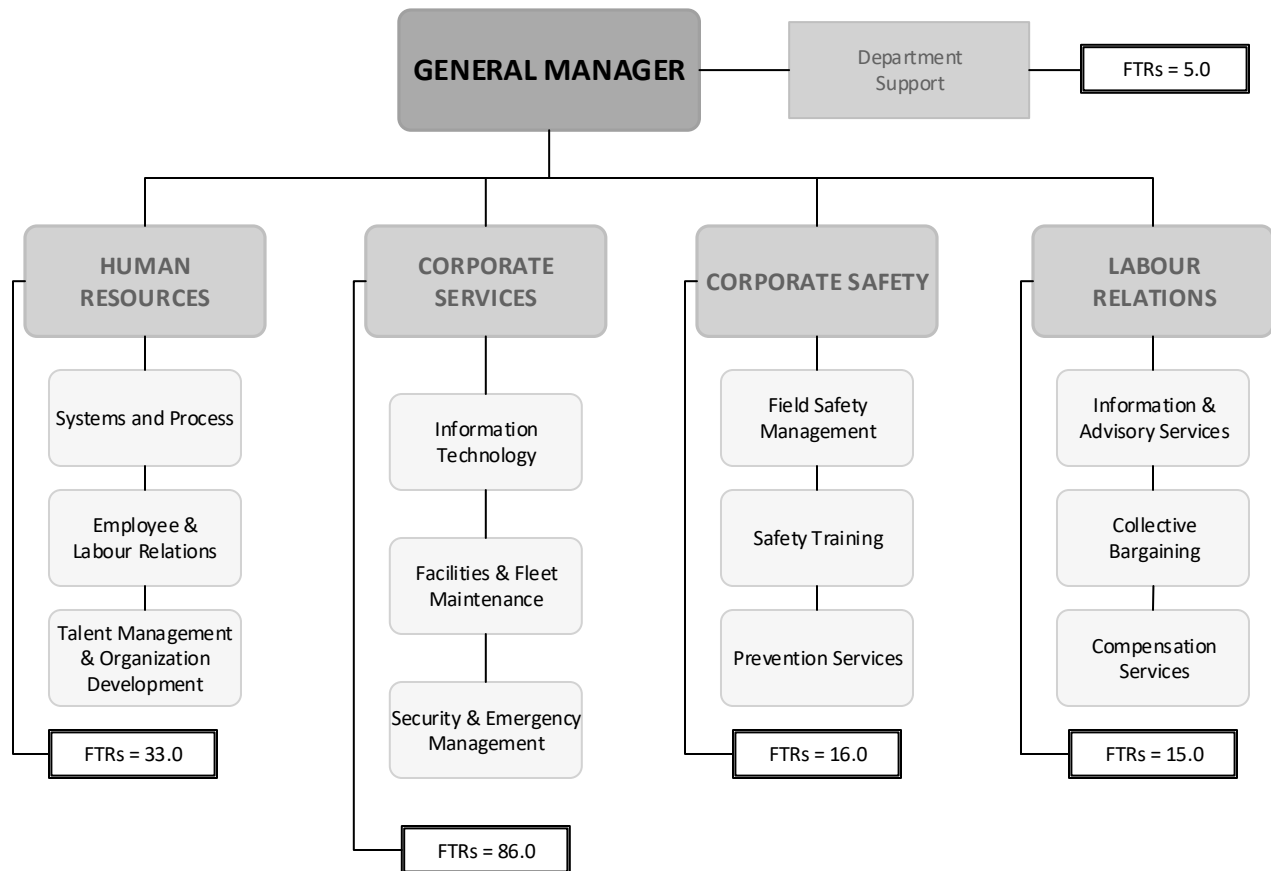
External Relations
2019 Total FTRs = 39.0
2020 Proposed FTRs = 39.0

2019



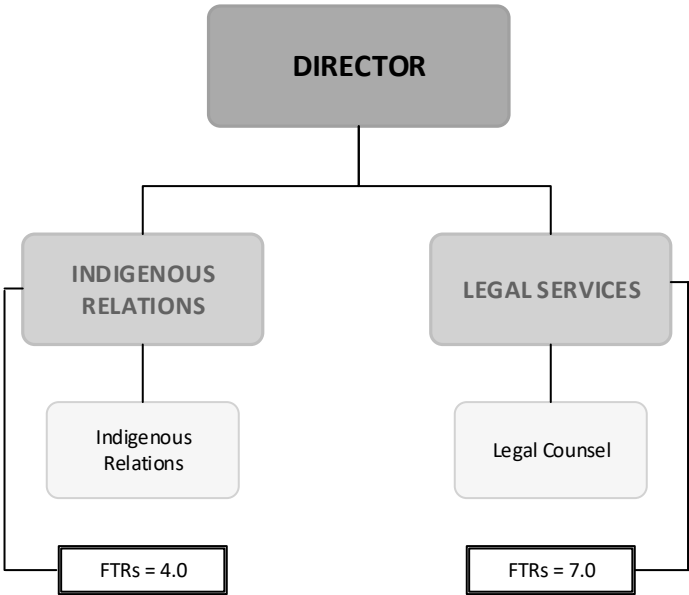
Financial Services
2019 Total FTRs = 101.0
2020 Proposed FTRs = 102.0

2019



**Human Resources
and Corporate Services
2019 Total FTRs = 156.0
2020 Proposed FTRs = 156.0**

2019



<p>Legal Services & Indigenous Relations 2019 Total FTRs = 12.0 2020 Proposed FTRs = 12.0</p>
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To: Housing Committee

From: Ravi Chhina, General Manager, Regional Parks and Housing Services
Jason Hingley, Division Manager, Planning and Finance, Housing Services

Date: October 4, 2019

Meeting Date: October 9, 2019

Subject: **2020 - 2024 Financial Plan –Metro Vancouver Housing Corporation (MVHC)**

RECOMMENDATION

That the Housing Committee endorse the 2020 - 2024 Financial Plan for the Metro Vancouver Housing Corporation (MVHC) as presented in the report “2020 - 2024 Financial Plan – Metro Vancouver Housing Corporation” dated October 4, 2019 and forward it to the Board Budget Workshop on October 23, 2019 for consideration.

PURPOSE

To present the 2020-2024 Financial Plan for the Metro Vancouver Housing Corporation (MVHC) for consideration by the Committee.

BACKGROUND

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

This report focuses on the MVHC and presents the 2020 annual budget and the updated five year plan for the years 2020 to 2024 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 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.

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

- Develop and implement a Metro Vancouver affordable housing plan to support affordable housing 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 residents.
- Continue to engage with members on processes and initiatives that contribute to an effective and well functioning organization

2020 BUDGET AND 2020 - 2024 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:

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

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 2020-2024 MVHC Financial Plan is included as Attachment 1. The 2020 Annual Work Plan for the MVHC presented in this report is included in Attachment 3 and the “What’s Happening” highlights for the years 2020 – 2024 are included in Attachment 4.

Operating Budget Highlights

MVHC 2020 operating budget is proposed to increase by \$1,020,291 for a total budget of \$52,289,752 (Attachment 1). This increase is primarily due to the increase rental revenue and operating subsidies to meet service requirements and growth demands.

The 2020 operating budget includes the following key actions:

- Rent-up and normalization of operations at Heather Place Building A
- Begin the implementation of the Metro Vancouver Housing 10-Year Plan actions
- Begin the implementation of the Redevelopment Plan and Asset Management Plan
- Begin construction on Kelly Court and Strathearn Court building envelope renewals and energy improvements
- Create new standardized signage for housing sites
- Enhance the online housing application process for tenants

There is one new full-time Community Development Coordinator position proposed for 2020 to support the Tenant Associations as well as enhancing tenant programs.

In addition to this new position, a temporary full-time Regional Housing Clerk is proposed to complete additional and regular asset and income checks that are required to ensure that affordable housing and associated financial assistance is being provided to those most in need.

Over the next five years, the MVHC budget is expected to increase an average of \$2.1 million or 3.8% per year. Of this overall increase, funding related to the expanding capital program (debt servicing and contribution to the capital) is increasing on average \$1.2 million over the next five years and the operating programs and asset maintenance and replacement are increasing, on average, by \$928,388 or 2.6% per year, in line with inflation.

Communications Program

The 2020 MVHC Communications Program of \$40,000 is focused on video and graphic documentation of new and existing MVHC sites for partnership engagement and public opinion research through focus groups on Metro Vancouver's role in housing and branding opportunities.

Capital Budget Highlights

The MVHC capital budget for 2020 is \$25.3 million (Attachment 2). The capital program is funded by mortgage financing, reserve funding, and some contributions from external agencies. The capital projects planned and ongoing for 2020 are the redevelopment of Heather Place - Building A and B, Kingston Gardens - Phase I and Welcher Avenue.

The capital expenditure budget for 2020 - 2024 totals \$82.5 million with Heather Place - Building A slated for completion in 2020 and Kingston Gardens - Phase I and Welcher Avenue are estimated to be completed in 2021. Heather Place – Building B is estimated to be completed in 2023.

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 2020, the financial plan includes \$9.0 million in funding from the Capital Replacement Reserve for significant asset maintenance and replacement. The 2020 – 2024 Projected Reserves for MVHC is included in Attachment 5.

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 2020 Work Plan for MVHC is presented in this report. Within the MVHC Work Plan, four performance indicators have been developed and are being tracked. These include:

- Percentage of total units rented to subsidized tenants
- Vacancy percentage (based on number of units)
- MVHC communities with tenant associations
- Reduction of GHG emissions

The trends in these performance measures suggests that MVHC will continue to provide one third of the tenant portfolio with subsidized tenants, maintain a low vacancy rate and uphold its management of 30 tenant associations. Lastly, there has been a steady decrease in GHG emissions from MVHC operations.

CONSISTENCY WITH THE 2019-2023 FINANCIAL PLAN

The updated five year financial plan has been developed to be consistent with the 2019-2023 financial plan. As presented in Attachment 1, the total operating programs are at or below that which were

projected in the 2019-2023 financial plan. Variances from prior year projections do occur with the 2020 asset maintenance and replacement expenditures, which is now projected to be \$1.0 million lower than prior year's projections with expenditures of \$9.0 million. The 2021-2023 asset maintenance and replacement expenditures is projected to decrease by an additional \$12.1 million. This decrease is a result of updated information with the implementation of MVHC's *Asset Management Policy* and the emphasis towards redeveloping MVHC sites.

APPROVAL PROCESS

The proposed 2020-2024 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 2020 – 2024 Financial Plan and Annual Work Plan will be presented for consideration at the Board Budget Workshop on October 23, 2019.
- The Board will consider adoption of the 2020 Budget and endorsement of the 2020-2024 Financial Plan on November 1, 2019.

ALTERNATIVES

1. That the Housing Committee endorse the 2020 - 2024 Financial Plan for MVHC as presented in the report "2020 - 2024 Financial Plan – Metro Vancouver Housing Corporation" dated October 4, 2019 and forward it to the Metro Vancouver Regional District Board Budget Workshop on October 23, 2019 for consideration.
2. That the Housing Committee make recommendations and endorse an amended 2020 - 2024 Financial Plan for the MVHC and forward the amended Financial Plan to the to the Metro Vancouver Regional District Board Budget Workshop on October 23, 2019 for consideration.

FINANCIAL IMPLICATIONS

MVHC is funded primarily through rental revenues and does not have an impact on the overall MVRD tax requisition. If the MVRD Board endorses the 2020 – 2024 Financial Plan for the MVHC, as presented under Alternative 1, in 2020 the rental revenues are expected to generate a surplus from operations ranging from \$10.5 million in 2020 to \$12.4 million in 2024. As part of the Metro Vancouver Housing 10 Year Plan, planning is currently underway to determine the long-term maintenance requirements and development and any excess from the generated surpluses will then be directed toward the funding of affordable housing development.

The financial plan includes four redevelopment projects, one at Heather Place – Building A (\$28.5 million), which started construction in 2018, Kingston Gardens (\$29.0 million) which started in 2019, Heather Place – Building B (\$37.7 million) projected to start in 2020 and Welcher Avenue (\$16.0 million) projected to start in 2020. These projects will be funded through a combination of reserves, Provincial contributions and mortgage financing.

Under Alternative 2, the Committee may wish to consider recommending amendments to the 2020 Budget and Five Year Financial Plan for consideration at the Board Budget Workshop. Any changes to the plan may have an impact on the MVRD Financial Plan.

SUMMARY / CONCLUSION

The MVHC 2020 Budget and Five Year Financial Plan has been prepared 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 2020 to 2024 for MVHC.

The presentation of the 2020 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 2020 - 2024 Financial Plan and Annual Work Plan for MVHC as presented under alternative one.

Attachments:

1. 2020 – 2024 Financial Plan (Doc. 32953539)
2. 2020 – 2024 Capital Programs and Project Totals – Housing
3. 2020 Work Plan (Doc. 30102962)
4. 2020 – 2024 “What’s Happening”
5. 2020 – 2024 Projected Reserves – Metro Vancouver Housing Corporation
6. Organizational Chart

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METRO VANCOUVER HOUSING CORPORATION
HOUSING
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN

	2017 ACTUAL	2018 ACTUAL	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES													
Housing Rents	\$ 38,630,214	\$ 39,978,046	\$ 39,309,579	\$ 40,392,325	2.8%	\$ 41,544,306	2.9%	\$ 45,130,135	8.6%	\$ 46,338,026	2.7%	\$ 50,049,662	8.0%
Housing Mortgage Subsidies	2,915,541	2,001,154	1,088,554	2,103,014		2,099,058		2,153,023		1,901,688		1,950,519	
Other External Revenues	1,155,285	1,272,863	870,086	794,413		834,522		768,190		768,294		766,830	
Transfer from Reserves	5,708,265	5,127,741	10,001,242	9,000,000		9,000,000		9,000,000		9,000,000		9,000,000	
TOTAL REVENUES	\$ 48,409,305	\$ 48,379,804	\$ 51,269,461	\$ 52,289,752	2.0%	\$ 53,477,886	2.3%	\$ 57,051,348	6.7%	\$ 58,008,008	1.7%	\$ 61,767,011	6.5%
EXPENDITURES													
Operating Programs:													
Property Operations	\$ 14,971,816	\$ 14,848,874	\$ 17,243,436	\$ 18,023,965		\$ 18,590,645		\$ 19,430,849		\$ 20,525,164		\$ 22,296,624	
Maintenance	1,151,203	991,443	1,265,069	1,166,883		1,201,431		1,224,889		1,248,681		1,273,055	
Housing Finance Operations	541,266	603,884	670,587	671,410		690,313		698,609		712,617		733,730	
Tenant Program and Services	466,039	445,212	578,388	732,273		674,698		688,781		703,184		717,951	
Site Administration	1,433,961	1,489,012	1,474,480	1,868,170		1,905,468		1,943,433		1,982,271		2,022,000	
Engineers in Training	-	-	-	11,534		11,767		12,003		12,244		12,491	
Administration and Department Support	677,784	942,957	1,210,353	1,190,329		1,215,360		1,240,757		1,267,154		1,293,744	
	19,242,069	19,321,382	22,442,313	23,664,564	5.4%	24,289,682	2.6%	25,239,321	3.9%	26,451,315	4.8%	28,349,595	7.2%
Communications Program	-	4,877	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	4,124,906	2,417,680	2,119,752	2,071,404	(2.3%)	2,098,851	1.3%	2,006,987	(4.4%)	1,891,093	(5.8%)	1,855,652	(1.9%)
Total Operating Programs	23,366,975	21,743,939	24,602,065	25,775,968	4.8%	26,428,533	2.5%	27,286,308	3.2%	28,382,408	4.0%	30,245,247	6.6%
Asset Maintenance and Replacement	5,708,265	5,127,741	10,001,242	9,000,000	(10.0%)	9,000,000	0.0%	9,000,000	0.0%	9,000,000	0.0%	9,000,000	0.0%
Debt Service	12,531,806	8,165,127	6,201,762	5,333,392	(14.0%)	5,149,561	(3.4%)	6,041,513	17.3%	6,742,393	11.6%	8,393,865	24.5%
Contribution to Capital Replacement Reserve	1,719,533	1,432,944	1,720,636	1,720,546	0.0%	1,720,546	0.0%	1,720,546	0.0%	1,720,546	0.0%	1,720,546	0.0%
Contribution to Reserve	1,228,407	8,457,797	8,743,756	10,459,846	19.6%	11,179,246	6.9%	13,002,981	16.3%	12,162,661	(6.5%)	12,407,353	2.0%
TOTAL EXPENDITURES	\$ 44,554,986	\$ 44,927,548	\$ 51,269,461	\$ 52,289,752	2.0%	\$ 53,477,886	2.3%	\$ 57,051,348	6.7%	\$ 58,008,008	1.7%	\$ 61,767,011	6.5%

METRO VANCOUVER HOUSING CORPORATION
CAPITAL PROGRAMS AND PROJECT DETAILS
HOUSING DEVELOPMENT
2020-2024 CAPITAL PLAN

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
CAPITAL EXPENDITURES							
Housing Development-Capital							
Heather Place - Building A	\$ 2,500,000	\$ -	\$ -	\$ -	\$ -	2,500,000	\$ 28,500,000
Heather Place - Building B	2,000,000	10,000,000	19,100,000	6,600,000	-	37,700,000	37,700,000
Kingston Gardens - Phase 1	14,828,342	12,250,000	-	-	-	27,078,342	29,000,000
Welcher Ave.	6,015,500	9,234,500	-	-	-	15,250,000	16,000,000
TOTAL CAPITAL EXPENDITURES	\$ 25,343,842	\$ 31,484,500	\$ 19,100,000	\$ 6,600,000	\$ -	\$ 82,528,342	\$ 111,200,000

CAPITAL FUNDING							
Reserve Funding *	\$ -	\$ 1,491,641	\$ -	\$ 4,000,000	\$ -	5,491,641	
Grant	8,500,000	-	-	-	-	8,500,000	
Mortgage Proceeds	16,843,842	29,992,859	19,100,000	2,600,000	-	68,536,701	
	\$ 25,343,842	\$ 31,484,500	\$ 19,100,000	\$ 6,600,000	\$ -	\$ 82,528,342	

* Reserves are currently funded by a combination of annual surplus in excess of the capital maintenance and operating requirements and MVRD tax requisition.

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
- Begin the implementation of the actions developed in the Metro Vancouver Housing 10-Year Plan
- Continue the development and start the implementation of the Redevelopment Plan and the Asset Management Plan. These plans will:
 - 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	Current performance	2020 performance objective
Total units rented to subsidized tenants	35% (3 Year average)	34% (2019)	33%
Vacancy percentage (based on number of units)	0.8% (3 Year Average)	0.5% (2019)	0.5%
MVHC communities with tenant associations	58% (3 Year Average, 28 sites)	61% (2019, 30 sites)	65% (32 sites)
Reduce GHG emissions	10.2 grams CO ² Emissions per square metre (2010 baseline)	8.2 grams CO ² Emissions per square metre (2019)	7.8 grams CO ² Emissions per square metre

2020 key actions

Operations & Maintenance

- Rent-up and normalization of operations at Heather Place Building A
- Implementation of the Metro Vancouver Affordable Housing Plan actions
- Begin construction on Kelly Court and Strathearn Court building envelope renewals and energy improvements

New Development

- Complete construction of Heather Place Building A
- Deconstruction of Heather Place units on 13th Avenue
- Begin design of Heather Place Building B
- Begin construction of Kingston Gardens Phase 1
- Begin construction of Welcher Avenue
- Begin the implementation of the Metro Vancouver Housing 10-Year Plan actions
- Begin the implementation of the Redevelopment Plan and Asset Management Plan

Communications

- Create new standardized signage for housing sites
- Update the Housing website
- Enhance the online housing application process for tenants
- Create videos for tenants and external audiences to introduce – “Who MVHC is” as well as how to complete important tenancy-related processes
- Work to build a better understanding and awareness of MVHC among key stakeholders through further branding work including multimedia support and focus group and public opinion research where needed

2020 to 2024 – WHAT'S HAPPENING

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

Initiative	Description	Theme
2020		
Heather Place Building A development	Complete construction and rent up 67 below market units in the City of Vancouver	Regional growth
Kingston Gardens Phase 1 development	Continue construction of 85 below market units in the City of Surrey	Regional growth
Welcher Avenue development	Complete design and begin construction of 50 below market units in the City of Port Coquitlam	Regional growth
Heather Place Building B development	Complete design of 87 below market units in the City of Vancouver	Regional growth
Metro Vancouver Housing 10 year Plan	Begin the implementation of goals developed in the Metro Vancouver Housing 10 year Plan	Regional growth, financial sustainability & environmental sustainability
Tenant programs	Increase the number of properties that are represented by tenant associations	Regional growth
Process development	Continue to review and update housing processes to adapt emerging best practices	System stewardship
Increase the housing portfolio	Actively work with members and the non-profit housing sector to increase the housing portfolio	Regional growth
2021		
Kingston Gardens Phase 1 development	Complete construction and begin rent up of 85 below market units in the City of Surrey	Regional growth
Welcher Avenue development	Continue construction of 50 below market units in the City of Port Coquitlam	Regional growth
Heather Place Building B development	Begin construction of 87 below market units in the City of Vancouver	Regional growth
Metro Vancouver Housing 10 year Plan	Continue the implementation of goals developed in the Metro Vancouver Housing 10 year Plan	Regional growth, financial sustainability & environmental sustainability
Tenant programs	Develop and enhance tenant programs	Regional growth
Increase the housing portfolio	Actively work with members and the non-profit housing sector to increase the housing portfolio	Regional growth

2022		
Kingston Gardens development Phase 1	Complete the rent up of 85 below market units in the City of Surrey	Regional growth
Welcher Avenue development	Complete the construction and rent up of 50 below market units in the City of Port Coquitlam	Regional growth
Heather Place Building B development	Continue construction of 87 below market units in the City of Vancouver	Regional growth
Metro Vancouver Housing 10 year Plan	Continue the implementation of goals developed in the Metro Vancouver Housing 10 year Plan	Regional growth, financial sustainability & environmental sustainability
Increase the Housing portfolio	Actively work with members and the non-profit housing sector to increase the housing portfolio	Regional growth
Portfolio redevelopment plan	Begin construction of projects developed in the Redevelopment Plan to meet the 10 year goals	Regional growth
2023		
Heather Place Building B development	Complete construction and rent up of 87 below market units in the City of Vancouver	Regional growth
Metro Vancouver Housing 10 year Plan	Continue the implementation of goals developed in the Metro Vancouver Housing 10 year Plan	Regional growth, financial sustainability & environmental sustainability
Increase the Housing portfolio	Actively work with members and the non-profit housing sector to increase the housing portfolio	Regional growth
Portfolio redevelopment plan	Continue construction of projects developed in the Redevelopment Plan to meet the 10 year goals	Regional growth
2024		
Metro Vancouver Housing 10 year Plan	Continue the implementation of actions in the Metro Vancouver Housing 10 year Plan	Regional growth & environmental sustainability
Increase the Housing portfolio	Actively work with members and the non-profit housing sector to increase the housing portfolio	Regional growth
Portfolio redevelopment plan	Continue construction of projects developed in the Redevelopment Plan to meet the 10 year goals	Regional growth

METRO VANCOUVER DISTRICTS
2020-2024 PROJECTED RESERVES - METRO VANCOUVER HOUSING CORPORATION

OPERATING RESERVES

	2019 ENDING BALANCE	2020 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2020 ENDING BALANCE	2021 ENDING BALANCE	2022 ENDING BALANCE	2023 ENDING BALANCE	2024 ENDING BALANCE
Metro Vancouver Housing Corporation	\$ 2,370,149	\$ 2,370,149	\$ 41,754	\$ -	\$ 48,304	\$ 2,460,207	\$ 2,577,597	\$ 2,642,853	\$ 2,728,631	\$ 2,838,241

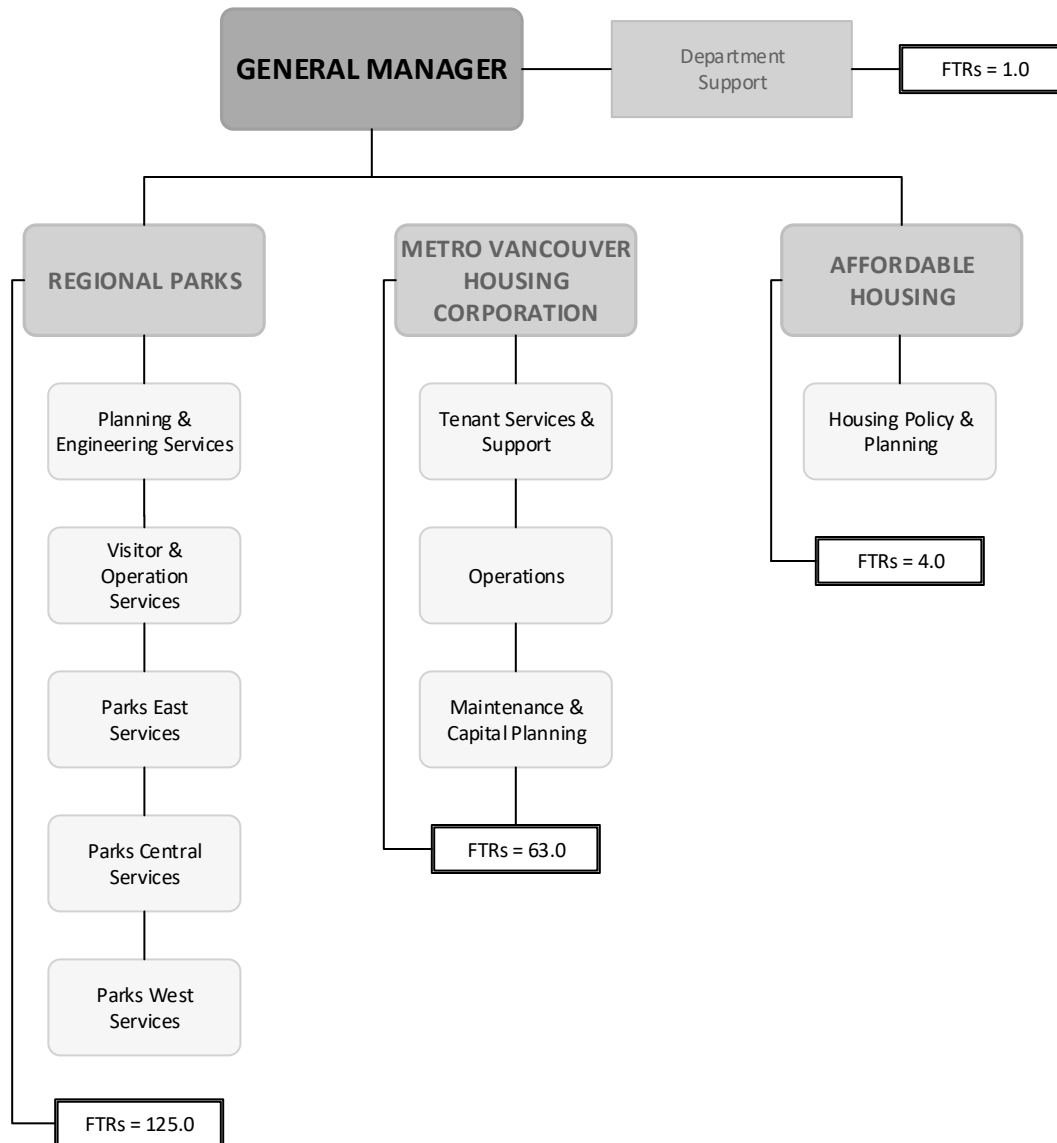
DISCRETIONARY RESERVES

	2019 ENDING BALANCE	2020 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2020 ENDING BALANCE	2021 ENDING BALANCE	2022 ENDING BALANCE	2023 ENDING BALANCE	2024 ENDING BALANCE
Housing										
MVHC Capital Replacement Reserve	\$ 2,779,911	\$ 2,779,911	\$ 11,220,089	\$ (9,000,000)	\$ 77,799	\$ 5,077,800	\$ 5,100,778	\$ 5,101,008	\$ 5,101,010	\$ 5,101,010
MVHC Capital Development Reserve	456,200	456,200	960,303	-	18,727	1,435,231	3,974,746	9,936,789	11,129,581	16,633,371

MVHC Replacement Reserve to maintain a balance that is reviewed from time to time, any excess to be directed toward Capital Development Reserve

Parks & Housing

2019



Parks and Housing
2019 Total FTRs = 194.0
2020 Proposed FTRs = 195.0

To: Housing Committee

From: Ravi Chhina, General Manager, Regional Parks and Housing Services
Jason Hingley, Division Manager, Planning and Finance, Housing Services

Date: October 2, 2019

Meeting Date: October 9, 2019

Subject: **2020 - 2024 Financial Plan – Affordable Housing**

RECOMMENDATION

That the Housing Committee endorse the 2020 - 2024 Financial Plan for the Affordable Housing as presented in the report “2020 - 2024 Financial Plan – Affordable Housing Service” dated October 2, 2019 and forward it to the Board Budget Workshop on October 23, 2019 for consideration.

PURPOSE

To present the 2020-2024 Financial Plan for the Affordable Housing 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) and related functions.

This report focuses on the Affordable Housing function and presents the 2020 annual budget and the updated five year plan for the years 2020 to 2024 for committee consideration.

AFFORDABLE HOUSING PROGRAM

The Affordable Housing function contributes to processes and decisions related to housing planning and to the development of affordable housing projects and, in particular, the redevelopment of Metro Vancouver Housing Corporation portfolio of mixed-income housing complexes and the development of vacant lands owned by local governments.

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

- Develop and implement a Metro Vancouver affordable housing plan to support affordable housing 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

2020 BUDGET AND 2020 - 2024 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:

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

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 2020-2024 Affordable Housing Financial Plan is included as Attachment 1. The 2020 Annual Work Plan for the Affordable Housing presented in this report is included in Attachment 2 and the “What’s Happening” highlights for the years 2020 – 2024 are included in Attachment 3.

Operating Budget Highlights

At the October 4, 2019 Board Meeting, the MVRD Board directed staff to include for approval in the 2020 Affordable Housing budget a \$4.0 million tax requisition for the purpose of dedicated funding for new MVHC affordable housing development projects on lands owned by MVRD member jurisdictions.

As such, the Affordable Housing 2020 operating budget is proposed to increase by \$3,994,025 for a total budget of \$5,833,504 (Attachment 1). This increase is primarily due to the additional \$4.0 million contribution to the affordable housing development reserve and subsequent decrease in the allocated centralized support costs.

The 2020 operating budget includes the following key actions:

- Complete pre-planning and concept development for select housing sites
- Build awareness and support for the Metro Vancouver Housing 10-year Plan
- Finalize and start the implementation of the Redevelopment Plan to support the increase in MVHC affordable housing units
- Support Metro Vancouver Regional Planning policies related to housing in the 2050 Regional Growth Strategy

There are no new full-time staff positions proposed for 2020.

Over the next five years, operating programs are increasing by \$806,193 or an average of 43.5% per year. Adjusting for the \$4 million contribution in 2020, the average increase per year is 0.3%. In addition to those noted above, key actions through 2024 include continuing to review the feasibility and concept development for new affordable housing developments and to support the preparation and review of new lease agreements.

Communications Program

The 2020 Affordable Housing Communications Program of \$25,000 is focused on outreach to build better understanding and awareness of the Affordable Housing function in the region and to conduct consultations on new developments. There will be emphasis on further branding work including multimedia support, focus groups and public opinion research where needed.

Reserve Funds

The 2020-2024 Financial Plan for Affordable Housing includes a \$1.0 million annual contribution to support the re-development of existing housing sites through the affordable housing re-development reserve and an additional \$4.0 million annual contribution to the affordable housing development reserve to support affordable housing development opportunities. Reserve usage are in accordance with the *Operating, Statutory and Discretionary Reserves Policy*.

The financial plan for Affordable Housing does not have any proposed applications of reserve funding.

The 2020 – 2024 Projected Reserves for Affordable Housing is included in Attachment 4.

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 2020 Work Plan for Affordable Housing is presented in this report. Within the Affordable Housing Work Plan, four performance indicators have been developed and are being tracked. These include:

- Percent completion of Heather Place Building A Redevelopment
- Percent completion of Kingston Gardens Phase I Redevelopment
- Percent completion of Welcher Avenue Redevelopment
- Percent completion of Heather Place Building B Redevelopment

With the increase in the number of development sites, the trends in these performance measures suggests that the Affordable Housing function has been progressing in the delivery of new affordable housing units in the region. Heather Place – Building A is currently 90% completed and is on track to be complete in 2020. Kingston Gardens and Welcher Avenue are currently in design phase and will commence construction in 2020 and Heather Place – Building B will initiate the design phase in 2020.

CONSISTENCY WITH THE 2019-2023 FINANCIAL PLAN

The updated five year financial plan has been developed to be consistent with the 2019-2023 financial plan except for the additional \$4.0 million contribution to the affordable housing development reserve to be raised through the tax requisition. The MVRD Requisition for Affordable Housing is projected to be \$5,833,504 for 2020, which is 218.5% higher than that projected for 2020 in the last planning cycle and is due to the additional contribution to the affordable housing development reserve. The household impact of the Affordable Housing function has increased over the prior year to now be just under \$5.

APPROVAL PROCESS

The proposed 2020-2024 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 2020 – 2024 Financial Plan and Annual Work Plan will be presented for consideration at the Board Budget Workshop on October 23, 2019.
- The Board will consider adoption of the 2020 Budget and endorsement of the 2020-2024 Financial Plan on November 1, 2019.

ALTERNATIVES

1. That the Housing Committee endorse the 2020 - 2024 Financial Plan for the Affordable Housing Service as presented in the report “2020 - 2024 Financial Plan – Affordable Housing Service” dated October 2, 2019 and forward it to the Metro Vancouver Regional District Board Budget Workshop on October 23, 2019 for consideration.
2. That the Housing Committee make recommendations and endorse an amended 2020 - 2024 Financial Plan for the Affordable Housing Service and forward the amended Financial Plan to the to the Metro Vancouver Regional District Board Budget Workshop on October 23, 2019 for consideration.

FINANCIAL IMPLICATIONS

If the MVRD Board endorses the 2020 – 2024 Financial Plan for the Affordable Housing Service, as presented under Alternative 1, in 2020 the Affordable Housing requisition will increase by \$3,994,025 (217.1%) for a total requisition of \$5,833,504.

Over the term of the five year plan, the annual Affordable Housing requisition is projected to increase by an average of \$806,193 per year (43.5%) to provide the required revenue to offset projected expenditures. It is anticipated that the cost to the average regional household over the next five years for the Affordable Housing function will rise from slightly over \$1 in 2019 to just under \$5 in 2024.

Under Alternative 2, the Committee may wish to consider recommending amendments to the 2020 Budget and Five Year Financial Plan for consideration at the Board Budget Workshop. Any changes to the plan may have an impact on the MVRD Financial Plan.

SUMMARY / CONCLUSION

The Affordable Housing function 2020 Budget and five year financial plan has been prepared 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 2020 to 2024 for Affordable Housing.

The presentation of this year’s five year financial plan for Affordable Housing 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 2020 - 2024 Financial Plan and Annual Work Plan for Affordable Housing as presented under alternative one.

Attachments:

1. 2020 – 2024 Financial Plan (Doc. 33007912)
2. 2020 Work Plan (Doc. 31563056)
3. 2020 – 2024 “What’s Happening”
4. 2020 – 2024 Projected Reserves – Affordable Housing Service
5. Organizational Chart

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ATTACHMENT 1

METRO VANCOUVER REGIONAL DISTRICT AFFORDABLE HOUSING 2020 BUDGET REVIEW 2020-2024 FINANCIAL PLAN

	2017 ACTUAL	2018 ACTUAL	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES													
Metro Vancouver Regional District Requisitions	\$ 407,304	\$ 2,018,817	\$ 1,839,479	\$ 5,833,504	217.1%	\$ 5,847,990	0.2%	\$ 5,859,978	0.2%	\$ 5,870,428	0.2%	\$ 5,870,445	0.0%
TOTAL REVENUES	\$ 407,304	\$ 2,018,817	\$ 1,839,479	\$ 5,833,504	217.1%	\$ 5,847,990	0.2%	\$ 5,859,978	0.2%	\$ 5,870,428	0.2%	\$ 5,870,445	0.0%
EXPENDITURES													
Operating Programs:													
Housing Policy and Planning	\$ 119,164	\$ 388,179	\$ 724,823	\$ 743,031		\$ 757,915		\$ 773,017		\$ 788,453		\$ 791,225	
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		1,000,000	
Contribution to Affordable Housing Development Reserve	-	-	-	4,000,000		4,000,000		4,000,000		4,000,000		4,000,000	
	119,164	1,388,179	1,724,823	5,743,031	233.0%	5,757,915	0.3%	5,773,017	0.3%	5,788,453	0.3%	5,791,225	0.0%
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	-	71,637	89,656	65,473	(27.0%)	65,075	(0.6%)	61,961	(4.8%)	56,975	(8.0%)	54,220	(4.8%)
TOTAL EXPENDITURES	\$ 119,164	\$ 1,459,815	\$ 1,839,479	\$ 5,833,504	217.1%	\$ 5,847,990	0.2%	\$ 5,859,978	0.2%	\$ 5,870,428	0.2%	\$ 5,870,445	0.0%

AFFORDABLE HOUSING

Description of services

This function contributes to processes and decisions related to the development of affordable housing Projects and, in particular, to the redevelopment of the Metro Vancouver Housing Corporation portfolio of mixed-income housing complexes and the development of vacant lands owned by local governments (including the MVRD).

The Affordable Housing Policy and Planning Program has the following functions:

- Work with member municipalities to identify land for the development of affordable housing.
- Manage the development of housing sites through pre-construction.
- Lead the planning and analysis of properties to assess redevelopment potential.
- Develop both Corporate and Board policies for affordable housing to ensure housing operations and development align and support the Board strategic plan, the Metro Vancouver Affordable Housing 10-Year Plan, Metro 2040, the Regional Growth Strategy and the Residential Tenancy Act.
- Monitor a 10-year housing strategy that will provide strategic guidance in the assessment and redevelopment of MVHC sites to increase the supply of affordable rental housing in the region.

Strategic directions and high level goals supported

- Support the implementation of the Metro Vancouver Affordable 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.
- 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 Real Estate Plan to advance the redevelopment of housing sites.

Performance indicators

Indicator	Historical and/or industry benchmark	Current performance	2020 performance objective
Heather Place Building A Redevelopment	n/a	90%	100%
Kingston Gardens Phase I Redevelopment	n/a	5%	50%
Welcher Avenue Redevelopment	n/a	5%	50%
Heather Place Building B Redevelopment	n/a	0%	10%

2020 key actions

Policy & Planning

- Complete pre-planning and concept development for select housing sites
- Build awareness and support for the Metro Vancouver Affordable Housing 10-Year Plan
- Support the implementation of the Metro Vancouver Affordable Housing 10-Year Plan
 - Pursue portfolio funding partnerships
 - Actively pursue partnership opportunities with public, private and other housing stakeholders
 - Develop new policy to support annual income testing for low end of market tenants
 - Review and update all tenant policies and agreements
 - Pursue funding opportunities for capital maintenance and sustainable housing
 - Create a tenancy management policy and information package for inclusionary housing opportunities
- Finalize and start the implementation of the Redevelopment Plan to support the increase in MVHC affordable housing units
- Support Metro Vancouver Regional Planning policies related to housing 2050 Regional Growth Strategy

Communications Program

- Work to build a better understanding and awareness of MVHC among key stakeholders through further branding work including multimedia support and focus group and public opinion research where needed.

