To: Aboriginal Relations Committee

From: Ralph G. Hildebrand, General Manager, Legal and Legislative Services/Corporate Solicitor

Date: September 19, 2018 Meeting Date: October 4, 2018

Subject: **2019 - 2023 Financial Plan – Aboriginal Relations**

RECOMMENDATION

That the Aboriginal Relations Committee endorse the 2019 - 2023 Financial Plan for Aboriginal Relations as presented in the report "2019 - 2023 Financial Plan – Aboriginal Relations" dated September 19, 2018 and forward it to the Board Budget Workshop on October 17, 2018 for consideration.

PURPOSE

To present the 2019 - 2023 Financial Plan for Aboriginal 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 the Aboriginal Relations centralized support program and presents the 2019 annual budget and the updated five year plan for the years 2019 to 2023 for committee consideration.

ABORIGINAL RELATIONS PROGRAM

The Aboriginal 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 Aboriginal 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 Aboriginal Relations program is guided by direction provided in the *2015 to 2018 Board Strategic Plan*, specifically:

- *Enhance relationships between Metro Vancouver and other orders of government, First Nations and stakeholders;* and
- *Advance working relationships with First Nations on shared objectives.*

2019 BUDGET AND 2019 -2023 FINANCIAL PLAN

The five year financial plans for this cycle have been updated to address the four themes Metro Vancouver considers when developing plans and budgets. These are as follows:

- Addressing Regional Growth
- System Stewardship
- Environmental Protection and Climate Action
- Opportunities for Innovation and Enhanced Services

Annual Work Plans are developed for almost all Metro Vancouver functions. The 2019 Annual Work Plan for the Aboriginal Relations budget presented in this report is included in Attachment 3.

A summary of the Aboriginal Relations program highlights, 2019 -2023 "What's Happening", is included under Attachment 1.

Attached is a summary of the Aboriginal Relations 2019 -2023 Financial Plan (Attachment 2).

Operating Budget Highlights

The Aboriginal Relations operating budget is proposed to increase by $193,035 in 2019 for a total budget of $572,196 (Attachment 2). This increase can be attributed primarily to the proposed addition of one new position.

The 2019 operating budget includes the following key actions:

- Complete an annual review/update of Metro Vancouver's Profile of First Nations document;
- Create an online version of Metro Vancouver's Profile of First Nations;
- Host an annual event involving the Aboriginal Relations Committee and First Nations leaders (e.g. Community to Community Forum); and
- Host and/or participate in reconciliation activities (e.g. "Orange Shirt Day"; National Indigenous Peoples Day events).

Highlights of consulting projects anticipated to be undertaken in 2019 to respond to work plan requirements within the operating budget include the following:

- Annual Community to Community Forum
- MTAC staff workshop

In 2019, Aboriginal Relations is proposing the addition of one new Program Manager position to meet the increasing demands related to the communication and engagement with regional First Nations.

Over the five years, the operating program is increasing by $235,033, or an average of 11.6% per year due primarily to the addition of the new staff position in 2019. The operating program, in the next four years of the plan, is increasing by only 1.8% per year on average.

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 2019 Work Plan for Aboriginal Relations is presented in this report. Within the Aboriginal Relations Work Plan, two 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 Aboriginal 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 Aboriginal Relations.

CONSISTENCY WITH THE 2018 – 2022 FINANCIAL PLAN

The updated five year financial plan has been developed to be consistent with the 2018 - 2022 financial plan. The Aboriginal 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 are allocated to the various Metro Vancouver entities and functions in accordance to the *Corporate Allocation Policy* distributing the cost of services provided.

In 2019, the Aboriginal Relations program budget is up $185,465 primarily due to the addition of one new staff position. For the years 2020, 2021 and 2022, other than the additional position, the program is generally consistent with the previous five year projection.

APPROVAL PROCESS

The proposed 2019 - 2023 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 2019 - 2023 Financial Plan and Annual Work Plan will be presented at the Board Budget Workshop on October 17, 2018.
- The Board will consider adoption of the 2019 Budget and endorsement of the 2019 – 2023 Financial Plan on October 26, 2018.

ALTERNATIVES

1. That the Aboriginal Relations Committee endorse the 2019 – 2023 Financial Plan for Aboriginal Relations as presented in the report "2019 - 2023 Financial Plan – Aboriginal Relations" dated September 19, 2018 and forward it to the Board Budget Workshop on October 17, 2018 for consideration.

2. That the Aboriginal Relations Committee make recommendations and endorse an amended 2019 - 2023 Financial Plan for Aboriginal Relations and forward the amended Financial Plan to the Board Budget Workshop on October 17, 2018 for consideration.

FINANCIAL IMPLICATIONS

If the MVRD Board endorses the 2019 Budget and Five Year Financial Plan for Aboriginal Relations, as presented under Alternative 1, the Program will be funded through the allocation of centralized

support services. The 2019 - 2023 Financial Plan, if endorsed will increase by $235,033, or an average of 11.6% per year due primarily to the addition of the new staff position in 2019. The operating program, in the next four years of the plan, is increasing by only 1.8% per year on average. Aboriginal 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 2019 Budget and Five Year Financial Plan for Aboriginal 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 2019 to 2023 for Aboriginal Relations.

The presentation of this year's five year financial plan for Aboriginal 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 Aboriginal 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.

Aboriginal 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 2019 - 2023 Financial Plan for Aboriginal Relations as presented under alternative one.

Attachments:

1. 2019 - 2023 "What's Happening"
2. 2019 - 2023 Financial Plan
3. 2019 Work Plan
4. Organizational Chart

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ATTACHMENT 1

2019 - 2023 "What's Happening"

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

Initiative	Description	Theme
2019		
Interactive Mapping System	Development of an interactive mapping system based on the current document, Metro Vancouver's Profile of First Nations	Opportunities for Innovation and Enhanced Services
Community to Community Forum	A Community to Community Forum to be co-hosted with a First Nation in the region	Addressing Regional Growth
Long-Range Growth Scenarios	First Nations engagement in the long-range growth scenarios being developed by Metro Vancouver and TransLink in preparation for updates to the Regional Growth Strategy and Regional Transportation Strategy	Addressing Regional Growth
2020		
Development of a Mobile Application	Development of a mobile application based on the current document, Metro Vancouver's Profile of First Nations	Opportunities for Innovation and Enhanced Services
Community to Community Forum	A Community to Community Forum to be co-hosted with a First Nation in the region	Addressing 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	Addressing Regional Growth
2021		
Community to Community Forum	A Community to Community Forum to be co-hosted with a First Nation in the region	Addressing Regional Growth
Sensitive Ecosystem Inventory	First Nations engagement in the 5-year update of the sensitive ecosystem inventory for the region	Environmental Protection and Climate Action
2022		
Community to Community Forum	A Community to Community Forum to be co-hosted with a First Nation in the region	Addressing Regional Growth
Climate 2050	First Nations engagement and participation in the implementation of the Climate 2050 issue area roadmaps	Environmental Protection and Climate Action
2023		
Community to Community Forum	A Community to Community Forum to be co-hosted with a First Nation in the region	Addressing Regional Growth