2020 to 2024 – WHAT’S HAPPENING

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

Initiative	Description	Theme
2020		
Welcher Avenue development	Complete the development permit process and engagement for 50 below market units in the City of Port Coquitlam	Regional growth
Heather Place Building B development	Complete the development permit process and engagement for 87 below market units in the City of Vancouver	Regional growth
Metro Vancouver Housing 10 year Plan	Develop awareness of the plan and engage stakeholders to facilitate successful implementation of goals	Regional growth, financial sustainability & environmental sustainability
Portfolio redevelopment plan	Complete the Redevelopment Plan and propose a portfolio of projects for redevelopment	Regional growth
Policy review and update	Continue to review and update Housing policies and processes	Regulatory & legislative
Increase the housing portfolio	Actively work with members and the non-profit housing sector to increase the housing portfolio	Regional growth
2021		
Metro Vancouver Housing 10 year Plan	Continue to engage stakeholders to facilitate successful implementation of goals	Regional growth, financial sustainability & environmental sustainability
Portfolio redevelopment plan	Develop concepts and funding partners to implement the Redevelopment Plan	Regional growth
Tenant programs	Complete an environmental scan of best practices in tenant programs	Regional growth
Increase the housing portfolio	Actively work with members and the non-profit housing sector to increase the housing portfolio	Regional growth
2022		
Metro Vancouver Housing 10 year Plan	Continue to engage stakeholders to facilitate successful implementation of goals	Regional growth, financial sustainability & environmental sustainability

Portfolio redevelopment plan	Develop concepts and funding partners to implement the Redevelopment Plan	Regional growth
Increase the housing portfolio	Actively work with members and the non-profit housing sector to increase the housing portfolio	Regional growth
2023		
Metro Vancouver Housing 10 year Plan	Continue to engage stakeholders to facilitate successful implementation of goals	Regional growth, financial sustainability & environmental sustainability
Portfolio redevelopment plan	Develop concepts and funding partners to implement the Redevelopment Plan	Regional growth
Increase the housing portfolio	Actively work with members and the non-profit housing sector to increase the housing portfolio	Regional growth
2024		
Metro Vancouver Housing 10 year Plan	Continue to engage stakeholders to facilitate successful implementation of goals	Regional growth, financial sustainability & environmental sustainability
Portfolio redevelopment plan	Develop concepts and funding partners to implement the Redevelopment Plan	Regional growth
Increase the housing portfolio	Actively work with members and the non-profit housing sector to increase the housing portfolio	Regional growth

METRO VANCOUVER DISTRICTS
2020-2024 PROJECTED RESERVES - AFFORDABLE HOUSING

OPERATING RESERVES

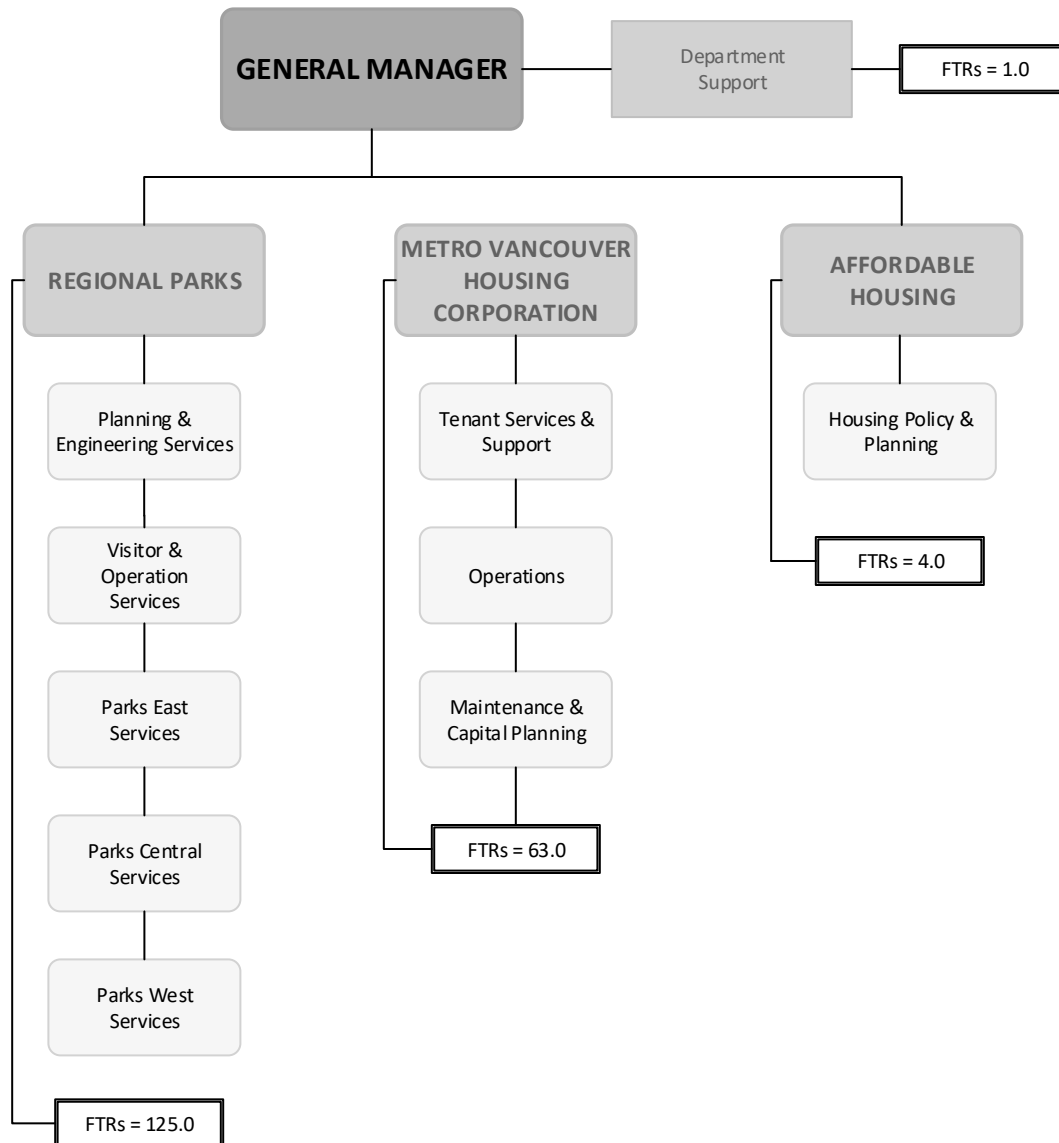
	2019	2020				2020	2021	2022	2023	2024
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Affordable Housing	\$ 52,045	\$ 52,045	\$ -	\$ (11,011)	\$ 940	\$ 41,974	\$ 241,675	\$ 242,400	\$ 242,999	\$ 243,521

STATUTORY RESERVES

	2019	2020				2020	2021	2022	2023	2024
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Affordable Housing										
Affordable Housing Re-development Reserve	\$ 1,010,000	\$ 1,010,000	\$ 1,000,000	\$ -	\$ 30,200	\$ 2,040,200	\$ 3,091,004	\$ 4,162,824	\$ 5,256,081	\$ 6,371,202
Affordable Housing Development Reserve	-	-	4,000,000	-	40,000	4,040,000	8,160,800	12,364,016	16,651,296	21,024,322

Parks & Housing

2019



Parks and Housing
2019 Total FTRs = 194.0
2020 Proposed FTRs = 195.0

To: Indigenous Relations Committee

From: Jessica Beverley, Director of Legal Services and Indigenous Relations/Corporate Solicitor

Date: October 2, 2019

Meeting Date: October 10, 2019

Subject: **2020 - 2024 Financial Plan – Indigenous Relations**

RECOMMENDATION

That the Indigenous Relations Committee endorse the 2020 - 2024 Financial Plan for Indigenous Relations as presented in the report “2020 - 2024 Financial Plan – Indigenous Relations” dated October 2, 2019, and forward it to the Metro Vancouver Regional District Board Budget Workshop on October 23, 2019 for consideration.

PURPOSE

To present the 2020-2024 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) and related functions.

This report focuses on Indigenous Relations and presents the 2020 annual budget and the updated five-year plan for the years 2020 to 2024 for committee consideration.

INDIGENOUS RELATIONS PROGRAM

The Indigenous Relations program within the Metro Vancouver Regional District (MVRD) provides services that support all 23 members and provide: 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 corporate programs, processes and projects. 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.

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

- Enhance relationships between Metro Vancouver and other orders of government, First Nations, adjacent regional districts, and key stakeholders.

2020 BUDGET AND 2020 - 2024 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:

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

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 2020-2024 Indigenous Relations Financial Plan is included as Attachment 1. The 2020 Annual Work Plan for Indigenous Relations presented in this report is included in Attachment 2 and the “What’s Happening” highlights for the years 2020 – 2024 are included in Attachment 3.

Operating Budget Highlights

The Indigenous Relations operating budget is proposed to increase by \$11,502 in 2020 for a total budget of \$583,698 (Attachment 1). This increase can be attributed primarily inflationary factors such as increments for salaries and benefits.

The 2020 operating budget includes the following key actions:

- Complete an annual review/update of Metro Vancouver’s *Guide to First Nation Communities* document.
- Host a Regional Gathering involving members of the Indigenous Relations Committee, MVRD Board, and respective First Nation Chiefs and Councils from 10 First Nations in the region.
- Host an annual event (e.g. workshop) involving staff of First Nations and local governments on a topical issue in local government-Indigenous relations.
- Host and/or participate in reconciliation activities (e.g. “Orange Shirt Day”, National Indigenous Peoples Day events).
- Participate in active treaty table meetings in the region as part of the provincial negotiating teams.
- Provide training sessions for Metro Vancouver staff on the 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.

Highlights of consulting projects anticipated to be undertaken in 2020 to respond to work plan requirements within the operating budget include the following:

- Regional Gathering or annual Community to Community Forum
- Municipal Technical Advisory Committee (local government and Tsawwassen First Nation) staff workshop

Over the five years, the operating program is increasing by a total of \$59,626, or an average of 2.0% per year.

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 2020 Work Plan for Indigenous Relations is presented in this report. Within the Indigenous Relations Work Plan, five performance indicators have been developed and are being tracked. These include:

- Number of bilateral meetings between Metro Vancouver and the nine area First Nations with lands
- Total requests for information or advice related to First Nations and/or Indigenous Relations

The trend in these performance measures suggests that there is increased desire to advance working relationships between Metro Vancouver and other orders of government, First Nations and stakeholders as well as increased public awareness and interest in issues relating to Indigenous Relations.

CONSISTENCY WITH THE 2019-2023 FINANCIAL PLAN

The updated five-year financial plan has been developed to be consistent with the 2019 - 2023 financial plan. The Indigenous Relations program forms part of Centralized Support Services which provide services to all Metro Vancouver entities and functions. The total cost of centralized support programs is allocated to the various Metro Vancouver entities and functions in accordance to the *Corporate Allocation Policy* distributing the cost of services provided.

In 2020, the Indigenous Relations program budget is generally consistent with the previous five year projection.

APPROVAL PROCESS

The proposed 2020-2024 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 2020 - 2024 Financial Plan and Annual Work Plan will be presented at the Board Budget Workshop on October 23, 2019.
- The Board will consider adoption of the 2020 Budget and endorsement of the 2020-2024 Financial Plan on November 1, 2019.

ALTERNATIVES

1. That the Indigenous Relations Committee endorse the 2020 - 2024 Financial Plan for Indigenous Relations as presented in the report "2020 - 2024 Financial Plan – Indigenous Relations" dated October 2, 2019, and forward it to the Metro Vancouver Regional District Board Budget Workshop on October 23, 2019 for consideration.
2. That the Indigenous Relations Committee make recommendations and endorse an amended 2020 - 2024 Financial Plan for Indigenous Relations, and forward the amended Financial Plan to

the Metro Vancouver Regional District Board Budget Workshop on October 23, 2019 for consideration.

FINANCIAL IMPLICATIONS

If the MVRD Board endorses the 2020 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 2020 - 2024 Financial Plan, if endorsed will increase by \$59,626, or an average of 2.0% per year. Indigenous Relations supports all Metro Vancouver entities and functions and is 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 Board Budget Workshop. Any changes to the plan may have an impact on the MVRD Financial Plan.

SUMMARY / CONCLUSION

The 2020 Budget and Five Year Financial Plan for Indigenous Relations has been prepared 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 2020 to 2024 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 that will be required 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 requirements.

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

Staff recommend endorsing the 2020 - 2024 Financial Plan for Indigenous Relations as presented under alternative one.

Attachments:

1. 2020 – 2024 Financial Plan (Doc. 32941614)
2. 2020 Work Plan (Doc. 32264746)
3. 2020 – 2024 "What's Happening"
4. Organizational Chart

32908275

METRO VANCOUVER REGIONAL DISTRICT
INDIGENOUS RELATIONS
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN

ATTACHMENT 1

	2017 ACTUAL	2018 ACTUAL	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES													
Allocated to Functional Departments	\$ 373,921	\$ 379,161	\$ 572,196	\$ 583,698	2.0%	\$ 595,400	2.0%	\$ 607,283	2.0%	\$ 619,425	2.0%	\$ 631,822	2.0%
TOTAL REVENUES	\$ 373,921	\$ 379,161	\$ 572,196	\$ 583,698	2.0%	\$ 595,400	2.0%	\$ 607,283	2.0%	\$ 619,425	2.0%	\$ 631,822	2.0%
EXPENDITURES													
Operating Programs:													
Indigenous Relations	\$ 345,802	\$ 331,862	\$ 572,196	\$ 583,698	2.0%	\$ 595,400	2.0%	\$ 607,283	2.0%	\$ 619,425	2.0%	\$ 631,822	2.0%
TOTAL EXPENDITURES	\$ 345,802	\$ 331,862	\$ 572,196	\$ 583,698	2.0%	\$ 595,400	2.0%	\$ 607,283	2.0%	\$ 619,425	2.0%	\$ 631,822	2.0%

LEGAL SERVICES AND INDIGENOUS RELATIONS

Indigenous Relations

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:

- 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	2020 performance objective
Number of local government interests represented at treaty table meetings.	MV 4-year average (2015-2018): 10	Projected 2019: 4	6
Number of special Indigenous Relations events hosted by Metro Vancouver (e.g. Community to Community Forums, workshops, lunch and learns)	MV 4-year average (2015-2018): 3	Projected 2019: 6	7
Number of bilateral meetings between Metro Vancouver and the nine area First Nations with lands	MV 4-year average (2015-2018): 19	Projected 2019: 20	20
External requests for information or advice related to First Nations and/or Indigenous Relations	MV 4-year average (2015-2018): 96	Projected 2019: 200	100
Total requests for information or advice related to First Nations and/or Indigenous Relations	MV 4-year average (2015-2018): 805	Projected 2019: 1,724	1500

2020 key actions

- Complete an annual review/update of Metro Vancouver's *Guide to First Nation Communities* document.
- Host a Regional Gathering involving members of the Indigenous Relations Committee, MVRD Board, and respective First Nation Chiefs and Councils from 10 First Nations in the region.
- Host an annual event (e.g. workshop) involving staff of First Nations and local governments on a topical issue in local government-Indigenous relations.
- Host and/or participate in reconciliation activities (e.g. "Orange Shirt Day", National Indigenous Peoples Day events).
- Participate in active treaty table meetings in the region as part of the provincial negotiating teams.
- Provide training sessions for Metro Vancouver staff on the 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.

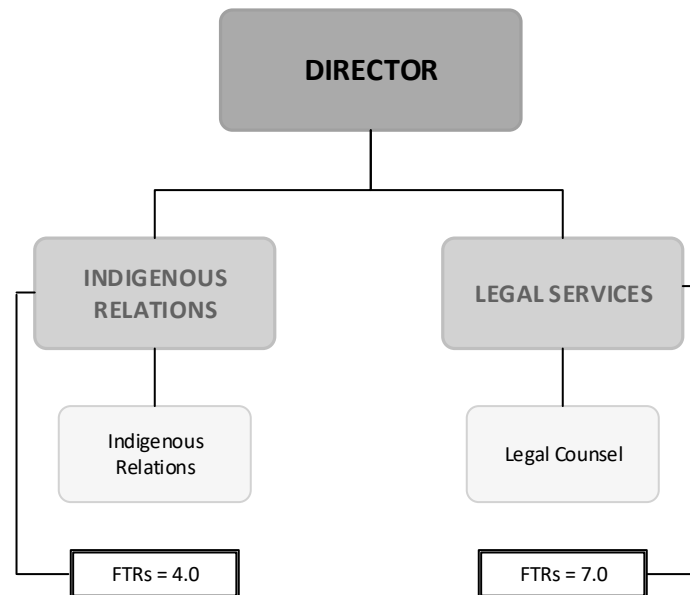
2020 to 2024 – WHAT’S HAPPENING

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

Initiative	Description	Theme
2020		
A Metro Vancouver-First Nations Regional Gathering	A forum to be co-hosted by the MVRD Board with 10 First Nation communities’ political leaders in the region	Regional Growth
Equity in Growth Management	First Nations engagement in the identification of opportunities to bring an equity lens to the next Regional Growth Strategy	Regional Growth
2021		
A Community to Community Forum or Regional Gathering	A forum to be co-hosted by Metro Vancouver Indigenous Relations Committee with one First Nation (i.e. a Community to Community Forum) or the MVRD Board with 10 First Nation communities’ political leaders in the region (i.e. a Regional Gathering)	Regional Growth
Sensitive Ecosystem Inventory	First Nations engagement in the 5-year update of the sensitive ecosystem inventory for the region	Environmental Sustainability
2022		
A Community to Community Forum or Regional Gathering	A forum to be co-hosted by Metro Vancouver Indigenous Relations Committee with one First Nation (i.e. a Community to Community Forum) or the MVRD Board with 10 First Nation communities’ political leaders in the region (i.e. a Regional Gathering)	Regional Growth
Climate 2050	First Nations engagement and participation in the implementation of the Climate 2050 issue area roadmaps	Environmental Sustainability
2023		
A Community to Community Forum or Regional Gathering	A forum to be co-hosted by Metro Vancouver Indigenous Relations Committee with one First Nation (i.e. a Community to Community Forum) or the MVRD Board with 10 First Nation communities’ political leaders in the region (i.e. a Regional Gathering)	Regional Growth
2024		
A Community to Community Forum Regional Summit	A forum to be co-hosted by Metro Vancouver Indigenous Relations Committee with one First Nation (i.e. a Community to Community Forum) or the MVRD Board with 10 First Nation communities’ political leaders in the region (i.e. a Regional Gathering)	Regional Growth

Legal Services and Indigenous Relations

2019



Legal Services & Indigenous Relations
2019 Total FTRs = 12.0
2020 Proposed FTRs = 12.0

30044481
 September 30, 2019

To: Liquid Waste Committee

From: Peter Navratil, General Manager, Liquid Waste Services

Date: October 10, 2019

Meeting Date: October 17, 2019

Subject: **2020 - 2024 Financial Plan – Liquid Waste Services**

RECOMMENDATION

That the Liquid Waste Committee endorse the 2020 - 2024 Financial Plan for Liquid Waste Services as presented in the report dated October 10, 2019, titled “2020 - 2024 Financial Plan – Liquid Waste Services” and forward it to the Greater Vancouver Sewerage and Drainage District Board Budget Workshop on October 23, 2019 for consideration.

PURPOSE

To present the 2020-2024 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) and related functions.

This report focuses on Liquid Waste Services and presents the 2020 annual budget and the updated five year plan for the years 2020 to 2024 for committee consideration.

LIQUID WASTE SERVICES PROGRAM

The Liquid Waste Services function is comprised of 17 member municipalities and one electoral area within Metro Vancouver, serving a population of approximately 2.5 million residents. The wastewater collection and treatment system consists of over 530 kilometers of trunk sewers, 33 pump stations and 5 treatment plants that convey 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.

2020 BUDGET AND 2020 - 2024 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:

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

Attached are the 2020 - 2024 Liquid Waste Services Financial Plan Operating Budget Summary (Attachment 1) and the 2020 - 2024 Liquid Waste Services Capital Budget Summary (Attachment 2).

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 2020 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 2020 – 2024 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 \$17.4 million in 2020 for a total budget of \$328.3 million (Attachment 1). This increase can essentially be attributed to increasing operating costs, debt service and contribution to capital. A significant portion of the increase can be attributed to increased contributions to capital of \$8.2 million to support infrastructure investments required to meet service requirements and growth demands and increased debt service costs of \$2.9 million due to accelerating capital program.

The 2020 operating budget includes the following key actions:

- Complete the Project Definition Report for the Iona Island Wastewater Treatment Plant Secondary and advanced treatment options upgrade, including development of the indicative design for the new plant.

- Initiate review of the *Integrated Liquid Waste and Resource Management Plan* for 2021 update.
- Continue to decommission the Iona Island Wastewater Treatment Plant biosolids stockpile. Acceleration of the grit dump decommissioning, increased disposal volumes due to weed seed contamination and delays in the decommissioning of the sludge lagoons are driving cost increases for 2020.
- Continue development of Asset Management program in alignment with the Board *Asset Management for Liquid Waste Policy*, including O&M asset condition assessment plans, facility level risk assessments and asset management plans. This work will include developing strategies and implementing pilot work on technologies for full pipe condition inspections/assessments.
- Update the Biosolids Management Plan Framework, identifying an action plan to manage future increases in biosolids generation resulting from growth and the treatment plant upgrades.
- Complete Maintenance Service Enhancement Initiatives to review maintenance practices, efficiency, transparency/accuracy of data and level of customer service with the intent to optimize resources, procedures and practices.
- Continue Source Control regulatory initiatives including a review of the Food Sector Grease Interceptor Bylaw and the Sewer Use Bylaw (with respect to the trucked liquid waste sector) Identification and pursuit of unauthorized discharges will reduce system maintenance and treatment costs and reduce risks to workers, biosolids quality and the environment.

Highlights of contracts and consulting projects anticipated to be undertaken in 2020 to respond to work plan requirements within the operating budget include the following:

Planning

- Sewer modelling/analytics consulting services directed at updating system models (\$850,000);
- Still Creek – Brunette Drainage Area Flood mapping project and Port Moody – Coquitlam Drainage Area drainage modelling/assessment work (\$100,000);
- Combined sewer separation planning for the elimination of Combined Sewer Overflows (CSO) (\$260,000);

Research

- Capture of wastewater contaminants of concern and beneficial use of residuals funded from the Sustainability Innovation Fund (\$150,000);
- Multiphase Composite Coating for Concrete Sewers funded from the Sustainability Innovation Fund (\$155,000);
- Pump Station Optimization funded from the Sustainability Innovation Fund (\$110,000);

Environmental Monitoring

- Iona Island WWTP and Strait of Georgia monitoring (\$800,000);
- Burrard Inlet and Lions Gate WWTP monitoring programs (\$802,000);
- Fraser River WWTPs and the Fraser River monitoring programs (\$415,000);
- Effluent toxicity monitoring (\$344,000);
- Wastewater and biosolids characterization for contaminants of emerging concern (\$324,000);
- Combined Sewer Overflow (CSO) characterization and risk assessments (\$303,000);
- Development of Environmental Management System (EMS) (\$130,000);

- Key Manhole Monitoring and Canadian Council of Ministers of the Environment (CCME) Strategy compliance monitoring for emerging contaminants (\$266,000); and
- Data management and National Pollutant Release Inventory (NPRI) reporting for contaminants of emerging concern (\$109,000).

In 2020, Liquid Waste Services is proposing to add 7 new full-time staff positions. These include 2 Project Engineers dedicated to required engineering support at North Shore and Northwest Langley wastewater treatment plants, 1 Clerk Stenographer III providing required administrative support for large infrastructure projects such as the North Shore wastewater plant upgrade, 1 Project Engineer dedicated to complete key tasks supporting Liquid Waste Service's Asset Management Program, 1 Engineering Technician I to provide technical resources supporting numerous asset management and condition asset programs, 1 Project Engineer providing mechanical engineering technical support for select Utilities assets as well as technical maintenance related start-up and commissioning services for new assets and 1 Senior Project Engineer in Wastewater Engineering providing operational engineering technical support for all phases of wastewater capital projects underway including project definition, detailed design, construction and start-up and commissioning.

As well, 1 Trades Foreman supporting ongoing maintenance work at Seymour Capilano Filtration Plant for Water Services is proposed to be added to the shared services provided by Liquid Waste Services Operations and Maintenance.

Over the next five years, the Liquid Waste Services budget is expected to increase an average of \$41.5 million or 10.8% per year. Of this overall increase, funding related to the expanding capital program (debt servicing and contribution to the capital) is increasing \$36.2 million on average over the next five years. The operating programs are increasing, on average, by \$5.3 million per year, roughly at the rate of inflation.

Environmental Regulation and Enforcement

Working with the commercial and industrial sectors, staff continue with initiatives which regulate and enforce the usage of the liquid waste collection and treatment system. In 2020, the budget for Liquid Waste Environmental Regulation and Enforcement program is increasing by \$142,034 to \$2.05 million due primarily to labour inflation and a change in allocation of administrative resources required for the program.

Communications Program

The 2020 Liquid Waste Services Communications Program of \$450,000 is primarily framed around the Regional Grease Campaign (\$170,000), the Regional Unflushables Campaign (\$190,000) along with some public outreach, research and informational Regional Education Campaigns (\$90,000.)

Capital Budget Highlights

The Liquid Waste Services capital budget for 2020 is \$883.4 million (Attachment 2). The capital program is funded by long-term debt, contributions from the operating budget, and some external (interagency and senior level government grant) contributions.

Highlights of capital projects planned or ongoing for 2020 include the following:

- Remove all preload from North Shore Wastewater Treatment Plant site, complete 90% of excavation and commence foundation pouring;
- Substantially complete construction of 5 primary sedimentation tanks, 2 solids contact tanks and 6 secondary clarifiers for the Annacis Island WWTP Stage 5 expansion;
- Complete construction of 2 vertical launch/receiving shafts and commence tunneling of chlorine contact tank effluent section for the Annacis Island WWTP Outfall project;
- Substantially complete the Sapperton Pump Station;
- Complete the Northwest Langley Wastewater Treatment Plant Phase 2 ground improvements;
- Start construction of the open cut and tunneled sections of the Burnaby Lake North Interceptor – Winston section;
- Achieve total completion of the two South Surrey Interceptor Odour Control Facilities (King George and Highway 10);
- Start construction of the last section of the twinning of the South Surrey Interceptor; and
- Complete the Hastings Sanitary Trunk Sewer, North Road Trunk Sewer (Phase 1), Albert Street Sanitary Trunk Sewer (Phase 1) and Highbury Interceptor Air Management Facility.

The capital expenditure budget for 2020 - 2024 totals \$3.42 billion, an average of \$685 million per year. The largest 5 projects (\$175 million and greater) make up 60% of the capital spending over the next 5 years. These five projects also represent the majority of the expenditures planned for the following 10 years (61%). In addition, there are a further 130 projects on the plan.

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

- North Shore Wastewater Treatment Plant Secondary - \$882M;
- Annacis Stage 5 Expansion - \$686M;
- Annacis Outfall System - \$378M;
- Northwest Langley Wastewater Plant Stage 1 - \$889M; and
- Iona Secondary Treatment Indicative Design and Ground Improvements - \$335M from 2020 to 2024.

Reserve Funds

The application of reserve funding in Liquid Waste Services is primarily made through the Biosolids Inventory Reserve, the Sustainability Innovation Fund, Drainage Area General Reserve and the Laboratory Equipment Reserve. In 2020, the financial plan includes a \$4.75 million net application from the Biosolids Inventory Reserve for removal of the stockpile at the Iona Island Wastewater Treatment Plant, a \$150,000 application for planned equipment purchases for the chemical laboratory and \$115,000 for Drainage Area initiatives. In addition, a total of \$555,000 is planned to be used from the Liquid Waste Sustainability Innovation Fund for five Board approved sustainability initiatives (plus another \$420,000 of funding in 2021-2022 to complete two of these sustainability initiatives.)

In addition to the operating budget reserve applications noted above, approximately \$8.435 million

will be applied from the Liquid Waste Sustainability Innovation Fund Reserve over the period 2020-2024 to offset the funding requirements for a Hydrothermal Processing pilot project at the Annacis Island Wastewater Treatment Plant along with a project to increase the efficiency of biogas production.

The 2020 - 2024 Projected Reserves for Liquid Waste Services is included in Attachment 5.

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 2020 Work Plans for Liquid Waste Services are presented in this report. Within the Liquid Waste Services Work Plans, 32 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 meeting Basic Service;
- 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; and
- Percentage of recreational water quality results that do not meet the applicable criteria.

The trend in these performance measures suggests shows that Liquid Waste Services continues to perform well in compliance with treatment plant discharge regulations. Wet weather sanitary sewer overflows will continue to increase in the near term, partially as a result of late delivery of several infrastructure expansions needed to keep pace with growth.

CONSISTENCY WITH THE 2019-2023 FINANCIAL PLAN

The updated five year financial plan has been developed to be consistent with the 2019 – 2023 financial plan. As presented in Attachment 1, the overall Liquid Waste 2020 impact on the average regional household is slightly lower than the prior year projections for three of the four sewer areas with an average regional household cost of \$264 (2019 projection: \$271). For the Vancouver Sewerage Area, the household impact has increased slightly from \$307 to a projected \$310 primarily due to net increases to the biosolids management program.

The key driver for the overall decrease is reduced debt service costs due to the direct application of some development cost charge funding to growth projects as ‘pay as you go’ capital funding, capital spending patterns, and favourable adjustments to borrowing assumptions. These savings have been partially offset by increased contributions to capital from levies further benefitting projected debt service levels in future.

For the years 2021, 2022, and 2023 the household impact varies slightly by Area as described below:

- **Vancouver Sewerage Area.** The 2021 - 2023 household impact is projected to increase by an average of \$29 compared to the previous five year projection. The primary driver for this

change is associated with the increased costs for the removal of the biosolids stockpile from the Iona WWTP, which is partially offset by lower debt service costs due to delayed capital spending and favourable adjustments to borrowing assumptions and more 'pay as you go' growth capital contributions from development cost charge reserves.

- **North Shore Sewerage Area.** The 2021 - 2023 household impact is projected to decrease by an average of \$109 compared to the previous five year projection. The primary driver for this change is associated with less debt service due to delayed capital spending and favourable adjustments to borrowing assumptions and more 'pay as you go' growth capital contributions from development cost charge reserves.
- **Lulu Island West Sewerage Area.** The 2021 - 2023 household impact is projected to decrease by an average of \$19 compared to the previous five year projection. The primary driver for this change is associated with less debt service due to delayed capital spending and favourable adjustments to borrowing assumptions and more 'pay as you go' growth capital contributions from development cost charge reserves, which is offset by slightly higher operational costs.
- **Fraser Sewerage Area.** The 2021 - 2023 household impact is in line with the previous five year financial plan projections. The primary drivers for this are slightly higher operational costs plus more capital contributions from levies, which is then offset by less debt service costs due to delayed capital spending and favourable adjustments to borrowing assumptions and more 'pay as you go' growth capital contributions from development cost charge reserves.

APPROVAL PROCESS

The proposed 2020-2024 Financial Plan and Annual Work Plans for Liquid Waste Services are presented for consideration and endorsement before being forwarded to the Board for consideration.

The next steps of the process are:

- The 2020 – 2024 Financial Plan and Annual Work Plan will be presented for consideration at the Board Budget Workshop on October 23, 2019.
- The Board will consider adoption of the 2020 Budget and endorsement of the 2020-2024 Financial Plan on November 1, 2019.

ALTERNATIVES

1. That the Liquid Waste Committee endorse the 2020 - 2024 Financial Plan for Liquid Waste Services as presented in the report dated October 10, 2019, titled "2020 - 2024 Financial Plan – Liquid Waste Services" and forward it to the Board Budget Workshop on October 23, 2019 for consideration.
2. That the Liquid Waste Committee make recommendations and endorse an amended 2020 - 2024 Financial Plan for Liquid Waste Services and forward the amended Financial Plan to the Board Budget Workshop on October 23, 2019 for consideration.

FINANCIAL IMPLICATIONS

If the GVS&DD Board approves the 2020 Budget and endorses the Five Year Financial Plan for Liquid Waste Services, as presented under Alternative 1, in 2020 the revenue from the annual levy for the system will increase by \$18.4 million (7.2%) to \$274.2 million which will generate the majority of the \$328.3 million in total revenue required to offset total expenditures. The increase in the levy represents a \$14 increase in the cost to the average regional household to \$264 (2019 forecast for 2020 was \$271.)

Over the term of the five year financial plan, the annual levy is projected to increase by an average of \$32.1 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 \$250 in 2019 to \$372 in 2024 representing an average annual increase of \$24.

Under Alternative 2, the Committee may wish to consider recommending amendments to the 2020 Budget and Five Year Financial Plan for Liquid Waste Services for consideration at the Board Budget Workshop. Any changes to the plan may have an impact on the Liquid Waste Services Financial Plan.

SUMMARY / CONCLUSION

The 2020 Budget and Five Year Financial Plan for Liquid Waste Services has been prepared to respond to direction provided in the *Board Strategic Plan* and to support the *Integrated Liquid 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 2020 to 2024 for Liquid Waste Services.

The presentation of the 2020 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 2020 - 2024 Budget and Five Year Financial Plan and Annual Work Plans for Liquid Waste Services as presented under Alternative 1.

Attachments:

1. 2020 - 2024 Liquid Waste Services Financial Plan
2. 2020 - 2024 Liquid Waste Services Capital Budget Summary
3. 2020 Liquid Waste Services Work Plans
4. 2020 - 2024 "What's Happening" in Liquid Waste Services
5. 2020 - 2024 Projected Reserves – Liquid Waste Services
6. Organizational Chart – Liquid Waste Services

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
LIQUID WASTE
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN

ATTACHMENT 1

	2017 ACTUAL	2018 ACTUAL	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES													
Liquid Waste Services Levy	\$ 213,889,658	\$ 232,134,617	\$ 255,810,755	\$ 274,237,112	7.2%	\$ 306,762,144	11.9%	\$ 347,617,635	13.3%	\$ 386,541,738	11.2%	\$ 416,276,434	7.7%
User Fees	2,500,967	2,514,802	2,403,269	2,540,468		2,594,278		2,644,064		2,699,844		2,751,642	
Transfer from DCC Reserves	5,201,933	10,759,807	31,665,173	34,172,083		44,631,226		59,373,050		71,596,693		86,697,664	
Liquid Waste Industrial Charges	9,838,338	11,265,803	11,022,967	11,201,217		11,425,241		11,653,747		11,886,822		12,124,559	
Other External Revenues	1,064,312	851,780	540,000	540,000		540,000		540,000		540,000		540,000	
Transfer from Sustainability Innovation Fund Reserve	187,863	922,274	1,946,403	555,000		265,000		155,000		-		-	
Transfer from Reserves	35,871	4,866,023	7,480,961	5,016,934		5,054,789		3,314,831		2,545,452		25,000	
TOTAL REVENUES	\$ 232,718,942	\$ 263,315,105	\$ 310,869,528	\$ 328,262,814	5.6%	\$ 371,272,678	13.1%	\$ 425,298,327	14.6%	\$ 475,810,549	11.9%	\$ 518,415,299	9.0%
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		\$ 1,127,000		\$ 1,127,000	
Utility Analysis and Infrastructure	1,327,637	2,000,202	2,092,283	2,612,298		2,762,691		2,644,159		2,754,962		2,896,591	
Utility Policy and Planning	1,426,255	1,519,723	1,844,851	2,657,094		2,708,552		2,214,320		2,208,045		2,234,223	
	<u>3,880,892</u>	<u>4,646,925</u>	<u>5,064,134</u>	<u>6,396,392</u>	<u>26.3%</u>	<u>6,598,243</u>	<u>3.2%</u>	<u>5,985,479</u>	<u>(9.3%)</u>	<u>6,090,007</u>	<u>1.7%</u>	<u>6,257,814</u>	<u>2.8%</u>
Management Systems and Utility Services													
Annacis Research Centre	442,392	451,813	513,674	511,467		467,287		477,292		451,376		467,745	
Department Technical Training	1,071,804	283,128	566,644	568,206		571,039		570,891		572,273		573,683	
Dispatch	122,953	119,443	127,983	136,616		139,436		142,304		145,240		148,242	
Energy Management	219,498	242,851	246,744	285,653		293,253		300,968		308,850		316,899	
Engineers in Training	354,357	302,605	588,263	565,166		576,571		588,145		599,973		612,051	
Engineering Standards	101,491	101,863	116,919	124,890		127,457		130,068		132,734		135,468	
Liquid Waste Residuals	16,514,470	20,507,812	28,392,006	29,178,967		32,402,152		33,886,754		38,112,141		23,474,745	
Management Systems Utility Services	1,025,275	1,140,858	2,025,917	2,182,654		2,396,132		2,575,567		2,616,536		2,657,508	
Records Management	98,036	97,094	108,318	115,703		118,082		120,501		122,972		125,538	
Utility Voice Radio	161,480	142,064	159,409	160,747		163,437		165,439		167,539		171,898	
Wastewater Research and Innovation	1,376,492	2,303,469	2,853,862	1,828,063		1,419,775		1,444,232		1,464,560		1,493,758	
	<u>21,488,248</u>	<u>25,692,999</u>	<u>35,699,739</u>	<u>35,658,132</u>	<u>(0.1%)</u>	<u>38,674,621</u>	<u>8.5%</u>	<u>40,402,161</u>	<u>4.5%</u>	<u>44,694,194</u>	<u>10.6%</u>	<u>30,177,535</u>	<u>(32.5%)</u>
Environmental Management and Quality Control													
Environmental Management and Quality Control	10,227,747	10,729,259	11,529,370	12,098,012		12,852,598		13,180,648		13,424,296		13,335,760	
Source Compliance Monitoring	363,894	361,752	420,620	413,611		408,603		416,750		425,073		433,569	
Contribution to Reserve	93,819	95,788	97,800	99,854		101,951		104,092		106,243		106,952	
	<u>10,685,460</u>	<u>11,186,799</u>	<u>12,047,790</u>	<u>12,611,477</u>	<u>4.7%</u>	<u>13,363,152</u>	<u>6.0%</u>	<u>13,701,490</u>	<u>2.5%</u>	<u>13,955,612</u>	<u>1.9%</u>	<u>13,876,281</u>	<u>(0.6%)</u>
Project Delivery													
Minor Capital Projects	4,259,572	4,134,171	8,380,514	8,542,930		8,827,286		9,282,844		9,681,186		9,921,719	
Public Involvement	1,131,284	1,167,153	1,207,174	1,450,933		1,475,142		1,259,751		1,284,879		1,310,552	
	<u>5,390,856</u>	<u>5,301,324</u>	<u>9,587,688</u>	<u>9,993,863</u>	<u>4.2%</u>	<u>10,302,428</u>	<u>3.1%</u>	<u>10,542,595</u>	<u>2.3%</u>	<u>10,966,065</u>	<u>4.0%</u>	<u>11,232,271</u>	<u>2.4%</u>
Operations and Maintenance													
Lake City Operations	983,882	1,002,294	965,125	999,648		1,020,475		1,040,760		1,064,105		1,100,508	
Maintenance	28,661,340	30,035,225	29,390,556	30,246,927		31,362,364		33,324,974		34,234,935		35,990,072	
SCADA Control Systems	848,848	901,318	984,573	1,055,781		1,078,815		1,096,944		1,115,995		1,156,364	
Urban Drainage	846,077	1,131,120	1,048,272	1,109,596		1,105,853		1,103,942		1,128,837		1,152,760	
Wastewater Collection	12,712,575	13,674,866	15,242,385	15,626,816		16,071,414		16,239,363		16,492,428		17,073,562	
Wastewater Treatment	35,783,299	39,160,033	40,229,560	40,585,187		45,271,017		46,635,475		47,845,594		51,348,245	
	<u>79,836,021</u>	<u>85,904,855</u>	<u>87,860,471</u>	<u>89,623,955</u>	<u>2.0%</u>	<u>95,909,938</u>	<u>7.0%</u>	<u>99,441,458</u>	<u>3.7%</u>	<u>101,881,894</u>	<u>2.5%</u>	<u>107,821,511</u>	<u>5.8%</u>
Administration and Department Support													
	1,891,856	1,972,600	2,126,503	2,299,047	8.1%	2,335,896	1.6%	2,383,146	2.0%	2,381,070	(0.1%)	2,442,060	2.6%
Communication and Outreach													
	409,201	395,740	400,000	450,000	12.5%	450,000	0.0%	450,000	0.0%	450,000	0.0%	450,000	0.0%
Environmental Regulation and Enforcement													
	1,543,920	1,424,267	1,899,700	2,041,734	7.5%	2,083,088	2.0%	2,125,127	2.0%	2,168,112	2.0%	2,212,033	2.0%
Allocation of Centralized Support Costs													
	19,993,419	22,516,896	23,188,428	25,166,351	8.5%	25,893,131	2.9%	27,402,386	5.8%	28,490,917	4.0%	29,909,762	5.0%
Total Operating Programs	<u>145,119,873</u>	<u>159,042,406</u>	<u>177,874,453</u>	<u>184,240,951</u>	<u>3.6%</u>	<u>195,610,497</u>	<u>6.2%</u>	<u>202,433,842</u>	<u>3.5%</u>	<u>211,077,871</u>	<u>4.3%</u>	<u>204,379,267</u>	<u>(3.2%)</u>
Debt Service													
	14,175,516	23,804,577	54,340,894	57,211,522	5.3%	81,594,045	42.6%	117,858,990	44.4%	149,458,974	26.8%	185,304,641	24.0%
Contribution to Capital													
	64,788,365	74,702,292	78,654,181	86,810,341	10.4%	94,068,136	8.4%	105,005,495	11.6%	115,273,704	9.8%	128,731,391	11.7%
TOTAL EXPENDITURES	\$ 224,083,754	\$ 257,549,275	\$ 310,869,528	\$ 328,262,814	5.6%	\$ 371,272,678	13.1%	\$ 425,298,327	14.6%	\$ 475,810,549	11.9%	\$ 518,415,299	9.0%
Household Impact (\$)													
	\$ 250	\$ 264	\$ 250	\$ 264	5.6%	\$ 290	9.8%	\$ 322	11.3%	\$ 352	9.2%	\$ 372	5.8%

**GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
LIQUID WASTE REGULATION
2020-2024 FINANCIAL PLAN**

	2017 ACTUAL	2018 ACTUAL	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES													
Liquid Waste Revenues	\$ 1,543,920	\$ 1,537,321	\$ 1,899,700	\$ 2,041,734	7.5%	\$ 2,083,088	2.0%	\$ 2,125,127	2.0%	\$ 2,168,112	2.0%	\$ 2,212,033	2.0%
TOTAL REVENUES	\$ 1,543,920	\$ 1,537,321	\$ 1,899,700	\$ 2,041,734	7.5%	\$ 2,083,088	2.0%	\$ 2,125,127	2.0%	\$ 2,168,112	2.0%	\$ 2,212,033	2.0%
EXPENDITURES													
Operating Programs:													
Environmental Regulation and Enforcement	\$ 1,413,674	\$ 1,411,274	\$ 1,765,868	\$ 1,798,609		\$ 1,835,012		\$ 1,872,015		\$ 1,909,849		\$ 1,948,509	2.0%
Administration and Department Support	130,246	126,047	133,832	243,125		248,076		253,112		258,263		263,524	2.0%
TOTAL EXPENDITURES	\$ 1,543,920	\$ 1,537,321	\$ 1,899,700	\$ 2,041,734	7.5%	\$ 2,083,088	2.0%	\$ 2,125,127	2.0%	\$ 2,168,112	2.0%	\$ 2,212,033	2.0%

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
LIQUID WASTE
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN
VANCOUVER SEWERAGE AREA

	2017 ACTUAL	2018 ACTUAL	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES													
Liquid Waste Services Levy	\$ 65,382,851	\$ 69,185,335	\$ 79,609,908	\$ 85,463,155	7.4%	\$ 92,578,059	8.3%	\$ 99,794,688	7.8%	\$ 106,525,478	6.7%	\$ 111,396,738	4.6%
User Fees	609,571	489,422	579,307	582,962		595,574		606,409		619,450		630,723	
Transfer from DCC Reserves		1,918,794	3,096,988	4,292,957		5,354,504		6,163,919		6,935,706		8,159,481	
Liquid Waste Industrial Charges	2,693,709	3,280,140	2,849,111	2,919,742		2,978,137		3,037,700		3,098,454		3,160,423	
Other External Revenues	140,656	123,040	82,120	81,940		81,940		81,940		81,940		81,940	
Transfer from Sustainability Innovation Fund Reserve	74,957	378,409	786,347	220,890		105,470		61,690		-		-	
Transfer from Reserves	-	893,337	5,251,461	4,810,136		5,029,789		3,289,831		2,520,452		-	
TOTAL REVENUES	\$ 68,901,744	\$ 76,268,477	\$ 92,255,242	\$ 98,371,782	6.6%	\$ 106,723,473	8.5%	\$ 113,036,177	5.9%	\$ 119,781,480	6.0%	\$ 123,429,305	3.0%
EXPENDITURES													
Operating Programs:													
Policy Planning and Analysis													
Contribution to Sustainability Innovation Fund Reserve	\$ 449,673	\$ 462,408	\$ 455,308	\$ 448,546		\$ 448,546		\$ 448,546		\$ 448,546		\$ 448,546	
Utility Analysis and Infrastructure	502,935	807,110	779,150	984,124		1,073,514		1,026,018		1,069,789		1,125,823	
Utility Policy and Planning	568,974	592,481	718,868	1,029,326		1,049,680		852,846		850,218		860,503	
	1,521,582	1,861,999	1,953,326	2,461,996	26.0%	2,571,740	4.5%	2,327,410	(9.5%)	2,368,553	1.8%	2,434,872	2.8%
Management Systems and Utility Services													
Annacis Research Centre	174,972	137,125	207,524	203,564		185,980		189,962		179,648		186,163	
Department Technical Training	366,682	85,149	174,436	168,041		168,879		168,836		169,244		169,661	
Dispatch	42,064	49,001	39,398	40,402		41,236		42,084		42,952		43,840	
Energy Management	75,094	73,695	75,955	84,480		86,728		89,009		91,340		93,721	
Engineers in Training	121,231	124,135	237,658	224,913		229,452		234,058		238,765		243,572	
Engineering Standards	34,722	41,295	35,992	36,934		37,693		38,465		39,254		40,063	
Liquid Waste Residuals	7,547,247	8,522,205	13,663,231	16,124,206		19,160,842		20,046,770		21,877,418		8,625,934	
Management Systems Utility Services	308,136	346,268	635,071	664,625		728,055		781,416		793,848		806,274	
Records Management	33,539	39,362	33,344	34,217		34,921		35,636		36,367		37,126	
Utility Voice Radio	55,245	43,846	57,236	57,716		58,682		59,401		60,155		61,720	
Wastewater Research and Innovation	549,220	945,114	1,152,960	727,569		565,070		574,804		582,895		594,516	
	9,308,152	10,407,195	16,312,805	18,366,667	12.6%	21,297,538	16.0%	22,260,441	4.5%	24,111,886	8.3%	10,902,590	(54.8%)
Environmental Management and Quality Control													
Environmental Management and Quality Control	3,028,950	4,222,352	4,476,506	4,694,233		5,005,002		5,127,560		5,220,009		5,183,130	
Source Compliance Monitoring	145,194	148,427	169,930	164,617		162,624		165,867		169,179		172,560	
Contribution to Reserve	28,014	39,302	39,922	38,745		39,559		40,389		41,224		41,499	
	3,202,158	4,410,081	4,686,358	4,897,595	4.5%	5,207,185	6.3%	5,333,816	2.4%	5,430,412	1.8%	5,397,189	(0.6%)
Project Delivery													
Minor Capital Projects	1,425,458	1,587,901	3,531,455	2,960,643		3,065,227		3,246,985		3,400,943		3,484,384	
Public Involvement	451,383	476,387	371,604	429,099		436,258		372,559		379,990		387,582	
	1,876,841	2,064,287	3,903,059	3,389,742	(13.2%)	3,501,485	3.3%	3,619,544	3.4%	3,780,933	4.5%	3,871,966	2.4%
Operations and Maintenance													
Lake City Operations	336,602	411,113	389,910	397,861		406,149		414,222		423,513		438,002	
Maintenance	8,205,426	8,219,172	7,638,781	8,033,121		8,311,911		8,553,784		8,747,491		9,238,136	
SCADA Control Systems	247,318	267,720	294,561	303,023		309,635		314,838		320,305		331,892	
Wastewater Collection	3,074,563	2,875,249	3,963,328	4,056,455		3,943,161		3,983,513		3,936,605		4,372,980	
Wastewater Treatment	9,117,885	10,090,153	10,178,730	10,639,750		12,097,170		13,046,131		13,343,911		13,912,861	
	20,981,794	21,863,407	22,465,310	23,430,210	4.3%	25,068,026	7.0%	26,312,488	5.0%	26,771,825	1.7%	28,293,871	5.7%
Administration and Department Support													
	568,578	598,684	654,601	679,920	3.9%	690,818	1.6%	704,792	2.0%	704,179	(0.1%)	722,213	2.6%
Communication and Outreach													
	163,271	162,372	161,600	179,100	10.8%	179,100	0.0%	179,100	0.0%	179,100	0.0%	179,100	0.0%
Environmental Regulation and Enforcement													
	316,842	584,377	353,914	380,375	7.5%	388,079	2.0%	395,911	2.0%	403,919	2.0%	412,102	2.0%
Allocation of Centralized Support Costs													
	6,008,825	6,832,977	7,166,850	7,471,881	4.3%	7,785,865	4.2%	7,857,141	0.9%	7,541,981	(4.0%)	7,518,110	(0.3%)
Total Operating Programs	43,948,043	48,785,378	57,657,823	61,257,486	6.2%	66,689,836	8.9%	68,990,643	3.5%	71,292,788	3.3%	59,732,013	(16.2%)
Debt Service													
	2,505,248	3,955,337	5,864,427	7,131,201	21.6%	10,002,927	40.3%	13,359,288	33.6%	17,752,908	32.9%	24,864,935	40.1%
Contribution to Capital													
	21,430,406	21,687,228	28,732,992	29,983,095	4.4%	30,030,710	0.2%	30,686,246	2.2%	30,735,784	0.2%	38,832,357	26.3%
TOTAL EXPENDITURES	\$ 67,883,697	\$ 74,427,942	\$ 92,255,242	\$ 98,371,782	6.6%	\$ 106,723,473	8.5%	\$ 113,036,177	5.9%	\$ 119,781,480	6.0%	\$ 123,429,305	3.0%
Household Impact (\$)													
			\$ 293	\$ 310	5.6%	\$ 331	7.0%	\$ 353	6.5%	\$ 371	5.2%	\$ 384	3.6%

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
LIQUID WASTE
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN
NORTH SHORE SEWERAGE AREA

	2017 ACTUAL	2018 ACTUAL	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES													
Liquid Waste Services Levy	\$ 20,407,056	\$ 20,782,250	\$ 23,045,180	\$ 26,051,249	13.0%	\$ 29,236,996	12.2%	\$ 34,559,724	18.2%	\$ 39,078,775	13.1%	\$ 44,589,848	14.1%
User Fees	81,649	69,853	71,525	74,232		75,943		77,349		79,114		80,577	
Transfer from DCC Reserves	70,828	732,912	1,409,438	1,549,664		1,622,266		2,136,243		2,253,475		2,657,667	
Liquid Waste Industrial Charges	695,989	687,580	759,135	765,271		780,576		796,188		812,112		828,354	
Other External Revenues	1,818	10,571	2,016	1,989		1,989		1,989		1,989		1,989	
Transfer from Sustainability Innovation Fund Reserve	13,319	64,282	130,798	36,797		17,570		10,277		-		-	
Transfer from Reserves	-	-	462,500	11,210		-		-		-		-	
TOTAL REVENUES	\$ 21,270,859	\$ 22,347,448	\$ 25,880,592	\$ 28,490,412	10.1%	\$ 31,735,340	11.4%	\$ 37,581,770	18.4%	\$ 42,225,465	12.4%	\$ 48,158,435	14.1%
EXPENDITURES													
Operating Programs:													
Policy Planning and Analysis													
Contribution to Sustainability Innovation Fund Reserve	\$ 79,904	\$ 78,552	\$ 75,734	\$ 74,720		\$ 74,720		\$ 74,720		\$ 74,720		\$ 74,720	
Utility Analysis and Infrastructure	89,369	137,051	129,601	163,938		178,829		170,917		178,209		187,543	
Utility Policy and Planning	96,834	105,859	119,574	171,468		174,859		142,070		141,632		143,345	
	266,107	321,461	324,909	410,126	26.2%	428,408	4.5%	387,707	(9.5%)	394,561	1.8%	405,608	2.8%
Management Systems and Utility Services													
Annacis Research Centre	31,092	41,025	34,519	33,910		30,981		31,644		29,926		31,011	
Department Technical Training	89,323	25,853	50,522	46,354		46,585		46,573		46,686		46,801	
Dispatch	10,247	8,314	11,409	11,145		11,375		11,609		11,849		12,093	
Energy Management	18,293	22,040	21,999	23,301		23,921		24,550		25,193		25,850	
Engineers in Training	29,532	21,115	39,531	37,486		38,242		39,010		39,794		40,595	
Engineering Standards	8,458	7,026	10,423	10,188		10,398		10,611		10,828		11,051	
Liquid Waste Residuals	391,668	423,361	676,565	799,980		860,671		899,906		2,229,388		2,082,303	
Management Systems Utility Services	93,310	103,612	204,437	206,691		224,548		239,626		243,442		247,244	
Records Management	8,170	6,697	9,656	9,439		9,633		9,830		10,032		10,241	
Utility Voice Radio	13,458	18,240	15,173	15,301		15,557		15,747		15,947		16,362	
Wastewater Research and Innovation	97,593	160,552	191,779	121,201		94,131		95,753		97,100		99,036	
	791,144	837,835	1,266,013	1,314,996	3.9%	1,366,042	3.9%	1,424,859	4.3%	2,760,185	93.7%	2,622,587	(5.0%)
Environmental Management and Quality Control													
Environmental Management and Quality Control	1,925,768	831,795	870,020	904,095		956,076		983,072		1,001,757		997,436	
Source Compliance Monitoring	25,800	25,214	28,266	27,422		27,090		27,631		28,182		28,746	
Contribution to Reserve	15,898	6,670	6,729	7,462		7,619		7,779		7,993		7,993	
	1,967,466	863,680	905,015	938,979	3.8%	990,785	5.5%	1,018,482	2.8%	1,037,879	1.9%	1,034,175	(0.4%)
Project Delivery													
Minor Capital Projects	156,791	201,964	244,254	532,271		548,942		577,145		601,755		616,645	
Public Involvement	80,208	81,844	107,620	118,353		120,327		102,758		104,808		106,902	
	236,999	283,808	351,874	650,624	84.9%	669,269	2.9%	679,903	1.6%	706,563	3.9%	723,547	2.4%
Operations and Maintenance													
Lake City Operations	81,996	69,956	64,857	66,276		67,658		69,002		70,551		72,964	
Maintenance	3,124,272	3,383,920	3,190,153	3,233,529		3,383,566		4,233,583		4,351,024		4,498,409	
SCADA Control Systems	95,141	102,402	114,795	151,738		155,047		157,653		160,392		166,193	
Wastewater Collection	1,610,653	1,868,748	2,489,925	2,558,692		2,544,381		2,651,985		2,898,390		2,833,524	
Wastewater Treatment	4,827,872	4,789,757	5,788,201	5,887,287		6,489,394		6,781,781		6,734,854		9,003,860	
	9,739,934	10,214,783	11,647,931	11,897,522	2.1%	12,640,046	6.2%	13,894,004	9.9%	14,215,211	2.3%	16,574,950	16.6%
Administration and Department Support													
	172,178	179,112	189,577	187,533	(1.1%)	190,539	1.6%	194,393	2.0%	194,223	(0.1%)	199,199	2.6%
Communication and Outreach													
	29,012	27,583	26,880	29,835	11.0%	29,835	0.0%	29,835	0.0%	29,835	0.0%	29,835	0.0%
Environmental Regulation and Enforcement													
	99,795	99,271	112,652	121,075	7.5%	123,527	2.0%	126,020	2.0%	128,569	2.0%	131,174	2.0%
Allocation of Centralized Support Costs													
	1,819,600	2,043,408	2,063,132	2,047,764	(0.7%)	2,254,384	10.1%	2,337,575	3.7%	2,521,617	7.9%	2,652,433	5.2%
Total Operating Programs	15,122,235	14,870,941	16,887,983	17,598,454	4.2%	18,692,835	6.2%	20,092,778	7.5%	21,988,643	9.4%	24,373,508	10.8%
Debt Service													
	1,480,450	2,546,945	3,082,684	3,251,337	5.5%	5,370,574	65.2%	9,717,684	80.9%	12,432,939	27.9%	15,545,101	25.0%
Contribution to Capital													
	3,953,505	4,379,830	5,909,925	7,640,621	29.3%	7,671,931	0.4%	7,771,308	1.3%	7,803,883	0.4%	8,239,826	5.6%
TOTAL EXPENDITURES	\$ 20,556,190	\$ 21,797,716	\$ 25,880,592	\$ 28,490,412	10.1%	\$ 31,735,340	11.4%	\$ 37,581,770	18.4%	\$ 42,225,465	12.4%	\$ 48,158,435	14.1%
Household Impact (\$)													
			\$ 304	\$ 340	11.8%	\$ 376	10.6%	\$ 440	17.1%	\$ 493	12.1%	\$ 558	13.1%

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
LIQUID WASTE
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN
LULU ISLAND WEST SEWERAGE AREA

	2017 ACTUAL	2018 ACTUAL	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES													
Liquid Waste Services Levy	\$ 19,561,956	\$ 19,739,225	\$ 21,446,956	\$ 24,688,980	15.1%	\$ 28,075,752	13.7%	\$ 32,168,092	14.6%	\$ 35,776,868	11.2%	\$ 38,713,844	8.2%
User Fees	165,376	128,617	138,058	143,359		146,466		149,276		152,494		155,417	
Transfer from DCC Reserves	113,583	1,625	519,742	1,523,267		1,476,943		2,230,907		2,209,234		2,857,410	
Liquid Waste Industrial Charges	843,586	797,429	907,497	854,993		872,093		889,535		907,326		925,473	
Other External Revenues	177,256	38,408	2,160	2,112		2,112		2,112		2,112		2,112	
Transfer from Sustainability Innovation Fund Reserve	13,902	64,744	140,141	39,072		18,656		10,912		-		-	
Transfer from Reserves	-	-	-	10,973		-		-		-		-	
TOTAL REVENUES	\$ 20,875,659	\$ 20,770,047	\$ 23,154,554	\$ 27,262,756	17.7%	\$ 30,592,022	12.2%	\$ 35,450,834	15.9%	\$ 39,048,034	10.1%	\$ 42,654,256	9.2%
EXPENDITURES													
Operating Programs:													
Policy Planning and Analysis													
Contribution to Sustainability Innovation Fund Reserve	\$ 83,398	\$ 79,115	\$ 81,144	\$ 79,341		\$ 79,341		\$ 79,341		\$ 79,341		\$ 79,341	
Utility Analysis and Infrastructure	93,276	137,986	138,858	174,076		189,888		181,487		189,229		199,140	
Utility Policy and Planning	101,068	106,617	128,115	182,072		185,672		150,855		150,390		152,210	
	277,742	323,718	348,117	435,489	25.1%	454,901	4.5%	411,683	(9.5%)	418,960	1.8%	430,691	2.8%
Management Systems and Utility Services													
Annacis Research Centre	32,451	38,630	36,985	36,007		32,897		33,601		31,777		32,929	
Department Technical Training	91,856	24,207	45,218	42,184		42,394		42,383		42,486		42,590	
Dispatch	10,537	8,389	10,211	10,143		10,352		10,565		10,783		11,006	
Energy Management	18,811	20,753	19,687	21,208		21,772		22,345		22,930		23,527	
Engineers in Training	30,369	21,250	42,355	39,792		40,595		41,410		42,243		43,093	
Engineering Standards	8,698	7,069	9,328	9,272		9,463		9,656		9,854		10,057	
Liquid Waste Residuals	1,351,928	1,462,389	1,585,445	1,602,414		1,690,652		1,768,056		1,883,934		1,751,305	
Management Systems Utility Services	94,150	97,564	168,017	171,941		187,943		201,417		204,622		207,823	
Records Management	8,402	6,738	8,642	8,590		8,767		8,946		9,130		9,320	
Utility Voice Radio	13,839	11,639	13,354	13,466		13,691		13,859		14,035		14,400	
Wastewater Research and Innovation	101,861	161,702	205,478	128,696		99,952		101,674		103,105		105,161	
	1,762,902	1,860,330	2,144,720	2,083,713	(2.8%)	2,158,478	3.6%	2,253,912	4.4%	2,374,899	5.4%	2,251,211	(5.2%)
Environmental Management and Quality Control													
Environmental Management and Quality Control	1,073,438	795,267	871,860	885,036		936,262		961,428		979,712		973,947	
Source Compliance Monitoring	26,928	25,395	30,285	29,118		28,766		29,339		29,925		30,523	
Contribution to Reserve	10,986	6,724	6,924	7,305		7,458		7,615		7,772		7,824	
	1,111,352	827,386	909,069	921,459	1.4%	972,486	5.5%	998,382	2.7%	1,017,409	1.9%	1,012,294	(0.5%)
Project Delivery													
Minor Capital Projects	400,121	331,899	1,096,710	1,388,789		1,449,505		1,502,357		1,551,853		1,591,709	
Public Involvement	80,208	82,292	96,320	107,717		109,515		93,524		95,389		97,295	
	480,329	414,191	1,193,030	1,496,506	25.4%	1,559,020	4.2%	1,595,881	2.4%	1,647,242	3.2%	1,689,004	2.5%
Operations and Maintenance													
Lake City Operations	84,321	70,354	69,489	70,375		71,841		73,270		74,913		77,476	
Maintenance	2,322,498	2,588,075	2,575,095	2,670,287		2,741,291		2,820,876		2,896,348		3,156,841	
SCADA Control Systems	22,498	24,202	25,094	29,342		29,982		30,486		31,016		32,137	
Wastewater Collection	399,800	268,467	762,108	774,700		794,774		743,393		824,214		835,338	
Wastewater Treatment	4,677,277	5,073,798	5,084,096	5,353,598		5,655,436		5,804,544		5,961,852		6,105,374	
	7,506,394	8,024,897	8,515,882	8,898,302	4.5%	9,293,324	4.4%	9,472,569	1.9%	9,788,343	3.3%	10,207,166	4.3%
Administration and Department Support													
	173,729	168,657	169,674	170,681	0.6%	173,417	1.6%	176,925	2.0%	176,771	(0.1%)	181,299	2.6%
Communication and Outreach													
	30,281	27,781	28,800	31,680	10.0%	31,680	0.0%	31,680	0.0%	31,680	0.0%	31,680	0.0%
Environmental Regulation and Enforcement													
	161,744	99,984	182,562	196,211	7.5%	200,185	2.0%	204,225	2.0%	208,356	2.0%	212,576	2.0%
Allocation of Centralized Support Costs													
	1,835,998	1,924,069	1,850,124	1,868,554	1.0%	2,166,529	15.9%	2,254,434	4.1%	2,375,887	5.4%	2,450,959	3.2%
Total Operating Programs	13,340,471	13,671,013	15,341,978	16,102,595	5.0%	17,010,020	5.6%	17,399,691	2.3%	18,039,547	3.7%	18,466,880	2.4%
Debt Service													
	164,089	341,719	1,571,032	3,888,777	150.0%	6,280,180	61.5%	10,718,275	70.7%	13,143,952	22.6%	14,281,838	8.7%
Contribution to Capital													
	4,755,631	5,612,289	6,241,544	7,271,384	16.5%	7,301,822	0.4%	7,332,868	0.4%	7,864,535	7.3%	9,905,538	26.0%
TOTAL EXPENDITURES	\$ 18,260,191	\$ 19,625,021	\$ 23,154,554	\$ 27,262,756	17.7%	\$ 30,592,022	12.2%	\$ 35,450,834	15.9%	\$ 39,048,034	10.1%	\$ 42,654,256	9.2%
Household Impact (\$)													
		\$ 214	\$ 239	11.8%		\$ 269	12.2%	\$ 300	11.6%	\$ 329	9.8%	\$ 347	5.5%

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
LIQUID WASTE
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN
FRASER SEWERAGE AREA

	2017 ACTUAL	2018 ACTUAL	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES													
Liquid Waste Services Levy	\$ 105,989,926	\$ 119,681,982	\$ 129,540,876	\$ 135,919,069	4.9%	\$ 154,793,415	13.9%	\$ 179,010,442	15.6%	\$ 203,018,003	13.4%	\$ 219,404,502	8.1%
User Fees	1,644,171	1,826,910	1,614,379	1,739,915		1,776,296		1,811,031		1,848,786		1,884,925	
Transfer from DCC Reserves	5,017,522	8,106,476	26,639,005	26,806,195		36,177,513		48,841,981		60,198,278		73,023,106	
Liquid Waste Industrial Charges	5,605,054	6,500,655	6,507,224	6,661,211		6,794,435		6,930,324		7,068,930		7,210,309	
Other External Revenues	744,582	679,760	453,704	453,959		453,959		453,959		453,959		453,959	
Transfer from Sustainability Innovation Fund Reserve	85,685	414,839	889,117	258,241		123,304		72,121		-		-	
Transfer from Reserves	-	3,892,175	950,000	69,615		-		-		-		-	
TOTAL REVENUES	\$ 119,086,940	\$ 141,102,797	\$ 166,594,305	\$ 171,908,205	3.2%	\$ 200,118,922	16.4%	\$ 237,119,858	18.5%	\$ 272,587,956	15.0%	\$ 301,976,801	10.8%
EXPENDITURES													
Operating Programs:													
Policy Planning and Analysis													
Contribution to Sustainability Innovation Fund Reserve	\$ 514,025	\$ 506,925	\$ 514,814	\$ 524,393		\$ 524,393		\$ 524,393		\$ 524,393		\$ 524,393	
Utility Analysis and Infrastructure	574,909	884,465	880,981	1,150,536		1,255,041		1,199,512		1,250,686		1,316,194	
Utility Policy and Planning	622,935	698,955	812,818	1,203,380		1,227,175		997,059		993,987		1,006,009	
	1,711,869	2,090,345	2,208,613	2,878,309	30.3%	3,006,609	4.5%	2,720,964	(9.5%)	2,769,066	1.8%	2,846,596	2.8%
Management Systems and Utility Services													
Annacis Research Centre	203,877	229,476	234,646	237,986		217,429		222,085		210,025		217,642	
Department Technical Training	517,967	144,276	290,201	306,843		308,373		308,293		309,039		309,801	
Dispatch	59,419	52,274	65,553	73,776		75,299		76,848		78,433		80,054	
Energy Management	106,076	123,333	126,378	154,253		158,356		162,523		166,780		171,125	
Engineers in Training	171,249	136,105	268,719	262,975		268,282		273,667		279,171		284,791	
Engineering Standards	49,047	45,270	59,886	67,444		68,830		70,240		71,680		73,157	
Liquid Waste Residuals	7,223,627	10,099,857	12,466,765	10,652,367		10,689,987		11,172,022		12,121,401		11,015,203	
Management Systems Utility Services	517,663	579,458	1,003,037	1,126,377		1,240,852		1,336,945		1,358,205		1,379,488	
Records Management	47,378	43,150	55,480	62,482		63,767		65,074		66,408		67,795	
Utility Voice Radio	78,038	68,339	73,646	74,264		75,507		76,432		77,402		79,416	
Wastewater Research and Innovation	627,818	1,036,101	1,303,645	850,597		660,622		672,001		681,460		695,045	
	9,602,159	12,557,639	15,947,956	13,869,364	(13.0%)	13,827,304	(0.3%)	14,436,130	4.4%	15,420,004	6.8%	14,373,517	(6.8%)
Environmental Management and Quality Control													
Environmental Management and Quality Control	4,199,591	4,879,845	5,310,984	5,614,648		5,955,258		6,108,588		6,222,818		6,181,247	
Source Compliance Monitoring	165,972	162,716	192,139	192,454		190,123		193,913		197,787		201,740	
Contribution to Reserve	38,921	43,092	44,225	46,342		47,315		48,309		49,307		49,636	
	4,404,484	5,085,653	5,547,348	5,853,444	5.5%	6,192,696	5.8%	6,350,810	2.6%	6,469,912	1.9%	6,432,623	(0.6%)
Project Delivery													
Minor Capital Projects	1,915,016	1,919,978	2,414,466	3,339,854		3,449,037		3,634,279		3,795,100		3,889,537	
Public Involvement	519,485	526,343	618,290	783,547		796,621		680,303		693,874		707,738	
	2,434,501	2,446,321	3,032,756	4,123,401	36.0%	4,245,658	3.0%	4,314,582	1.6%	4,488,974	4.0%	4,597,275	2.4%
Operations and Maintenance													
Lake City Operations	475,477	450,871	440,869	465,136		474,827		484,266		495,128		512,066	
Maintenance	14,808,338	15,611,839	15,781,764	16,090,428		16,698,311		17,472,886		17,980,187		18,840,055	
SCADA Control Systems	462,887	484,428	526,847	549,682		561,676		571,114		581,032		602,051	
Wastewater Collection	7,623,583	8,477,068	7,946,296	8,154,375		8,721,499		8,791,589		8,745,772		8,942,588	
Wastewater Treatment	17,160,265	19,206,324	19,178,533	18,704,552		21,029,017		21,003,019		21,804,977		22,326,150	
	40,530,550	44,230,530	43,874,309	43,964,173	0.2%	47,485,330	8.0%	48,322,874	1.8%	49,607,096	2.7%	51,222,910	3.3%
Administration and Department Support													
	955,198	1,001,884	1,089,153	1,241,554	14.0%	1,261,454	1.6%	1,286,969	2.0%	1,285,849	(0.1%)	1,318,786	2.6%
Communication and Outreach													
	186,637	178,004	182,720	209,385	14.6%	209,385	0.0%	209,385	0.0%	209,385	0.0%	209,385	0.0%
Environmental Regulation and Enforcement													
	965,539	640,636	1,250,572	1,344,073	7.5%	1,371,297	2.0%	1,398,971	2.0%	1,427,268	2.0%	1,456,181	2.0%
Allocation of Centralized Support Costs													
	10,094,680	11,435,431	11,868,408	13,569,054	14.3%	13,515,152	(0.4%)	14,800,357	9.5%	15,911,725	7.5%	17,153,091	7.8%
Total Operating Programs	70,885,617	79,666,441	85,001,835	87,052,757	2.4%	91,114,885	4.7%	93,841,042	3.0%	97,589,279	4.0%	99,610,364	2.1%
Debt Service													
	9,919,135	16,960,577	43,822,751	42,940,207	(2.0%)	59,940,364	39.6%	84,063,743	40.2%	106,129,175	26.2%	130,612,767	23.1%
Contribution to Capital													
	34,252,929	42,627,051	37,769,719	41,915,241	11.0%	49,063,673	17.1%	59,215,073	20.7%	68,869,502	16.3%	71,753,670	4.2%
TOTAL EXPENDITURES	\$ 115,057,681	\$ 139,254,069	\$ 166,594,305	\$ 171,908,205	3.2%	\$ 200,118,922	16.4%	\$ 237,119,858	18.5%	\$ 272,587,956	15.0%	\$ 301,976,801	10.8%
Household Impact (\$)													
			\$ 226	\$ 234	3.2%	\$ 260	11.1%	\$ 294	13.1%	\$ 326	10.9%	\$ 344	5.7%

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
LIQUID WASTE
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN
DRAINAGE SEWERAGE AREA

	2017 ACTUAL	2018 ACTUAL	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES													
Liquid Waste Services Levy	\$ 2,547,869	\$ 2,745,825	\$ 2,167,834	\$ 2,114,659	(2.5%)	\$ 2,077,921	(1.7%)	\$ 2,084,688	0.3%	\$ 2,142,614	2.8%	\$ 2,171,502	1.3%
Transfer from Reserves	35,871	80,511	817,000	115,000		25,000		25,000		25,000		25,000	
TOTAL REVENUES	\$ 2,583,740	\$ 2,826,336	\$ 2,984,834	\$ 2,229,659	(25.3%)	\$ 2,102,921	(5.7%)	\$ 2,109,688	0.3%	\$ 2,167,614	2.7%	\$ 2,196,502	1.3%
EXPENDITURES													
Operating Programs:													
Policy Planning and Analysis													
Utility Analysis and Infrastructure	\$ 67,148	\$ 33,591	\$ 163,693	\$ 139,624		\$ 65,419		\$ 66,225		\$ 67,049		\$ 67,891	
Utility Policy and Planning	36,444	15,811	65,476	70,848		71,166		71,490		71,818		72,156	
	103,592	49,402	229,169	210,472	(8.2%)	136,585	(35.1%)	137,715	0.8%	138,867	0.8%	140,047	0.8%
Management Systems and Utility Services													
Annacis Research Centre	-	5,557	-	-		-		-		-		-	
Department Technical Training	5,976	3,643	6,267	4,784		4,808		4,806		4,818		4,830	
Dispatch	686	1,464	1,412	1,150		1,174		1,198		1,223		1,249	
Energy Management	1,224	3,029	2,725	2,411		2,476		2,541		2,607		2,676	
Engineers in Training	1,976	-	-	-		-		-		-		-	
Engineering Standards	566	1,203	1,290	1,052		1,073		1,096		1,118		1,140	
Management Systems Utility Services	12,016	13,957	15,355	13,020		14,734		16,163		16,419		16,679	
Records Management	547	1,147	1,196	975		994		1,015		1,035		1,056	
Utility Voice Radio	900	-	-	-		-		-		-		-	
	23,891	30,000	28,245	23,392	(17.2%)	25,259	8.0%	26,819	6.2%	27,220	1.5%	27,630	1.5%
Project Delivery													
Minor Capital Projects	362,186	92,430	1,093,629	321,373		314,575		322,078		331,535		339,444	
Public Involvement	-	287	13,340	12,217		12,421		10,607		10,818		11,035	
	362,186	92,718	1,106,969	333,590	(69.9%)	326,996	(2.0%)	332,685	1.7%	342,353	2.9%	350,479	2.4%
Operations and Maintenance													
Lake City Operations	5,486	-	-	-		-		-		-		-	
Maintenance	200,806	232,219	204,763	219,562		227,285		243,845		259,885		256,631	
SCADA Control Systems	21,004	22,565	23,276	21,996		22,475		22,853		23,250		24,091	
Urban Drainage	846,077	1,131,120	1,048,272	1,109,596		1,105,853		1,103,942		1,128,837		1,152,760	
Wastewater Collection	3,976	185,334	80,728	82,594		67,599		68,883		87,447		89,132	
	1,077,349	1,571,239	1,357,039	1,433,748	5.7%	1,423,212	(0.7%)	1,439,523	1.1%	1,499,419	4.2%	1,522,614	1.5%
Administration and Department Support													
	22,173	24,263	23,498	19,359	(17.6%)	19,668	1.6%	20,067	2.0%	20,048	(0.1%)	20,563	2.6%
Allocation of Centralized Support Costs													
	234,316	281,011	239,914	209,098	(12.8%)	171,201	(18.1%)	152,879	(10.7%)	139,707	(8.6%)	135,169	(3.2%)
Total Operating Programs	1,823,507	2,048,633	2,984,834	2,229,659	(25.3%)	2,102,921	(5.7%)	2,109,688	0.3%	2,167,614	2.7%	2,196,502	1.3%
Contribution to Capital													
	395,894	395,894	-	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%
TOTAL EXPENDITURES	\$ 2,219,401	\$ 2,444,527	\$ 2,984,834	\$ 2,229,659	(25.3%)	\$ 2,102,921	(5.7%)	\$ 2,109,688	0.3%	\$ 2,167,614	2.7%	\$ 2,196,502	1.3%

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
CAPITAL PROGRAMS AND PROJECT TOTALS
LIQUID WASTE SERVICES
2020-2024 CAPITAL PLAN

ATTACHMENT 2

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
CAPITAL EXPENDITURES							
SD Infrastructure Growth Capital							
AIWWTP Site Construction Layout							
AIWWTP Site Construction Layout	\$ 150,000	\$ 150,000	\$ -	\$ -	\$ -	300,000	\$ 600,000
AIWWTP Stage 5 Expansion & Outfall System							
Annacis Outfall System	89,000,000	47,200,000	28,000,000	55,000,000	56,050,000	275,250,000	378,000,000
Annacis Stage 5 Expansion Phase 1 T1 & T2	16,000,000	3,000,000	-	-	-	19,000,000	243,500,000
Annacis Stage 5 Expansion Phase 2	4,650,000	2,200,000	150,000	-	-	7,000,000	22,000,000
Annacis Stage 5 Expansion Phase 2a	21,000,000	16,000,000	-	-	-	37,000,000	180,000,000
Annacis Stage 5 Expansion Phase 2b	22,000,000	31,000,000	36,000,000	40,250,000	15,750,000	145,000,000	150,000,000
Annacis Stage 5 Expansion Phase 2c	-	-	1,000,000	35,000,000	40,000,000	76,000,000	90,000,000
Albert Street Trunk Sewer							
Albert Street Trunk Sewer	150,000	1,550,000	1,500,000	100,000	-	3,300,000	5,550,000
Burnaby Lake North Interceptor							
Burnaby Lake North Interceptor Cariboo Section	1,050,000	1,800,000	500,000	15,000,000	10,500,000	28,850,000	41,000,000
Burnaby Lake North Interceptor Winston Section	21,150,000	50,000,000	26,600,000	10,000,000	-	107,750,000	116,950,000
Burnaby South Slope Interceptor							
Burnaby South Slope Interceptor West Branch Extension	-	250,000	750,000	650,000	3,500,000	5,150,000	13,200,000
Cloverdale Pump Station Capacity Upgrade							
Cloverdale Pump Station Capacity Upgrade	450,000	1,500,000	1,200,000	8,000,000	8,000,000	19,150,000	36,400,000
Cloverdale Trunk Sewer Capacity Upgrade							
Cloverdale Trunk Sewer Capacity Upgrade	-	-	300,000	1,050,000	1,200,000	2,550,000	29,000,000
Glenbrook Combined Trunk Kingsway Sanitary Section							
Glenbrook Combined Trunk Kingsway Sanitary Section	100,000	200,000	2,000,000	2,000,000	-	4,300,000	4,500,000
Hastings Sanitary Trunk Sewer							
Hastings Sanitary Trunk Sewer	3,000,000	-	-	-	-	3,000,000	15,031,000
Hastings Sanitary Trunk Sewer No. 2	6,100,000	550,000	-	-	-	6,650,000	20,000,000
Hastings-Cassiar Intake Connection							
Hastings-Cassiar Intake Connection	2,100,000	100,000	-	-	-	2,200,000	2,350,000
LIWWTP Digester No 3							
Lulu Island WWTP Digester No 3	300,000	50,000	-	-	100,000	450,000	53,300,000

**GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
CAPITAL PROGRAMS AND PROJECT TOTALS
LIQUID WASTE SERVICES
2020-2024 CAPITAL PLAN**

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
Marshend Pump Station							
Marshend Pump Station Capacity Upgrade	1,400,000	5,200,000	3,000,000	3,000,000	650,000	13,250,000	13,775,000
North Road Trunk Sewer							
North Road Trunk Sewer	4,600,000	1,500,000	200,000	-	-	6,300,000	11,675,000
North Road Trunk Sewer Phase 2	100,000	100,000	4,050,000	3,400,000	100,000	7,750,000	8,438,000
North Vancouver Interceptor - Lynn Branch Pre-build							
North Vancouver Interceptor - Lynn Branch Pre-build	50,000	-	-	-	-	50,000	3,950,000
Northwest Langley Wastewater Treatment Projects							
Golden Ears Forcemain and River Crossing	2,100,000	31,000,000	38,900,000	6,000,000	-	78,000,000	86,000,000
Golden Ears Pump Station	11,650,000	15,000,000	7,100,000	100,000	200,000	34,050,000	50,200,000
Golden Ears SSO Storage	16,000,000	3,000,000	10,000,000	-	-	29,000,000	51,500,000
NLWWTP Ground Improvements	22,000,000	3,000,000	-	15,000,000	9,000,000	49,000,000	83,000,000
NLWWTP Outfall	1,500,000	6,500,000	4,000,000	3,000,000	50,000,000	65,000,000	159,000,000
NLWWTP Property Purchase	-	12,000,000	-	-	-	12,000,000	12,000,000
NLWWTP Stage 1	12,000,000	27,000,000	53,000,000	150,000,000	196,000,000	438,000,000	889,000,000
NSI 104th Ave Extension							
NSI 104th Ave Extension	150,000	50,000	50,000	50,000	1,600,000	1,900,000	6,800,000
NSI Flow Management							
NSI Flow Management	6,100,000	30,000,000	20,000,000	350,000	350,000	56,800,000	63,200,000
Port Moody Pump Station Capacity Upgrade							
Port Moody Pump Station Capacity Upgrade	1,100,000	750,000	4,500,000	3,800,000	-	10,150,000	10,550,000
Port Moody South Interceptor Capacity Upgrade							
Port Moody South Interceptor Capacity Upgrade	-	150,000	350,000	1,000,000	1,000,000	2,500,000	3,450,000
Rosemary Heights Pressure Sewer Capacity Upgrade							
Rosemary Heights Pressure Sewer Capacity Upgrade	-	150,000	500,000	650,000	4,800,000	6,100,000	10,750,000
Sapperton Pump Station							
Sapperton Pump Station	8,000,000	11,400,000	-	-	-	19,400,000	82,003,000
South Surrey Interceptor Twinning							
South Surrey Interceptor Johnston Section	17,000,000	10,000,000	-	-	-	27,000,000	84,026,000
SSI - King George Section - Odor Control Facility (OCF) and Grit Chamber	3,500,000	500,000	-	-	-	4,000,000	19,500,000
Sperling Pump Station							
Sperling PS Increase Pump Capacity	100,000	-	-	-	-	100,000	3,150,000
	\$ 294,550,000	\$ 312,850,000	\$ 243,650,000	\$ 353,400,000	\$ 398,800,000	\$ 1,603,250,000	\$ 3,053,348,000

**GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
CAPITAL PROGRAMS AND PROJECT TOTALS
LIQUID WASTE SERVICES
2020-2024 CAPITAL PLAN**

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
SD Infrastructure Maintenance Capital							
AIWWTP CDACS Replacement Program							
AIWWTP CDACS Replacement Program	\$ 1,100,000	\$ 1,700,000	\$ 1,650,000	\$ 1,650,000	\$ 1,600,000	\$ 7,700,000	\$ 14,350,000
AIWWTP Cogen Building Refurbishment							
AIWWTP Cogen Building Refurbishment	1,500,000	-	-	-	-	1,500,000	1,500,000
AIWWTP Fibre Optic Infrastructure							
AIWWTP Fibre Optic Infrastructure	100,000	-	-	-	-	100,000	1,500,000
AIWWTP Influent System Remediation							
AIWWTP Influent System Remediation	500,000	600,000	13,000,000	18,000,000	20,000,000	52,100,000	82,600,000
AIWWTP IPS Pump Building Roof Replacement Phase 2							
AIWWTP IPS Pump Building Roof Replacement Phase 2	-	-	-	-	800,000	800,000	830,000
AIWWTP Outfall Repair							
AIWWTP Outfall Repair	150,000	800,000	750,000	-	-	1,700,000	1,800,000
AIWWTP Replacement of CDAC Equipment							
AIWWTP Replacement of CDAC Equipment in Galleries	750,000	300,000	100,000	-	-	1,150,000	2,895,000
AIWWTP Scheduled 64kV Potential & Current Transformer Replacements							
AIWWTP Scheduled 64kV Potential & Current Transformer Replacements	350,000	100,000	-	-	-	450,000	800,000
AIWWTP Scum Pump Replacement							
AIWWTP Scum Pump Replacement	-	-	-	-	200,000	200,000	1,350,000
AIWWTP Secondary Clarifier Corrosion Repair							
AIWWTP SCL Flow Balancing	100,000	-	1,350,000	-	-	1,450,000	2,450,000
AIWWTP SCL Flow Control	6,000,000	6,000,000	6,000,000	2,700,000	10,000,000	30,700,000	31,500,000
Annacis Secondary Clarifier Corrosion Repair and Leveling Phase 2	1,150,000	1,000,000	1,000,000	750,000	10,400,000	14,300,000	22,000,000
AIWWTP Secondary Effluent Discharge Flowmeter Replacement							
AIWWTP Secondary Effluent Discharge Flowmeter Replacement	200,000	50,000	-	-	-	250,000	400,000
AIWWTP Spare Trickling Filter Pump & Motor Purchase							
AIWWTP Spare Trickling Filter Pump & Motor Purchase	300,000	-	-	-	-	300,000	1,950,000
AIWWTP Station Battery Replacement							
AIWWTP Station Battery Replacement - PHASE 2	300,000	-	-	-	-	300,000	400,000
AIWWTP Trickling Filter Media & Distributor Arms & Ducting Replacement							

**GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
CAPITAL PROGRAMS AND PROJECT TOTALS
LIQUID WASTE SERVICES
2020-2024 CAPITAL PLAN**

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
AIWWTP Trickling Filter Media & Distributor Arms & Ducting Replacement	22,350,000	23,250,000	22,100,000	20,000,000	-	87,700,000	90,700,000
Annacis MCC 80 051, 80 070, 80 071 Replacement							
Annacis MCC 80 051, 80 070, 80 071 Replacement	850,000	150,000	100,000	-	-	1,100,000	2,844,000
Big Bend Forcemain - Gate Replacement							
Big Bend Forcemain - Gate Replacement	-	-	-	-	600,000	600,000	2,680,000
Cambie Trunk Sewer Relocation for Broadway Subway Project							
Cambie Trunk Sewer Relocation for Broadway Subway Project	2,000,000	1,500,000	-	-	-	3,500,000	4,500,000
Combined Sewer Overflow Sampling Station Enhancements							
Combined Sewer Overflow Sampling Station Enhancements	400,000	500,000	400,000	-	-	1,300,000	1,900,000
Cost Allocation Billing Network (Combined 96 F4)							
Cost Allocation Billing Network (Combined 96 F4)	50,000	-	-	-	-	50,000	5,230,000
Crescent Beach FM - Replacement							
Crescent Beach FM - Replacement	6,300,000	6,000,000	-	-	-	12,300,000	25,570,000
English Bay/Balaclava Outfalls Improvement							
English Bay/Balaclava Outfalls Improvement	-	250,000	500,000	150,000	-	900,000	900,000
FSA Flow Metering Program							
FSA Flow Metering Program	800,000	900,000	800,000	300,000	-	2,800,000	3,500,000
Gilbert/Brighthouse Trunk Pressure Sewer							
Gilbert/Brighthouse Trunk Pressure Sewer Rehab Phase 5	-	-	-	200,000	3,000,000	3,200,000	23,200,000
Gilbert/Brighthouse Trunk Pressure Sewer Twinning Phase 2	9,500,000	-	-	-	-	9,500,000	50,501,000
Gilbert/Brighthouse Trunk Pressure Sewer Twinning Phase 3	50,000	23,300,000	20,000,000	-	-	43,350,000	44,400,000
Gilbert/Brighthouse Trunk Pressure Sewer Twinning Phase 4	10,400,000	25,000,000	5,400,000	-	-	40,800,000	41,400,000
Glen Eagles Forcemain Replacement							
Glen Eagles Force mains Replacement Phase 2	250,000	2,150,000	2,500,000	2,500,000	-	7,400,000	7,750,000
Glen Eagles Pump Stations							
Glen Eagles Pump Stations Phase 1	1,300,000	6,300,000	3,750,000	5,500,000	5,000,000	21,850,000	22,500,000
Glen Eagles Pump Stations Phase 2	-	-	200,000	1,000,000	1,000,000	2,200,000	5,000,000
Harbour West & East Interceptors Reloc & Protect							
Harbour West & East Interceptors Reloc & Protect	9,750,000	5,300,000	-	-	-	15,050,000	19,500,000
IIWWTP CDAC IPS Control Replacement							
IIWWTP CDAC IPS Control Replacement	950,000	-	-	-	-	950,000	1,750,000

**GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
CAPITAL PROGRAMS AND PROJECT TOTALS
LIQUID WASTE SERVICES
2020-2024 CAPITAL PLAN**

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
IIWWTP CDACS Replacement Program							
IIWWTP CDACS Replacement Program	350,000	300,000	100,000	-	-	750,000	750,000
IIWWTP Influent Gate Refurbishment							
IIWWTP Influent Gate Refurbishment	350,000	350,000	250,000	-	-	950,000	1,350,000
IIWWTP IPS Drive Remediation							
IIWWTP IPS Drive Remediation	500,000	150,000	150,000	-	-	800,000	800,000
IIWWTP MCC/Power Distribution Assess/Replace - Phase 2							
IIWWTP MCC/Power Distribution Assess/Replace - Phase 2	200,000	-	-	-	-	200,000	1,000,000
IIWWTP PA-Sed Tank & Gallery Wall Refurbishment							
IIWWTP PA-Sed Tank & Gallery Wall Refurbishment	500,000	300,000	-	-	-	800,000	1,375,000
IIWWTP Replacement of CoGen Control System							
IIWWTP Replacement of CoGen Control System	800,000	300,000	-	-	-	1,100,000	2,470,000
IIWWTP Siphon Chamber Refurbishment							
IIWWTP Siphon Chamber Refurbishment	850,000	850,000	450,000	-	-	2,150,000	2,200,000
IIWWTP Solids Handling Refurbishment							
IIWWTP Digester 4 Roof Replacement & Mixing Replacement	4,750,000	1,000,000	2,500,000	2,700,000	-	10,950,000	24,800,000
IIWWTP Grit System Refurbishment	50,000	500,000	-	-	-	550,000	8,100,000
IIWWTP Solids Handling Refurbishment	300,000	-	-	-	-	300,000	30,500,000
Iona Island Control & Instrumentation Replacement 2011							
Iona Island Control & Instrumentation Replacement 2011	450,000	-	-	-	-	450,000	2,750,000
LIWWTP CCT Isolation Gates							
LIWWTP CCT Isolation Gates	350,000	550,000	600,000	450,000	-	1,950,000	2,050,000
LIWWTP CDACS Replacement Program							
LIWWTP CDACS Replacement Program	1,400,000	1,650,000	1,300,000	1,000,000	1,100,000	6,450,000	6,750,000
LIWWTP High Efficiency Boiler							
LIWWTP High Efficiency Boiler	100,000	-	800,000	250,000	100,000	1,250,000	1,330,000
LIWWTP PA-Sed Tank Refurbishment							
LIWWTP PA-Sed Tank Refurbishment	1,050,000	1,050,000	900,000	-	-	3,000,000	4,115,000
LSA Flow Metering Program							
LSA Flow Metering Program	50,000	50,000	50,000	50,000	-	200,000	300,000
Marshend PS Rehab							
Marshend PS Rehab	-	2,200,000	2,000,000	1,950,000	-	6,150,000	7,000,000

**GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
CAPITAL PROGRAMS AND PROJECT TOTALS
LIQUID WASTE SERVICES
2020-2024 CAPITAL PLAN**

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
New West Interceptor - Annacis Section 2							
NWI - Annacis Section 2 Improvement	1,500,000	10,200,000	16,300,000	16,000,000	-	44,000,000	45,000,000
New West Interceptor Grit Chamber							
New West Interceptor Grit Chamber	-	3,000,000	5,000,000	-	-	8,000,000	8,250,000
New Westminster Interceptor Repair Columbia St. Section							
New Westminster Interceptor Repair Columbia St. Section	3,300,000	5,150,000	1,100,000	-	-	9,550,000	10,882,000
NLWWTP Screw Pump Replacement							
NLWWTP Screw Pump Replacement	500,000	500,000	450,000	-	-	1,450,000	1,550,000
NSA Flow Metering Program							
NSA Flow Metering Program	250,000	300,000	200,000	-	-	750,000	900,000
NSI Rehab or Replacement							
NSI Rehab or Replacement	9,150,000	20,750,000	11,200,000	1,500,000	3,000,000	45,600,000	46,950,000
NWL WWTP 25 kV Substation Replacement							
NWL WWTP 25 kV Substation Replacement	2,500,000	1,000,000	1,000,000	-	-	4,500,000	10,025,000
Ocean Park Trunk Crescent Section (OPC) Pipe Rehabilitation/Replacement							
Ocean Park Trunk Crescent Section (OPC) Pipe Rehabilitation/Replacement	2,150,000	1,050,000	-	-	-	3,200,000	4,953,000
Ocean Park Trunk Manholes Lining							
Ocean Park Trunk Manholes Lining	-	50,000	350,000	150,000	-	550,000	550,000
Port Coquitlam Pump Station Refurbishment							
Port Coquitlam Pump Station Refurbishment	-	250,000	1,000,000	2,000,000	4,000,000	7,250,000	9,250,000
Royal Ave PS Rehabilitation							
Royal Ave PS Rehabilitation	2,000,000	2,000,000	1,500,000	-	-	5,500,000	7,238,000
Sewer Relocations and Protections at Fraser Surrey Docks							
Sewer Relocations and Protections at Fraser Surrey Docks	750,000	15,000,000	5,000,000	3,200,000	-	23,950,000	25,800,000
Sewer Relocations and Protections for Pattullo Bridge Replacement Project							
Sewer Relocations and Protections for Pattullo Bridge Replacement Project	750,000	5,250,000	500,000	250,000	-	6,750,000	7,000,000
SSI Influent Control Chamber Repair and Replace Gates							
SSI Influent Control Chamber Repair and Replace Gates	750,000	-	-	-	-	750,000	1,305,000
Surrey Corrosion Control Facility Replacement							
Surrey Corrosion Control Facility Replacement	1,200,000	1,200,000	-	-	-	2,400,000	2,900,000

**GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
CAPITAL PROGRAMS AND PROJECT TOTALS
LIQUID WASTE SERVICES
2020-2024 CAPITAL PLAN**

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
VSA Flow Metering Program							
VSA Flow Metering Program	900,000	1,600,000	1,650,000	900,000	-	5,050,000	5,800,000
Westridge FM Replacement							
Westridge FM Replacement	2,050,000	700,000	300,000	-	-	3,050,000	3,650,000
Westridge Pump Stations 1 & 2 Refurbishment							
Westridge Pump Stations 1 & 2 Refurbishment	1,000,000	5,300,000	5,000,000	3,000,000	1,650,000	15,950,000	16,250,000
Works Yard							
Works Yard	32,000,000	-	-	-	-	32,000,000	32,000,000
	\$ 150,250,000	\$ 187,700,000	\$ 139,250,000	\$ 86,150,000	\$ 62,450,000	\$ 625,800,000	\$ 858,043,000
SD Infrastructure Resilience Capital							
AIWWTP Cogeneration Backup Power							
AIWWTP 69 kV Substation Modifications	\$ 2,550,000	\$ 2,700,000	\$ 1,750,000	\$ -	\$ -	\$ 7,000,000	\$ 8,500,000
AIWWTP Cogeneration Backup Power	3,000,000	4,150,000	-	-	-	7,150,000	75,003,000
AIWWTP PST Area Walkway & Column Remediation							
AIWWTP PST Area Walkway & Column Remediation	500,000	100,000	-	-	-	600,000	3,100,000
AIWWTP UPS Condition Monitoring System							
AIWWTP UPS Condition Monitoring System	300,000	100,000	150,000	-	-	550,000	550,000
IIWWTP - Biogas Lines Relocation							
IIWWTP - Biogas Lines Relocation	550,000	-	-	-	-	550,000	5,780,000
IIWWTP Standby Diesel Generators							
IIWWTP Standby Diesel Generators	250,000	850,000	1,900,000	1,000,000	700,000	4,700,000	5,000,000
LIWWTP Power Reliability							
LIWWTP Power Reliability	4,700,000	2,300,000	-	-	-	7,000,000	8,202,000
SSI Sulfide Odour and Corrosion Control							
SSI Sulfide Odour and Corrosion Control	4,300,000	2,300,000	-	-	-	6,600,000	7,700,000
VSA Emergency Backup Power							
VSA Emergency Backup Power	8,550,000	8,100,000	-	-	-	16,650,000	24,310,000
	\$ 24,700,000	\$ 20,600,000	\$ 3,800,000	\$ 1,000,000	\$ 700,000	\$ 50,800,000	\$ 138,145,000
SD Infrastructure Upgrade Capital							
AIWWTP Ammonia Removal – Sidestream							
AIWWTP Ammonia Removal – Sidestream	\$ -	\$ -	\$ 150,000	\$ -	\$ -	\$ 150,000	\$ 125,900,000

**GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
CAPITAL PROGRAMS AND PROJECT TOTALS
LIQUID WASTE SERVICES
2020-2024 CAPITAL PLAN**

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
AIWWTP DAF Polymer Building Replacement							
AIWWTP DAF Polymer Building Replacement	50,000	-	-	-	-	50,000	550,000
AIWWTP Electrical Distribution System Protection Control and Monitoring							
AIWWTP Electrical Distribution System Protection Control and Monitoring	600,000	900,000	450,000	400,000	-	2,350,000	2,650,000
AIWWTP Replacement of Protective Relays							
AIWWTP Replacement of Protective Relays	1,000,000	-	-	-	-	1,000,000	3,258,000
All WWTPs Power Quality Monitoring & Outage Alarming Network							
All WWTPs Power Quality Monitoring & Outage Alarming Network	550,000	400,000	150,000	-	-	1,100,000	2,870,000
Biosolids Dryer							
Biosolids Dryer	7,700,000	2,000,000	-	-	-	9,700,000	14,700,000
IIWWTP Biosolids Dewatering Facility							
IIWWTP Biosolids Dewatering Facility	36,550,000	6,250,000	2,000,000	-	-	44,800,000	61,300,000
IIWWTP Sludge Lagoons Dewatering Facility							
IIWWTP Sludge Lagoons Dewatering Facility	2,350,000	500,000	-	-	-	2,850,000	2,850,000
New CSO Management Gates for New Westminster Interceptor							
New CSO Management Gates for New Westminster Interceptor	200,000	600,000	800,000	2,000,000	2,200,000	5,800,000	5,925,000
WWTPs Electrical System Studies & Upgrades							
WWTPs Electrical System Studies & Upgrades	200,000	450,000	400,000	500,000	250,000	1,800,000	1,900,000
	\$ 49,200,000	\$ 11,100,000	\$ 3,950,000	\$ 2,900,000	\$ 2,450,000	\$ 69,600,000	\$ 221,903,000
SD Infrastructure Upgrade: Secondary Treatment Capital							
Iona Secondary Wastewater Treatment							
Iona Secondary Treatment Upgrade	\$ 7,400,000	\$ 13,000,000	\$ 60,000,000	\$ 100,000,000	\$ 155,000,000	\$ 335,400,000	\$ 1,904,500,000
North Shore WWTP Secondary Upgrade and Conveyance							
North Shore WWTP Secondary Upgrade and Conveyance	345,470,000	207,240,000	75,210,000	72,320,000	11,600,000	711,840,000	881,900,000
	\$ 352,870,000	\$ 220,240,000	\$ 135,210,000	\$ 172,320,000	\$ 166,600,000	\$ 1,047,240,000	\$ 2,786,400,000
SD Opportunity Capital							
AIWWTP Hydrothermal Processing Pilot							
AIWWTP Hydrothermal Processing Pilot	\$ 1,750,000	\$ 4,500,000	\$ 2,000,000	\$ -	\$ -	\$ 8,250,000	\$ 8,980,000

**GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
CAPITAL PROGRAMS AND PROJECT TOTALS
LIQUID WASTE SERVICES
2020-2024 CAPITAL PLAN**

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
Fraser Sewerage Area Integrated Resource Recovery (IRR) Study							
Fraser Sewerage Area Integrated Resource Recovery (IRR) Study	100,000	500,000	500,000	-	-	1,100,000	1,200,000
LIWWTP Biogas Clean-up Project							
LIWWTP Biogas Clean-up Project	7,800,000	1,300,000	-	-	-	9,100,000	13,800,000
LIWWTP Pilot Digestion Optimization Facility							
LIWWTP Pilot Digestion Optimization Facility	2,000,000	100,000	-	-	-	2,100,000	3,100,000
North Surrey Interceptor - Port Mann Section - Odour Control							
North Surrey Interceptor - Port Mann Section - Odour Control	200,000	1,000,000	1,100,000	2,000,000	3,050,000	7,350,000	7,500,000
	\$ 11,850,000	\$ 7,400,000	\$ 3,600,000	\$ 2,000,000	\$ 3,050,000	\$ 27,900,000	\$ 34,580,000
TOTAL CAPITAL EXPENDITURES	\$ 883,420,000	\$ 759,890,000	\$ 529,460,000	\$ 617,770,000	\$ 634,050,000	\$ 3,424,590,000	\$ 7,092,419,000

CAPITAL FUNDING							
New External Borrowing	\$ 552,270,000	\$ 474,990,000	\$ 356,860,000	\$ 437,870,000	\$ 459,950,000	\$ 2,281,940,000	
Contribution to Capital	86,800,000	94,100,000	105,000,000	115,300,000	128,700,000	529,900,000	
Surplus from Prior Year/ Reserves/ DCC	55,950,000	49,600,000	39,400,000	56,300,000	45,400,000	246,650,000	
External Funding - Interagency	188,400,000	141,200,000	28,200,000	8,300,000	-	366,100,000	
Total	\$ 883,420,000	\$ 759,890,000	\$ 529,460,000	\$ 617,770,000	\$ 634,050,000	\$ 3,424,590,000	

DEBT SERVICING TOTALS/RATIO							
Operating Programs - Liquid Waste Services	\$ 184,200,000	\$ 195,600,000	\$ 202,400,000	\$ 211,100,000	\$ 204,400,000	\$ 997,700,000	
Debt Service - Existing	55,500,000	57,000,000	80,800,000	117,800,000	148,300,000	459,400,000	
Debt Service - New	1,700,000	24,600,000	37,100,000	31,700,000	37,000,000	132,100,000	
Contribution to Capital	86,800,000	94,100,000	105,000,000	115,300,000	128,700,000	529,900,000	
Total	\$ 328,200,000	\$ 371,300,000	\$ 425,300,000	\$ 475,900,000	\$ 518,400,000	\$ 2,119,100,000	
% Debt Service	17%	22%	28%	31%	36%	28%	

LIQUID WASTE SERVICES

Policy, Planning and Analysis

Description of services

Liquid Waste Services provide wastewater collection and treatment services through the Liquid Waste function under the Greater Vancouver Sewerage & Drainage District (GVS&DD). The Policy, Planning and Analysis division provides policy development and implementation strategy development; utility analysis, computer modeling and planning work for the sewer system, drainage areas and wastewater treatment plants (WWTPs); coordination of service growth planning with municipalities; implementation of the key components of the Integrated Liquid Waste and Resource Management Plan (ILWRMP); facilitation of plans and strategies to comply with the GVS&DD Act, Provincial Environmental Management Act, and Federal legislation; processing of municipal requests with respect to new membership in the GVS&DD and sewerage or drainage area amendments; Source Control Program and policy development; and the project definition work for the Iona Island WWTP secondary upgrade.

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	2020 performance objective
Annual number of wet-weather related sanitary sewer overflow (SSO) events from Metro Vancouver sewers	MV 3-year average: 34 2018: 53 2017: 39 2016: 10	40	0

Indicator	Historical and/or industry benchmark	Current performance	2020 performance objective
Annual CSO Volume (ML)	MV 3-year average: 34,744 2018: 41,300 2017: 35,000 2016: 27,931	34,000	28,500
Percentage of Assets Meeting Basic Service	MV 3-year average: 95% 2018: 95% 2017: 95% 2016: 95%	95%	95%

2020 Key actions

- Complete work with the Cities of Burnaby, New Westminster and Vancouver to identify options and strategies to cost effectively eliminate combined sewer overflows and separate combined sewers.
- Continue to work with members to identify strategies and options leading to improved management of inflow and infiltration into sanitary sewers.
- Continue development, calibration, and maintenance of Sewerage Area hydraulic models.
- Continue system wide capacity and sewer separation analyses for Fraser and Vancouver Sewerage Areas.
- Continue Source Control outreach programs including the regional 'Grease' and 'Unflushables' campaigns.
- Continue Source Control regulatory initiatives including a review of the Food Sector Grease Interceptor Bylaw and the Sewer Use Bylaw (with respect to trucked liquid waste).
- Complete the Still Creek-Brunette River Drainage Area flood mapping project.
- As a part of a Sustainability Innovation Fund project, work with the Water Research Foundation on the Intelligent Water Systems initiative to identify new and innovative solutions for sewer system data collection, management and analysis.
- Initiate the review of the *Integrated Liquid Waste and Resource Management Plan* for updating in 2021.
- Initiate the development of a comprehensive plan that identifies challenges and outlines strategic options to 2100 for Liquid Waste Services.
- Complete the Iona Island WWTP Project Definition Report including the development of an indicative design for the new plant.
- Complete the Framework and Best Practices Guide for Capital Project Permit Fees.
- Initiate a policy or protocol to define responsibilities within Drainage Areas.

LIQUID WASTE SERVICES

Project Delivery

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 Project Delivery 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, 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	2020 performance objective
Percent of Major Capital Program Expenditures Achieved	MV 3-year average: 94% 2018: 84% 2017: 104% 2016: 93%	68%	85%
Percent of Minor Capital Program Expenditures Achieved	MV 3-year average: 67% 2018: 59% 2017: 67% 2016: 76%	70%	80%
AIWWTP Stage 5 Expansion Phase 1	83%	85%	93%
AIWWTP Outfall - Construction	n/a	1%	30%

Indicator	Historical and/or industry benchmark	Current performance	2020 performance objective
AIWWTP Cogeneration - Construction	75%	98%	100%
IIWWTP Solids Handling - Construction	85%	95%	100%
IIWWTP Biosolids Dewatering Facility – Design Build- Construction	2%	15%	70%
Northwest Langley WWTP Projects			
- Detailed Design	n/a	5%	50%
- Ground Improvements (overall)	n/a	33%	66%
North Shore WWTP	n/a	12%	57%
Burnaby Lake North Interceptor – Winston St Section			
- Design	50%	97%	100%
- Construction	n/a	0%	20%
Gilbert Trunk Sewer - Construction (Phases 2-4)	3%	35%	50%
Sapperton Pump Station			
- Construction	65%	93%	100%

2020 Key Actions

- Substantially complete construction on the 5 primary sedimentation tanks, 2 solids contact tanks, and 6 secondary clarifiers within the Annacis Island WWTP Stage 5 Phase 1 Expansion Project.
- Complete construction of the 2 vertical launch/receiving shafts and commence tunneling of chlorine contact tank effluent section for the Annacis Island WWTP Outfall Project.
- Complete commissioning and begin operation of the Annacis Island WWTP Cogeneration Back-Up Power System.
- Complete construction of the Iona Island WWTP Digester Mixing Project.
- Start construction of the open cut and tunneled sections of the Burnaby Lake North Interceptor – Winston Section
- Achieve total completion of the two South Surrey Interceptor Odour Control Facilities (King George and Highway 10)
- Start construction of the last section of the South Surrey Interceptor
- Award the Design Build contract for the North Surrey Interceptor SSO Tank
- Complete Hastings Sanitary Trunk Sewer, North Road Trunk Sewer (Phase 1), Albert Street Sanitary Trunk Sewer (Phase 1), Highbury Interceptor Air Management Facility
- Substantially complete the Sapperton Pump Station
- Remove all preload from North Shore WWTP site, complete 90% of excavation, and commence foundation pouring
- Complete First Narrows Pump Station construction.
- Complete the Northwest Langley WWTP Phase 2 Ground Improvements.
- Award the Golden Ears Forcemain Fraser River Crossing construction tender

LIQUID WASTE SERVICES

Operations and Maintenance

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 Operations and Maintenance division is responsible for managing the operations and maintenance of the five regional wastewater treatment plants (WWTPs) and the sewer collection systems. This includes long-range facility planning and day-to-day management of the infrastructure assets and supporting infrastructure (works yards, communications systems, and control systems) 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 managing the operations and maintenance of Urban Drainage areas including the Still Creek/Brunette, Port Moody/Coquitlam and UBC Drainage areas.

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	2020 performance objective
Volume treated per year (ML)	MV 3-year average: 447,715 2018: 456,083 2017: 449,542 2016: 437,520	445,000	450,000
Operating cost per million litres collected and treated (\$/ML)	MV 3-year average: \$329 2018: \$349 2017: \$323 2016: \$314	\$375	\$409

Indicator	Historical and/or industry benchmark	Current performance	2020 performance objective
Energy use in the collection and treatment of liquid waste kilowatt hour per million litres (kWh/ML)	MV 3-year average: 220 2018: 255 2017: 209 2016: 196	258.6	214
Percent of digester gas used at the Wastewater Treatment Plants	MV 3-year average: 60% 2018: 44% 2017: 68% 2016: 69%	45%	72%
Compliance with treatment plant Operational Certificates (%)	MV 3-year average: 99.96% 2018: 99.95% 2017: 99.93% 2016: 99.99%	99.98%	100%
Number of reported events of sanitary sewer overflows (SSOs): non-weather related	MV 3-year average: 18.3 2018: 24 2017: 17 2016: 14	16	0
Number of odour complaints received	MV 3-year average: 14.7 2018: 12 2017: 21 2016: 11	12	15

2020 Key Actions

- Complete satellite yard implementation at two yards to reduce travel time, vehicle wear, motor vehicle accident risks and greenhouse gases while increasing efficiencies for Sewers and Drainage Operations Staff.
- Renovate Annacis Island Warehouse and relocate Staff to centralize Maintenance services support field staff which will result in improved efficiencies of services with a benefit of off-loading space demands at LCOC.
- Implement a mobile technology pilot for sewer and drainage field staff to identify optimal hardware and software intended to increase real time access to critical operational procedures, asset information and creation and updates to work orders.
- Implement Asset Management Condition Assessment Programs across O&M.
- Develop strategies and implement pilot work on technologies for full pipe condition inspections.
- Provide commissioning operations and maintenance services for the Annacis Island major capital projects, i.e. Stage V and Co-Generation.
- Develop and implement a water reduction program to offset high water use demands required for the recently commissioned Iona Island Solids Handling System.
- Complete Maintenance Service Enhancement Initiatives to review maintenance practices, efficiency, transparency/accuracy of data and level of customer service with the intent to optimize resources, procedures and practices.

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, management of stormwater and urban drainage, development of an Environmental Management System for Liquid Waste Services, implementation of 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	2020 performance objective
Percent of recreational water quality results that do not meet the applicable criteria	MV 3-year average: 0.9% 2018: 2.4% 2017: 0.0% 2016: 0.2%	0.4%	2.6%
Fraser River water quality index ¹	MV 3-year average: 82 2017: 82 2016: 82 2015: 82	88	88

Indicator	Historical and/or industry benchmark	Current performance	2020 performance objective
Burrard Inlet water quality index	MV 3-year average: 86 2016: 87 2015: 87 2014: 84	90	90
Sturgeon Bank water quality index	MV 3-year average: 95 2016: 92 2015: 96 2014: 96	92	92

¹ Water Quality Index (WQI) ranking of water quality: Excellent (WQI value 95-100), Good (WQI value 80-94), Fair (WQI value 65-79), Marginal (WQI value 45-64), Poor (WQI value 0-44)

2020 Key actions

- Produce the 2019 GVS&DD Environmental Management & Quality Control Annual Report.
- Complete and submit 2019 National Pollution Release Inventory (NPRI) and Greenhouse Gas (GHG) Reports to Environment Canada and the BC Ministry of Environment, respectively.
- Complete a comparative ecological and human health risk assessment for twelve Metro Vancouver combined sewer overflow (CSO) locations.
- Complete characterization of the collection system at key manholes in the Vancouver Sewerage Area to establish baseline concentrations of selected contaminants of emerging concern for the Source Control and Biosolids Management Programs.
- Initiate mass balance calculations for selected contaminants of emerging concern for the Northwest Langley Wastewater Treatment Plant (WWTP).
- Implement the 2020 portion of the groundwater monitoring program at Lions Gate WWTP and around the sludge lagoons and biosolids land-drying area at Iona Island WWTP as part of the plant upgrades.
- Develop a three-dimensional hydrodynamic model for the Strait of Georgia to improve accuracy of regulatory reporting of the liquid waste system environmental performance.
- Complete the requirements from Canadian Association for Laboratory Accreditation (CALA) bi-annual assessment and accreditation carried out in November 2019.
- Obtain CALA accreditation for analysis of selected pharmaceutical compounds in wastewater.

LIQUID WASTE SERVICES

Management Systems and Utility Services

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 Management Systems and Utility Services division is responsible for the following Liquid Waste Services functions: business and financial planning and management; capital budget planning; asset management; performance management; safety management; research and opportunity projects; residuals beneficial use management; energy management; the Technical Knowledge Management Program (TTAP); 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	2020 performance objective
Percent of biosolids beneficially used	MV 3-year average: 92.9% 2018: 97.9% 2017: 98.0% 2016: 82.7%	97%	97%
Percentage of Biosolids beneficially used in Metro Vancouver Region	MV 3-year average: 17.2% 2018: 18.1% 2017: 24.6% 2016: 8.8%	15%	17%

Indicator	Historical and/or industry benchmark	Current performance	2020 performance objective
Research Effort (% of Operating Budget)	MV 3-year average: 1.29% 2018: 1.56% 2017: 1.25% 2016: 1.07%	1.42%	0.83%
Energy Savings Realized (kWh/y)	MV 3-year average: 796,509 2018: 607,407 2017: 510,121 2016: 1,272,000	600,000	600,000

2020 Key actions

- Identify and analyze alternate models for single sewage area allocation.
- Continue decommissioning Iona Island WWTP sludge lagoons and removing stockpiled biosolids and grit dump material.
- Update Biosolids Management Plan Framework.
- Continue development of Asset Management program in alignment with the Asset Management for Liquid Waste Services Policy, including asset assessment plans, facility-level risk assessments and asset management plans.
- Seek Board approval and apply for CleanBC grant funding for Lulu Island WWTP effluent heat recovery project.
- Complete Fraser Sewerage Area Integrated Resource Recovery study, as required by Integrated Liquid Waste and Resource Management Plan.
- Establish Board Reclaimed Water Policy for water reclaimed from wastewater treatment plants
- Initiate action on Liquid Waste Climate Action Plan by establishing monitoring studies for fugitive methane, N₂O, and other greenhouse gas emissions sources as appropriate.
- Continue Sustainability Innovation Fund projects: Microwave-enhanced Sludge Destruction, Optimization of Anaerobic Digestion through Genomic Analysis, Sludge-based Activated Carbon, and Hydrothermal Processing Technology Pilot.
- Continue to support projects at the Annacis Research Centre that are aimed at developing efficiency improvements to treatment processes and testing advanced aeration processes, and develop new projects to support objectives identified in the Liquid Waste Climate Action Plan.
- Implement revised development and maintenance model for Technical Knowledge Management program.

2020 to 2024 – 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
2020		
Lulu Island WWTP Biogas Cleanup Project	Commencement of operation of biogas scrubbing system that will treat excess digester gas to generate green biomethane that will be sold to the natural gas utility.	Environmental Sustainability
Sapperton Pump Station	Commencement of operation of the new pump station at Sapperton Landing, which will have increased capacity to address growth in the Fraser Sewerage Area and reduce chronic Sanitary Sewer Overflows at the Braid Street Outfall.	Regional Growth
Highbury Interceptor Air Management Facility	Commencement of operation of system to clean foul air generated in the Highbury Interceptor to reduce corrosion and odour generation.	System Stewardship
North Shore WWTP	Construction underway for the new plant.	Regulatory and Legislative Environment
Iona Island WWTP Secondary Upgrade	Complete the scope definition, cost estimate and indicative design for the new Iona Island Secondary WWTP.	Regulatory and Legislative Environment
2021		
Integrated Liquid Waste and Resource Management Plan	Update the Integrated Liquid Waste and Resource Management Plan. The Plan was approved in 2011.	Regulatory and Legislative Environment
Liquid Waste Services Comprehensive Long-Range Plan	Commence work on Comprehensive Plan for Liquid Waste Services, identifying infrastructure needs over the next 100 years.	Environmental Sustainability
Annacis Island WWTP Hydrothermal Processing Demonstration Facility	Commencement of operation of the facility demonstration facility and initial production of biocrude oil.	Environmental Sustainability
Iona Island WWTP Biosolids Dewatering Facility	Commence mechanical dewatering of digester sludge to allow the completion of decommissioning of the existing sludge lagoons and sludge drying beds in preparation for the construction of the Iona Island secondary treatment plant.	Regulatory and Legislative Environment
North Shore WWTP Conveyance Project	Construction of the First Narrows Pump Station and conveyance piping complete.	Regulatory and Legislative Environment
South Surrey Interceptor	Completion of Construction of the South Surrey Interceptor – Johnson Road Section, the last part of the system to be twinned.	Regional Growth

Initiative	Description	Theme
Expansion of accreditation of the LWS Chemistry Laboratory to include selected contaminants of emerging concern	On-site assessment to verify that laboratory operations adhere to ISO and Canadian national standards, to provide Certification of Accreditation as assurance on the quality and competence of laboratory results.	Environmental Sustainability
2022		
Iona Island WWTP Biosolids Stockpile Removal	Completion of the removal of all biosolids stockpiles including sludge lagoons in preparation for the construction of the secondary treatment plant.	Regulatory and Legislative Environment
Sanitary Storage Overflow (SSO) Tanks	Completion of construction and commencement of operation of the Golden Ears and North Surrey Interceptor SSO tanks to manage excess Inflow and Infiltration entering the system upstream of the trunk sewers.	Environmental Sustainability
Gilbert Trunk Sewer	Completion of the twinning of the Gilbert Trunk Sewer to improve system reliability and resiliency.	System Stewardship
Annacis Island WWTP Stage 5 Expansion	Completion of construction of Phase 1 (Primary Sedimentation Tanks, Solids Contact Tanks and Secondary Clarifiers) and commencement of operation.	Regional Growth
2023		
Iona Island WWTP Secondary Upgrade	First release of construction tenders for Iona Island WWTP Upgrade.	Regulatory and Legislative Environment
Burnaby Lake North Interceptor	Completion of construction of the Burnaby Lake North Interceptor – Winston Road Section.	Regional Growth
Annacis Island WWTP Trickling Filters	Completion of replacement of media, distributor arms and foul air ducting.	System Stewardship
Northwest Langley WWTP Projects	Completion of construction of Golden Ears Forcemain and river crossing.	Regional Growth
2024		
Annacis Island WWTP Outfall System	Completion of construction of the Outfall System.	Regional Growth
Northwest Langley WWTP Projects	Completion of ground improvements and detailed design for Northwest Langley WWTP.	Regional Growth
North Surrey Interceptor Odour Control	Completion of construction of odor control system.	System Stewardship

METRO VANCOUVER DISTRICTS
2020-2024 PROJECTED RESERVES - LIQUID WASTE SERVICES

OPERATING RESERVES

	2019	2020				2020	2021	2022	2023	2024
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Liquid Waste Services	\$ 16,537,336	\$ 16,537,336	\$ 785,607	\$ -	\$ 342,023	\$ 17,664,965	\$ 18,301,410	\$ 19,438,155	\$ 20,120,275	\$ 20,984,463

DISCRETIONARY RESERVES

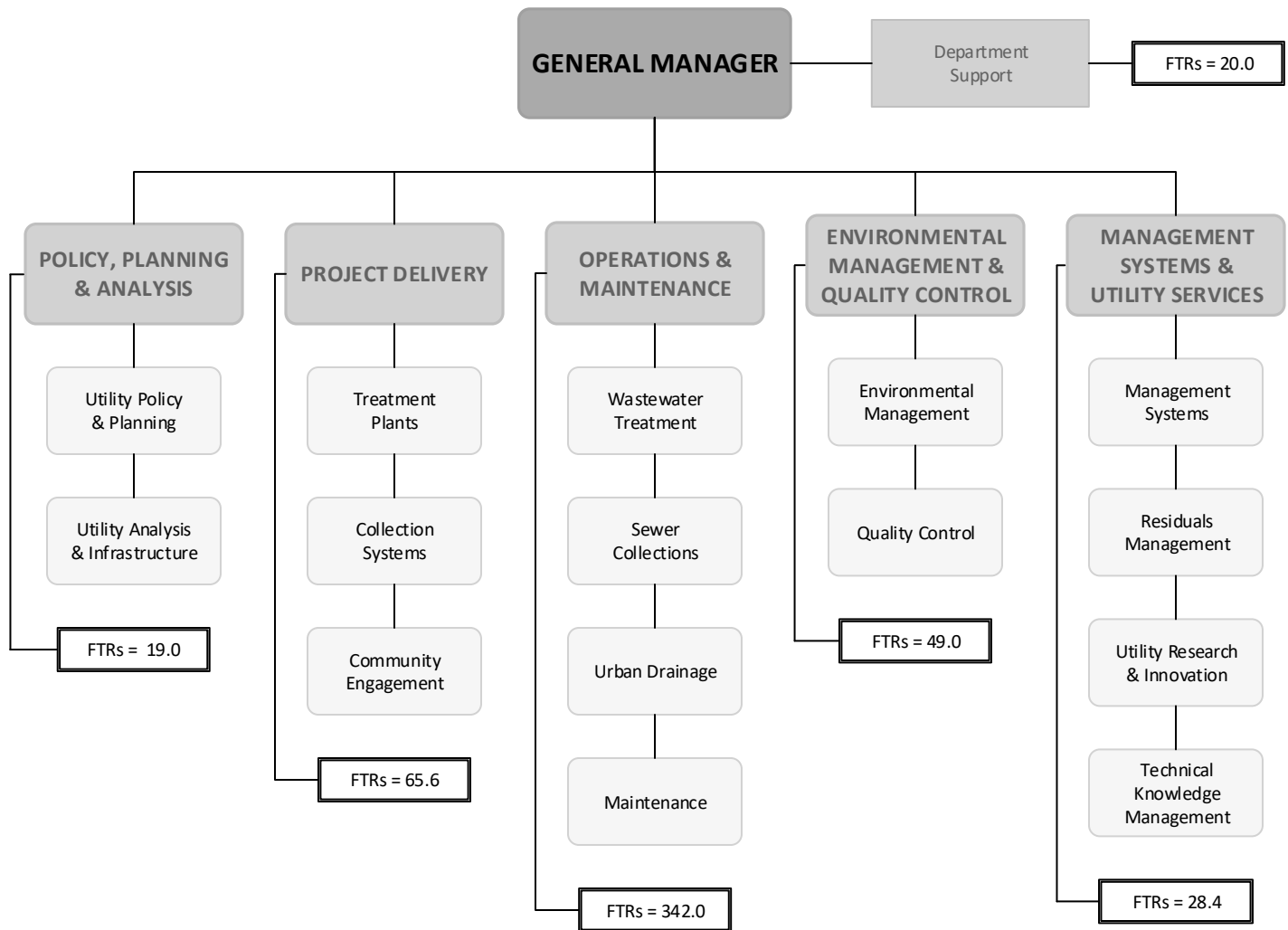
	2019	2020				2020	2021	2022	2023	2024
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Liquid Waste Services										
Biosolids Inventory Reserve	\$ 15,755,598	\$ 15,755,598	\$ 12,748,967	\$ (17,500,900)	\$ 267,593	\$ 11,271,258	\$ 6,416,596	\$ 3,222,199	\$ 740,986	\$ 755,806
Liquid Waste General Debt Reserve Fund	584,913	584,913	-	-	11,698	596,611	608,543	620,714	633,129	645,791
Lions Gate Contingency	971,157	971,157	-	-	19,423	990,580	1,010,391	1,030,599	1,051,211	1,072,235
Drainage General Reserve	5,175,408	5,175,408	-	(115,000)	102,358	5,162,766	5,240,771	5,320,337	5,401,493	5,484,273

STATUTORY RESERVES

	2019	2020				2020	2021	2022	2023	2024
	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	\$ 683,420	\$ 683,420	\$ 99,854	\$ (150,000)	\$ 13,167	\$ 646,440	\$ 762,340	\$ 882,720	\$ 1,007,679	\$ 1,135,854
Liquid Waste Sustainability Innovation Fund Reserve	16,125,078	16,125,078	1,127,000	(555,000)	328,222	17,025,300	18,236,426	19,582,874	21,112,802	22,673,328

Liquid Waste Services

2019



Liquid Waste Services
2019 Total FTRs = 525.0
2020 Proposed FTRs = 533.0

To: Regional Parks Committee

From: Ravi Chhina, General Manager, Parks and Housing Services
Mike Redpath, Director, Regional Parks

Date: October 9, 2019

Meeting Date: October 16, 2019

Subject: **2020 - 2024 Financial Plan – Regional Parks**

RECOMMENDATION

That the Regional Parks Committee endorse the 2020 - 2024 Financial Plan for Regional Parks as presented in the report “2020 - 2024 Financial Plan – Regional Parks” dated October 9, 2019 and forward it to the Board Budget Workshop on October 23, 2019 for consideration.