ATTACHMENT 2

METRO VANCOUVER REGIONAL DISTRICT
ABORIGINAL RELATIONS
2019 BUDGET REVIEW
2019-2023 FINANCIAL PLAN

	2017 ACTUAL	2018 BUDGET	2019 BUDGET	% CHANGE	2020 FORECAST	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE
REVENUES												
Allocated to Functional Departments	$ 373,921	$ 379,161	$ 572,196	50.9%	$ 578,648	1.1%	$ 590,292	2.0%	$ 602,110	2.0%	$ 614,194	2.0%
TOTAL REVENUES	**$ 373,921**	**$ 379,161**	**$ 572,196**	**50.9%**	**$ 578,648**	**1.1%**	**$ 590,292**	**2.0%**	**$ 602,110**	**2.0%**	**$ 614,194**	**2.0%**
EXPENDITURES												
Aboriginal Relations	$ 345,802	$ 379,161	$ 572,196	50.9%	$ 578,648	1.1%	$ 590,292	2.0%	$ 602,110	2.0%	$ 614,194	2.0%
TOTAL EXPENDITURES	**$ 345,802**	**$ 379,161**	**$ 572,196**	**50.9%**	**$ 578,648**	**1.1%**	**$ 590,292**	**2.0%**	**$ 602,110**	**2.0%**	**$ 614,194**	**2.0%**

LEGAL AND LEGISLATIVE SERVICES
ABORIGINAL RELATIONS

Description of services

Aboriginal Relations provides information, advice and support to Metro Vancouver on First Nations' interests and issues, and analyses how such First Nations' interests and issues may affect corporate programs, processes and projects. Aboriginal 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:

- Enhance relationships between Metro Vancouver and other orders of government, First Nations and stakeholders.

Goal:

- Advance working relationships with First Nations on shared objectives.

Performance indicators

Indicator	Historical and/or industry benchmark	Current performance	2019 performance objective
Number of local government interests represented at treaty table meetings.	MV 3-year average (2015-2017) 11 2017: 3 2016: 4 2015: 27	2018 YTD July: 2 Objective: 3	4
Number of special Aboriginal Relations events hosted by Metro Vancouver (e.g. Community to Community Forums, workshops, lunch and learn sessions, etc.)	MV 3-year average (2015-2017) 3 2017: 3 2016: 3 2015: 3	2018 YTD July: 2 Objective: 4	4
Number of bilateral meetings between Metro Vancouver and the nine area First Nations with lands.	MV 3-year average (2015-2017) 22 2017: 32 2016: 18 2015: 15	2018 YTD July: 15 Objective: 22	25

Indicator	Historical and/or industry benchmark	Current performance	2019 performance objective
External requests for information or advice related to First Nations and/or Aboriginal Relations.	MV 3-year average (2015-2017) 87 2017: 104 2016: 87 2015: 70	2018 YTD July: 70 Objective: 120	130
Total requests for information or advice related to First Nations and/or Aboriginal Relations	MV 3-year average (2015-2017) 614 2017: 943 2016: 514 2015: 385	YTD July 2018: 776 Objective: 1,330	1,500

2019 key actions

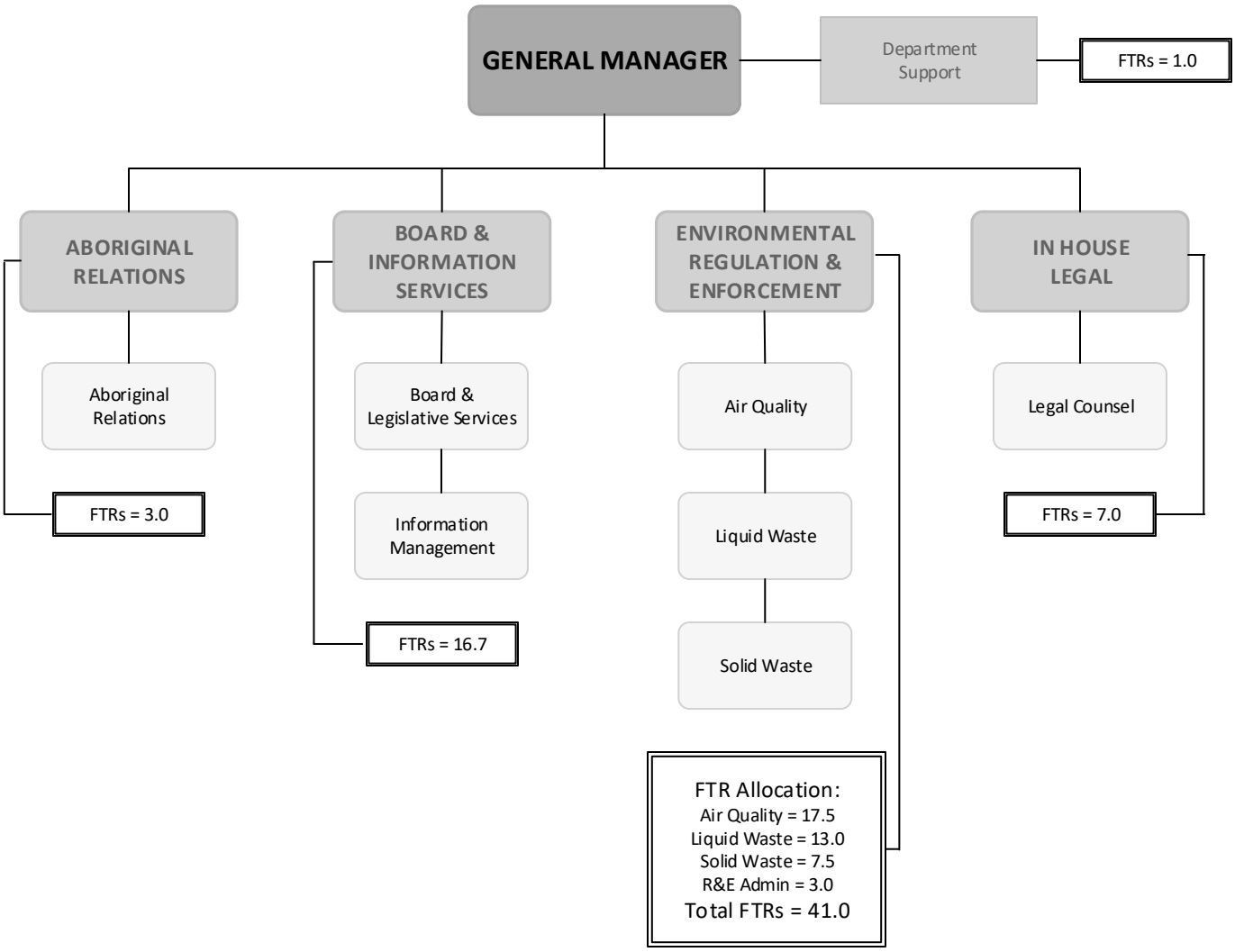
- Complete an annual review/update of Metro Vancouver's Profile of First Nations document.
- Create an online version of Metro Vancouver's Profile of First Nations.
- Host an annual event involving the Aboriginal Relations Committee and First Nations leaders (e.g. Community to Community Forum).
- Host an annual event (e.g. workshop) involving staff of First Nations and local governments on a topical issue in local government-First Nations 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 policy for procuring First Nation services.

ATTACHMENT 4

Legal and Legislative Services

metrovancouver
SERVICES AND SOLUTIONS FOR A LIVABLE REGION

2018



Legal & Legislative Services
2018 Total FTRs = 69.7
2019 Proposed FTRs = 71.7

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September 5, 2018

metrovancouver
SERVICES AND SOLUTIONS FOR A LIVABLE REGION

To: Climate Action Committee

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

Date: September 19, 2018 Meeting Date: October 3, 2018

Subject: **2019 - 2023 Financial Plan – Air Quality**

RECOMMENDATION

That the Climate Action Committee endorse the 2019 - 2023 Financial Plan for Air Quality as presented in the report "2019 - 2023 Financial Plan – Air Quality" dated September 19, 2018 and forward it to the Board Budget Workshop on October 17, 2018 for consideration.

PURPOSE

To present the 2019 - 2023 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 2019 annual budget and the updated five year plan for the years 2019 to 2023 for committee consideration.

AIR QUALITY SERVICE

The Air Quality function within the Metro Vancouver Regional District (MVRD) provides services to all 23 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*, and the Board-adopted *Integrated Air Quality and Greenhouse Gas Management Plan*, specifically:

Board Strategic Plan:

- Develop, adopt and implement a regional climate action strategy for reducing regional greenhouse gas emissions and adapting to climate change.
- Improve air quality by mitigating threats.

- Improve public understanding of the value of clean air and greenhouse gas reductions, and actions to achieve both.

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

2019 BUDGET AND FIVE YEAR FINANCIAL PLANS

The five year financial plans for this cycle have been updated to address the four themes Metro Vancouver considers when developing plans and budgets. These are as follows:

- Addressing Regional Growth
- System Stewardship
- Environmental Protection and Climate Action
- Opportunities for Innovation and Enhanced Services

Annual Work Plans are developed for almost all Metro Vancouver functions. The 2019 Annual Work Plans for the Air Quality budget presented in this report are included in Attachment 3.

A summary of the Air Quality program highlights, 2019 -2023 "What's Happening", is included under Attachment 1.

Attached is a summary of the Air Quality 2019 -2023 Financial Plan (Attachment 2).

Operating Budget Highlights

The overall Air Quality operating budget, including Air Quality and Climate Change and Air Quality Regulation and Enforcement is proposed to decrease by $463,791 in 2019 for a total operating budget of $10.6 million (Attachment 2). This decrease can be attributed mainly to the reduction of the one-time 2018 Sustainability Innovation Fund projects and a decreasing requirement for consulting resources and anticipated legal fees.

The 2019 operating budget includes the following key actions:

- Continue to implement the Climate 2050 Strategy and related climate programs.
- Pursue the development of new air quality bylaws and regulations towards goals for protection of human health and environment and continuous improvement in air quality.

Highlights of consulting projects anticipated to be undertaken in 2019 to respond to work plan requirements within the operating budget include the following:

- Climate change: support coordination and development of the Climate 2050 Strategy (in particular the Issue Area Roadmaps for transportation and buildings); develop carbon credits from restoration of Burns Bog, regional parks land acquisition, and landfill gas recovery; and ongoing implementation of the Emotive electric vehicle campaign and planning for charging infrastructure ($220,000).
- Air quality policy: support development of the next regional air quality management plan, prepare regulatory impact analysis on new air quality regulations, and conduct stakeholder engagement on proposed new regulations. ($195,000).

Air Quality is proposing to convert an existing full time temporary Special and Community Events Coordinator to regular full time in the policy and planning area, to meet the ongoing need for community outreach and communication activities.

Regulation and Enforcement is proposing a temporary full time Project Engineer that will focus on work related to air quality permits, including additional work expected in 2019 in regulating cannabis cultivation facilities.

Over the next five years, operating programs are increasing by $176,683, or an average of 0.3% per year. With the reduction of one-time initiatives in 2019, the operating programs are actually increasing on average $160,119 or 1.5% per year over the remaining years of the plan.

Communications Program

The 2019 Air Quality Communications Program of $106,000 is focused around the following initiatives:

- Stakeholder engagement for Climate 2050, including focus groups related to implementation of key actions.
- Media plan and promotion related to electric vehicle programs.
- Additional video production to enhance uptake of electric vehicles and development of charging infrastructure.
- Video production and outreach for air quality regulations, including residential wood burning.
- Public education and engagement for development of the next Air Quality Management Plan.

Reserve Funds

The financial plan for Air Quality, consistent with the *Operating, Statutory and Discretionary Reserves Policy*, uses reserves to annually fund one-time initiatives and the purchase of Air Quality monitoring equipment. In 2019, $931,947 in reserve funding has been applied for this purpose. In addition to the typical Air Quality reserve applications, Air Quality initiatives often meet the criteria necessary to utilize funding from the MVRD Sustainability Innovation Fund. The financial plan applies this funding when appropriate and, in 2019, $70,000 is applied from this reserve.

Air Quality Regulation administers a Non-Road Diesel Emissions Reduction program. As part of this program, permittees may, within three years, apply for a refund of permit fees paid when they reduce emissions, either by making engine modifications, or removing older higher-polluting engines from service. To fund possible refunds, an annual provision ($625,000 in 2019) is contributed to a reserve.

The 2019 – 2023 Projected Reserves for Air Quality 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 2019 Work Plans for Air Quality are presented in this report. Within the Air Quality Work Plans, 7 performance indicators have been developed and are being tracked. These include:

- Net corporate greenhouse gas emissions (tonnes of carbon dioxide equivalent, CO2e)
- Regional greenhouse gas emissions (tonnes of CO2e per capita)
- Air quality advisories (days under an advisory due to emission sources within the airshed)

- Reliability of air quality monitoring network (% of hours with monitoring data available)
- Number of air quality complaints
- Number of non-road diesel engines retired, prohibited, or moved out of region
- Total number of air quality permits administered

The trend in these performance measures suggests that there is an increased desire to reduce the carbon footprint of Metro Vancouver and ongoing pressures to improve our energy efficiency, utilize waste streams to generate heat and/or energy, and use low-carbon fuels. 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 2018 – 2022 FINANCIAL PLAN

The updated five year financial plan has been developed to be consistent with the 2018 - 2022 financial plan. The Air Quality requisition forms part of the overall MVRD tax requisition, one of 11 statutory functions within the Regional District. The 2019 impact on the average regional household is reduced by $1 from prior year projections for the Metro Vancouver Regional District with an average regional household cost of $55 (2018 projection: $56).

For the years 2020, 2021 and 2022 the MVRD household impact is projected to increase by an additional $2 compared to the previous five year projection.