PURPOSE

To present the 2020-2024 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) and related functions.

This report focuses on the Regional Parks function and presents the 2020 annual budget and the updated five year plan for the years 2020 to 2024 for Committee consideration.

REGIONAL PARKS SERVICE

The Regional Parks service is a function of Metro Vancouver that protects a range of diverse natural landscapes and habitats, and connects residents with nature. The Service operates 22 regional parks, 2 ecological conservancy areas, 3 regional park reserves and 5 regional greenways. Protecting over 13,500 hectares of natural lands throughout the region, with 11.8 million visits in 2018, 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.

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. The regional parks system also protects green spaces.

- 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 regarding the role and value of regional parks.

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.

2020 BUDGET AND 2020 - 2024 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:

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

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 2020-2024 Regional Parks Financial Plan is included as Attachment 1. The 2020 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 2020 – 2024 are included in Attachment 4.

Operating Budget Highlights

The Regional Parks 2020 operating budget is proposed to increase by \$4,140,599 for a total budget of \$46,820,308 (Attachment 1). This increase is primarily due to an increase in the contribution to the parkland acquisition reserve of \$4.0M.

The 2020 operating budget includes the following key actions:

- Complete the Regional Greenways Plan
- Complete the Regional Parks Asset Management Plan
- Undertake an analysis of the Park Partnership Program
- Open the Sheep Paddocks Trail at Colony Farm Regional Park
- Seek Board adoption the Campbell Valley Regional Park Management Plan Update

There are no new full time regular positions proposed for 2020.

Over the next five years, the Regional Parks budget is expected to increase an average of \$5,569,987 or 10.6% per year. Adjusting for the additional increases in the contribution to the Regional Parks Land Acquisition Reserve in 2020 to 2024, the average increase per year is 3.5%. The allocation of centralized support costs to the Regional Parks function will be revisited during next year's budget cycle as a result of the increases in the contribution to the parkland acquisition reserve. In addition to those noted above, key projects through 2024 include:

- Implementing the *Regional Greenways Plan*
- Implementing system-wide initiatives to enhance natural areas and connect with local communities
- Developing capital fundraising opportunities with the Pacific Parklands Foundation to advance the Regional Parks Capital Program

Communications Program

The 2020 Regional Parks Communications Program of \$110,000 is focused on public consultations, multimedia work to build awareness of regional parks sub brand, increased bear aware education and the Parksfest annual event.

Capital Budget Highlights

The Regional Parks capital budget for 2020 is \$19.9 million (Attachment 2). The capital program is funded by reserve funds.

Highlights of capital projects planned or ongoing in 2020 include the following:

- Complete advanced design of Widgeon Marsh Regional Park
- Develop new service yard facilities at Capilano, Crippen, and Pacific Spirit Regional Parks
- Continued implementation of Grouse Mountain Regional Park Management Plan with upgrades to the BCMC and Grouse Grind Trails
- Pursue land acquisitions in support of *Regional Parks Land Acquisition 2050*
- Capital maintenance projects

The capital expenditure budget for 2020 - 2024 totals \$142.7 million 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
- Construction of the Belcarra South Picnic Area
- Development of Burns Bog Ecological Conservancy Area - Delta Nature Reserve
- Trail developments at Aldergrove, Tynehead, Campbell Valley and Pacific Spirit Regional Parks
- Pursue land acquisitions in support of *Regional Parks Land Acquisition 2050*
- Capital maintenance projects

Reserve Funds

The application of reserve funding in Regional Parks includes several operating initiatives which are delivered through consulting or contract services. In 2020, \$88,432 of such initiatives are funded from

reserves, which are in accordance with the Board *Operating, Statutory and Discretionary Reserves Policy*. The capital program for Regional Parks is fully funded from reserves. In 2020, \$8.3 million in reserve funding will be applied for capital development and maintenance projects. The 2020-2024 projected reserves for Regional Parks is included in Attachment 5.

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 2020 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 area of the region's sensitive ecosystems in Regional Parks

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 maintain the annual number of participants in Regional Park programming and number of volunteer hours. Modest increases in the amount of sensitive ecosystems located within regional parks are expected.

CONSISTENCY WITH THE 2019-2023 FINANCIAL PLAN

The updated five year financial plan has been developed to be consistent with the 2019-2023 financial plan except for the additional \$4.0 million contribution to the parkland acquisition reserve to be raised through the tax requisition. The MVRD Requisition for Regional Parks is projected to be \$44,842,070 for 2020, which is 9.3% higher than that projected for 2020 in the last planning cycle and is due to the additional contribution to the parkland acquisition reserve. The household impact of the Regional Parks function has increased over the prior year to now be just under \$40.

APPROVAL PROCESS

The proposed 2020-2024 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 2020 – 2024 Financial Plan and Annual Work Plan will be presented for consideration at the Board Budget Workshop on October 23, 2019.
- The Board will consider adoption of the 2020 Budget and endorsement of the 2020-2024 Financial Plan on November 1, 2019.

ALTERNATIVES

1. That the Regional Parks Committee endorse the 2020 - 2024 Financial Plan for Regional Parks as presented in the report "2020 - 2024 Financial Plan – Regional Parks" dated October 4, 2019 and forward it to the Metro Vancouver Regional District Board Budget Workshop on October 23, 2019 for consideration.

2. That the Regional Parks Committee make recommendations and endorse an amended 2020 - 2024 Financial Plan for the Regional Parks function and forward the amended Financial Plan to the to the Metro Vancouver Regional District Board Budget Workshop on October 23, 2019 for consideration.

FINANCIAL IMPLICATIONS

If the MVRD Board endorses the 2020 - 2024 Financial Plan for Regional Parks, as presented under Alternative 1, in 2020 the Regional Parks requisition will increase by \$4,610,986 (11.5%) for a total requisition of \$44,842,070.

Over the term of the five year plan, the annual Regional Parks requisition is projected to increase by an average of \$5,681,153 per year (11.3%) 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 just over \$36 in 2019 to just under \$58 in 2024.

Under Alternative 2, the Committee may wish to consider recommending amendments to the 2020 Budget and Five Year Financial Plan for consideration at the Board Budget Workshop. Any changes to the plan may have an impact on the MVRD Financial Plan.

SUMMARY / CONCLUSION

The Regional Parks 2020 Budget and five year financial plan has been prepared 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 2020 to 2024 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 2020 - 2024 Financial Plan and Annual Work Plan for Regional Parks as presented under alternative one.

Attachments (33000660)

1. 2020 – 2024 Financial Plan
2. 2020 – 2024 Capital Programs and Project Totals – Regional Parks
3. 2020 Work Plan
4. 2020 – 2024 “What’s Happening”
5. 2020 – 2024 Projected Reserves – Regional Parks
6. Organizational Chart

33000660

**METRO VANCOUVER REGIONAL DISTRICT
REGIONAL PARKS
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN**

ATTACHMENT 1

	2017 ACTUAL	2018 ACTUAL	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES													
Metro Vancouver Regional District Requisitions	\$ 33,916,446	\$ 38,455,889	\$ 40,231,084	\$ 44,842,070	11.5%	\$ 50,798,061	13.3%	\$ 56,617,549	11.5%	\$ 62,328,539	10.1%	\$ 68,636,849	10.1%
User Fees	1,100,093	1,016,796	1,043,741	837,586		827,416		836,791		846,253		848,684	
Other External Revenues	1,255,746	1,203,332	1,233,504	1,052,220		1,002,820		1,003,420		999,111		988,111	
Transfer from Reserves	264,698	1,216,380	171,380	88,432		188,860		56,000		56,000		56,000	
TOTAL REVENUES	\$ 36,536,983	\$ 41,892,397	\$ 42,679,709	\$ 46,820,308	9.7%	\$ 52,817,157	12.8%	\$ 58,513,760	10.8%	\$ 64,229,903	9.8%	\$ 70,529,644	9.8%
EXPENDITURES													
Operating Programs:													
Systems Planning and Engineering Services													
Planning and Research	\$ 989,426	\$ 1,011,785	\$ 1,123,834	\$ 1,072,532		\$ 1,091,073		\$ 1,242,329		\$ 1,263,987		\$ 1,347,407	
Engineering Services	1,095,159	1,189,179	1,303,096	1,331,710		1,354,867		1,379,758		1,402,149		1,433,878	
Engineers in Training	-	-	-	11,534		11,767		12,003		12,244		12,491	
	<u>2,084,585</u>	<u>2,200,964</u>	<u>2,426,930</u>	<u>2,415,776</u>	(0.5%)	<u>2,457,707</u>	1.7%	<u>2,634,090</u>	7.2%	<u>2,678,380</u>	1.7%	<u>2,793,776</u>	4.3%
Systems Visitor and Operations Services													
Visitor Services	1,572,085	1,208,883	1,752,235	1,487,643		1,503,354		1,541,559		1,558,144		1,575,030	
Operations Services	1,687,896	1,704,436	2,113,664	2,322,375		2,359,997		2,464,183		2,568,863		2,414,427	
	<u>3,259,981</u>	<u>2,913,319</u>	<u>3,865,899</u>	<u>3,810,018</u>	(1.4%)	<u>3,863,351</u>	1.4%	<u>4,005,742</u>	3.7%	<u>4,127,007</u>	3.0%	<u>3,989,457</u>	(3.3%)
Central Area Services													
Operations and Maintenance	3,695,141	3,890,216	4,809,481	5,091,071		5,406,193		5,577,407		5,782,359		5,865,979	
Area Visitor Services	609,202	600,584	672,698	587,941		632,322		639,880		675,269		686,911	
Area Management and Administration	482,528	511,551	541,978	664,277		676,868		689,644		702,700		716,029	
Area Resource Management	209,814	239,183	261,334	267,057		269,693		274,311		279,626		284,235	
Area Planning	170,125	126,842	154,031	156,992		159,441		161,926		164,465		167,057	
Burns Bog Ecological Conservancy Area	386,566	326,832	353,124	385,089		374,539		381,100		390,248		396,984	
Contribution to Reserve	-	-	23,000	23,000		23,000		23,000		23,000		23,000	
	<u>5,553,376</u>	<u>5,695,208</u>	<u>6,815,646</u>	<u>7,175,427</u>	5.3%	<u>7,542,056</u>	5.1%	<u>7,747,268</u>	2.7%	<u>8,017,667</u>	3.5%	<u>8,140,195</u>	1.5%
East Area Services													
Operations and Maintenance	3,760,080	4,709,839	4,189,494	4,272,463		4,383,506		4,452,357		4,544,081		4,654,883	
Area Visitor Services	628,666	639,509	706,235	625,382		653,766		664,115		674,673		685,460	
Area Management and Administration	522,322	528,333	552,500	673,314		686,011		698,897		712,066		725,512	
Area Resource Management	223,246	224,437	247,393	252,498		256,852		261,270		265,785		270,394	
Area Planning	127,452	136,692	152,091	153,962		156,411		158,896		161,435		164,027	
	<u>5,261,766</u>	<u>6,238,810</u>	<u>5,847,713</u>	<u>5,977,619</u>	2.2%	<u>6,136,546</u>	2.7%	<u>6,235,535</u>	1.6%	<u>6,358,040</u>	2.0%	<u>6,500,276</u>	2.2%
West Area Services													
Operations and Maintenance	4,855,648	5,258,433	4,008,383	4,047,668		4,120,254		4,192,167		4,268,433		4,344,526	
Area Visitor Services	628,007	624,408	702,524	689,289		717,376		729,570		742,013		754,565	
Area Management and Administration	740,414	695,079	812,988	942,647		955,491		968,526		981,845		995,444	
Area Resource Management	210,713	231,790	269,739	278,379		282,252		286,941		291,730		296,616	
Area Planning	118,635	163,456	149,721	152,592		155,041		157,526		160,065		162,657	
Contribution to Reserve	20,571	10,181	-	-		-		-		-		-	
	<u>6,573,988</u>	<u>6,983,347</u>	<u>5,943,355</u>	<u>6,110,575</u>	2.8%	<u>6,230,414</u>	2.0%	<u>6,334,730</u>	1.7%	<u>6,444,086</u>	1.7%	<u>6,553,808</u>	1.7%
Administration and Department Support	1,269,028	1,454,183	1,532,352	1,221,577	(20.3%)	1,252,362	2.5%	1,268,375	1.3%	1,504,737	18.6%	1,521,444	1.1%
Communications Program	79,267	53,450	110,000	110,000	0.0%	110,000	0.0%	110,000	0.0%	110,000	0.0%	110,000	0.0%
Utility Voice Radio	72,955	74,662	82,306	82,997	0.8%	84,386	1.7%	85,420	1.2%	86,503	1.3%	88,754	2.6%
Quality Control Allocated	51,803	47,706	51,385	53,591	4.3%	54,901	2.4%	57,735	5.2%	59,127	2.4%	59,941	1.4%
Allocation of Centralized Support Costs	3,383,278	3,703,078	3,898,216	3,610,728	(7.4%)	3,533,434	(2.1%)	3,482,865	(1.4%)	3,292,356	(5.5%)	3,219,993	(2.2%)
Total Operating Programs	<u>27,590,027</u>	<u>29,364,727</u>	<u>30,573,802</u>	<u>30,568,308</u>	0.0%	<u>31,265,157</u>	2.3%	<u>31,961,760</u>	2.2%	<u>32,677,903</u>	2.2%	<u>32,977,644</u>	0.9%
Debt Service	140,599	158,646	53,907	-	(100.0%)	-	0.0%	-	0.0%	-	0.0%	-	0.0%
Contribution to Capital Infrastructure Reserve	3,770,000	3,982,000	4,482,000	4,682,000		5,982,000		6,982,000		7,982,000		9,982,000	
Contribution to Parkland Acquisition Reserve	3,982,000	7,570,000	7,570,000	11,570,000		15,570,000		19,570,000		23,570,000		27,570,000	
	<u>7,752,000</u>	<u>11,552,000</u>	<u>12,052,000</u>	<u>16,252,000</u>	34.8%	<u>21,552,000</u>	32.6%	<u>26,552,000</u>	23.2%	<u>31,552,000</u>	18.8%	<u>37,552,000</u>	19.0%
TOTAL EXPENDITURES	\$ 35,482,626	\$ 41,075,373	\$ 42,679,709	\$ 46,820,308	9.7%	\$ 52,817,157	12.8%	\$ 58,513,760	10.8%	\$ 64,229,903	9.8%	\$ 70,529,644	9.8%

**METRO VANCOUVER REGIONAL DISTRICT
CAPITAL PROGRAMS AND PROJECT DETAILS
REGIONAL PARKS
2020-2024 FINANCIAL PLAN**

ATTACHMENT 2

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
CAPITAL EXPENDITURES							
Parks-Capital Replacement and Development							
Widgeon Marsh - New Park Development	\$ 1,400,000	\$ 3,000,000	\$ 3,000,000	\$ 1,500,000	\$ -	\$ 8,900,000	\$ 9,000,000
Capilano - New Service Yard	1,000,000	-	-	-	-	1,000,000	1,500,000
Crippen - New Service yard	750,000	-	-	-	-	750,000	750,000
Burns Bog - DNR Boardwalk	500,000	-	-	-	-	500,000	500,000
Pacific Spirit - Service Yard Replacement	350,000	-	-	-	-	350,000	480,000
Grouse - BCMC Realignment + Improvement	100,000	100,000	100,000	100,000	100,000	500,000	1,400,000
Pacific Spirit - Geotechnical Risk Mitigation	100,000	100,000	100,000	100,000	100,000	500,000	500,000
Colony Farm - Sheep Paddocks Trail Rebuild	100,000	100,000	-	-	-	200,000	3,450,000
Belcarra - Connection to Water	40,000	400,000	-	-	-	440,000	440,000
Aldergrove - Rock'n Horse Trail Connector	-	350,000	-	-	-	350,000	350,000
Derby Reach - Full Service Washroom	-	280,000	1,540,000	-	-	1,820,000	1,820,000
Tynehead - Perimeter Trail Connection	-	50,000	400,000	-	-	450,000	450,000
Pacific Spirit - Foreshore Trail Development	-	50,000	-	200,000	200,000	450,000	450,000
Campbell Valley - Replacement of Little River Loop Boardwalk	-	40,000	-	400,000	-	440,000	440,000
Deas Island - Floating Dock Replacement	-	30,000	300,000	-	-	330,000	330,000
Campbell Valley - Vine Maple Trail Improvements	-	25,000	250,000	-	-	275,000	275,000
Burnaby Lake - Nature House	-	-	200,000	-	-	200,000	2,200,000
Burns Bog Delta Nature Reserve Development	-	-	150,000	750,000	750,000	1,650,000	1,650,000
Campbell Valley - Maintenance Storage Facility Replacement	-	-	20,000	200,000	-	220,000	220,000
Crippen - Davies Orchard Cabins	-	-	-	1,000,000	1,000,000	2,000,000	2,000,000
Belcarra - Washroom Renovation / Replacement Picnic Area & White Pine	-	-	-	200,000	-	200,000	1,400,000
Campbell Valley - Nature House	-	-	-	200,000	-	200,000	2,200,000
Belcarra - South Picnic Area, Cabins	-	-	-	100,000	1,000,000	1,100,000	4,600,000
Grouse - Trailhead Development	-	-	-	70,000	250,000	320,000	320,000

**METRO VANCOUVER REGIONAL DISTRICT
CAPITAL PROGRAMS AND PROJECT DETAILS
REGIONAL PARKS
2020-2024 FINANCIAL PLAN**

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
Boundary Bay - Service Yard Improvements	-	-	-	50,000	350,000	400,000	400,000
Service Yard Program	-	-	-	20,000	200,000	220,000	220,000
DHAP Day Use Area Improvements	-	-	-	10,000	100,000	110,000	110,000
Campbell Valley - Park Development	-	-	-	-	200,000	200,000	1,700,000
Kanaka Creek - Cliff Falls Staging Area	-	-	-	-	60,000	60,000	630,000
Aldergrove - Flush Washroom BG005 Refurbishment	-	-	-	-	50,000	50,000	300,000
Kanaka - Parkway trail	-	-	-	-	50,000	50,000	450,000
Lynn Headwaters - Parking and Access Improvements	-	-	-	-	50,000	50,000	300,000
Lynn Valley - Water Intake Repair and Interp	-	-	-	-	50,000	50,000	450,000
Burns Bog - Fire Restoration	-	-	-	-	25,000	25,000	275,000
Pacific Spirit - Spanish Creek Interpretive Boardwalk	-	-	-	-	20,000	20,000	170,000
	\$ 4,340,000	\$ 4,525,000	\$ 6,060,000	\$ 4,900,000	\$ 4,555,000	\$ 24,380,000	\$ 41,730,000
Regional Parks Land Acquisition							
Regional Parks Land Acquisition	\$ 11,570,000	\$ 15,570,000	\$ 19,570,000	\$ 23,570,000	\$ 27,570,000	\$ 97,850,000	\$ 97,850,000
	\$ 11,570,000	\$ 15,570,000	\$ 19,570,000	\$ 23,570,000	\$ 27,570,000	\$ 97,850,000	\$ 97,850,000
Capital Maintenance Projects							
Capital Maintenance Projects	\$ 3,960,000	\$ 3,760,000	\$ 3,760,000	\$ 3,760,000	\$ 5,210,000	\$ 20,450,000	\$ 20,450,000
	\$ 3,960,000	\$ 3,760,000	\$ 3,760,000	\$ 3,760,000	\$ 5,210,000	\$ 20,450,000	\$ 20,450,000
TOTAL CAPITAL EXPENDITURES	\$ 19,870,000	\$ 23,855,000	\$ 29,390,000	\$ 32,230,000	\$ 37,335,000	\$ 142,680,000	\$ 160,030,000
CAPITAL FUNDING							
Reserve Funding	\$ 19,870,000	\$ 23,855,000	\$ 29,390,000	\$ 32,230,000	\$ 37,335,000	\$ 142,680,000	
	\$ 19,870,000	\$ 23,855,000	\$ 29,390,000	\$ 32,230,000	\$ 37,335,000	\$ 142,680,000	

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 22 regional parks, 2 ecological conservancy areas, 3 regional park reserves and 5 regional greenways. Protecting over 13,500 hectares of natural lands throughout the region, with 11.8 million visits in 2018, Regional Parks provides planning, operations, development, property acquisition, natural resource management, park maintenance, capital construction, bylaw enforcement, public relations, community stewardship, visitor services, nature education, interpretive programs and events.

Strategic directions and Board Strategic Plan goals supported:

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

Performance indicators

Indicator	Historical and/or industry benchmark	Current performance	2020 performance objective
Annual number of visits to regional parks	3 year average: 11,569,000 2018: 11,738,000 2017: 11,895,000 2016: 11,074,000	11,700,000	12,000,000 (300,000 additional visits or 2.5% higher than 2018)
Annual number of participants in regional park public programming	3-year average: 61,373 2018: 60,619 2017: 65,900 2016: 57,600	60,619	61,500 (reflects increased demand for public programming across the region)

Indicator	Historical and/or industry benchmark	Current performance	2020 performance objective
Annual number of volunteer hours through stewardship, partnership and visitor services programs	3-year average: 27,346 2018: 25,938 2017: 29,700 2016: 26,400	25,938	26,500
Total Area of the Region's sensitive ecosystems in Regional Parks	3 year average: 9,857 ha 2018: 9,644 2017: 9,988 2016: 9,939	9,065* ha	9,075 ha (anticipates modest land acquisitions for regional parkland)

*Decreases due to changes in the regional parks system boundary.

2020 key actions

Advancing Our Mission to "Protect & Connect"

- Complete advanced design for Widgeon Marsh Regional Park and begin implementation of park improvements
- Seek MVRD Board adoption of the Regional Greenways Plan
- Open the Sheep Paddocks Trail at Colony Farm Regional Park
- Complete Capilano Regional Park service yard relocation
- Complete Crippen Regional Park service yard redevelopment
- Continue implementation of the Grouse Mountain Regional Park management plan with upgrades to the BCMC and Grouse Grind Trail, signage and wayfinding improvements
- Opening of the Nature Discovery Area - Trail and Wetland at Aldergrove Regional Park
- Completion and MVRD Board adoption of the Campbell Valley Regional Park Management Plan Update
- Explore opportunities for working cooperatively with local municipalities, other levels of government and First Nations on Regional Parks initiatives
- Open the Sapperton Landing improvements in New Westminster along the Brunette Fraser Regional Greenway
- Pursue park land negotiations and acquisitions in support of the *Regional Parks Land Acquisition 2050*
- Implementation of new volunteer management software, stabilize and advance the volunteer services function within Regional Parks.

2020 to 2024 – 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
2020		
Capital Development	<ul style="list-style-type: none"> Upgrades to service yards at Crippen, Pacific Spirit and Capilano Regional Parks. Commencement of Widgeon Marsh Park base development (detailed design). Upgrades to Grouse Grind and BCMC Trail. 	Regional Growth System Stewardship
Regional Greenways Strategy	<ul style="list-style-type: none"> Completion of a Regional Recreational Greenways Plan 	Regional Growth
Asset Management Plan	<ul style="list-style-type: none"> Completion of Regional Parks Asset Management Plan 	Financial Sustainability/ System Stewardship
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. 	Regulation and Legislative Environment/System Stewardship
Review of Park Partnership Program	<ul style="list-style-type: none"> Complete an analysis of the Park Partnership Program 	Financial Sustainability/ System Stewardship
Land Acquisition	<ul style="list-style-type: none"> Pursue park land acquisition opportunities in support of Regional Parks Land Acquisition 2050 strategies 	Regional Growth
2021		
Capital Development Program	<ul style="list-style-type: none"> Widgeon Marsh new park development Aldergrove Regional Park new trail development 	System Stewardship Regional Growth
Outreach and Engagement	<ul style="list-style-type: none"> Explore opportunities for working with local First Nations on Regional Parks initiatives Implementation of system-wide initiatives to enhance natural areas and connect with local communities 	Regulation and Legislative Environment/System Stewardship
Regional Greenways Strategy	<ul style="list-style-type: none"> Regional Greenways Strategy implementation 	Regional Growth
Land Acquisition	<ul style="list-style-type: none"> Pursue park land acquisition opportunities in support of Regional Parks Land Acquisition 2050 strategies 	Regional Growth
2022		
Capital Development Program	<ul style="list-style-type: none"> Widgeon Marsh new park development Construction of full services washrooms at the Derby Reach day use area 	System Stewardship Regional Growth

Land Acquisition	<ul style="list-style-type: none"> Pursue park land acquisition opportunities in support of Regional Parks Land Acquisition 2050 strategies 	Regional Growth
Outreach and Engagement	<ul style="list-style-type: none"> Explore opportunities for working with local First Nations on Regional Parks initiatives. Implementation of system-wide initiatives to enhance natural areas and connect with local communities 	Regulation and Legislative Environment/System Stewardship
2023		
Capital Development Program	<ul style="list-style-type: none"> Phase 1 Construction of Davies Orchard Precinct at Crippen Regional Park. Phase 1 Construction of Delta South Surrey Greenway and Delta Nature Reserve. Campbell Valley Nature Centre planning 	System Stewardship Regional Growth
Land Acquisition	<ul style="list-style-type: none"> Pursue park land acquisition opportunities in support of Regional Parks Land Acquisition 2050 strategies 	Regional Growth
Outreach and Engagement	<ul style="list-style-type: none"> Explore opportunities for working with local First Nations on Regional Parks initiatives. Implementation of system-wide initiatives to enhance natural areas and connect with local communities. 	Regulation and Legislative Environment/System Stewardship
2024		
Capital Development Program	<ul style="list-style-type: none"> Phase 2 Construction of Davies Orchard Precinct at Crippen Regional Park. Phase 1 Construction of Belcarra South at Belcarra Regional Park. 	System Stewardship Regional Growth
Land Acquisition	<ul style="list-style-type: none"> Pursue park land acquisition opportunities in support of Regional Parks Land Acquisition 2050 strategies. 	Regional Growth
Outreach and Engagement	<ul style="list-style-type: none"> Explore opportunities for working with local First Nations on Regional Parks initiatives. Implementation of system-wide initiatives to enhance natural areas and connect with local communities. 	Regulation and Legislative Environment/System Stewardship

METRO VANCOUVER DISTRICTS
2020-2024 PROJECTED RESERVES - REGIONAL PARKS

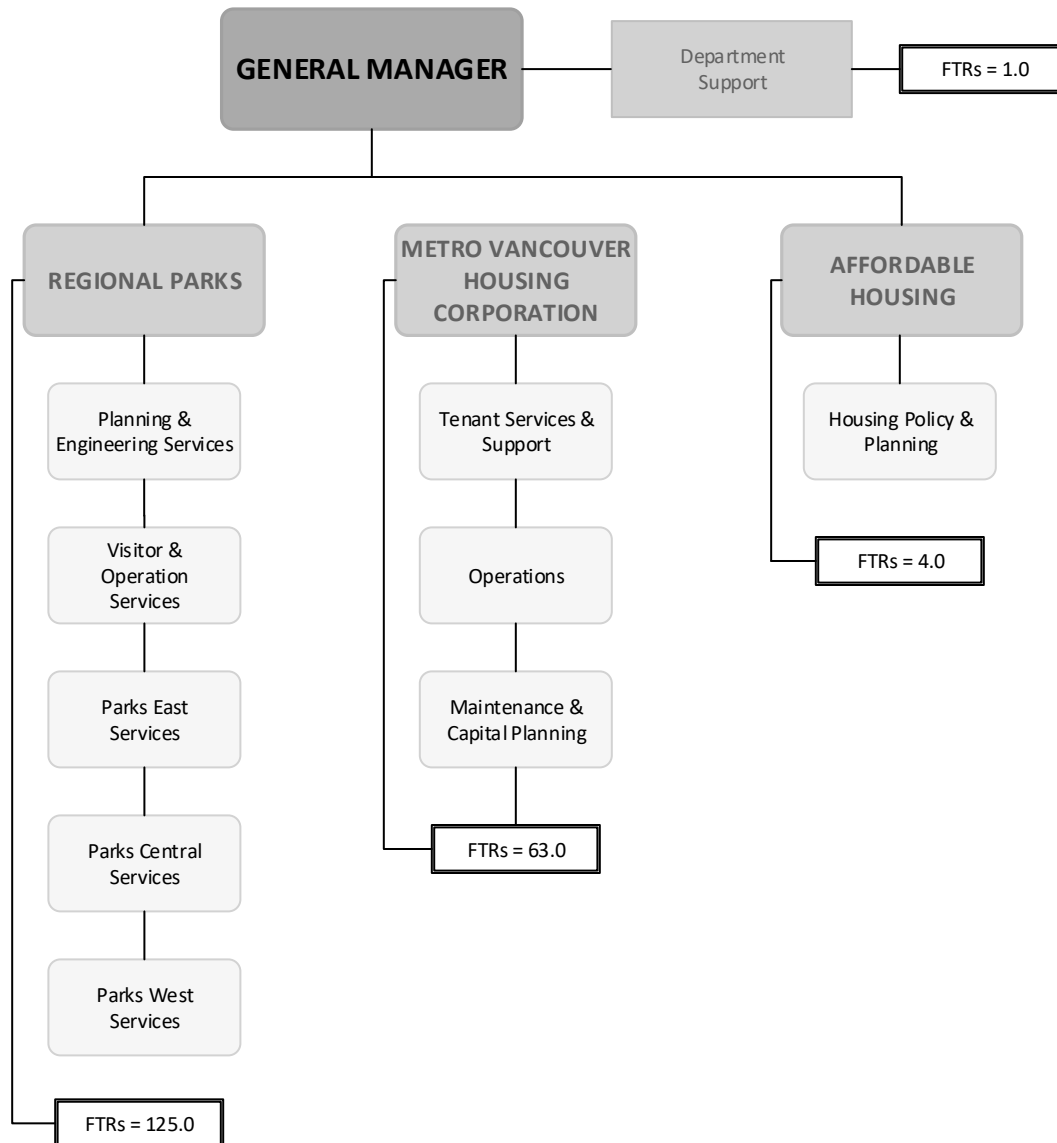
OPERATING RESERVES

	2019 ENDING BALANCE	2020 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2020 ENDING BALANCE	2021 ENDING BALANCE	2022 ENDING BALANCE	2023 ENDING BALANCE	2024 ENDING BALANCE
Regional Parks	\$ 1,518,192	\$ 1,518,192	\$ -	\$ (21,109)	\$ 30,457	\$ 1,527,540	\$ 1,527,265	\$ 1,562,108	\$ 1,596,938	\$ 1,632,745

STATUTORY RESERVES

	2019 ENDING BALANCE	2020 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2020 ENDING BALANCE	2021 ENDING BALANCE	2022 ENDING BALANCE	2023 ENDING BALANCE	2024 ENDING BALANCE
Regional Parks										
Regional Parks Infrastructure Reserve	\$ 3,804,230	\$ 3,804,230	\$ 4,682,000	\$ (8,332,432)	\$ 39,580	\$ 193,378	\$ 1,078,107	\$ 1,579,419	\$ 2,762,407	\$ 3,363,055
Regional Parkland Acquisition Reserve Fund	15,071,350	15,071,350	11,570,000	(11,570,000)	301,427	15,372,777	12,650,232	9,873,237	8,555,702	8,726,816
Delta Airpark Reserve	100,795	100,795	23,000	-	2,246	126,041	151,792	178,057	204,849	232,176
Regional Parks Legacy Fund	2,681,864	2,681,864	-	(56,000)	53,077	2,678,941	2,675,960	2,672,919	2,669,817	2,666,654

2019



To: Regional Planning Committee

From: Heather McNell, Director of Regional Planning and Electoral Area Services

Date: October 4, 2019

Meeting Date: October 11, 2019

Subject: **2020 - 2024 Financial Plan – Regional Planning**

RECOMMENDATION

That the Regional Planning Committee endorse the 2020 - 2024 Financial Plan for Regional Planning as presented in the report titled “2020 - 2024 Financial Plan – Regional Planning” dated October 4, 2019 and forward it to the Metro Vancouver Regional District Board Budget Workshop on October 23, 2019 for consideration.

PURPOSE

To present the 2020-2024 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) and related functions.

This report focuses on the Regional Planning function and presents the 2020 annual budget and the updated five year plan for the years 2020 to 2024 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, development, implementation and monitoring 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: Growth Management and Transportation, Planning Analytics and Environment.

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 change, 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 Metro 2040, 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.

2020 BUDGET AND 2020 - 2024 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:

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

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 2020-2024 Regional Planning Financial Plan is included as Attachment 1. The 2020 Annual Work Plan for Regional Planning presented in this report is included in Attachment 2 and the “What’s Happening” highlights for the years 2020 – 2024 are included in Attachment 3.

Operating Budget Highlights

The Regional Planning 2020 operating budget is proposed to increase by \$106,706 for a total budget of \$3,763,393 (Attachment 1). This increase is primarily due to the addition of one full time permanent staff member in the Environment program to act as a liaison between Metro Vancouver staff and external agency staff at various levels on external projects that impact Metro Vancouver assets, operations, interests, and legislated responsibilities. There is a partially offsetting decrease relating to Sustainability Innovation Fund projects that were only budgeted for in 2019.

The 2020 operating budget includes the following key actions:

- Update *Metro 2040* – Phase I Completion - Policy reviews and draft policy actions
- Complete the Urban Centres and FTDAs, Industrial and Mixed Employment, Agricultural, Environment, Transportation, Housing, and Climate Change Policy Review
- Regional Industrial Land Strategy
- 2020 Regional Industrial Land Inventory
- New Land Use Model – Phase I
- Equity in Regional Growth Management Study – Phase 2
- Frequent Transit Corridor Study
- Where Matters Phase 2: Performance Based Land Use for Health and Economic Benefits
- Access to Homeownership Opportunities and development of Housing Agreement Templates
- Climate Change Land Use Research
- Transit Oriented Affordable Housing Study – Phase 3
- Advance a Transit Oriented Affordable Housing Fund; update the Housing and Transportation Cost Burden analysis
- Ecosystem Services from Agricultural Land
- Regional Connectivity and Protecting Urban Ecological Areas
- Climate Change Impacts on Invasive Species
- Urban Forestry – Best Practices

As noted above, there is one new full-time staff position proposed for 2020, a Policy Coordinator in the Environment Program intended to coordinate Metro Vancouver comments, and ensure a consistent approach when addressing external agency projects that have impacts on Metro Vancouver assets, operation, interests and legislated responsibilities (external agencies such as Translink, Port of Vancouver, Ministry of Transportation and Infrastructure).

Over the next five years, expenditures are increasing by a total of \$250,525, or an average of 1.4% per year. In addition to those noted above, key projects through 2024 include:

- Develop a New Land Use Model – Phase 2 Demographics Module to support updated population, dwelling unit, employment and land use projections (2021)
- Performance monitoring on *Metro 2040* (2021-2024)
- Update the Regional Parking Study (2021)
- Completion of five year updates to 3 regional land use inventories including:
 - Sensitive Ecosystem Inventory (2021)
 - Agricultural Land Use Inventory (2021)
 - Office in Centres Inventory (2022)
- Complete series of Census Bulletins as data becomes available (2022)
- Complete comprehensive update to the Regional Growth Strategy (2022)
- Complete a Regional Land Use Assessment (2022-2023).

Communications Program

The 2020 Regional Planning Communications Program of \$80,000 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
- Stakeholder engagement activities regarding, Regional Industrial Lands Strategy, Metro 2050, and other forums including venues, catering, speakers, etc.
- Engagement and/or public opinion support/media for Metro 2050 communications and regional planning initiatives.

Reserve Funds

The financial plan for Regional Planning includes the utilization of reserves to annually fund one-time initiatives. This is consistent with the *Operating, Statutory and Discretionary Reserves Policy*.

The 2020 – 2024 Projected Reserves for Regional Planning are included in Attachment 4.

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 2020 Work Plan for Regional Planning is presented in this report. Within the Regional Planning Work Plan, five performance indicators have been developed and are being tracked. These include:

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

CONSISTENCY WITH THE 2019-2023 FINANCIAL PLAN

The updated five year financial plan has been developed to be consistent with the 2019-2023 financial plan. The MVRD Requisition for Regional Planning is projected to be \$3,348,393 for 2020, which is 5.3% higher than that projected for 2020 in the last planning cycle and is primarily due to the additional position which was not contemplated in the 2019 – 2023 financial Plan. The household impact of the Regional Planning function remains consistent with the prior year at just under \$3.

APPROVAL PROCESS

The proposed 2020-2024 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 2020 – 2024 Financial Plan and Annual Work Plan will be presented for consideration at the Board Budget Workshop on October 23, 2019.

- The Board will consider adoption of the 2020 Budget and endorsement of the 2020 - 2024 Financial Plan on November 1, 2019.

ALTERNATIVES

1. That the Regional Planning Committee endorse the 2020 - 2024 Financial Plan for the Regional Planning as presented in the report “2020 - 2024 Financial Plan – Regional Planning” dated October 2, 2019 and forward it to the Metro Vancouver Regional District Board Budget Workshop on October 23, 2019 for consideration.
2. That the Regional Planning Committee make recommendations and endorse an amended 2020 - 2024 Financial Plan for Regional Planning and forward the amended Financial Plan to the Finance and Intergovernment Committee on October 16, 2019 and to the Metro Vancouver Regional District Board Budget Workshop on October 23, 2019 for consideration.

FINANCIAL IMPLICATIONS

If the MVRD Board endorses the 2020 – 2024 Financial Plan for Regional Planning, as presented under Alternative 1, in 2020 the Regional Planning requisition will increase by \$240,661 (7.7%) for a total requisition of \$3,348,393.

Over the term of the five year plan, the annual Regional Planning requisition is projected to increase by an average of \$143,896 per year (4.3%) 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 Regional Planning function will rise from just under \$3 in 2019 to slightly over \$3 in 2024.

Under Alternative 2, the Committee may wish to consider recommending amendments to the 2020 Budget and Five Year Financial Plan for consideration at the Board Budget Workshop. Any changes to the plan may have an impact on the MVRD Financial Plan.

SUMMARY / CONCLUSION

The Regional Planning 2020 Budget and Five Year Financial Plan has been prepared 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 2020 to 2024 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 2020 - 2024 Financial Plan and Annual Work Plan for Regional Planning as presented under alternative one.