APPROVAL PROCESS

The proposed 2019 - 2023 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 2019 - 2023 Financial Plan and Annual Work Plan will be presented at the Board Budget Workshop on October 17, 2018.
- The Board will consider adoption of the 2019 Budget and endorsement of the 2019 – 2023 Financial Plan on October 26, 2018.

ALTERNATIVES

1. That the Climate Action Committee endorse the 2019 - 2023 Financial Plan for Air Quality as presented in the report "2019 - 2023 Financial Plan – Air Quality" dated September 19, 2018 and forward it to the Board Budget Workshop on October 17, 2018 for consideration.

2. That the Climate Action Committee make recommendations and endorse an amended 2019 - 2023 Financial Plan for Air Quality and forward the amended Financial Plan to the Board Budget Workshop on October 17, 2018 for consideration.

FINANCIAL IMPLICATIONS

If the MVRD Board endorses the 2019 – 2023 Financial Plan for Air Quality, as presented under Alternative 1, in 2019 the Air Quality requisition will increase by $333,125 (7.3%) comprising part of the overall MVRD requisition of $61.2 million. The Air Quality requisition forms part of the overall MVRD tax requisition which is projected to be $61.2 million in 2019, representing a $1 increase (2.6%) to the average regional household for a household cost of $55 after taking into account regional population growth.

Over the term of the five year plan, the annual Air Quality requisition is projected to increase by an average of $267,284 per year (5.3%) 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 all MVRD services, including Air Quality, will rise from $54 in 2018 to $61 in 2023 representing an average annual increase of $1.40 (2.5%).

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 2019 - 2023 Air Quality Financial Plan has been prepared to respond to direction provided in the *Board Strategic Plan* and support the Air Quality Management Plan. It is presented to Committee and Board members to provide overview information on activities and financial impacts for the years 2019 to 2023 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 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 2019 - 2023 Financial Plan for Air Quality as presented under Alternative 1.

Attachments:

1. 2019 - 2023 "What's Happening"
2. 2019 - 2023 Financial Plan
3. 2019 Work Plans
4. 2019 – 2023 Projected Reserves – Air Quality
5. Organizational Charts

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ATTACHMENT 1

2019 – 2023 "WHAT'S HAPPENING"

Below is a summary of the significant initiatives to be undertaken in Air Quality, Climate Change, and Environmental Regulation and Enforcement over the next 5 years.

Initiative	Description	Theme
2019		
Climate 2050	Initiate development of roadmaps for the issue areas identified in Climate 2050, including engagement with stakeholders and the public. Initial development of online reporting and communications tool.	Environmental protection and climate action
Air quality management plan	Development and consultation on the next regional air quality and greenhouse gas management plan.	Environmental protection and climate action
Bylaws and regulations	Development of air quality regulations related to odour management, residential wood burning, and cannabis cultivation facilities. Review of cost recovery model for air quality regulatory service.	Environmental protection and climate action
Air quality monitoring network review	Complete assessment of air quality monitoring network and identify opportunities for additional monitoring and improved outreach.	Opportunities for innovation and enhanced services
Board and corporate policies	Propose new policies related to greenhouse gas reduction, energy management and climate adaptation.	System stewardship
2020		
Climate 2050	Completion of Climate 2050 roadmaps, including engagement with stakeholders and the public. Undertake new climate action projects based on roadmaps, and complete online reporting and communications tool.	Environmental protection and climate action
Bylaws and regulations	Ongoing development and implementation of new and amended air quality regulations. Prohibition on unregistered Tier 1 non road diesel engines takes effect; initiate consultation on requirements for Tier 2 engines and higher.	Environmental protection and climate action
Sustainability innovation fund	Project applications for novel greenhouse gas reduction programs and climate adaptation.	Opportunities for innovation and enhanced services
Air quality objectives and standards	Review new federal air quality standards and make recommendations on implementation within region	Environmental protection and climate action
Outreach and engagement	New initiatives to enhance public engagement and awareness of the value of clean air and climate change action.	Opportunities for innovation and enhanced services
2021		
Climate 2050	Ongoing implementation of projects based on Climate 2050 issue area roadmaps, with reporting on performance and sharing of best practices.	Environmental protection and climate action
Bylaws and regulations	Ongoing development and implementation of new and amended air quality regulations, supporting the Regional Ground Level Ozone Strategy, odour	Environmental protection and climate action

	management, diesel emission reductions and Climate 2050.	
Air quality management planning and indicators	Develop next regional emissions inventory, for 2020, to track sources of emissions and trends.	Environmental protection and climate action; Addressing regional growth
Sustainability innovation fund	Project applications for climate action and air quality projects.	Opportunities for innovation and enhanced services
2022		
Climate 2050	Ongoing implementation of projects based on Climate 2050 issue area roadmaps, with reporting on performance and sharing of best practices.	Environmental protection and climate action
Bylaws and regulations	Ongoing development and implementation of new and amended air quality regulations, supporting the Regional Ground Level Ozone Strategy, odour management, diesel emission reductions and Climate 2050.	Environmental protection and climate action
2023		
Climate 2050	Ongoing implementation of projects based on Climate 2050 issue area roadmaps, with reporting on performance and sharing of best practices.	Environmental protection and climate action
Bylaws and regulations	Ongoing development and implementation of new and amended air quality regulations, supporting the Regional Ground Level Ozone Strategy, odour management, diesel emission reductions and Climate 2050.	Environmental protection and climate action

METRO VANCOUVER REGIONAL DISTRICT
AIR QUALITY
2019 BUDGET REVIEW
2019-2023 FINANCIAL PLAN

ATTACHMENT 2

	2016 ACTUAL	2017 ACTUAL	2018 BUDGET	2019 BUDGET	% CHANGE	2020 FORECAST	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE
REVENUES													
MVRD Requisitions	$ 3,771,560	$ 3,950,376	$ 4,545,845	$ 4,878,970	7.3%	$ 5,402,542	10.7%	$ 5,683,122	5.2%	$ 5,778,619	1.7%	$ 5,882,266	1.8%
User Fees	1,983,457	2,103,071	1,800,000	1,800,000		1,900,000		2,000,000		2,100,000		2,200,000	
Non-Road Diesel Permit Fees	1,849,982	2,046,817	2,365,000	2,450,000		2,350,000		2,150,000		2,150,000		2,050,000	
Other External Revenues	572,247	544,248	492,400	517,400		547,400		582,400		612,400		622,400	
Sustainability Reserve Funds	272,117	38,227	539,356	70,000		-		-		-		-	
Reserves	708,214	544,973	1,369,507	931,947		471,986		465,326		499,633		534,125	
TOTAL REVENUES	**$ 9,157,576**	**$ 9,227,712**	**$ 11,112,108**	**$ 10,648,317**	**(4.2%)**	**$ 10,671,928**	**0.2%**	**$ 10,880,848**	**2.0%**	**$ 11,140,652**	**2.4%**	**$ 11,288,791**	**1.3%**
EXPENDITURES													
Operating Programs:													
Ambient Air Quality Monitoring	$ 1,994,528	$ 1,870,565	$ 2,037,931	$ 2,186,944		$ 2,081,628		$ 2,122,782		$ 2,209,656		$ 2,262,416	
Air Quality and Climate Change Policy	1,783,003	2,009,755	1,795,233	1,657,057		1,689,762		1,761,459		1,844,555		1,885,171	
Air Quality Bylaw and Regulation Development	660,413	826,438	1,615,742	1,666,193		1,722,405		1,756,901		1,806,866		1,842,580	
Administration and Department Support	436,492	429,315	447,546	425,330		435,055		443,359		451,783		460,402	
Regional Sustainability Initiatives	272,117	38,227	539,356	70,000		-		-		-		-	
	5,146,552	5,174,300	6,435,808	6,005,524	(6.7%)	5,928,850	(1.3%)	6,084,501	2.6%	6,312,860	3.8%	6,450,569	2.2%
Communications Program	1,983	55,836	100,000	106,000	6.0%	118,000	11.3%	93,000	(21.2%)	93,000	0.0%	93,000	0.0%
Environmental Regulation and Enforcement	2,191,984	2,741,153	2,982,390	3,033,392		3,061,354		3,129,458		3,190,919		3,251,736	
Non Road Diesel Provision	767,080	524,812	640,000	625,000		725,000		800,000		825,000		825,000	
	2,959,064	3,265,965	3,622,390	3,658,392	1.0%	3,786,354	3.5%	3,929,458	3.8%	4,015,919	2.2%	4,076,736	1.5%
Allocation of Centralized Support Costs	487,127	590,504	953,910	878,401	(7.9%)	838,724	(4.5%)	773,889	(7.7%)	718,873	(7.1%)	668,486	(7.0%)
TOTAL EXPENDITURES	**$ 8,594,726**	**$ 9,086,605**	**$ 11,112,108**	**$ 10,648,317**	**(4.2%)**	**$ 10,671,928**	**0.2%**	**$ 10,880,848**	**2.0%**	**$ 11,140,652**	**2.4%**	**$ 11,288,791**	**1.3%**

METRO VANCOUVER REGIONAL DISTRICT
AIR QUALITY REGULATION
2019 BUDGET REVIEW

	2016 ACTUAL	2017 ACTUAL	2018 BUDGET	2019 BUDGET	% CHANGE	2020 BUDGET	% CHANGE	2021 BUDGET	% CHANGE	2022 BUDGET	% CHANGE	2023 BUDGET	% CHANGE
REVENUES													
Air Quality Revenues	$ 3,199,323	$ 3,724,081	$ 2,972,390	$ 3,033,392		$ 3,061,354		$ 3,129,458		$ 3,190,919		$ 3,251,736	
Other Funds / Reserves	-	-	650,000	625,000		725,000		800,000		825,000		825,000	
TOTAL REVENUES	**$ 3,199,323**	**$ 3,724,081**	**$ 3,622,390**	**$ 3,658,392**	**1.0%**	**$ 3,786,354**	**3.5%**	**$ 3,929,458**	**3.8%**	**$ 4,015,919**	**2.2%**	**$ 4,076,736**	**1.5%**
EXPENDITURES													
Operating Programs:													
Environmental Regulation and Enforcement	$ 2,033,146	$ 2,580,815	$ 2,726,183	$ 2,836,160		$ 2,859,505		$ 2,923,613		$ 2,981,019		$ 3,039,702	
Non Road Diesel Provision	767,080	524,812	640,000	625,000		725,000		800,000		825,000		825,000	
Administration and Department Support	158,838	160,338	256,207	197,232		201,849		205,845		209,900		212,034	
	2,959,064	3,265,965	3,622,390	3,658,392	1.0%	3,786,354	3.5%	3,929,458	3.8%	4,015,919	2.2%	4,076,736	1.5%
TOTAL EXPENDITURES	**$ 2,959,064**	**$ 3,265,965**	**$ 3,622,390**	**$ 3,658,392**	**1.0%**	**$ 3,786,354**	**3.5%**	**$ 3,929,458**	**3.8%**	**$ 4,015,919**	**2.2%**	**$ 4,076,736**	**1.5%**

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

Board Strategic Plan

- Improve air quality by mitigating threats.
- Incorporate strategies and actions into all Metro Vancouver functions to mitigate and adapt to climate change.
- Develop, adopt and implement a regional climate action strategy for reducing regional greenhouse gas emissions and adapting to climate change.
- Improve public understanding of the value of clean air and greenhouse gas reductions, and actions to achieve both.

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

Performance indicators

Indicator	Historical and/or industry benchmark	Current performance	2019 performance objective
Net corporate greenhouse gas emissions (tonnes of carbon dioxide equivalent, CO2e)	1997: 13,900 2007: 7,937 2015: 0 (100% carbon neutral) 2016: 3,321 (60% carbon neutral)	2017: 10,705 (8% carbon neutral)	2019: 0 (100% carbon neutral)
Regional greenhouse gas emissions (tonnes of CO2e per capita)	2007: 7.5 2015: 6.0 2016: 5.9	2017: 5.8	2019: 4.9
Reliability of air quality monitoring network (% of annual hours with monitoring data available for priority pollutants)	2015: 97%	2017: 96%	2019: 95%
Air quality advisories (number of days under an advisory due to emission sources within airshed)	2015: 4 air quality advisory days; 10 in total including wildfire activity outside of airshed 2016: zero air quality advisory days	2017: 8 air quality advisory days; 19 in total including wildfire activity outside of airshed	2019: zero air quality advisory days

2019 key actions

- Continue to implement the Climate 2050 Strategy and related climate programs, including:
    - the development of "Implementation Roadmaps" for climate action (reducing greenhouse gas emissions and adapting to climate change) in priority issue areas, such as transportation, buildings and infrastructure;
    - implementation of additional energy and greenhouse gas reduction offset projects that will contribute to Metro Vancouver's carbon neutrality goal;
    - advancement of corporate policies related to energy and climate change;
    - coordination of a regional approach to climate change adaptation; and
    - partnerships and collaboration with member jurisdictions on climate action.
- Pursue the development of new air quality bylaws and regulations 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 cannabis cultivation facilities and open-air burning;
    - development of a new emission regulation bylaw for indoor residential wood burning.
- Enhance the odour management framework through 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 require permit and approval applications from operations discharging air emissions that are not authorized under an emission regulation bylaw and that have been identified as sources of emissions of concern, including:
    - cannabis cultivation facilities;
    - open burning on agricultural land;
    - styrene manufacturers, including polystyrene plastic and fibreglass manufacturers;
    - mineral assay laboratories;
    - aluminum, copper, and zinc custom manufacturing operations; and
    - composite material manufacturing operations.
- Continue to expand the non-road diesel engine program, including the application of the latest bylaw amendments and through 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.
- Complete development of the next regional air quality management plan.
- Improve public understanding of air quality and climate change, including outreach on Climate 2050, the air quality management plan, and the preparation of the annual Caring for the Air report.
- Develop additional air quality monitoring capabilities to provide the evidence basis and performance measurement for the air quality program.