Attachments:

1. 2020 – 2024 Financial Plan (Doc. 32935931)
2. 2020 Work Plan (Doc. 31667791)
3. 2020 – 2024 “What’s Happening”
4. 2020 – 2024 Projected Reserves – Regional Planning
5. Organizational Chart

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METRO VANCOUVER REGIONAL DISTRICT
REGIONAL PLANNING
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN

	2017 ACTUAL	2018 ACTUAL	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES													
Metro Vancouver Regional District Requisitions	\$ 2,944,465	\$ 2,842,450	\$ 3,107,732	\$ 3,348,393	7.7%	\$ 3,528,867	5.4%	\$ 3,742,497	6.1%	\$ 3,815,795	2.0%	\$ 3,827,212	0.3%
Transfer from Sustainability Innovation Fund Reserve	83,187	71,045	128,955	-		-		-		-		-	
Transfer from Reserves	89,137	206,472	420,000	415,000		423,000		100,000		80,000		80,000	
TOTAL REVENUES	\$ 3,116,789	\$ 3,119,967	\$ 3,656,687	\$ 3,763,393	2.9%	\$ 3,951,867	5.0%	\$ 3,842,497	(2.8%)	\$ 3,895,795	1.4%	\$ 3,907,212	0.3%
EXPENDITURES													
Operating Programs:													
Environment	\$ 466,667	\$ 483,735	\$ 775,070	\$ 931,329		\$ 1,064,194		\$ 951,274		\$ 966,681		\$ 982,417	
Growth Management and Transportation	961,044	1,173,488	1,360,783	1,197,824		1,226,548		1,251,643		1,301,050		1,292,870	
Planning Analytics	429,294	483,213	538,966	713,799		719,946		702,271		714,863		717,722	
Regional Sustainability Initiatives	83,187	71,045	128,955	-		-		-		-		-	
Administration and Department Support	473,163	376,084	511,277	555,254		566,473		577,877		589,529		601,438	
	2,413,355	2,587,565	3,315,051	3,398,206	2.5%	3,577,161	5.3%	3,483,065	(2.6%)	3,572,123	2.6%	3,594,447	0.6%
Communications Program	53,645	59,341	80,000	80,000	0.0%	80,000	0.0%	70,000	(12.5%)	70,000	0.0%	70,000	0.0%
Allocation of Centralized Support Costs	236,612	286,416	261,636	285,187	9.0%	294,706	3.3%	289,432	(1.8%)	253,672	(12.4%)	242,765	(4.3%)
TOTAL EXPENDITURES	\$ 2,703,612	\$ 2,933,322	\$ 3,656,687	\$ 3,763,393	2.9%	\$ 3,951,867	5.0%	\$ 3,842,497	(2.8%)	\$ 3,895,795	1.4%	\$ 3,907,212	0.3%

REGIONAL PLANNING

Description of services

Regional Planning is a Metro Vancouver Regional District function established to provide data, policy research, convene on issues of common concern, advocacy, and planning support towards 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: Growth Management and Transportation; Planning Analytics and Environment.

Growth Management and Transportation

Growth Management is primarily responsible for developing, administering, and implementing Metro 2040. There are a number of portfolios within this group including: shaping growth, complete communities; industrial and employment lands; housing affordability and diversity, and integrated land use and transportation planning.

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.

Environment

This activity supports Metro 2040 environment and climate change policies as well as broader ecological health and environment issues. The group also addresses the agriculture and food systems portfolio.

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*;
- Continue to support the efforts of members in developing complete, livable and resilient 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.

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

Performance indicators

Indicator	Historical and/or industry	Current Performance	2020 Performance Objective
Percentage of residential growth occurring within the Urban Containment Boundary (UCB)	Baseline: 97% 2016 review: 98%	98%	98%
Percentage of new dwelling units located within Urban Centres	Target 40% of growth to Urban Centres Baseline: 26% of units located in Urban Centres	39% of growth to Centres 28% of units located in Centres	40%
Number of hectares of land with a Metro 2040 Agricultural Designation	Baseline: 55,313	2018: 55,210	No net loss
Number of hectares of land with a Metro 2040 Industrial Designation	Baseline: 10,195	2018: 10,140	No net loss
Number of hectares of land with a Metro 2040 Mixed Employment Designation	Baseline: 3,415	2018: 3,370	No net loss

2020 key actions

Guidance – Provide a summary of key activities or initiatives for the year. Avoid listing regular ongoing activities e.g. Complete Year-end Financial Statements, that would already be part of the description of services noted above.

Growth Management and Transportation

- Undertake a comprehensive update to Metro 2040 – Phase I Completion - Policy Reviews and beginning to draft policy actions for Metro 2050
- Complete 7 Metro 2040 Policy Reviews: Urban Centres and FTDA's, Industrial and Mixed Employment, Agricultural, Environment, Transportation, and Housing
- Adopt the Regional Industrial Land Strategy
- Regional Industrial Land Strategy Implementation – Exploring Intensification and Defining Trade Enabling Lands
- Complete the 2020 Regional Industrial Land Inventory
- Complete the Equity in Regional Growth Management Study – Phase 2
- Complete the third Frequent Transit Corridor Study – Location TBD
- Participate in Where Matters Phase 2: Performance Based Land Use for Health and Economic Benefits
- Undertake Priority Housing Research including: Access to Homeownership Opportunities, and Housing Agreement Templates
- Metro 2040 Climate Resiliency – Identifying adaptation risks and best practices
- Complete the Transit Oriented Affordable Housing Study – Phase 3
- Update the Housing and Transportation Cost Burden Study

Environment

- Explore Invasive Species' Response to Climate Change
- Complete Urban Forest Best Practices for Tree Replacement, Canopy Cover Targets, Tree Bylaws and Ecosystem Services Assessments
- Explore Regional Connectivity and the Protection of Urban Ecological Areas
- Explore Ecosystem Services on Agricultural Land

Planning Analytics

- Develop a New Land Use Model – Phase I Land Use Component to support updated population, dwelling unit, employment and land use projections
- Update Regional Population, Dwelling Unit, Employment and Land Use Projections for Metro 2050
- Land Utilization Monitoring and Modeling
- Data acquisition and analysis

2020 to 2024 – 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
2020		
Comprehensive update to Metro 2040	Update <i>Metro 2040</i> , building on its strengths. Being undertaken to consider significant drivers of change, integrate with the update to the Regional Transportation Strategy, and implement policy improvements. Phase I Completion - Policy Reviews and beginning to draft policy actions and update mapping.	Regional Growth
Complete the Regional Industrial Land Strategy	Work led by the Industrial Land Strategy Task Force to develop a strategy to ensure sufficient industrial land to meet the needs of a growing and evolving economy to 2050.	Regional Growth
Develop a New Land Use Model	Phase I - Land Use Component. Being developed to improve population, dwelling unit, employment and land use projections, provide more accurate municipal distribution, and improve the ability to model land use implications of significant infrastructure investments and policy portfolios. Will provide an improved platform for integration with the Regional Travel and Utility modelling.	Regional Growth and Financial Sustainability
Transit Oriented Affordable Housing Study – Phase 3	Intended to assemble the research findings from Phases 1 and 2 and communicate them to practitioners and decision makers via an integrated TOAH calculator, workshops and summit.	Regional Growth
2021		
Develop a New Land Use Model	Phase 2 – Integrate the Demographics Component to support updated population, dwelling unit, employment and land use projections.	Regional Growth and Financial Sustainability
Draft Metro 2050	Have draft of the update to the regional growth strategy completed for comment in Q1 and then for adoption in Q3-4	Regional Growth
Sensitive Ecosystem Inventory	Complete five year update to this critical regional resource.	Environmental Sustainability
2022		
Metro 2050	Complete the update to the regional growth strategy through Board and affected local government adoption.	Regional Growth
Regional Land Use Assessment	Complete a Regional Land Use Assessment as part of the implementation of the regional growth strategy.	Regional Growth
2023		

Update Census data purchases of custom geographies and prepare Bulletin Series	Metro Vancouver is a trusted data and analytics resource for member jurisdictions and provides updated data and reports as available post Census.	Regional Growth
2024		
Policy Research	Continued policy research to support decision makers and practitioners in Regional Planning portfolios including: shaping growth, housing, transportation, complete communities, industrial and employment lands, agriculture, environment, and climate change. Areas of research respond to identified Committee and Board priorities.	Regional Growth Environmental Sustainability

METRO VANCOUVER DISTRICTS
2020-2024 PROJECTED RESERVES - REGIONAL PLANNING

OPERATING RESERVES

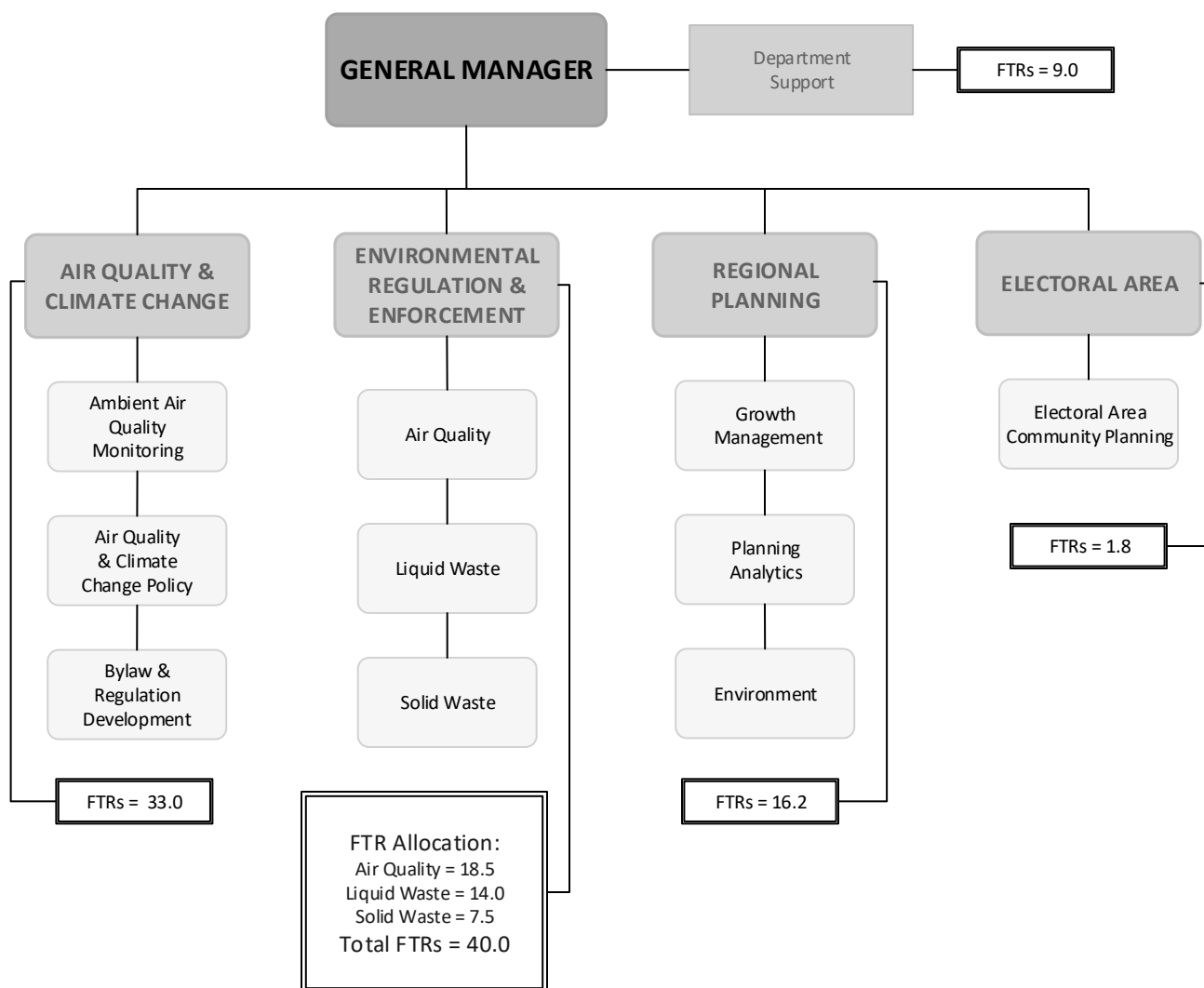
	2019 ENDING BALANCE	2020 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2020 ENDING BALANCE	2021 ENDING BALANCE	2022 ENDING BALANCE	2023 ENDING BALANCE	2024 ENDING BALANCE
Regional Planning	\$ 158,663	\$ 158,663	\$ 3,845	\$ -	\$ 3,244	\$ 165,753	\$ 169,910	\$ 178,858	\$ 174,153	\$ 178,606

DISCRETIONARY RESERVES

	2019 ENDING BALANCE	2020 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2020 ENDING BALANCE	2021 ENDING BALANCE	2022 ENDING BALANCE	2023 ENDING BALANCE	2024 ENDING BALANCE
Regional Planning										
Regional Planning General Reserve	\$ 3,444,709	\$ 3,444,709	\$ -	\$ (415,000)	\$ 64,744	\$ 3,094,454	\$ 2,729,113	\$ 2,682,695	\$ 2,655,549	\$ 2,627,860



2019



Planning and Environment
 2019 Total FTRs = 101.0
 2020 Proposed FTRs = 101.0

To: Water Committee

From: Tim Jervis, General Manager, Water Services

Date: October 2, 2019

Meeting Date: October 17, 2019

Subject: **2020 - 2024 Financial Plan – Water Services**

RECOMMENDATION

That the Water Committee endorse the 2020 - 2024 Financial Plan for Water Services as presented in the report “2020 - 2024 Financial Plan – Water Services” dated October 2, 2019 and forward it to the Board Budget Workshop on October 23, 2019 for consideration.

PURPOSE

To present the 2020-2024 Financial Plan for Water Services for consideration by the Committee.

BACKGROUND

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

This report focuses on Water Services and presents the 2020 annual budget and the updated five-year plan for the years 2020 to 2024 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 2.5 million. Drinking water is collected from within three protected mountain watersheds covering an area of approximately 60,000 hectares. The system itself comprises six mountain storage lakes, five dams, two major water treatment facilities, over 520 km of large diameter transmission mains, 26 storage reservoirs, 19 pump stations and 8 rechlorination stations. The system treats and distributes an average of 1.0 billion litres of water per day.

Water Services initiatives planned over the next five years are guided by direction provided in the *2019-2022 Board Strategic Plan* and in the *2011 Drinking Water Management Plan*, specifically:

Board Strategic Plan:

- Maintain Metro Vancouver’s world-class water system that provides safe, clean drinking water and ensure its capacity to meet future needs.
- Ensure the long-term resilience of the regional drinking water system to withstand natural hazards, climate change and other significant disruptions.

- Develop and implement financial plans and policies that reflect a commitment to sound financial management and long-term planning, in consideration of current and future ratepayers.
- 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

2020 BUDGET AND 2020 - 2024 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:

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

Attached are the 2020 - 2024 Water Services Financial Plan Operating Budget Summary (Attachment 1) along with the 2020 - 2024 Water Services Capital Budget Summary (Attachment 2).

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 2020 Annual Work Plans for the Water Services budget presented in this report are included in Attachment 3 and the “What’s Happening” for Water Services for the years 2020 – 2024 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). It is proposed to increase by \$18.4 million in 2020 for a total budget of \$309.1 million (Attachment 1). This increase can essentially be attributed to contribution to capital, to support infrastructure investments required to meet service requirements, growth demands and resilience upgrades.

The 2020 operating budget includes the following key actions:

- Continue to collaborate with GVWD members to implement the new Region-wide Guide for Enforcement of Metro Vancouver's Drinking Water Conservation Plan.

- Secure water licence(s) for the additional water allocation from the Coquitlam source, as per the Coquitlam Water Use Plan, following execution of the new BC Hydro/GVWD Water Use Agreement
- Continue development of a Facility Master Plan that aligns with Metro Vancouver's Water Supply Outlook 2120.
- Continue development of an updated Drinking Water Management Plan.
- Continue to develop Asset Management Program for Water Services including Asset Assessment Plans and individual facility Asset Management Plans.
- Continue implementation of the Water Services Environmental Management System in addressing prioritized regulatory compliance and environmental risks.
- Complete fish stranding study downstream of Seymour Falls Dam in accordance with the approved Joint Water Use Plan.
- Complete Level 2 asset condition assessments for select water main marine crossings and critical line valve chambers in accordance with the Water Services Asset Management Plan.
- Develop an energy use dashboard for the Capilano Raw Water Pump Station to track and manage energy use and optimize operation.
- Conduct a screening level business case for the phased installation of in-line chlorine meters in the water transmission system.
- Coordinate interagency work for Pattullo Bridge Replacement project, Broadway Subway project and the Surrey/Langley Skytrain project.

Highlights of contracts and consulting projects anticipated to be undertaken in 2020 to respond to work plan requirements within the operating budget include the following:

- Development of Water Services Asset Management Plan (\$272,000)
- Operations Support for Water Main Condition Assessments and proximal works designs (\$244,000)
- Dam Monitoring Review Activities (\$230,000)
- SCFP minor improvements (\$190,000)
- Cleveland Dam East Abutment Replacement Piezometers (\$150,000)
- Cleveland Dam East Abutment ADAS Control System Replacement (\$140,000)
- Development and implementation of an ISO 14001 compliant Environmental Management System in collaboration with Liquid Waste Services (\$125,000)
- Reservoir Limnology Program (\$125,000)
- Drinking Water Management Plan update (\$120,000)
- Operations, maintenance and data approval of the Water Services network of hydrometric stations by Water Survey Canada. (\$105,000)
- Long term water supply strategy development and associated Facility Master Plan (\$100,000)
- Coordination of Provincial water licencing pertaining to the new BC Hydro/GVWD Water Use Agreement and the Coquitlam Intake No. 2 project (\$75,000).
- Benchmarking and Performance Indicator Development (\$55,000)
- Control Systems Specialist to optimize SCADA system communications (\$50,000)
- Technical analyses and advice for the Water Quality program (\$50,000)

In 2020, Water Services is proposing to add 5 new full-time staff positions. These include 2 Senior Project Engineers dedicated to complete key tasks supporting Water Services' Asset Management Program, 1 Utility System Operator II supporting field operations along with condition assessments of water transmission infrastructure assets as part of Water Services' Asset Management Program, 1 Engineering Technician II supporting environmental compliance reporting requirements, and 1 Senior Project Engineer supporting backup power related project works. As well, 1 Trades Foreman supporting ongoing maintenance work at the Seymour Capilano Filtration Plant is proposed to be added to the shared services provided by Liquid Waste.

Over the next five years, the Water Services budget is expected to increase an average of \$29.7 million or 8.6% per year. Of this overall increase, funding related to the expanding capital program (debt servicing and contribution to the capital) is increasing \$26.8 million on average over the next five years leaving the operating programs which are increasing, on average, by \$2.9 million per year, roughly at the rate of inflation.

Communications Program

The 2020 Water Services Communications Program of \$450,000 is primarily framed around the Regional Water Conservation Campaign (\$300,000) and the Water Wagon Program (\$150,000).

Capital Budget Highlights

The Water Services capital budget for 2020 is \$397.5 million (Attachment 2). The capital program is funded by a combination of long-term debt, contributions from the operating budget, and external (interagency) contributions.

Highlights of capital projects planned or ongoing for 2020 include the following:

- Commence Coquitlam Intake No. 2 Project Preliminary Design
- Continue design of Coquitlam Main No. 4
- Continue construction of Second Narrows Water Supply Tunnel
- Complete detailed design of Annacis Water Supply Tunnel and begin construction phase
- Complete construction of Mackay Creek Debris Flow Mitigation project
- Continue construction of Kennedy-Newton Main (Phase 1)
- Complete design of Annacis Main No. 5 (South)
- Complete construction of South Delta Main No. 1 Replacement (Phase 3)
- Commence construction of Capilano Raw Water Pump Station Backup Power
- Continue design of Capilano Main No. 5 (Stanley Park Section)
- Commence construction of Fleetwood Reservoir
- Complete construction of Jericho Reservoir
- Continue construction of Port Mann Main No. 2 (South)
- Continue construction of Whalley Main
- Commence construction of Douglas Road Main No. 2 (Still Creek Section)
- Complete construction of Central Park Main No. 2 (Phase 1) and
- Continue conceptual design of Cambie-Richmond Main No. 3 (Marine Crossing).

The capital expenditure budget for 2020 – 2024 totals \$2.41 billion, an average of \$481 million per year. The largest 10 projects (\$150 million and greater) make up approximately 57% of the capital

spending over the next five years. These ten projects also represent the majority of expenditures planned for the 2025 – 2029 period (67%). There are an additional 118 projects on the plan.

Capital program expenditures over the next five years are largely driven by system expansion to meet the needs of a growing population, upgrades to improve system resiliency and maintenance of aging infrastructure. The following ten projects are the largest projects included in the five year plan:

- Coquitlam Intake No. 2, Tunnel and Treatment - \$2.3B
- Annacis Main No. 5 (Marine Crossing) - \$488M
- Second Narrows Crossing (Tunnel) - \$469M
- Cambie-Richmond Main No.3 (Marine Crossing) - \$405M
- Lulu Island-Delta Main No.2 (Marine Crossing) - \$370M
- Coquitlam Main No. 4 (Central Section) - \$297M
- Capilano Main No. 5 (South Shaft to Lost Lagoon) - \$249M
- Seymour Main No. 5 III (North) - \$237M
- Coquitlam Main No. 4 (South Section) - \$228M, and
- Kennedy-Newton Main - \$164M.

Reserve Funds

The application of reserve funding in Water Services comes from the Sustainability Innovation Fund and the Laboratory Equipment Reserve. In 2020, the financial plan includes \$230,000 in funding from the Water Sustainability Innovation Fund for several sustainability initiatives and \$91,000 from the Laboratory Equipment Reserve for equipment purchases. The 2020 - 2024 Projected Reserves for Water Services is included in Attachment 5.

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 2020 Work Plans for Water Services are presented in this report. Within the Water Services Work Plans, 35 performance indicators have been developed and are being tracked. These include:

- Per capita water use;
- Progress on major and minor capital projects;
- Smolt capture in the Capilano Watershed;
- 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; and
- Number of major interagency projects coordinated.

The trend in these performance measures suggest that while per capita water use in the region continues to decline, total annual consumption is forecast to increase gradually in the coming years as the rate of population growth exceeds per capita water use reductions. Significant progress continues to be made on implementation of the Water Services capital plan, keeping pace with growth, improving system resiliency and maintaining/upgrading aging infrastructure. Treated water

quality and compliance with operating permit criteria continues to be excellent as Water Services is realizing the benefits of having state-of-the-art facilities with robust water treatment processes operated by highly-skilled and certified operations staff. The energy used each year for the treatment and delivery of drinking water is becoming more stable as water treatment processes and operation of the regional infrastructure are optimized to use the least energy-intensive option possible given system constraints.

CONSISTENCY WITH THE 2019-2023 FINANCIAL PLAN

The updated five-year financial plan has been developed to be consistent with the 2019 – 2023 financial plan. As presented in Attachment 1, the overall 2020 Water impact on the average regional household is less than prior year projections with an average regional household cost of \$178 (2019 projection: \$189). The projected household rates for 2021 through 2023 are projected to be less than that previously projected by an average of \$28 per year.

The primary drivers for this change are reductions in planned contributions to capital and lower debt service costs from that proposed in the previous plan. The decreases in debt service are primarily the result of deferred capital spending and favorable borrowing rates while the adjustments to contribution to capital have been shifted to Liquid Waste Services to maximize the effect of reduced long term borrowing within individual sewerage areas. The revised Water Services budget remains consistent with the *Financial Management Policy* principles for the management of overall Metro Vancouver debt levels.

APPROVAL PROCESS

The proposed 2020-2024 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 2020 – 2024 Financial Plan and Annual Work Plans for Water Services will be presented for consideration at the Board Budget Workshop on October 23, 2019.
- The Board will consider adoption of the 2020 Budget and endorsement of the 2020-2024 Financial Plan on November 1, 2019.

ALTERNATIVES

1. That the Water Committee endorse the 2020 - 2024 Financial Plan for Water Services as presented in the report “2020 - 2024 Financial Plan – Water Services” dated October 2, 2019 and forward it to the Board Budget Workshop on October 23, 2019 for consideration.
2. That the Water Committee make recommendations and endorse an amended 2020 - 2024 Financial Plan for Water Services and forward the amended Financial Plan to the Board Budget Workshop on October 23, 2019 for consideration.

FINANCIAL IMPLICATIONS

If the GVWD Board approves the 2020 Budget and endorses the Five-Year Financial Plan for Water Services, as presented under Alternative 1, in 2020 the average water rate will increase by 6.0% to

\$0.7836/m³ (2019 forecast for 2020: \$0.8196/m³) with revenue from the sale of water increasing by \$20.3 million (7.1%) to \$307.2 million which will generate the majority of the \$309.1 million in total revenue required to offset projected expenditures. The increase in the average water rate represents a \$6 increase in the cost to the average regional household to \$178 (2019 forecast for 2020: \$189).

Over the term of the five-year plan, the water rate is projected to increase by an average of \$0.0712/m³ with water sales increasing by an average of \$30.1 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 \$172 in 2019 to \$239 in 2024 representing an average annual increase of \$13.

Under Alternative 2, the Committee may wish to consider recommending amendments to the 2020 Budget and Five-Year Financial Plan for Water Services for consideration at the Board Budget Workshop. Any changes to the plan may have an impact on the Water Services Financial Plan.

SUMMARY / CONCLUSION

The 2020 Budget and Five-Year Financial Plan for Water Services has been prepared to respond to direction provided in the *Board Strategic Plan* and 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 2020 to 2024 for Water Services.

The presentation of the 2020 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 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 2020 - 2024 Budget and Five-Year Financial Plan and Annual Work Plans for Water Services as presented under Alternative 1.

Attachments:

1. 2020 - 2024 Water Services Financial Plan
2. 2020 - 2024 Water Services Capital Budget Summary
3. 2020 Water Services Work Plans
4. 2020 - 2024 "What's Happening" in Water Services
5. 2020 - 2024 Projected Reserves – Water
6. Organizational Chart – Water Services

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GREATER VANCOUVER WATER DISTRICT
WATER
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN

ATTACHMENT 1

	2017 ACTUAL	2018 ACTUAL	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES													
Water Sales	\$ 264,484,281	\$ 274,631,383	\$ 286,908,565	\$ 307,175,053	7.1%	\$ 326,712,080	6.4%	\$ 357,309,593	9.4%	\$ 394,526,146	10.4%	\$ 437,378,545	10.9%
Other External Revenues	5,080,297	2,278,129	1,596,366	1,652,712		1,654,869		1,654,869		1,654,869		1,670,398	
Transfer from Sustainability Innovation Fund Reserve	179,927	80,011	704,174	230,000		-		-		-		-	
Transfer from Reserves	523,370	236,014	1,465,000	91,000		96,000		9,000		-		-	
TOTAL REVENUES	\$ 270,267,875	\$ 277,225,537	\$ 290,674,105	\$ 309,148,765	6.4%	\$ 328,462,949	6.2%	\$ 358,973,462	9.3%	\$ 396,181,015	10.4%	\$ 439,048,943	10.8%
EXPENDITURES													
Operating Programs:													
Policy Planning and Analysis													
Utility Analysis and Infrastructure	\$ 1,742,192	\$ 1,454,127	\$ 1,540,418	\$ 1,627,545		\$ 1,658,661		\$ 1,692,569		\$ 1,733,363		\$ 1,762,118	
Utility Policy and Planning	982,890	773,733	1,589,199	1,247,420		1,034,722		1,055,683		1,080,233		1,098,438	
	2,725,082	2,227,860	3,129,617	2,874,965	(8.1%)	2,693,383	(6.3%)	2,748,252	2.0%	2,813,596	2.4%	2,860,556	1.7%
Engineering and Construction													
Minor Capital Projects	7,965,914	8,146,056	9,840,909	10,486,537		10,791,811		11,106,211		11,419,169		11,743,709	
Dispatch	136,386	132,492	129,736	127,172		129,797		132,468		135,200		137,994	
Public Involvement	943,607	902,984	1,147,432	1,175,828		1,325,747		1,355,090		1,385,130		1,415,874	
	9,045,907	9,181,542	11,118,077	11,789,537	6.0%	12,247,355	3.9%	12,593,768	2.8%	12,939,499	2.7%	13,297,576	2.8%
Major Projects, Management Systems and Utility Services													
Department Technical Training	1,039,638	283,128	566,644	568,207		571,040		570,892		572,274		573,685	
Engineering Standards	112,581	112,992	118,520	116,256		118,647		121,077		123,558		126,104	
Engineers in Training	354,729	302,604	588,263	403,690		411,836		420,104		428,553		437,180	
Management Systems Utility Services	634,488	713,188	1,604,183	1,592,355		1,623,662		1,655,345		1,856,446		1,893,364	
Minor Capital Projects	561,989	557,556	873,316	915,963		942,627		970,089		997,425		1,025,772	
Records Management	108,747	107,702	109,800	107,704		109,919		112,171		114,471		116,862	
	2,812,172	2,077,170	3,860,726	3,704,175	(4.1%)	3,777,731	2.0%	3,849,677	1.9%	4,092,727	6.3%	4,172,967	2.0%
Watershed and Environmental Management													
Watershed and Environmental Management	10,347,734	12,108,527	12,691,419	12,061,843		12,226,881		12,160,574		12,101,162		12,272,073	
	10,347,734	12,108,527	12,691,419	12,061,843	(5.0%)	12,226,881	1.4%	12,160,574	(0.5%)	12,101,162	(0.5%)	12,272,073	1.4%
Operations and Maintenance													
Drinking Water Residuals	894,485	766,948	1,014,608	986,682		1,005,152		1,030,219		1,055,824		1,082,913	
Lake City Operations	986,342	1,002,223	965,126	999,649		1,020,474		1,040,761		1,064,104		1,100,508	
Maintenance	9,622,538	9,443,553	9,340,499	9,384,035		9,715,353		10,136,213		10,534,634		11,053,323	
SCADA Control Systems	4,817,590	5,234,704	5,251,889	5,330,421		5,500,313		5,607,120		5,750,710		5,988,905	
Secondary Disinfection	1,066,148	919,131	1,664,588	1,845,431		1,953,133		1,987,842		2,029,530		2,146,163	
Seymour Capilano Filtration Plant	8,620,239	8,087,627	9,001,545	8,760,728		9,256,619		9,698,177		10,103,266		10,350,869	
Coquitlam Water Treatment Plant	4,539,561	4,555,725	4,886,545	4,986,483		5,514,464		5,925,624		6,275,209		6,553,548	
Infrastructure Operations Support	816,623	1,008,499	1,499,628	1,441,854		1,518,804		1,620,614		1,651,045		1,735,050	
Utility Voice Radio	143,144	130,703	122,149	123,175		125,236		126,370		128,770		131,719	
Water Supply	14,614,901	15,674,153	19,180,503	18,925,252		19,538,182		20,402,995		21,305,134		22,561,934	
	46,121,571	46,823,266	52,927,080	52,783,710	(0.3%)	55,147,729	4.5%	57,576,335	4.4%	59,897,834	4.0%	62,704,931	4.7%
Interagency Projects and Quality Control													
Contribution to Sustainability Innovation Fund Reserve	723,000	723,000	723,000	723,000		723,000		723,000		723,000		723,000	
Drinking Water Quality Control	2,582,554	2,265,061	2,637,574	2,775,624		2,905,751		2,895,903		2,941,264		2,981,649	
Energy Management	123,413	104,079	105,748	122,423		125,680		128,987		132,364		135,814	
Research and Innovation	473,883	648,870	744,758	766,814		794,523		823,477		853,809		885,834	
Interagency Projects	-	201,373	367,242	393,493		545,840		724,004		736,762		749,792	
Contribution to Reserve	46,000	46,000	46,000	46,000		46,000		46,000		46,000		46,000	
	3,948,850	3,988,383	4,624,322	4,827,354	4.4%	5,140,794	6.5%	5,341,371	3.9%	5,433,199	1.7%	5,522,089	1.6%
Administration and Department Support													
	1,619,680	1,718,267	2,117,455	2,180,659	3.0%	2,226,047	2.1%	2,271,732	2.1%	2,318,668	2.1%	2,366,966	2.1%
Communications Program													
	369,583	420,063	520,287	450,000	(13.5%)	450,000	0.0%	450,000	0.0%	450,000	0.0%	450,000	0.0%
Allocation of Centralized Support Costs													
	22,571,223	25,515,486	23,857,580	23,818,111	(0.2%)	24,792,994	4.1%	24,654,199	(0.6%)	24,516,670	(0.6%)	25,445,718	3.8%
Total Operating Programs	99,561,802	104,060,564	114,846,563	114,490,354	(0.3%)	118,702,914	3.7%	121,645,908	2.5%	124,563,354	2.4%	129,092,876	3.6%
Debt Service													
	92,972,679	88,115,599	72,683,912	67,582,784	(7.0%)	76,784,276	13.6%	96,058,410	25.1%	117,301,372	22.1%	140,512,495	19.8%
Contribution to Capital													
	60,523,143	68,492,220	103,143,631	127,075,627	23.2%	132,975,759	4.6%	141,269,144	6.2%	154,316,289	9.2%	169,443,572	9.8%
TOTAL EXPENDITURES	\$ 253,057,624	\$ 260,668,383	\$ 290,674,105	\$ 309,148,765	6.4%	\$ 328,462,949	6.2%	\$ 358,973,462	9.3%	\$ 396,181,015	10.4%	\$ 439,048,943	10.8%
Blended Water Rate (\$/m3)													
	\$ 0.7395	\$ 0.7836	\$ 0.7395	\$ 0.7836	6.0%	\$ 0.8315	6.1%	\$ 0.9049	8.8%	\$ 0.9949	9.9%	\$ 1.0953	10.1%
Household Impact (\$)													
	\$ 172	\$ 178	\$ 172	\$ 178	3.0%	\$ 186	4.9%	\$ 201	7.7%	\$ 218	8.8%	\$ 239	9.3%

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ATTACHMENT 2

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
CAPITAL EXPENDITURES							
Water Infrastructure Growth Capital							
Annacis Main No. 5							
Annacis Main No. 5 (Marine Crossing)	\$ 21,250,000	\$ 55,000,000	\$ 55,000,000	\$ 60,000,000	\$ 70,000,000	\$ 261,250,000	\$ 488,000,000
Annacis Main No. 5 (North)	1,550,000	1,150,000	9,400,000	15,500,000	15,500,000	43,100,000	51,500,000
Annacis Main No. 5 (South)	1,000,000	300,000	-	8,400,000	16,700,000	26,400,000	56,400,000
Cape Horn Pump Station No. 3							
Cape Horn Pump Station No. 3	1,500,000	1,450,000	13,400,000	15,000,000	12,000,000	43,350,000	56,950,000
Coquitlam Intake No. 2 (Tunnel & Treatment)							
Coquitlam Intake No. 2 & Tunnel	1,500,000	10,500,000	21,500,000	30,000,000	30,500,000	94,000,000	1,369,230,000
Coquitlam Intake No. 2 (Water Treatment)	500,000	6,000,000	10,000,000	11,000,000	17,500,000	45,000,000	957,000,000
Coquitlam Main No. 4							
Coquitlam Main No. 4 (Cape Horn)	2,500,000	2,500,000	10,500,000	22,850,000	29,000,000	67,350,000	149,600,000
Coquitlam Main No. 4 (Central Section)	3,000,000	8,700,000	40,700,000	42,100,000	50,000,000	144,500,000	297,470,000
Coquitlam Main No. 4 (South Section)	2,500,000	4,000,000	20,400,000	38,000,000	50,000,000	114,900,000	227,650,000
Fleetwood Reservoir							
Fleetwood Reservoir	16,000,000	16,000,000	5,950,000	-	-	37,950,000	43,367,000
Grandview Reservoir Unit No. 2							
Grandview Reservoir Unit No. 2	-	-	-	-	400,000	400,000	26,000,000
Haney Main No. 4 (West Section)							
Haney Main No. 4 (West Section)	1,200,000	1,700,000	900,000	-	-	3,800,000	74,050,000
Hellings Tank No. 2							
Hellings Tank No. 2	8,100,000	11,000,000	4,500,000	-	-	23,600,000	29,411,000
Jericho Reservoir No. 1							
Jericho Reservoir No. 1	15,000,000	4,800,000	-	-	-	19,800,000	38,065,000
Kennedy Newton Main							
Kennedy Newton Main	31,250,000	40,400,000	27,850,000	20,900,000	7,600,000	128,000,000	164,300,000
Newton Reservoir Connection	-	450,000	1,100,000	4,500,000	8,000,000	14,050,000	27,050,000
Newton Pump Station No. 2							
Newton Pump Station No. 2	1,600,000	7,600,000	15,400,000	12,500,000	7,000,000	44,100,000	50,800,000

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Port Mann Main No. 2 (South)							
Port Mann Main No. 2 (South)	10,000,000	7,500,000	8,000,000	-	-	25,500,000	44,800,000
South Surrey Main No. 2							
South Surrey Main No. 2	750,000	1,000,000	500,000	-	1,500,000	3,750,000	145,700,000
Whalley Kennedy Main No. 2							
Whalley Kennedy Main No. 2	-	-	-	1,000,000	1,300,000	2,300,000	96,000,000
Whalley Main							
Whalley Main	10,500,000	10,000,000	-	-	-	20,500,000	33,300,000
	\$ 129,700,000	\$ 190,050,000	\$ 245,100,000	\$ 281,750,000	\$ 317,000,000	\$ 1,163,600,000	\$ 4,426,643,000
Water Infrastructure Maintenance Capital							
Annacis Main No. 2 - Queensborough Crossover Improvement							
Annacis Main No. 2 - Queensborough Crossover Improvement	\$ 500,000	\$ 400,000	\$ 100,000	\$ -	\$ -	\$ 1,000,000	\$ 1,200,000
Annacis Main No. 3 BHP Potash Facility Pipe Protection							
Annacis Main No. 3 BHP Potash Facility Pipe Protection	50,000	450,000	100,000	-	-	600,000	600,000
Annacis Main No. 3 Fraser Grain Terminal Pipe Relocation and Protection							
Annacis Main No. 3 Fraser Grain Terminal Pipe Relocation and Protection	300,000	-	-	-	-	300,000	600,000
Boundary Road Main No. 2 & No. 3 Decommissioning							
Boundary Road Main No. 2 & No. 3 Decommissioning	600,000	300,000	-	-	-	900,000	1,500,000
Burnaby Mountain Main No. 2							
Burnaby Mountain Main No. 2	-	-	300,000	300,000	1,300,000	1,900,000	10,200,000
Burnaby Mountain Pump Station No. 2							
Burnaby Mountain Pump Station No. 2	-	1,000,000	1,600,000	2,700,000	9,400,000	14,700,000	23,000,000
Capilano Main No. 4 Abandoning							
Capilano Main No. 4 Abandoning	50,000	-	-	-	-	50,000	700,000
Capilano Main No. 5 (South Shaft to Lost Lagoon)							
Capilano Main No.5 (South Shaft to Lost Lagoon)	3,000,000	9,400,000	40,000,000	45,000,000	45,000,000	142,400,000	249,000,000
Capilano Main No. 7 Line Valve & Swing Connection							
Capilano Main No. 7 Line Valve & Swing Connection	600,000	1,000,000	300,000	-	-	1,900,000	2,100,000

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Capilano Main No. 7 MOTI Hwy 1 Main / Dollarton Interchange Pipe Protection							
Capilano Main No. 7 MOTI Hwy 1 Main / Dollarton Interchange Pipe Protection	350,000	150,000	-	-	-	500,000	500,000
Capilano Raw Water Pump Station Bypass PRV Upgrades							
Capilano Raw Water Pump Station Bypass PRV Upgrades	300,000	700,000	200,000	-	-	1,200,000	1,200,000
Capilano Watershed Security Gatehouse							
Capilano Watershed Security Gatehouse	1,450,000	500,000	-	-	-	1,950,000	2,300,000
Central Park Main No. 2 (10th Ave to Westburnco)							
Central Park Main No. 2 (10th Ave to Westburnco)	100,000	1,300,000	1,200,000	6,300,000	7,000,000	15,900,000	28,350,000
Central Park Main No. 2 (Patterson to 10th Ave)							
Central Park Main No. 2 (Patterson to 10th Ave)	13,200,000	17,700,000	22,800,000	16,400,000	5,200,000	75,300,000	84,400,000
Central Park PS Seismic Upgrade							
Central Park PS Seismic Upgrade	50,000	-	-	-	-	50,000	3,700,000
Central Park Reservoir Structural Improvements							
Central Park Reservoir Structural Improvements	-	-	-	-	300,000	300,000	1,900,000
Central Park WPS Starters Replacement							
Central Park WPS Starters Replacement	4,000,000	2,550,000	-	-	-	6,550,000	8,000,000
CLD & SFD Fasteners Replacement & Coating Repairs							
CLD & SFD Fasteners Replacement & Coating Repairs	250,000	-	-	-	-	250,000	900,000
Cleveland Dam - Lower Outlet HBV Rehabilitation							
Cleveland Dam - Lower Outlet HBV Rehabilitation	2,550,000	1,950,000	-	-	-	4,500,000	5,900,000
Cleveland Dam - Spillway Concrete Repairs							
Cleveland Dam - Spillway Concrete Repairs	50,000	-	-	-	-	50,000	5,500,000
Cleveland Dam Drumgate Seal Replacement							
Cleveland Dam Drumgate Seal Replacement	-	500,000	500,000	-	-	1,000,000	1,250,000
Cleveland Dam Elevator Decommissioning and Ladder Replacement							
Cleveland Dam Elevator Decommissioning and Ladder Replacement	100,000	-	-	-	-	100,000	500,000
Coquitlam Pipeline Road Remediation							
Coquitlam Pipeline Road Remediation	1,000,000	-	-	-	-	1,000,000	2,000,000