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SERVICES AND SOLUTIONS FOR A LIVABLE REGION

ENVIRONMENTAL REGULATION AND ENFORCEMENT
AIR QUALITY

Description of services

The Air Quality Regulation and the Non Road Diesel Engine Regulation Programs enables economic activity while advancing Metro Vancouver's air quality goals through the issuance of authorizations and promoting compliance with those authorizations and Metro Vancouver air quality bylaws.

Strategic directions and high level goals supported

The Air Quality Regulatory Programs support Metro Vancouver's Integrated Air Quality and Greenhouse Gas Management Plan:

- Issuing authorizations that limit the discharge of air contaminants
- Promoting compliance with air quality authorizations and regulations.

2019 Performance indicators

Indicator	Historical and/or industry benchmark	Current Performance (YTD)	2019 Performance objectives
Respond to complaints – number of complaints	1400	2593	3000
Promote the reduction of non-road diesel engine particulate matter – number of engines retired, prohibited or moved out of region	0	1100	1175
Promote compliance with permitted sites - Total number of permits	150	147	152

2019 key actions

- Support Harvest prosecution
- Issue permits for marijuana growing and processing operations
- Defend permit decisions under appeal
- Promote compliance with key permits
- Outreach to Industry regarding looming Tier 1 import prohibition deadline

METRO VANCOUVER DISTRICTS
2019-2023 PROJECTED RESERVES - AIR QUALITY

ATTACHMENT 4

OPERATING RESERVES

	2018 ENDING BALANCE	2019 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2019 ENDING BALANCE	2020 ENDING BALANCE	2021 ENDING BALANCE	2022 ENDING BALANCE	2023 ENDING BALANCE
Air Quality	512,590	512,590	654	-	10,362	523,605	501,166	497,346	504,042	515,783

DISCRETIONARY RESERVES

	2018 ENDING BALANCE	2019 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2019 ENDING BALANCE	2020 ENDING BALANCE	2021 ENDING BALANCE	2022 ENDING BALANCE	2023 ENDING BALANCE
Air Quality										
Air Quality General Reserve	3,040,217	3,040,217	625,000	(931,947)	57,735	2,791,005	3,102,369	3,502,437	3,901,107	4,272,913

ATTACHMENT 5

Parks, Planning & Environment

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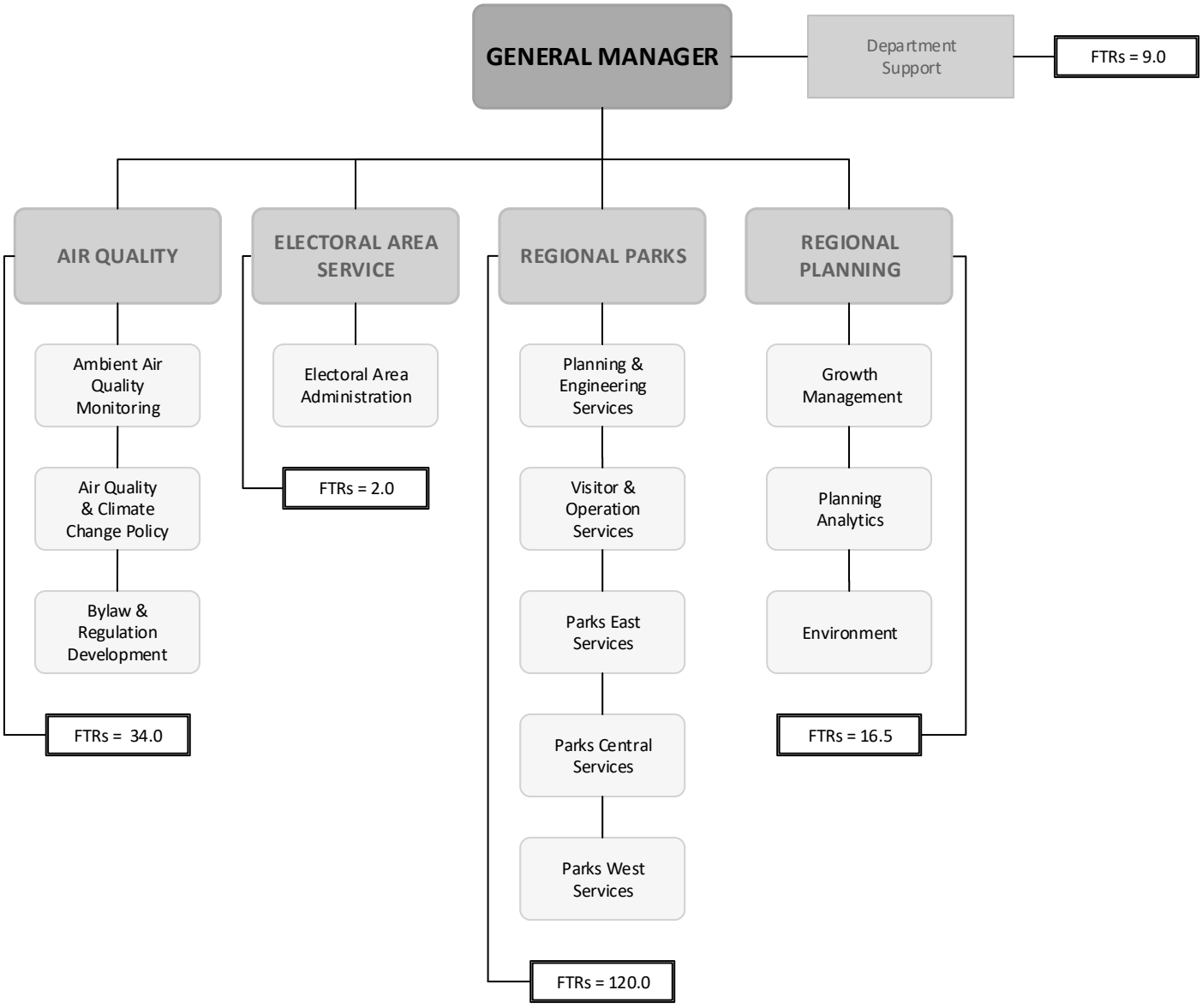
SERVICES AND SOLUTIONS FOR A LIVABLE REGION

2018



Parks, Planning and Environment
2018 Total FTRs = 182.5
2019 Proposed FTRs = 183.5

26033952
September 26, 2108

Legal and Legislative Services

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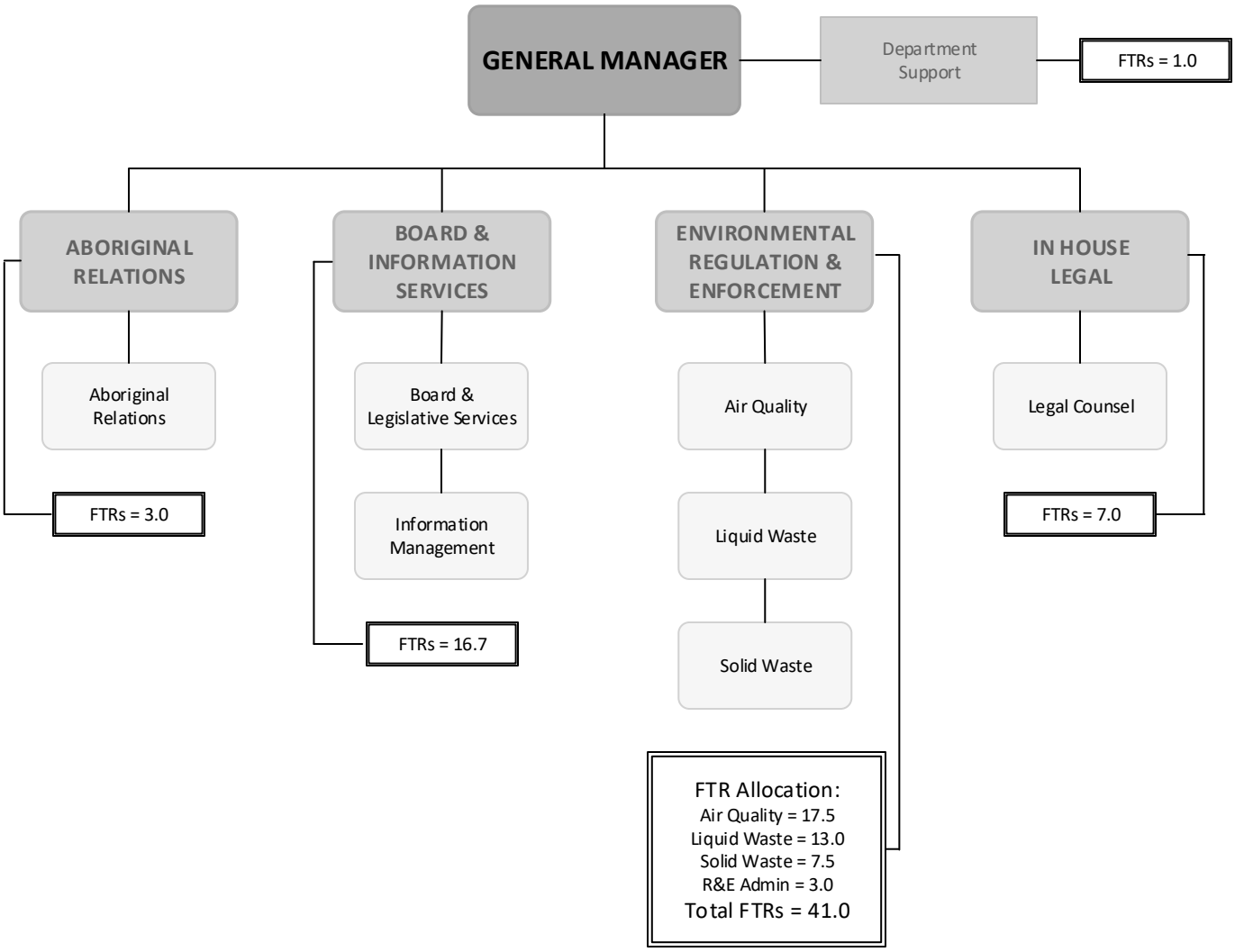
SERVICES AND SOLUTIONS FOR A LIVABLE REGION

2018



Legal & Legislative Services
2018 Total FTRs = 69.7
2019 Proposed FTRs = 71.7

26032030
September 5, 2018

metrovancouver
SERVICES AND SOLUTIONS FOR A LIVABLE REGION

To: Electoral Area Committee

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

Date: September 19, 2018 Meeting Date: October 3, 2018

Subject: **2019 - 2023 Financial Plan – Electoral Area A Service**

RECOMMENDATION
That the Electoral Area Committee endorse the 2019 - 2023 Financial Plan as presented in the report "2019 - 2023 Financial Plan – Electoral Area A Service" dated September 19, 2018 and forward it to the Board Budget Workshop on October 17, 2018 for consideration.

PURPOSE
To present the 2019 - 2023 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 2019 annual budget and the updated five year plan for the years 2019 to 2023 for committee consideration.

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

The Electoral Area A Service is guided by the *Board Strategic Plan*, local land use bylaws, and the *Local Government Act*, with a focus on the following strategic directions and goals:

- Use livability and sustainability objectives to guide Metro Vancouver services and operations;
- Strengthen the alignment of member and regional objectives;
- Enhance relationships between Metro Vancouver and other orders of government, First Nations and stakeholders; and
- Collaborate with stakeholders to prepare for major emergencies.

2019 BUDGET AND 2019 - 2023 FINANCIAL PLAN
The five year financial plan for this cycle have been updated to address the four themes Metro Vancouver considers when developing plans and budgets. These are as follows:

- Addressing Regional Growth
- System Stewardship
- Environmental Protection and Climate Action
- Opportunities for Innovation and Enhanced Services

Annual Work Plans are developed for almost all Metro Vancouver functions. The 2019 Annual Work Plan for the Electoral Area A Service budget presented in this report is included in Attachment 3.

A summary of the Electoral Area A program highlights, 2019 -2023 "What's Happening", is included under Attachment 1.

Attached is a summary of the Electoral Area A 2019 -2023 Financial Plan (Attachment 2).

Operating Budget Highlights

The Electoral Area A Services operating budget is proposed to decrease by $49,114 in 2019 for a total budget of $651,984 (Attachment 2). The primary reason for the decrease from 2018 is the one-time election expenses which are in 2018 but not in 2019 as well as a reduction in estimated building inspection costs adjusted to reflect historical experience.

These reductions are partially offset by one-time project costs for clean-up events at Indian Arm and Pitt Lake and the phased-in increases to the Electoral Area Emergency planning program.

The 2019 operating budget includes the following key actions:

- Undertake a review of the Electoral Area Zoning Bylaw;
- Coordinate clean up events for Indian Arm and Pitt Lake communities;
- Complete a review of the building inspection program, including updating the building administration bylaw and the building permit fee schedule;
- Continue to administer the building, zoning, 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 licence 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 2019.

Over the next five years, operating programs (not including election costs) are increasing by $41,086, or an average of 1.7% per year. This is primarily due to the phase in of the Electoral Area Emergency planning program which will be fully funded by 2022. Two key projects are identified over the five year period, these are:

- In 2020, a flood construction level study for Barnston Island ($15,000);
- In 2021, a geotechnical study of the Electoral Area ($50,000).

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 is contributed annually to an election reserve. Every four years, this election reserve is used to fund the Electoral Area A local government election. The financial plan for Electoral Area A, consistent with the *Operating, Statutory and Discretionary Reserves Policy*, uses reserves to annually fund one-time initiatives.

In addition to the above reserves, Electoral Area A maintains a general reserve comprising past accumulated annual budget surpluses. As this reserve continues to increase, the 2019 work plan includes working with the Electoral Area A Committee to develop a plan for the use of this reserve.

The 2019 – 2023 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 2019 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 2018 – 2022 FINANCIAL PLAN

The updated five year financial plan has been developed to be consistent with the 2018 - 2022 financial plan. The 2019 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 $68 (2018 projection: $68).

For the years 2020, 2021 and 2022 the household rate is projected to be generally consistent with the previous five year projection, increasing an additional $6 to 2022.