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CWTP Ozone Sidestream Pump VFD Replacement							
CWTP Ozone Sidestream Pump VFD Replacement	200,000	700,000	500,000	-	-	1,400,000	1,400,000
CWTP pH, Alkalinity Upgrades							
CWTP pH, Alkalinity Upgrades	1,050,000	-	-	-	-	1,050,000	1,700,000
Douglas Road Main No. 2 - Kincaid Section							
Douglas Road Main No. 2 - Kincaid Section	1,250,000	1,300,000	-	-	-	2,550,000	12,300,000
Douglas Road Main No. 2 (Vancouver Heights Section)							
Douglas Road Main No. 2 (Vancouver Heights Section)	12,000,000	3,500,000	-	-	-	15,500,000	28,486,000
Douglas Road Main No. 2 Still Creek							
Douglas Road Main No. 2 Still Creek	6,200,000	17,450,000	11,250,000	12,000,000	13,500,000	60,400,000	63,100,000
Douglas Road Main Protection							
Douglas Road Main Protection	-	100,000	900,000	500,000	-	1,500,000	1,500,000
E2 Shaft Phase 3							
E2 Shaft Phase 3	2,000,000	-	-	-	-	2,000,000	16,500,000
First Narrows Tunnel Isolation Chamber Improvements							
First Narrows Tunnel Isolation Chamber Improvements	2,800,000	2,450,000	-	-	-	5,250,000	7,000,000
Improvements to Capilano Mains No. 4 and 5							
Improvements to Capilano Mains No. 4 and 5	1,000,000	500,000	-	-	-	1,500,000	1,700,000
Kersland Reservoir No. 1 Structural Improvements							
Kersland Reservoir No. 1 Structural Improvements	-	2,000,000	2,500,000	500,000	-	5,000,000	5,750,000
Little Mountain Reservoir Roof Upgrades							
Little Mountain Reservoir Roof Upgrades	1,100,000	200,000	-	-	-	1,300,000	1,500,000
Lulu Island - Delta Main - Scour Protection Phase 2							
Lulu Island - Delta Main - Scour Protection Phase 2	-	250,000	2,500,000	800,000	-	3,550,000	3,550,000
Lulu Island - Delta Main No. 2 (Marine Crossing)							
Lulu Island - Delta Main No. 2 (Marine Crossing)	-	-	-	5,000,000	5,000,000	10,000,000	370,000,000
Maple Ridge Main West Lining Repairs							
Maple Ridge Main West Lining Repairs	800,000	1,600,000	1,000,000	-	-	3,400,000	3,500,000
Newton Rechlorination Station No. 2							
Newton Rechlorination Station No. 2	-	-	400,000	600,000	1,500,000	2,500,000	5,000,000
Port Mann Main No. 1 (Fraser River Crossing Removal)							
Port Mann Main No. 1 (Fraser River Crossing Removal)	900,000	2,000,000	5,000,000	5,000,000	-	12,900,000	13,500,000

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Port Moody Main No. 1 Christmas Way Relocation							
Port Moody Main No. 1 Christmas Way Relocation	250,000	1,750,000	350,000	-	-	2,350,000	2,350,000
Port Moody Main No. 3 Dewdney Trunk Rd Relocation							
Port Moody Main No. 3 Dewdney Trunk Rd Relocation	-	1,800,000	900,000	-	-	2,700,000	2,700,000
Port Moody Main No. 3 Scott Creek Section							
Port Moody Main No. 3 Scott Creek Section	200,000	1,400,000	2,000,000	700,000	-	4,300,000	4,750,000
Queensborough Main Royal Avenue Relocation							
Queensborough Main Royal Avenue Relocation	1,600,000	3,500,000	2,300,000	-	-	7,400,000	7,500,000
Rechlorination Station SHS Storage Tank Replacement							
Rechlorination Station SHS Storage Tank Replacement	400,000	800,000	-	-	-	1,200,000	1,200,000
Rechlorination Station Upgrades							
Rechlorination Station Upgrades	900,000	1,000,000	1,400,000	6,000,000	4,700,000	14,000,000	14,200,000
Rehabilitation of AN2 on Queensborough Bridge							
Rehabilitation of AN2 on Queensborough Bridge	1,700,000	800,000	-	-	-	2,500,000	2,500,000
Relocation and Protection for MOTI Expansion Project Broadway							
Relocation and Protection for MOTI Expansion Project Broadway	2,700,000	4,000,000	2,000,000	-	-	8,700,000	8,900,000
Relocation and Protection for MOTI George Massey Crossing Replacement							
Relocation and Protection for MOTI George Massey Crossing Replacement	-	-	200,000	650,000	600,000	1,450,000	2,450,000
Relocation and Protection for Translink Expansion Project Surrey Langley SkyTrain							
Relocation and Protection for Translink Expansion Project Surrey Langley SkyTrain	300,000	1,300,000	2,000,000	2,000,000	1,000,000	6,600,000	6,600,000
Sasamat Reservoir Joint Upgrades							
Sasamat Reservoir Joint Upgrades	100,000	-	-	-	-	100,000	700,000
SCFP Clearwell Membrane Replacement							
SCFP Clearwell Membrane Replacement	-	200,000	1,200,000	5,500,000	5,500,000	12,400,000	17,400,000
SCFP Concrete Coatings							
SCFP Concrete Coatings	600,000	600,000	-	-	-	1,200,000	6,500,000
SCFP Filter Underdrain Repairs							
SCFP Filter Underdrain Repairs	8,000,000	8,000,000	4,500,000	-	-	20,500,000	29,000,000
SCFP OMC Building Expansion							
SCFP OMC Building Expansion	500,000	1,750,000	100,000	-	-	2,350,000	2,450,000

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SCFP Polymer System Upgrade							
SCFP Polymer System Upgrade	1,550,000	850,000	-	-	-	2,400,000	2,950,000
Second Narrows Crossing 1 & 2 (Burrard Inlet Crossing Removal)							
Second Narrows Crossing 1 & 2 (Burrard Inlet Crossing Removal)	-	-	-	-	750,000	750,000	21,500,000
South Delta Main No. 1 - Ferry Road Check Valve Replacement							
South Delta Main No. 1 - Ferry Road Check Valve Replacement	200,000	-	-	-	-	200,000	600,000
South Fraser Works Yard							
South Fraser Works Yard	32,000,000	-	-	-	-	32,000,000	32,000,000
South Surrey Main No. 2 Nickomekl Dam Relocation							
South Surrey Main No. 1 Nickomekl Dam Relocation	500,000	1,500,000	3,000,000	2,100,000	-	7,100,000	7,100,000
Sunnyside Reservoir Unit 1 Upgrades							
Sunnyside Reservoir Unit 1 Upgrades	3,000,000	2,500,000	-	-	-	5,500,000	8,050,000
Tilbury Main North Fraser Way Valve Addition							
Tilbury Main North Fraser Way Valve Addition	800,000	1,500,000	400,000	-	-	2,700,000	3,100,000
Westburnco Pump Station No. 2 VFD Replacements							
Westburnco Pump Station No. 2 VFD Replacements	2,050,000	300,000	-	-	-	2,350,000	2,550,000
	\$ 115,150,000	\$ 103,500,000	\$ 111,500,000	\$ 112,050,000	\$ 100,750,000	\$ 542,950,000	\$ 1,158,836,000
Water Infrastructure Resilience Capital							
Barnston/Maple Ridge Pump Station - Back-up Power							
Barnston/Maple Ridge Pump Station - Back-up Power	\$ 150,000	\$ 1,000,000	\$ 3,000,000	\$ 2,700,000	\$ 1,800,000	\$ 8,650,000	\$ 9,000,000
Burnaby Mountain Tank No. 2							
Burnaby Mountain Tank No. 2	2,600,000	1,150,000	12,000,000	5,000,000	-	20,750,000	21,650,000
Burnaby Mountain Tank No. 3							
Burnaby Mountain Tank No. 3	800,000	1,500,000	1,100,000	-	-	3,400,000	21,400,000
Cambie Richmond Main No. 3 (Marine Crossing)							
Cambie Richmond Main No. 3 (Marine Crossing)	2,000,000	6,000,000	5,000,000	25,000,000	30,000,000	68,000,000	405,250,000
Cape Horn Pump Station 2 - Back-Up Power							
Cape Horn Pump Station 2 - Back-Up Power	500,000	1,650,000	750,000	1,500,000	2,000,000	6,400,000	8,000,000

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Capilano Mid-Lake Debris Boom							
Capilano Mid-Lake Debris Boom	500,000	-	-	-	-	500,000	750,000
Capilano Raw Water Pump Station - Back-up Power							
Capilano Raw Water Pump Station - Back-up Power	16,900,000	8,000,000	-	-	-	24,900,000	33,000,000
Capilano Reservoir Boat Wharf							
Capilano Reservoir Boat Wharf	650,000	-	-	-	-	650,000	850,000
Clayton Langley Main No. 2							
Clayton Langley Main No. 2	-	700,000	1,400,000	800,000	6,000,000	8,900,000	36,400,000
Cleveland Dam Power Resiliency Improvements							
Cleveland Dam Power Resiliency Improvements	800,000	400,000	500,000	-	-	1,700,000	1,700,000
Coquitlam Intake Tower Seismic Upgrade							
Coquitlam Intake Tower Seismic Upgrade	600,000	7,000,000	12,000,000	5,000,000	-	24,600,000	25,500,000
Critical Control Sites - Back-Up Power							
Critical Control Sites - Back-Up Power	-	200,000	100,000	400,000	700,000	1,400,000	1,800,000
CWTP Ozone Back-up Power							
CWTP Ozone Back-up Power	-	500,000	1,450,000	4,000,000	1,500,000	7,450,000	7,450,000
Emergency Power Strategy for Regional Water Facilities							
Emergency Power Strategy for Regional Water Facilities	200,000	200,000	-	-	-	400,000	400,000
Grandview Pump Station Improvements							
Grandview Pump Station Improvements	950,000	1,500,000	-	-	-	2,450,000	2,600,000
Mackay Creek Debris Flow Mitigation							
Mackay Creek Debris Flow Mitigation	3,400,000	-	-	-	-	3,400,000	9,700,000
Pebble Hill Pump Station Seismic Upgrade							
Pebble Hill Pump Station Seismic Upgrade	-	250,000	1,100,000	300,000	-	1,650,000	1,650,000
Pebble Hill Reservoir No. 3 Seismic Upgrade							
Pebble Hill Reservoir No. 3 Seismic Upgrade	100,000	5,000,000	3,400,000	-	-	8,500,000	8,900,000
Pebble Hill Reservoir Seismic Upgrade							
Pebble Hill Reservoir Seismic Upgrade	7,000,000	3,400,000	-	-	-	10,400,000	14,800,000
Reservoir Isolation Valve Automation							
Reservoir Isolation Valve Automation	1,000,000	2,150,000	1,300,000	-	-	4,450,000	6,450,000
SCFP UPS Reconfiguration							
SCFP UPS Reconfiguration	100,000	-	-	-	-	100,000	1,270,000

**GREATER VANCOUVER WATER DISTRICT
CAPITAL PROGRAMS AND PROJECT TOTALS
WATER SERVICES
2020-2024 CAPITAL PLAN**

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
Second Narrows Crossing (Tunnel)							
Second Narrows Crossing (Tunnel)	75,000,000	75,000,000	70,000,000	70,000,000	75,600,000	365,600,000	468,550,000
Seymour Falls Boat Wharf							
Seymour Falls Boat Wharf	700,000	-	-	-	-	700,000	800,000
Seymour Lake Debris Boom							
Seymour Lake Debris Boom	400,000	-	-	-	-	400,000	800,000
Seymour Main No. 2 Joint Improvements							
Seymour Main No. 2 Joint Improvements	900,000	1,000,000	750,000	-	-	2,650,000	3,252,000
Seymour Main No. 5 III (North)							
Seymour Main No. 5 III (North)	1,650,000	2,400,000	-	-	-	4,050,000	236,900,000
Seymour Reservoir Mid-Lake Debris Boom							
Seymour Reservoir Mid-Lake Debris Boom	1,400,000	500,000	-	-	-	1,900,000	2,300,000
Sunnyside Reservoir Units 1 and 2 Seismic Upgrade							
Sunnyside Reservoir	5,100,000	3,400,000	4,000,000	2,200,000	-	14,700,000	17,300,000
System Seismic Upgrade							
System Seismic Upgrade	-	600,000	600,000	600,000	600,000	2,400,000	116,400,000
Vancouver Heights System Resiliency Improvements							
Vancouver Heights System Resiliency Improvements	500,000	400,000	500,000	100,000	-	1,500,000	1,500,000
Westburnco Pump Station - Back-up Power							
Westburnco Pump Station - Back-up Power	8,650,000	9,500,000	3,500,000	-	-	21,650,000	27,000,000
	\$ 132,550,000	\$ 133,400,000	\$ 122,450,000	\$ 117,600,000	\$ 118,200,000	\$ 624,200,000	\$ 1,493,322,000
Water Infrastructure Upgrade Capital							
Burwell Alpine Reservoir Valve Improvements							
Burwell Alpine Reservoir Valve Improvements	\$ 250,000	\$ -	\$ -	\$ -	\$ -	250,000	\$ 650,000
Cleveland Dam East Abutment Additional GV Series Pump Wells							
Cleveland Dam East Abutment Additional GV Series Pump Wells	100,000	-	-	-	-	100,000	750,000
CWTP Ozone Generation Upgrades for Units 2 & 3							
CWTP Ozone Generation Upgrades for Units 2 & 3	2,300,000	600,000	-	-	-	2,900,000	12,000,000

**GREATER VANCOUVER WATER DISTRICT
CAPITAL PROGRAMS AND PROJECT TOTALS
WATER SERVICES
2020-2024 CAPITAL PLAN**

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
Lower Seymour Conservation Reserve Learning Lodge Replacement							
Lower Seymour Conservation Reserve Learning Lodge Replacement	2,000,000	600,000	-	-	-	2,600,000	5,000,000
Online Chlorine Monitoring Stations							
Online Chlorine Monitoring Stations	-	350,000	600,000	850,000	850,000	2,650,000	3,600,000
Sapperton Main No. 1 New Line Valve and Chamber							
Sapperton Main No. 1 New Line Valve and Chamber	600,000	500,000	-	-	-	1,100,000	3,800,000
SCFP Interior Lighting Efficiency Upgrade							
SCFP Interior Lighting Efficiency Upgrade	50,000	-	-	-	-	50,000	500,000
South Delta Main No. 1 - 28 Ave to 34B Ave							
South Delta Main No. 1 - 28 Ave to 34B Ave	4,150,000	-	-	-	-	4,150,000	19,650,000
South Delta Mains - 28 Ave Crossover							
South Delta Mains - 28 Ave Crossover	1,650,000	1,500,000	-	-	-	3,150,000	10,500,000
Water Meter Upgrades							
Water Meter Upgrades	5,000,000	6,900,000	5,000,000	1,800,000	-	18,700,000	22,400,000
Water Optimization - Flow Meters (Non-billing) Phase 1							
Water Optimization - Flow Meters (Non-billing) Phase 1	-	4,000,000	6,900,000	5,600,000	-	16,500,000	16,500,000
Water Optimization - Flow Meters (Non-billing) Phase 2							
Water Optimization - Flow Meters (Non-billing) Phase 2	-	-	-	1,500,000	4,000,000	5,500,000	18,000,000
Water Optimization - Instrumentation							
Water Optimization - Instrumentation	-	4,200,000	4,200,000	1,500,000	-	9,900,000	9,900,000
Water Optimization Automation & Instrumentation							
Water Optimization Automation & Instrumentation	3,000,000	2,100,000	-	-	-	5,100,000	9,540,000
	\$ 19,100,000	\$ 20,750,000	\$ 16,700,000	\$ 11,250,000	\$ 4,850,000	\$ 72,650,000	\$ 132,790,000
Water Opportunity Capital							
Capilano Hydropower							
Capilano Hydropower	\$ 1,000,000	\$ 2,000,000	\$ 750,000	\$ -	\$ -	\$ 3,750,000	\$ 99,250,000
	\$ 1,000,000	\$ 2,000,000	\$ 750,000	\$ -	\$ -	\$ 3,750,000	\$ 99,250,000

**GREATER VANCOUVER WATER DISTRICT
CAPITAL PROGRAMS AND PROJECT TOTALS
WATER SERVICES
2020-2024 CAPITAL PLAN**

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
TOTAL CAPITAL EXPENDITURES	\$ 397,500,000	\$ 449,700,000	\$ 496,500,000	\$ 522,650,000	\$ 540,800,000	\$ 2,407,150,000	\$ 7,310,841,000

CAPITAL FUNDING							
New External Borrowing	\$ 181,010,000	\$ 293,500,000	\$ 341,150,000	\$ 359,860,000	\$ 364,800,000	\$ 1,540,320,000	
Contribution to Capital	127,100,000	133,000,000	141,300,000	154,300,000	169,400,000	725,100,000	
Surplus from Prior Year/Reserves	68,990,000	5,000,000	5,000,000	5,000,000	5,000,000	88,990,000	
External Funding - Interagency	20,400,000	18,200,000	9,050,000	3,490,000	1,600,000	52,740,000	
Total	\$ 397,500,000	\$ 449,700,000	\$ 496,500,000	\$ 522,650,000	\$ 540,800,000	\$ 2,407,150,000	

DEBT SERVICING TOTALS/RATIO							
Operating Programs - Water Services	\$ 114,500,000	\$ 118,700,000	\$ 121,600,000	\$ 124,600,000	\$ 129,100,000	\$ 608,500,000	
Debt Service - Existing	66,700,000	65,800,000	72,600,000	89,600,000	110,700,000	405,400,000	
Debt Service - New	900,000	11,000,000	23,500,000	27,700,000	29,800,000	92,900,000	
Debt Service - Up to 2019	66,700,000	64,900,000	60,700,000	54,200,000	47,600,000	294,100,000	
Debt Service - 2020 and onward	900,000	11,900,000	35,400,000	63,100,000	92,900,000	204,200,000	
Contribution to Capital	127,100,000	133,000,000	141,300,000	154,300,000	169,400,000	725,100,000	
Total	\$ 309,200,000	\$ 328,500,000	\$ 359,000,000	\$ 396,200,000	\$ 439,000,000	\$ 1,831,900,000	
% Debt Service	22%	23%	27%	30%	32%	27%	

WATER SERVICES

Policy, Planning and Analysis

Description of services

Water Services provides safe drinking water to the Metro Vancouver region through the Greater Vancouver Water District. The Policy, Planning and Analysis division provides policy development and coordination; infrastructure analysis and planning; implementation of the Drinking Water Management Plan (DWMP); implementation of key components of the Joint Water Use Plan (JWUP) for the Capilano and Seymour Watersheds; and leads the development and implementation of the Comprehensive Regional Water System Plan.

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	2020 Performance Objective
Peak day per capita water use (litres)	MV 3-year average (2016 - 2018): 642 2018: 682 2017: 632 2016: 613	2019 YTD: 609 Objective: 635	633
Average day per capita water use (litres)	MV 3-year average (2016-2018): 445 2018: 443 2017: 448 2016: 444	2019 YTD: 428 Objective: 431	428

2020 key actions

- Continue to collaborate with GVWD members to implement the new Region-wide Guide for Enforcement of Metro Vancouver's Drinking Water Conservation Plan.
- Secure water licence(s) for the additional water allocation from the Coquitlam source as per the Coquitlam Water Use Plan.
- Continue development of a Facility Master Plan that aligns with Metro Vancouver's Water Supply Outlook 2120.
- Continue development of an updated Drinking Water Management Plan.
- Continue to implement the Joint Water Use Plan for the Capilano and Seymour Watersheds, including coordination of monitoring and reporting to the regulatory agencies.
- Complete the re-evaluation of the business case and implementation strategy for the Capilano Hydropower project.
- Investigate opportunities for greywater reuse and commence development of a guidance document for Metro Vancouver local governments, businesses and public.

WATER SERVICES

Engineering and Construction

Description of services

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

Strategic directions and high level goals supported

Board Strategic Plan

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

Drinking Water Management Plan

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

Performance indicators

Indicator	Historical and/or Industry Benchmark	Current Performance (as of June 2019)	2020 Performance Objective
Percent of GVWD Capital Program Expenditures Achieved:	3 yr average (2016 – 2018): 47% 2016: 55% 2017: 54% 2018: 35%	YTD: 29% Objective: 80%	85%
Percent of Minor Capital Program Expenditures Achieved:	3 yr average (2016 – 2018): 87% 2016: 79% 2017: 94% 2018: 87%	YTD: 73% Objective: 85%	85%
Percent of project complete: • Kennedy-Newton Main – Design	n/a	65%	100%

Indicator	Historical and/or Industry Benchmark	Current Performance (as of June 2019)	2020 Performance Objective
• Kennedy-Newton Main (Phase 1) – Construction	n/a	0%	75%
• Annacis Main No. 5 (South) – Design	n/a	60%	100%
• South Delta Main No. 1 Replacement (Phases 3 and 4) – Construction	n/a	40%	100%
• Capilano Raw Water Pump Station Backup Power – Construction	n/a	0%	50%
• Capilano Main No. 5 (Stanley Park Section) – Design	n/a	25%	75%
• Fleetwood Reservoir – Construction	n/a	0%	40%
• Jericho Reservoir – Construction	n/a	22%	100%
• Coquitlam Main No. 4 (South) – Design	n/a	0%	50%
• Port Mann Main No. 2 (South) – Construction	n/a	35%	70%
• Whalley Main – Construction	n/a	5%	75%
• Central Park Main No. 2 – Design	n/a	30%	75%
• Central Park Main No. 2 (Phase 1) – Construction	n/a	0%	40%
• Douglas Road Main No. 2 (Still Creek Section) – Construction	n/a	0%	20%

2020 key actions

- Complete Project Definition Report for Coquitlam Intake No. 2 Project
- Continue design of Coquitlam Main No. 4 (South)
- Continue construction of Kennedy-Newton Main (Phase 1)
- Complete design of Annacis Main No. 5 (South)
- Complete construction of South Delta Main No. 1 Replacement (Phases 3 and 4)
- Commence construction of Capilano Raw Water Pump Station Backup Power
- Continue design of Capilano Main No. 5 (Stanley Park Section)
- Continue construction of Port Mann Main No. 2 (South)
- Continue construction of Whalley Main
- Commence construction of Central Park Main No. 2 (Phase 1)
- Commence construction of Douglas Road Main No. 2 (Still Creek)
- Commence construction of Fleetwood Reservoir
- Complete construction of Jericho Reservoir

WATER SERVICES

Major Projects, Management Systems and Utility Services

Description of Services

Water Services provides safe drinking water to the Metro Vancouver region through the Greater Vancouver Water District. The Major Projects, Management Systems and Utility Services division provides the delivery of major non-core water projects, business planning, financial management, capital planning, emergency management planning coordination, asset management, performance management, benchmarking and shared services (survey, inspection, drafting, GPS, and engineering standards).

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 (as of June 2019)	2020 Performance Objective
Percent of GVWD Capital Program Expenditures Achieved:	3 yr average (2016 – 2018): 47% 2016: 55% 2017: 54% 2018: 35%	YTD: 29% Objective: 80%	85%
Percent of Minor Capital Program Expenditures Achieved:	3 yr average (2016 – 2018): 87% 2016: 79% 2017: 94% 2018: 87%	YTD: 73% Objective: 85%	85%

Indicator	Historical and/or Industry Benchmark	Current Performance (as of June 2019)	2020 Performance Objective
Percent of project complete: <ul style="list-style-type: none"> Mackay Creek Debris Flow Mitigation Construction 	n/a	20%	100%
<ul style="list-style-type: none"> Second Narrows Water Supply Tunnel Construction 	n/a	5%	50%
<ul style="list-style-type: none"> Annacis Water Supply Tunnel Detailed Design 	n/a	90%	100%
<ul style="list-style-type: none"> Annacis Water Supply Tunnel Construction 	n/a	0%	10%

2020 Key Actions

- Continue construction of Second Narrows Water Supply Tunnel.
- Complete detailed design of Annacis Water Supply Tunnel and begin construction phase.
- Complete construction of Mackay Creek Debris Flow Mitigation project.
- Complete E2 Shaft Replacement production well drilling.
- Continue to develop Asset Management Program for Water Services including Asset Assessment Plans and individual facility Asset Management Plans.
- Complete migration of engineering drawings to new Engineering Drawing Storage System.

Water Services

Watershed & Environmental Management

Description of Services

Water Services provides safe drinking water to the Metro Vancouver region through the Greater Vancouver Water District. Watershed & Environmental Management provides management of 60,000 hectares of GVWD watershed lands surrounding the source reservoirs and key infrastructure as well as the management of environmental programs and initiatives for Water Services. Technical and field staff in this area undertake a breadth of work ranging from collection of reservoir and potable water samples, Environmental Management System development 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	2020 Performance Objective
Annual number participants in watershed tours and K-12 school programs conducted within the LSCR and watersheds.	MV 3-year average (2016-2018): 5,389 2018: 5,378 2017: 6,000 2016: 4,789	2019 YTD June: 2,863 Objective 5,600	6,000
Number of water samples collected from source reservoirs and the distribution system.	MV 3-year average (2016-2018): 22,094 2018: 21,906 2017: 24,354 2016: 20,023	2019 YTD (June): 10,286 Objective 22,500	22,500
Smolt capture in the Capilano Watershed.	MV 3-year average (2016-2018): 27,613 2018: 16,460 2017: 18,727 2016: 47,653	2019 YTD August: 19,242 annual program complete Objective: 25,000	25,000
Re-establish fish access through road network infrastructure (culverts, bridges) into critical fish habitat.	72% (BC Forest Practices Board study)	2019 YTD June: 93% Objective: 94%	95%

2020 Key Actions

- Continue implementation of the Water Services Environmental Management System in addressing prioritized regulatory compliance and environmental risks.
- Complete fish stranding study downstream of Seymour Falls Dam in accordance with the approved Joint Water Use Plan.
- Complete construction of Watershed Administration Building in the Lower Seymour Conservation Reserve.
- Complete construction of Capilano Watershed Security Field Office in conjunction with the Capilano Raw Water Pump Station Back-up Power project.
- Complete *Monitoring the Impacts of Climate Change on the Regional Drinking Water Supply Area Study*.
- Completion of phased upgrade of west side of Fisherman's Trail in the Lower Seymour Conservation Reserve.

WATER SERVICES

Operations and Maintenance

Description of services

Water Services provides safe drinking water to the Metro Vancouver region through the Greater Vancouver Water District. The Operations and Maintenance division provides management of the source water reservoirs and dams, treatment of source water, operation and control of the water transmission system, secondary disinfection of treated water and maintenance of all water treatment and transmission infrastructure and associated supporting infrastructure (works yards, communications systems, and control systems).

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	2020 Performance Objective
Annual volume of drinking water treated, delivered (in million litres)	MV 3-year average (2016-18): 387,504 2018: 389,800 2017: 389,177 2016: 383,536	2019 YTD Aug: 260,160 Objective: 387,000	391,000
Energy use in the treatment and delivery of drinking water (amount of gigajoules (GJ) used per ML of water)	MV 3-year average (2016-18): 0.53 2018: 0.49 2017: 0.57 2016: 0.52	Rolling Average Aug 2018 to July 2019 0.54 Objective: 0.57	0.57
Compliance with treatment operating permit criteria	MV 3-year average (2016-18): 100% 2018: 100% 2017: 100% 2016: 100%	2019 YTD Aug: 100% Objective: 100%	100%
Number of leak repairs in water transmission system piping per 100 kilometers of pipe ¹	MV 3-year average (2016-18): 3.18 2018: 3.30 2017: 2.93 2016: 3.32	2019 YTD Sept: 3.69 Objective: < 3.5	< 3.4
Number of remote monitoring and control points to ensure system resiliency	MV 3-year average (2016-18): 30,016 2018: 30,349 2017: 29,800 2016: 29,900	2019 YTD Sept: 30,550 Objective: 30,700	31,000

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

2020 Key Actions

- Complete Level 2 asset condition assessments for select water main marine crossings and critical line valve chambers in accordance with the Water Services Asset Management Plan.
- Implement first phase of pH and alkalinity adjustments at both water treatment plants.
- Complete the upgrades to the SCADA radio repeaters to improve reliability of critical information required for operating the water supply system.
- Commission Jericho Reservoir to improve reliability of water supply to the southern areas of the region.
- Develop an energy use dashboard for the Capilano Raw Water Pump Station to track and manage energy use and optimize operation.
- Complete the Coquitlam Water Treatment Plant Ozone Generator Upgrade Project to improve capacity and generation efficiency while reducing energy costs.

WATER SERVICES

Interagency Projects and Quality Control

Description of services

Water Services provides 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 also responsible for ensuring appropriate quality control (QC) standards for the region's drinking water and coordinates the research and innovation, energy management programs and the administration of the Sustainability Innovation Fund for Water Services. QC work is performed by technical and scientific staff undertaking a breadth of activities including field support, laboratory analysis of drinking water for Metro Vancouver and local governments, as well as system water quality data review, ensuring compliance of 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	2020 Performance Objective
Number of water tests completed on samples collected from the source reservoirs, water treatment plants and distribution system	MV 3-year average (2016-2018): 155,479 2018: 160,919 2017: 153,237 2016: 152,282	2019 YTD June: 80,360 Projected 2019: 158,000	158,000
Number of major interagency projects coordinated	2018: 10 2017: 10	YTD: 10 Projected 2019: 12	12

2020 key actions

- Conduct a screening level business case for the phased installation of in-line chlorine meters in the water transmission system.
- Continue to support the corrosion control study by initiating monitoring of alkalinity and pH background levels throughout the region.
- Asset management replacement and upgrade of equipment in the LCOC Microbiology Laboratory and SFCP Process Laboratory.
- Commence implementation of improved in-system reservoir sampling methods at high priority reservoir sites.
- Coordinate interagency work for the MOTI Pattullo Bridge Replacement Project, MOTI Broadway Subway Project, and TransLink Surrey/Langley Skytrain Project.

WATER SERVICES

2020 to 2024 – WHAT'S HAPPENING

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

Initiative	Description	Theme
2020		
Capilano Hydropower Project Financial Assessment update	Review conceptual power development scheme, updating capital costs, and reassessing the cost/benefits of the project based on current information.	Environmental and Financial Sustainability
Asset Management Program	Develop comprehensive asset condition assessment plans for the regional water treatment facilities and water supply system including pump stations, reservoirs, valve chambers and watermains.	System Stewardship
Treated water pH and alkalinity adjustments	Commence implementation of final phase of treated water pH and alkalinity adjustments at SFCP and CWTP.	System Stewardship
Beneficial uses for water treatment residuals	Continue research into beneficial uses of water treatment residuals including agricultural land application trials to assess the effectiveness of treatment residuals to reduce nutrient loading through phosphorus binding.	Regulatory and Legislative Environment
Coquitlam Reservoir Water Licence(s)	Secure water licence(s) for the additional water allocation from the Coquitlam source in accordance with the Coquitlam Water Use Plan following execution of the 2019 BC Hydro/GVWD Water Use Agreement.	Regional Growth
Coquitlam Intake No. 2 – Preliminary Design	Commence the preliminary design of the Coquitlam Intake No. 2 Project. The project includes a new intake, tunnel and treatment plant to increase the capacity of the Coquitlam source.	Regional Growth
Commence construction of Annacis Water Supply Tunnel	Commence construction of 2.3 km long, 4.6 m diameter water supply tunnel under the Fraser River, to meet growing demand south of the Fraser River.	Regional Growth

Commence Cambie-Richmond Main Marine Crossing – Conceptual Design - Phase 2	Continue conceptual design of a new water supply tunnel under the north arm of the Fraser River from Vancouver to Richmond, to provide additional capacity for growth and increased system resiliency.	System Stewardship
Complete construction of Mackay Creek Debris Flow Mitigation project	Construction of debris nets and drainage improvements adjacent to Grouse Grind trail.	Environmental Sustainability
New Drinking Water Management Plan	Continue development of an update to the 2011 Drinking Water Management Plan.	System Stewardship
Complete Douglas Road Main No. 2 (Vancouver Heights Section)	The Vancouver Heights Section is one of two remaining sections to be installed for the overall Douglas Road Main No.2 project. The Vancouver Heights Section is approximately 2 km long, 1.5 m in diameter and is located in North Burnaby.	System Stewardship
Commence construction of Central Park Main Replacement (Patterson Avenue to 10th Avenue) – Phase 1	This project is required to replace the aging Central Park Main. The watermain is approximately 7.5 km long extending from Central Park at Patterson Avenue to 10th Avenue in the City of Burnaby and will be completed in two phases.	System Stewardship
2021		
Dam Safety Review for Seymour Falls Dam	Complete the Dam Safety Review for Seymour Falls Dam in accordance with the provincial Dam Safety Regulations which require Dam Safety Reviews at 7-year intervals for extreme consequence dams.	Regulatory and Legislative Environment
Water Reuse Best Practices Guide	Develop a resource for smart growth strategies related to buildings; including greywater, rainwater harvesting and other reuse options.	Regional Growth
Commence construction of Stanley Park Water Supply Tunnel	The Stanley Park Water Supply Tunnel is required to replace the existing Capilano Main No. 4 to meet growing water demands and increase system resiliency. The water main is approximately 1.4 km long and 2.6 metres in diameter and will be installed within the tunnel.	System Stewardship
Commence construction of Coquitlam Main No. 4	Coquitlam Main No. 4 is required to convey water from the Coquitlam Water Treatment Plant to the Cape Horn Pump Station and Reservoir in Coquitlam.	Regional Growth

Complete construction of Capilano Raw Water PS Backup Power Facility	The Capilano Raw Water PS Backup Power Facility will provide backup power to 4 x 2,000 HP pumps during power outages.	System Stewardship
Commence construction of the Newton Pump Station No. 2	This project is required to meet growing water demand in the City of Surrey and will replace the existing Newton Pump Station and include full back-up power redundancy and new connections to the existing Newton Reservoir.	Regional Growth
Update Regional Water Quality Monitoring and Reporting Plan	Assess and update plan with GVWD member jurisdictions and Health Authorities to ensure compliance with regulations and operating permit.	Regulatory and Legislative Environment
2022		
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
Barnston/Maple Ridge PS Backup Power.	Ongoing program to provide backup power for key infrastructure so it will operate during power outages and major storm events.	System Stewardship
Complete construction of Fleetwood Reservoir	The 13.6 ML Fleetwood Reservoir and 1.1 km feeder main will increase water supply to meet growing demand in the City of Surrey.	Regional Growth
Commence construction of Cape Horn Pump Station No. 3	The Cape Horn Pump Station No. 3 is 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
2023		
Dam Safety Review for Cleveland Dam	Complete the Dam Safety Review for Cleveland Dam in accordance with the provincial Dam Safety Regulations which require Dam Safety Reviews at 7-year intervals for extreme consequence dams.	Regulatory and Legislative Environment
Commence conceptual design of Lulu-Island Delta Main No. 2 Marine Crossing	A new Lulu-Island Delta Main is required to address growth south of the Fraser River and seismic and operational resilience.	System Stewardship
Update BC Hydro Coquitlam Water Use Plan	Work with BC Hydro on the review and update of the Coquitlam Water Use Plan	Environmental Sustainability

Complete Environmental Management System (EMS) for Water Services	Complete development of an EMS for Water Services that captures the Utility's commitment to environmental protection and regulatory compliance.	Regulatory and Legislative Environment
Complete Douglas Road Main No. 2 (Still Creek Section)	The Still Creek Section is the last remaining section to be installed for the overall Douglas Road Main No.2 watermain project. This section is approximately 2.5 km long, 1.5m in diameter, extending from the Lougheed Highway to Canada Way in Burnaby.	System Stewardship
2024		
Complete construction of Second Narrows Water Supply Tunnel	Complete construction of a 1.1 km long, 6.5 m diameter water supply tunnel under Burrard Inlet between District of North Vancouver and City of Burnaby and prepare for final commissioning.	System Stewardship
Drinking Water Conservation Plan Review	Identify potential updates or amendments following monitoring of new restrictions first implemented in summer 2018.	Regional Growth
Complete construction of Kennedy-Newton Main	The Kennedy-Newton Main is 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
Complete construction of Annacis Main No. 5 (North)	This project is 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

METRO VANCOUVER DISTRICTS
2020-2024 PROJECTED RESERVES - WATER SERVICES

ATTACHMENT 5

OPERATING RESERVES

	2019 ENDING BALANCE	2020 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2020 ENDING BALANCE	2021 ENDING BALANCE	2022 ENDING BALANCE	2023 ENDING BALANCE	2024 ENDING BALANCE
Water Services	\$ 16,889,798	\$ 16,889,798	\$ -	\$ (118,178)	\$ 340,014	\$ 17,111,634	\$ 17,058,203	\$ 17,690,087	\$ 18,131,536	\$ 18,569,153

STATUTORY RESERVES

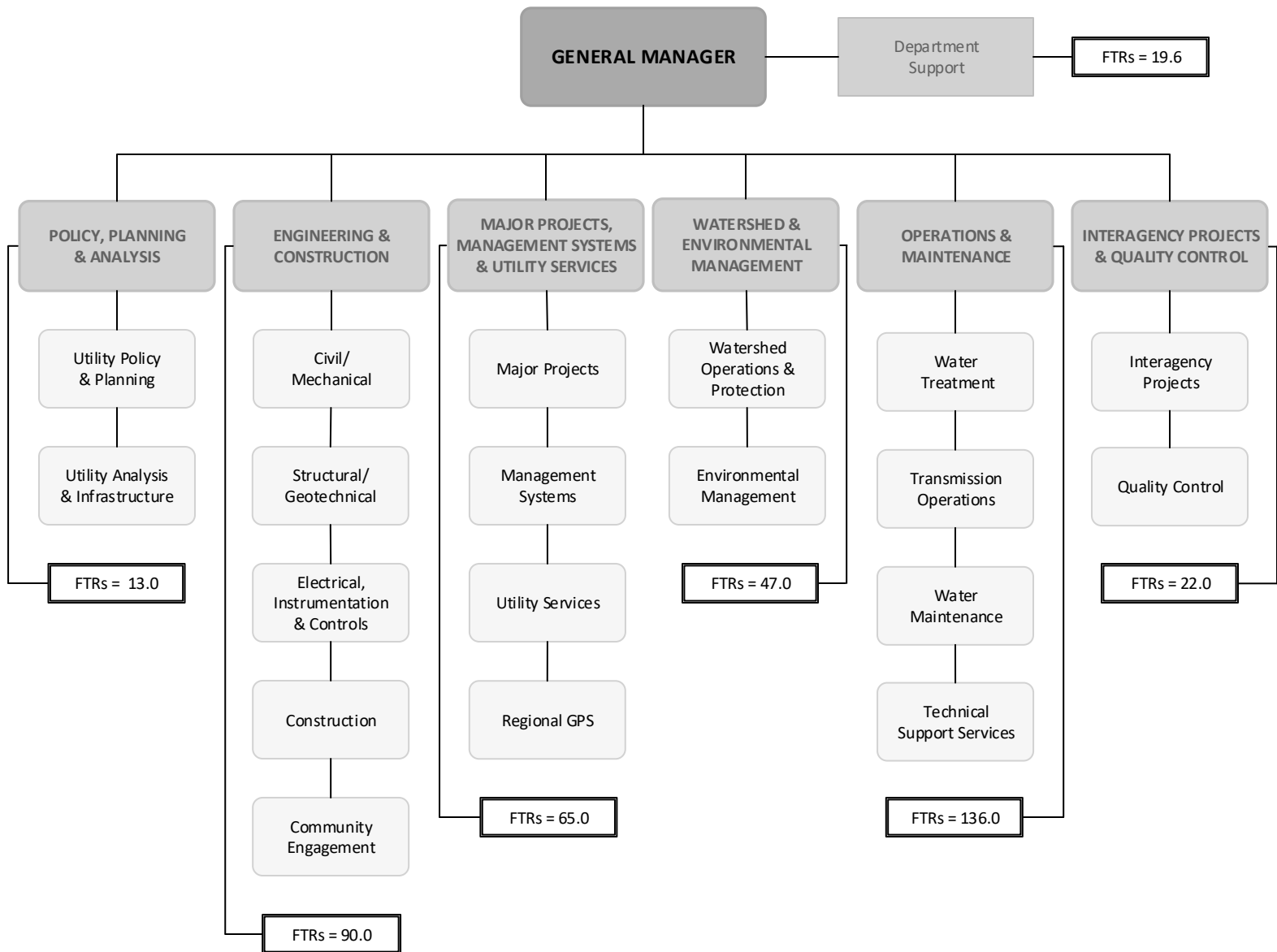
	2019 ENDING BALANCE	2020 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2020 ENDING BALANCE	2021 ENDING BALANCE	2022 ENDING BALANCE	2023 ENDING BALANCE	2024 ENDING BALANCE
Water Services										
Water Laboratory Equipment Reserve	\$ 571,339	\$ 571,339	\$ 46,000	\$ (91,000)	\$ 10,977	\$ 537,316	\$ 497,562	\$ 544,884	\$ 555,781	\$ 613,357
Water Sustainability Innovation Fund Reserve	12,396,296	12,396,296	723,000	(230,000)	252,856	13,142,152	14,135,225	15,148,160	16,181,353	17,235,210

Water Services



metrovancover
SERVICES AND SOLUTIONS FOR A LIVABLE REGION

2019



Water Services
2019 Total FTRs = 393.6
2020 Proposed FTRs = 398.6

To: Zero Waste Committee

From: Paul Henderson, General Manager, Solid Waste Services

Date: October 11, 2019

Meeting Date: October 18, 2019

Subject: **2020 - 2024 Financial Plan – Solid Waste Services**

RECOMMENDATION

That the Zero Waste Committee endorse the 2020 - 2024 Financial Plan for Solid Waste Services as presented in the report “2020 - 2024 Financial Plan – Solid Waste Services” dated October 11, 2019 and forward it to the Greater Vancouver Sewerage and Drainage District Board Budget Workshop on October 23, 2019 for consideration.

PURPOSE

To present the 2020-2024 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) and related functions.

This report focuses on Solid Waste Services and presents the 2020 annual budget and the updated five year plan for the years 2020 to 2024 for committee consideration.

SOLID WASTE SERVICES PROGRAM

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

Solid Waste Services works collaboratively with member municipalities to provide waste management services to the region’s 2.5 million people. The system is comprised of transfer stations and a waste-to-energy facility that handles approximately 900,000 tonnes of waste annually.

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

Board Strategic Plan:

- Reduce waste, increase recycling and increase recovery of materials and energy from remaining waste. Dispose of residuals in a cost effective and environmentally sustainable manner.

- Develop and implement financial plans and policies that reflect a commitment to sound financial management and long-term planning, in consideration of current and future ratepayers.
- Strengthen awareness and engagement with the public, members, other orders of government, and key stakeholders on a range of initiatives that will reduce waste generated in the region.

Integrated Solid Waste and Resource Management Plan:

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

2020 BUDGET AND 2020 - 2024 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:

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

Attached are the 2020 - 2024 Solid Waste Services Financial Plan Operating Budget Summary (Attachment 1) and the 2020 - 2024 Solid Waste Services Capital Budget Summary (Attachment 2).

Also, 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 2020 Annual Work Plans for the Solid Waste Services budget presented in this report are included in Attachment 3 and the “What’s Happening” highlights for Solid Waste Services for the years 2020 – 2024 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 \$6.9 million in 2020 for a total budget of \$114.1 million (Attachment 1). This increase can essentially be attributed to increasing transfer station and Waste-to-Energy Facility operating costs based on volume, additional resources in support of the work to update the *Integrated Solid Waste and Resource Management Plan* beginning in 2020 (through 2022) along with debt service and contribution to capital. A significant portion of the increase can be attributed to increased contributions to capital of \$1.7 million to support infrastructure investments required to meet service requirements and growth demands and increased debt service costs of \$2.3 million due to the capital program primarily related to transfer station development work.

The 2020 operating budget includes the following key actions:

- Implementation of the Asset Management Program, including facility condition assessments;
- Complete Waste-to-Energy Facility biosolids processing preliminary design and district energy preliminary design and business case;
- Bottom ash beneficial use procurement;
- Autoscale software replacement plan;
- Initiate review of the *Integrated Solid Waste and Resource Management Plan*;
- Evaluate the transfer station network and potential improvements;
- Monitor implementation of the Disposal Ban Program;
- Evaluate the feasibility of an alternative fuel and recyclable recovery facility;
- Support programs for textiles, single-use items, seasonal wastes, food wastes, illegal dumping, and the Zero Waste Conference;
- Support the National Zero Waste Council including work on implementing the Circular Economy and Zero Plastics Waste;
- Support national solid waste benchmarking and applied waste research;
- Update regional waste composition monitoring;
- Track and manage waste flows;
- Update transfer stations customer service survey;
- Complete replacement Coquitlam Transfer Station construction and prepare for operations;
- Continue Surrey Recycling and Waste Drop-Off Facility development including beginning construction; and
- Inform, educate and engage the public in decision making on applicable solid waste initiatives.

Highlights of contracts and consulting projects anticipated to be undertaken in 2020 to respond to work plan requirements within the operating budget include the following:

- Transfer station scale projects, customer survey, asset condition assessments (\$504,000);
- Waste-to-Energy Facility projects (\$675,000);
- *Integrated Solid Waste and Resource Management Plan* review and update (\$1,000,000); and
- Ashcroft Ranch McLean Lake Dam spillway (\$150,000).

There are no new full-time staff positions proposed for 2020. The Solid Waste Services organization chart is included as Attachment 6.

Over the next five years, the Solid Waste Services budget is expected to increase an average of \$6.8 million or 5.7% per year. Of this overall increase, funding related to the expanding capital program (debt servicing and contribution to the capital) is increasing \$5.0 million on average over the next five years leaving the operating programs which are increasing, on average, by \$1.8 million per year, roughly at the rate of inflation.

Environmental Regulation and Enforcement

Working with the private facility operators, staff will continue with initiatives ensuring compliance with Metro Vancouver's solid waste regulatory bylaws. In 2020, the budget for Solid Waste's Environmental Regulation and Enforcement program is consistent with the 2019 budget.

Capital Budget Highlights

The proposed Solid Waste Services capital budget for 2020 is \$88.5 million (Attachment 2). The capital program is funded by long-term debt and contribution to capital from the annual operating budget as available.

Highlights of capital projects planned or ongoing for 2020 include the following:

- Coquitlam Transfer Station replacement and Coquitlam Landfill Closure;
- Surrey Recycling and Waste Drop-off Facility; and
- Refuse crane at the Waste-to-Energy Facility.

The capital expenditure budget for 2020 - 2024 totals \$282.9 million, an average of \$56.6 million per year. The largest five projects (each over \$10 million) make up approximately 74% of the capital spending over the next five years, with an additional 25 projects on the plan making up the balance.

The capital program over the next five years is largely driven by the need to replace aging transfer stations and expand transfer station capacity through addition and expansion. Upgrades to the existing Waste-to-Energy Facility will ensure it continues to meet regulatory requirements and the addition of biosolids management at the Waste-to-Energy Facility and the Alternative Fuel and Recyclables Recovery project is expected to increase beneficial use of waste within the region. The following five key projects are the largest on the five year plan:

- Alternative Fuel and Recyclables Recovery Centre - \$60.0M
- Coquitlam Transfer Station replacement - \$77.6M
- Surrey Recycling and Waste Drop-off Facility - \$62.3M
- Waste-to-Energy Facility Acid Gas Reduction - \$41.0M
- Waste-to-Energy Facility Biosolids Processing - \$20.5M

The proposed budgets for the Coquitlam Transfer Station replacement and Surrey Recycling and Waste Drop-Off have increased by \$7.4 and \$8.0 million respectively due to increased building and subdivision costs along with site specific issues related to developing the transfer station on a closed landfill for the Coquitlam Transfer Station, and updated costs estimates with the completion of detailed design for Surrey Recycling and Waste Drop-Off. Contingencies for both projects have been replenished with the proposed budget increases.

Business cases for the development of the Alternative Fuel and Recyclables Recovery Centre and biosolids management at the Waste-to-Energy Facility will be provided to the Zero Waste Committee and Board for consideration and specific approval of the projects.

2020 – 2024 Tipping Fee Projections

The following table shows the tipping fee projections based on the required revenue to offset expected expenditures. The tipping fees shown for 2020 through 2023 are consistent with those projected in the 2019 – 2023 Financial Plan.

Projected Tipping Fees for Municipal Solid Waste (\$/tonne)	2019	2020	2021	2022	2023	2024
Municipal Tipping Fee	\$108	\$113	\$120	\$127	\$134	\$141
Small Vehicles (0-1t)	\$142	\$147	\$154	\$161	\$168	\$175
Medium Vehicles (1-8t)	\$120	\$125	\$132	\$139	\$146	\$153
Large Vehicles (>9t)	\$90	\$99	\$106	\$113	\$120	\$127

Reserve Funds

There are no proposed applications of reserve funding in the 2020 – 2024 Financial Plan.

The 2020 - 2024 Projected Reserves for Solid Waste Services is included in Attachment 5.

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 2020 Work Plans for Solid Waste Services are presented in this report. Within the Solid Waste Services Work Plans, four performance indicators have been developed and are being tracked. These include:

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

The trend in these performance measures show waste diversion is experiencing ongoing but diminishing increases as easily recycled materials are removed from the waste stream. Previously observed decreases in disposed waste quantities are being offset by increases in regional population and other factors.

CONSISTENCY WITH THE 2019-2023 FINANCIAL PLAN

The updated five year financial plan has been developed to be consistent with the 2019 – 2023 financial plan. As shown in Attachment 1, the overall 2020 Solid Waste impact on the average regional household is generally consistent with prior year projections with an average regional household cost of \$62 (2019 projection: \$60). Regarding the 2021 – 2023 timeframe, the average regional household rate is projected to increase by \$3 compared to the previous five year projection. The primary drivers for this change are adjustments to expected waste flows consistent with actual quantities, and consequently increased estimated per household waste quantities.

APPROVAL PROCESS

The proposed 2020-2024 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 2020 – 2024 Financial Plan and Annual Work Plan will be presented for consideration at the Board Budget Workshop on October 23, 2019.
- The Board will consider adoption of the 2020 Budget and endorsement of the 2020-2024 Financial Plan on November 1, 2019.

ALTERNATIVES

1. That the Zero Waste Committee endorse the 2020 - 2024 Financial Plan for Solid Waste Services as presented in the report “2020 - 2024 Financial Plan – Solid Waste Services” dated October 11, 2019 and forward it to the Board Budget Workshop on October 23, 2019 for consideration.
2. That the Zero Waste Committee make recommendations and endorse an amended 2020 - 2024 Financial Plan for Solid Waste Services and forward the amended Financial Plan to the Board Budget Workshop on October 23, 2019 for consideration.

FINANCIAL IMPLICATIONS

If the GVS&DD Board approves the 2020 Budget and endorses the Five Year Financial Plan for Solid Waste Services, as presented under Alternative 1, in 2020 the revenue from the tipping fees for the system will increase by \$7.4 million (7.6%) to \$105.8 million which will generate the majority of the \$114.1 million in total revenue required to offset projected expenditures. The increase in the tipping fees represents a \$4 increase in the cost to the average regional household to \$62 (2019 forecast: \$60.)

Over the term of the five year plan, the annual tipping fee revenue is projected to increase by an average of \$6.5 million per year to provide the required revenue to offset projected expenditures. It is anticipated that the cost to the average regional household over the next five years will rise from \$58 in 2019 to \$73 in 2024 representing an average annual increase of \$3.

Under Alternative 2, the Committee may wish to consider recommending amendments to the 2020 Budget and Five Year Financial Plan for Solid Waste Services for consideration at the Board Budget Workshop. Any changes to the plan may have an impact on the Solid Waste Services Financial Plan.

SUMMARY / CONCLUSION

The 2020 Budget and Five Year Financial Plan for Solid Waste Services has been prepared 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 2020 to 2024 for Solid Waste Services.

The presentation of the 2020 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 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 2020 - 2024 Budget and Five Year Financial Plan and Annual Work Plans for Solid Waste Services as presented under Alternative 1.

Attachments:

1. 2020 - 2024 Solid Waste Financial Plan
2. 2020 - 2024 Solid Waste Services Capital Budget Summary
3. 2020 Solid Waste Work Plans
4. 2020 - 2024 “What’s Happening” in Solid Waste
5. 2020 - 2024 Projected Reserves – Solid Waste
6. Organizational Chart – Solid Waste

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**GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
SOLID WASTE
2020 BUDGET REVIEW
2020-2024 FINANCIAL PLAN**

	2017 ACTUAL	2018 ACTUAL	2019 BUDGET	2020 BUDGET	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE	2024 FORECAST	% CHANGE
REVENUES													
Solid Waste Tipping Fees	\$ 98,635,607	\$ 102,036,530	\$ 98,362,329	\$ 105,822,892	7.6%	\$ 112,531,210	6.3%	\$ 117,787,451	4.7%	\$ 125,918,930	6.9%	\$ 130,900,548	4.0%
Energy Sales	5,642,942	5,584,341	5,927,304	5,681,540		6,239,530		6,401,758		6,568,204		6,738,977	
Other External Revenues	4,075,089	2,507,229	2,868,134	2,584,192		3,492,679		3,579,902		3,654,275		3,731,250	
TOTAL REVENUES	\$ 108,353,638	\$ 110,128,100	\$ 107,157,767	\$ 114,088,624	6.5%	\$ 122,263,419	7.2%	\$ 127,769,111	4.5%	\$ 136,141,409	6.6%	\$ 141,370,775	3.8%
EXPENDITURES													
Operating Programs:													
Solid Waste Operations													
Allocated Quality Control	\$ 16,621	\$ 17,102	\$ 26,437	\$ 19,032		\$ 19,777		\$ 20,271		\$ 20,376		\$ 20,670	
Ashcroft Ranch	213,155	343,551	587,543	515,127		372,485		380,013		387,733		395,646	
Engineers in Training	78,746	65,549	130,725	103,806		105,901		108,027		110,199		112,418	
Landfills	37,591,183	47,680,002	33,507,835	33,342,259		31,396,072		31,480,313		33,692,586		31,905,257	
Transfer Station System	30,636,907	32,189,297	34,391,750	35,599,324		39,022,009		38,421,465		39,395,572		40,443,566	
Waste to Energy Facility	20,575,965	19,617,423	22,646,504	23,615,873		24,220,370		24,952,707		26,346,839		27,009,931	
	89,112,577	99,912,924	91,290,794	93,195,421	2.1%	95,136,614	2.1%	95,362,796	0.2%	99,953,305	4.8%	99,887,488	(0.1%)
Solid Waste Planning													
Policy and Facility Development	739,270	658,352	836,841	726,126		738,728		751,521		756,594		769,957	
Zero Waste Implementation	1,327,223	1,372,524	1,741,398	2,559,193		2,600,003		2,640,582		1,882,137		1,932,723	
Programs and Public Involvement	302,483	262,322	369,758	695,157		704,792		714,582		524,594		534,823	
	2,368,976	2,293,198	2,947,997	3,980,476	35.0%	4,043,523	1.6%	4,106,685	1.6%	3,163,325	(23.0%)	3,237,503	2.3%
Administration and Department Support	705,811	620,676	657,069	637,780	(2.9%)	649,108	1.8%	660,604	1.8%	672,348	1.8%	677,829	0.8%
Environmental Regulation and Enforcement	783,766	747,823	962,853	958,874	(0.4%)	978,013	2.0%	997,119	2.0%	1,016,636	2.0%	1,036,790	2.0%
Allocation of Centralized Support Costs	3,976,545	4,348,955	4,674,251	4,690,785	0.4%	4,642,345	(1.0%)	4,808,758	3.6%	4,711,392	(2.0%)	4,792,076	1.7%
Total Operating Programs	96,947,675	107,923,576	100,532,964	103,463,336	2.9%	105,449,603	1.9%	105,935,962	0.5%	109,517,006	3.4%	109,631,686	0.1%
Debt Service	581,197	-	2,494,949	4,837,308	93.9%	11,366,161	130.0%	17,761,696	56.3%	21,337,485	20.1%	23,537,606	10.3%
Total Contribution to Capital	-	-	4,129,854	5,787,980	40.1%	5,447,655	(5.9%)	4,071,453	(25.3%)	5,286,918	29.9%	8,201,483	55.1%
TOTAL EXPENDITURES	\$ 97,528,872	\$ 107,923,576	\$ 107,157,767	\$ 114,088,624	6.5%	\$ 122,263,419	7.2%	\$ 127,769,111	4.5%	\$ 136,141,409	6.6%	\$ 141,370,775	3.8%
Household Impact (\$)													
			58	\$ 62	6.6%	\$ 65	5.3%	\$ 68	3.7%	\$ 70	3.5%	\$ 73	4.1%

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
CAPITAL PROGRAMS AND PROJECT TOTALS
SOLID WASTE SERVICES
2020-2024 CAPITAL PLAN

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
CAPITAL EXPENDITURES							
SW Landfills Capital							
Alternative Fuel and Recyclables Recovery Centre							
Alternative Fuel and Recyclables Recovery Centre	\$ -	\$ -	\$ 1,500,000	\$ 15,000,000	\$ 33,500,000	\$ 50,000,000	\$ 60,000,000
Coquitlam Landfill Closure							
Coquitlam Landfill Closure	3,000,000	-	-	-	-	3,000,000	5,000,000
Coquitlam Landfill East Closure							
Coquitlam Landfill East Closure	-	-	400,000	3,500,000	1,100,000	5,000,000	5,000,000
Coquitlam Landfill Fly Ash Cell 2 Closure Final Cover							
Coquitlam Landfill Fly Ash Cell 2 Closure Final Cover	1,820,000	-	-	-	-	1,820,000	3,200,000
Coquitlam Landfill Gas Collection Upgrades							
Coquitlam Landfill Gas Collection Upgrades	100,000	-	-	-	-	100,000	3,100,000
Coquitlam Landfill Gas Collection Upgrades Phase II	2,380,000	-	-	-	-	2,380,000	3,600,000
Coquitlam Landfill Lot 3 Development							
Coquitlam Landfill Lot 3 Development	4,000,000	1,000,000	-	-	-	5,000,000	5,000,000
Coquitlam Landfill Pump Station Upgrade							
Coquitlam Landfill Pump Station Upgrade	400,000	-	-	-	-	400,000	600,000
Coquitlam Landfill: Leachate Collection System Grade Realignment							
Coquitlam Landfill: Leachate Collection System Grade Realignment	550,000	300,000	-	-	-	850,000	1,000,000
	\$ 12,250,000	\$ 1,300,000	\$ 1,900,000	\$ 18,500,000	\$ 34,600,000	\$ 68,550,000	\$ 86,500,000
SW Opportunity Capital							
WTE Facility District Heating Opportunities							
WTE Facility District Heating Opportunities	\$ 2,250,000	\$ -	\$ -	\$ -	\$ -	\$ 2,250,000	\$ 2,300,000
	\$ 2,250,000	\$ -	\$ -	\$ -	\$ -	\$ 2,250,000	\$ 2,300,000
SW Transfer Stations Capital							
Coquitlam Transfer Station Compactor Replacement							
Coquitlam Transfer Station Compactor Replacement	\$ 2,500,000	\$ -	\$ -	\$ -	\$ -	\$ 2,500,000	\$ 2,500,000

**GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
CAPITAL PROGRAMS AND PROJECT TOTALS
SOLID WASTE SERVICES
2020-2024 CAPITAL PLAN**

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
Coquitlam Transfer Station Replacement							
Coquitlam Transfer Station Replacement	35,000,000	15,000,000	-	-	-	50,000,000	77,600,000
Maple Ridge Transfer Station Upgrades							
Maple Ridge Transfer Station Upgrades	-	2,000,000	-	-	-	2,000,000	2,000,000
North Shore Transfer Station Compactor Replacement							
North Shore Transfer Station Compactor Replacement	-	-	-	-	2,500,000	2,500,000	2,500,000
Surrey Recycling and Waste Drop-Off							
Surrey Recycling and Waste Drop-Off	20,300,000	18,000,000	10,000,000	-	-	48,300,000	62,300,000
Surrey Transfer Station Compactor Replacement							
Surrey Transfer Station Compactor Replacement	-	-	2,500,000	-	-	2,500,000	2,500,000
	\$ 57,800,000	\$ 35,000,000	\$ 12,500,000	\$ -	\$ 2,500,000	\$ 107,800,000	\$ 149,400,000
SW Waste to Energy Facility Capital							
Acid Gas Reduction							
Acid Gas Reduction	\$ 2,800,000	\$ 17,750,000	\$ 20,000,000	\$ -	\$ -	\$ 40,550,000	\$ 41,000,000
Biosolids Processing							
Biosolids Processing	400,000	10,000,000	10,000,000	-	-	20,400,000	20,500,000
Boiler Grate and Feed Table Supports Replacement							
Boiler Grate and Feed Table Supports Replacement	-	-	-	-	4,500,000	4,500,000	4,500,000
Bottom Ash Crane Replacement							
Bottom Ash Crane Replacement	-	1,500,000	-	-	-	1,500,000	1,500,000
Carbon Silo Replacement							
Carbon Silo Replacement	-	1,200,000	1,200,000	-	-	2,400,000	2,400,000
Feed Hopper/Chute							
Feed Hopper/Chute	1,800,000	-	-	-	-	1,800,000	2,600,000
Feedwater Pump Replacement							
Feedwater Pump Replacement	720,000	-	-	-	-	720,000	1,000,000
Generation Bank Replacement							
Generation Bank Replacement	-	6,000,000	3,000,000	-	-	9,000,000	9,000,000
Lime Silo Replacement							
Lime Silo Replacement	-		1,800,000	-	-	3,600,000	3,600,000

**GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
CAPITAL PROGRAMS AND PROJECT TOTALS
SOLID WASTE SERVICES
2020-2024 CAPITAL PLAN**

	2020 CAPITAL BUDGET	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2024 CAPITAL PLAN	2020 TO 2024 TOTAL	TOTAL PROJECT COSTS
Primary Economizer Replacement							
Primary Economizer Replacement	2,000,000	3,000,000	-	-	-	5,000,000	5,000,000
Refuse Crane							
Refuse Crane	7,000,000	-	-	-	-	7,000,000	7,000,000
Second Pass Superheater Replacement							
Second Pass Superheater Replacement	1,500,000	-	-	-	-	1,500,000	5,500,000
Secondary Economizers Replacement							
Secondary Economizers Replacement	-	4,000,000	2,000,000	-	-	6,000,000	6,000,000
Stack Refurbishment							
Stack Refurbishment	-	-	-	350,000	-	350,000	350,000
	\$ 16,220,000	\$ 45,250,000	\$ 38,000,000	\$ 350,000	\$ 4,500,000	\$ 104,320,000	\$ 109,950,000
TOTAL CAPITAL EXPENDITURES	\$ 88,520,000	\$ 81,550,000	\$ 52,400,000	\$ 18,850,000	\$ 41,600,000	\$ 282,920,000	\$ 348,150,000

CAPITAL FUNDING							
New External Borrowing	\$ 84,060,000	\$ 78,250,000	\$ 49,400,000	\$ 17,150,000	\$ 38,700,000	\$ 267,560,000	
Surplus from Prior Year/Reserves	4,460,000	3,300,000	3,000,000	1,700,000	2,900,000	15,360,000	
Total	\$ 88,520,000	\$ 81,550,000	\$ 52,400,000	\$ 18,850,000	\$ 41,600,000	\$ 282,920,000	

DEBT SERVICING TOTALS/RATIO							
Operating Programs - Solid Waste Services	\$ 103,500,000	\$ 105,400,000	\$ 105,900,000	\$ 109,500,000	\$ 109,600,000	\$ 533,900,000	
Debt Service - Existing	4,100,000	4,800,000	11,400,000	17,800,000	21,300,000	59,400,000	
Debt Service - New	700,000	6,600,000	6,400,000	3,500,000	2,200,000	19,400,000	
Debt Service - Up to 2019	4,100,000	4,100,000	4,100,000	4,100,000	4,100,000	20,500,000	
Debt Service - 2020 and onward	700,000	7,300,000	13,700,000	17,200,000	19,400,000	58,300,000	
Contribution to Capital	5,800,000	5,400,000	4,100,000	5,300,000	8,200,000	28,800,000	
Total	\$ 114,100,000	\$ 122,200,000	\$ 127,800,000	\$ 136,100,000	\$ 141,300,000	\$ 641,500,000	
% Debt Service	4%		14%	16%	17%	12%	

SOLID WASTE SERVICES

Solid Waste Operations

Description of services

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

Metro Vancouver facilities include the North Shore, Coquitlam, Surrey, Maple Ridge, and Langley Transfer Stations; 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, the Ashcroft Ranch and several other properties in Cache Creek.

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 transfer stations
- Assess the viability of implementing district heating at the waste-to-energy facility

Integrated Solid Waste and Resource Management Plan

- 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	2020 Performance Objective
Annual solid waste flows in Metro Vancouver system (tonnes)	2018: 918,000 2017: 904,000 2016: 897,000	projected: 920,000	860,000
Availability of the Waste-to-Energy Facility	Contract Requirement: 90% 2018: 90.4% 2017: 91.1% 2016: 91.7%	projected: 91%	93%

2020 key actions

General

- Implementation of asset management program, including facility condition assessments
- Continue to work with Properties Division on surplus land disposition for the Ashcroft Ranch, Matsqui Transfer Station and Cache Creek properties

Transfer Stations

- Prepare for operation of the replacement Coquitlam Transfer Station
- Organics processing contracts for the North Shore, Langley and Maple Ridge Transfer Stations
- Autoscale software replacement plan and license plate recognition software

Waste-to-Energy Facility

- Complete upgrade and replacement projects including refuse crane, feed hopper/feed chutes, primary economizers, second pass superheaters, and feedwater pumps
- Complete biosolids processing preliminary design and district energy preliminary design and business case
- Operational certificate amendment
- Bottom ash beneficial use procurement

Landfills

- Coquitlam Landfill closure works including gas collection, surface water management and final cover
- Contingency disposal operating contract review
- Consulting contracts for Coquitlam Landfill to meet landfill gas and leachate regulations for Approval-In-Principle and Closure Plan reporting.
- Work with Water Services and Liquid Waste Services on soil disposal at the Vancouver Landfill

Ashcroft Ranch

- Drainage and irrigation improvements along with upgrades to the McLean Lake Dam spillway

SOLID WASTE SERVICES

Solid Waste Planning and Public Involvement

Description of services

Solid Waste Services provides waste reduction and recycling planning and solid waste disposal services to the region under the authority of the Greater Vancouver Sewerage and Drainage District (GVS&DD). Solid Waste Planning and Public Involvement is responsible for the implementation of initiatives as set out in the *Integrated Solid Waste and Resources Management Plan (ISWRMP)*, including:

- develop and implement regional waste reduction and recycling initiatives in the ISWRMP, including bans, bylaws, recycling depots, etc.;
- identify, plan and develop regional infrastructure to fulfill future needs for waste transfer and disposal;
- provide engagement services to key solid waste projects.

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
- Continue communication campaigns that increase diversion through reuse, repurposing or recycling
- Research opportunities to ensure sufficient capacity in regional recycling and waste diversion
- 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	2020 Performance Objective
Waste diversion rate (percent of solid waste flow diverted from final disposal)	Canadian average*: 27.1% Metro Vancouver historical: 2017: 63% 2016: 62%	64%	66% (Aspirational goal of 80%)

Indicator	Historical and/or Industry Benchmark	Current Performance	2020 Performance Objective
Waste disposed per capita (tonnes)	Canadian average*: 0.69 Metro Vancouver historical: 2018: 0.48 2017: 0.49 2016: 0.49	Projected: 0.49	0.48

*Most recent figures (2016) from Statistics Canada. 255kg/cap diverted in 2016

2020 key actions

- Initiate review of the *Integrated Solid Waste and Resource Management Plan*
- Continue single-use items reduction strategy
- Evaluate the feasibility of an alternative fuel and recyclables recovery facility
- Evaluate the transfer station network and potential improvements
- Monitor implementation of Disposal Ban Program
- Support programs for textiles, single-use items, seasonal waste, food waste, illegal dumping, and the Zero Waste Conference
- Support the National Zero Waste Council including work on implementing the Circular Economy and Zero Plastics Waste
- Support national solid waste benchmarking and applied waste research
- Update regional waste composition monitoring
- Track and manage waste flows
- Update transfer stations customer service survey
- Complete replacement Coquitlam Transfer Station construction
- Continue Surrey Recycling and Waste Drop-Off Facility development including beginning construction
- Inform, educate and engage the public in decision-making on applicable solid waste initiatives

2020 to 2024 – WHAT'S HAPPENING

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

Initiative	Description	Theme
2020		
Weigh scale software replacement	Autoscale software replacement plan	System Stewardship
Asset management Planning	Asset management program implementation and plan development.	System Stewardship
Biosolids utilization at the Waste-to-Energy Facility	Design of biosolids utilization system at the Waste-to-Energy Facility	Opportunities for Innovation and Enhanced Service
Transfer Station system evaluation	Evaluate the transfer station network and potential improvements.	Addressing Regional Growth
Surrey Recycling and Waste Drop-Off Facility	Begin construction of new Surrey Recycling and Waste Drop-Off Facility	Addressing Regional Growth
District energy system at the Waste-to-Energy Facility	Feasibility of a district energy system	Environmental Protection and Climate Action
Initiate Review of <i>Integrated Solid Waste and Resource Management Plan</i>	Initiate review of the <i>Integrated Solid Waste and Resource Management Plan</i>	Environmental Protection and Climate Action
Zero Waste Initiatives	Continue single use items reduction strategy	Environmental Protection and Climate Action
Bottom Ash Beneficial Use	Procurement for beneficial use of bottom ash	Environmental Protection and Climate Action
Alternative fuel and recyclables recovery	Evaluate feasibility of an alternative fuel and recyclables recovery facility	Environmental Protection and Climate Action
Coquitlam Transfer Station Replacement	Commence operations for the Coquitlam Transfer Station replacement	Addressing Regional Growth
Commercial Food Waste Receipt Business Case	Evaluate the business case to receive commercial food waste at regional transfer stations	Environmental Protection and Climate Action
2021		
Capital replacements at the Waste-to-Energy Facility	Continue capital replacements and upgrades, including primary and secondary economizers, generation bank, and bottom ash crane	System Stewardship
Surrey Recycling and Waste Drop-Off Facility	Commence operations for the Surrey Recycling and Waste Drop-Off Facility	Addressing Regional Growth
Review of <i>Integrated Solid Waste and Resource Management Plan</i>	Continue review of the <i>Integrated Solid Waste and Resource Management Plan</i>	Environmental Protection and Climate Action
Zero Waste Initiatives	Research on additional materials to be targeted for further diversion programs such as the disposal ban program	Environmental Protection and Climate Action

Biosolids utilization at the Waste-to-Energy Facility	Commence construction of biosolids utilization system	Opportunities for Innovation and Enhanced Service
2022		
Surrey Transfer Station Compactor Replacement	Replace Surrey Transfer Station compactor	System Stewardship
Capital replacements at the Waste-to-Energy Facility	Continue capital replacements and upgrades, including secondary economizers, generation bank, lime and carbon silos	System Stewardship
Review of <i>Integrated Solid Waste and Resource Management Plan</i>	Continue review of the <i>Integrated Solid Waste and Resource Management Plan</i>	Environmental Protection and Climate Action
Zero Waste Initiatives	Monitor, review and develop waste diversion education, regulation, and economic incentives in the region	Environmental Protection and Climate Action
Alternative fuel and recyclables recovery	Commence construction of an alternative fuel and recyclables recovery facility	Environmental Protection and Climate Action
2023		
Coquitlam Landfill Closure	Close eastern area of landfill	System Stewardship
Capital replacements at the Waste-to-Energy Facility	Continue capital replacements and upgrades, including stack refurbishment	System Stewardship
Initiate Review of <i>Integrated Solid Waste and Resource Management Plan</i>	Complete review of the <i>Integrated Solid Waste and Resource Management Plan</i>	Environmental Protection and Climate Action
Zero Waste Initiatives	Monitor, review and develop waste diversion education, regulation, and economic incentives in the region	Environmental Protection and Climate Action
2024		
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	Monitor, review and develop waste diversion education, regulation, and economic incentives in the region	Environmental Protection and Climate Action

METRO VANCOUVER DISTRICTS
2020-2024 PROJECTED RESERVES - SOLID WASTE SERVICES

OPERATING RESERVES

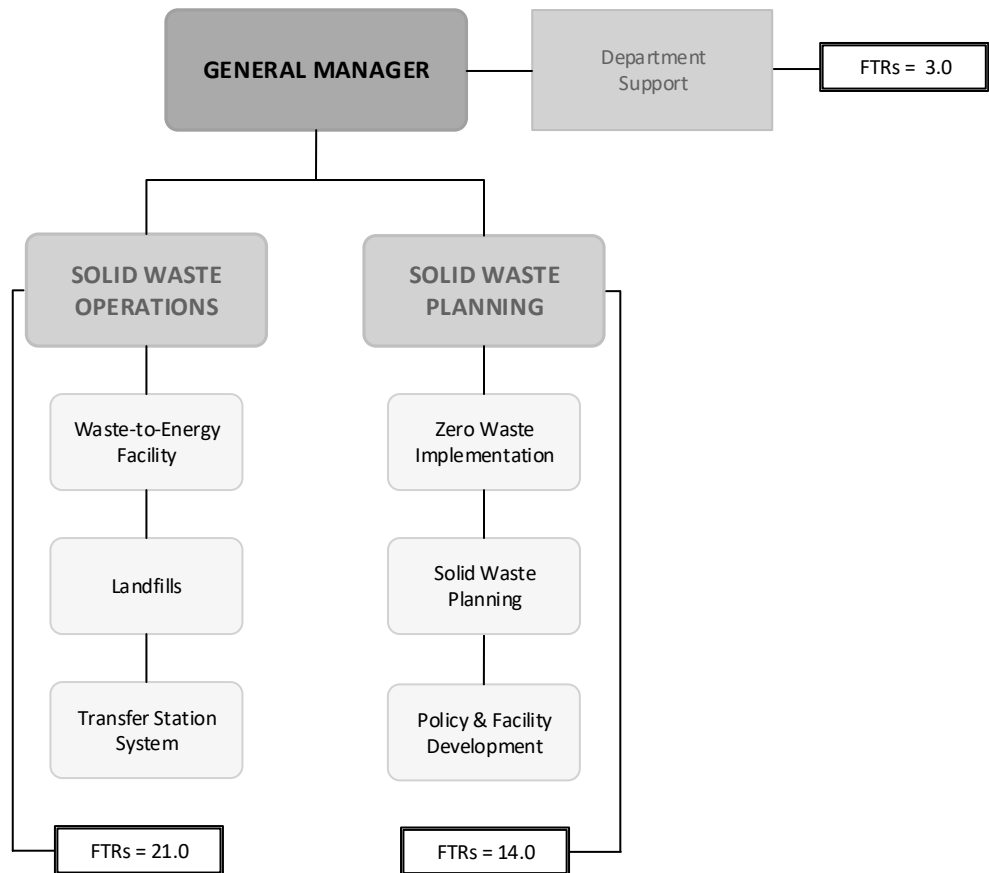
	2019	2020				2020	2021	2022	2023	2024
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Solid Waste Services	\$ 14,633,768	\$ 14,633,768	\$ 149,040	\$ -	\$ 297,137	\$ 15,079,945	\$ 15,519,500	\$ 15,817,440	\$ 15,890,394	\$ 16,427,551

DISCRETIONARY RESERVES

	2019	2020				2020	2021	2022	2023	2024
	ENDING BALANCE	OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE	ENDING BALANCE
Solid Waste Services										
Solid Waste General Reserve	\$ 32,944,040	\$ 32,944,040	\$ -	\$ -	\$ 658,881	\$ 33,602,920	\$ 34,274,979	\$ 34,960,478	\$ 35,659,688	\$ 36,372,882
Landfill Post Closure Reserve	10,913,540	10,913,540	-	-	218,271	11,131,811	11,354,447	11,581,536	11,813,167	12,049,430

Solid Waste Services

2019



30037638
 September 30, 2019

Solid Waste Services
2019 Total FTRs = 39.0
2020 Proposed FTRs = 39.0

To: Metro Vancouver Districts Boards of Directors
Metro Vancouver Housing Corporation Board of Directors

From: MVRD Standing Committees

Date: October 22, 2019

Meeting Date: October 23, 2019

Subject: **Standing Committee Comments on 2020 – 2024 Financial Plans**

At meetings scheduled in October, the MVRD Standing Committees considered the 2020 – 2024 Financial Plans under their respective purviews and offered the following comments which are now before the Board for its consideration:

CLIMATE ACTION COMMITTEE

- The need to clarify for the Board what is driving the 14% increase for 2020 and consider developing a baseline to measure emissions sources to support the increase.
- Concerns about project contingencies being included
- Members suggested consideration be given to exploring incentives for businesses reducing emissions through retrofitting or replacement efforts as part of the 2020 fee system review.
- In response to questions, members were informed about Metro Vancouver's achieving corporate carbon neutrality in 2015, and the status of efforts to date.

ELECTORAL AREA COMMITTEE

Members commented on the application of Electoral Area A reserves in 2020.

FINANCE AND INTERGOVERNMENT COMMITTEE

- Material presented in the PowerPoint should clearly identify whether it relates to a specific function or the overall Metro Vancouver Regional District budget.
- Describe how new funding for regional functions, such as Regional Parks and Affordable Housing, aligns with goals identified in the Board Strategic Plan.
- Concerns expressed about affordability and taxpayer impact from annual increases in the Plan.
- Concerns expressed about endorsing individual requests (i.e. Parks and Housing) without understanding the implications for taxpayers from the overall Metro Vancouver Districts budget.
- Discussion of core Metro Vancouver services.

HOUSING COMMITTEE

No comments provided.

INDIGENOUS RELATIONS COMMITTEE

No comments provided.

LIQUID WASTE COMMITTEE

Members questioned how surpluses, reserves and development cost charges are used to offset operating costs, capital expenditures and debt servicing.

Staff Comment: Members were informed that the use of surpluses and reserves is guided by the Board Policy on *Operating, Statutory and Discretionary Reserves* which directs that any operating surpluses are to be used in accordance with the “appropriation of annual surplus” as set out in the Board Policy. Surpluses are required to be used, in priority order, to maintain minimum operating surpluses, fund capital expenditures or pay down debt, fund on-time expenditures, used as rate stabilization for a legal entity or statutory function or maintain a statutory or discretionary reserve.

REGIONAL PARKS COMMITTEE

Members commented on:

- Asset management, condition assessments and replacement timelines of Regional Parks build structures, and land valuation.
- Staffing changes to respond to annual visitor statistics and park capacities.
- Comparison of greenspace and park networks with other jurisdictions.

REGIONAL PLANNING COMMITTEE

No comments provided.

WATER COMMITTEE

- In response to questions on the proposed 2020-2024 Financial Plan for Water Services, members were informed about a reduction in GVWD contribution-to-capital (‘pay-as-you-go’) for 2020 which has resulted in a reduction in the projected household impact. Members requested that staff explain this reduction to the Board at its Budget Workshop, as the reference in the staff report did not clearly explain the reason for the reduction.

Staff Comment: In the 2019 – 2023 Financial Plan, Contributions to Capital for Water were projected to be \$132.1 million. For the 2020 - 2024 Financial Plan this has been reduced to \$127.1 million. This has resulted in a lower water rate for 2020 and a reduction in the Household Impact while still maintaining the principles set out in the *Financial Management Policy*.

ZERO WASTE COMMITTEE

- In response to questions, members were informed about how the Tipping Fee is driven by capital, debt servicing and operational costs, challenges with projecting waste flow and diversion, managing organics, and 2020 efforts to review the ISWRMP.
- The need to review policies to ensure that contractors are bidding on project values which do not include contingency funds.

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We want to hear from you

Metro Vancouver 2020 Board Budget Workshop and Public Consultation

Join us

Wednesday, October 23, 2019 at 9 am
Metro Vancouver, 28th Floor Boardroom
4730 Kingsway, Burnaby, BC

The 2020 Budget and Five Year Financial Plan includes both operating and capital expenditures for the four entities that make up Metro Vancouver: the Metro Vancouver Regional District, the Greater Vancouver Water District, the Greater Vancouver Sewerage and Drainage District, and the Metro Vancouver Housing Corporation.

You may also send your comments online or in writing:

online: www.metrovancouver.org

email: icentre@metrovancouver.org

mail: Financial Services, Metro Vancouver,
26th Floor, 4730 Kingsway
Burnaby, BC V5H 0C6

Visit www.metrovancouver.org to view Metro Vancouver's 2020 – 2024 Financial Plan and supporting information.