APPROVAL PROCESS

The proposed 2019 - 2023 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 2019 - 2023 Financial Plan and Annual Work Plan will be presented at the Board Budget Workshop on October 17, 2018.
- The Board will consider adoption of the 2019 Budget and endorsement of the 2019 – 2023 Financial Plan on October 26, 2018.

ALTERNATIVES

1. That the Electoral Area Committee endorse the 2019 - 2023 Financial Plan as presented in the report "2019 - 2023 Financial Plan – Electoral Area A Service" dated September 19, 2018 and forward it to the Board Budget Workshop on October 17, 2018 for consideration.

2. That the Electoral Area Committee make recommendations and endorse an amended Electoral Area A 2019 - 2023 Financial Plan and forward the amended Financial Plan to the Board Budget Workshop on October 17, 2018 for consideration.

FINANCIAL IMPLICATIONS

If the MVRD Board endorses the 2019 – 2023 Financial Plan for the Electoral Area A Service, as presented under Alternative 1, in 2019 the Electoral Area A requisition will increase by $14,086 (3.7%) for a total requisition of $396,510. The increase in the Electoral Area A requisition represents a $2 increase in the cost to the average Electoral Area A household to $68 (no change from the 2018 forecast).

Over the term of the five year plan, the annual Electoral Area A requisition is projected to increase by an average of $12,089 per year (3.0%) 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 $66 in 2018 to $76 in 2023 representing an average annual increase of $2 (2.9%).

Under Alternative 2, the Committee may wish to consider recommending amendments to the 2019 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 2019 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 2019 to 2023 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 2019 - 2023 Financial Plan and Annual Work Plan for Electoral Area A Service as presented under alternative one.

Attachments:

1. 2019 - 2023 "What's Happening"
2. 2019 - 2023 Financial Plan
3. 2019 Work Plan
4. 2019 – 2023 Projected Reserves – Electoral Area A
5. Organizational Chart

ATTACHMENT 1

2019 to 2023 "WHAT'S HAPPENING"

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

Initiative	Description	Theme
2019		
Zoning Bylaw Review	Review the Electoral Area A Zoning Bylaw to ensure regulations reflect, and are consistent with, the newly adopted official community plan. The review will include a robust public consultation process with affected Electoral Area A communities (i.e. Howe Sound mainland, Barnston Island, Indian Arm, and Pitt Lake)	Addressing Regional Growth
Building Inspection Service Review	Review the building administration bylaw, including updating regulations, permit fees, and service area boundaries.	Addressing Regional Growth
Indian Arm and Pitt Lake Clean-up Events	Organize barge clean-up events for water access-only communities in Indian Arm and Pitt Lake to ensure proper disposal of potential hazardous items such as appliances and paint.	Environmental Protection and Climate Action
Emergency Preparedness	Undertake community emergency preparedness education and training activities in selected Electoral Area A communities.	Opportunities for Innovation and Enhanced Services
Regional District Basic Grant	Identify potential projects in the rural portions of Electoral Area A for funding through the Regional District Basic Grant.	Opportunities for Innovation and Enhanced Services
2020		
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.).	Opportunities for Innovation and Enhanced Services
Emergency Preparedness	Undertake community emergency preparedness education and training activities in selected Electoral Area A communities.	Opportunities for Innovation and Enhanced Services
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.	Opportunities for Innovation and Enhanced Services
Regional District Basic Grant	Identify potential projects in the rural portions of Electoral Area A for funding through the Regional District Basic Grant.	Opportunities for Innovation and Enhanced Services
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.	Opportunities for Innovation and Enhanced Services

Regional District Basic Grant	Identify potential projects in the rural portions of Electoral Area A for funding through the Regional District Basic Grant.	Opportunities for Innovation and Enhanced Services
Emergency Preparedness	Undertake community emergency preparedness education and training activities in selected Electoral Area A communities.	Opportunities for Innovation and Enhanced Services
Regional District Basic Grant	Identify potential projects in the rural portions of Electoral Area A for funding through the Regional District Basic Grant.	Opportunities for Innovation and Enhanced Services
2022		
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.	System Stewardship
Emergency Preparedness	Undertake community emergency preparedness education and training activities in selected Electoral Area A communities.	Opportunities for Innovation and Enhanced Services
Regional District Basic Grant	Identify potential projects in the rural portions of Electoral Area A for funding through the Regional District Basic Grant.	Opportunities for Innovation and Enhanced Services
2023		
Community Clean-up Events	Explore need for additional clean-up events in rural Electoral Area A communities.	Environmental Protection and Climate Action
Emergency Preparedness	Undertake community emergency preparedness education and training activities in selected Electoral Area A communities.	Opportunities for Innovation and Enhanced Services

METRO VANCOUVER REGIONAL DISTRICT
ELECTORAL AREA SERVICE
2019 BUDGET REVIEW
2019-2023 FINANCIAL PLAN

ATTACHMENT 2

	2016 ACTUAL	2017 ACTUAL	2018 BUDGET	2019 BUDGET	% CHANGE	2020 FORECAST	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE
REVENUES													
Electoral Area Requisition	$ 363,567	$ 371,734	$ 382,424	$ 396,510	3.7%	$ 410,773	3.6%	$ 417,873	1.7%	$ 433,328	3.7%	$ 442,870	2.2%
User Fees	3,283	13,584	10,000	10,000		10,000		10,000		10,000		10,000	
Other External Revenues	155,664	58,330	165,834	171,474		171,474		171,474		171,474		171,474	
Reserves	57,500	17,514	142,840	74,000		15,000		50,000		90,000		-	
TOTAL REVENUES	**$ 580,014**	**$ 461,162**	**$ 701,098**	**$ 651,984**	**(7.0%)**	**$ 607,247**	**(6.9%)**	**$ 649,347**	**6.9%**	**$ 704,802**	**8.5%**	**$ 624,344**	**(11.4%)**
EXPENDITURES													
Operating Programs:													
Administration	$ 381,671	$ 260,170	$ 339,946	$ 369,634		$ 329,635		$ 370,892		$ 327,245		$ 341,803	
Building Inspections	13,728	13,246	30,544	20,966		21,404		21,780		22,163		22,541	
Local Government Election	-	-	117,840	-		-		-		122,141		-	
Fraser Valley Library Services	1,000	1,500	2,000	2,000		2,000		2,000		2,000		2,000	
Emergency Planning	-	-	6,000	12,000	100.0%	18,000		24,000		30,000		30,000	
	396,399	274,916	496,330	404,600	(18.5%)	371,039	(8.3%)	418,672	12.8%	503,549	20.3%	396,344	(21.3%)
Contribution to Election Reserve	-	-	-	30,000		30,000		30,000		-		30,000	
Contribution to Reserve	111,421	58,330	165,834	171,474		171,474		171,474		171,474		171,474	
	111,421	58,330	165,834	201,474	21.5%	201,474	0.0%	201,474	0.0%	171,474	(14.9%)	201,474	17.5%
Allocation of Centralized Support Costs	26,667	32,329	38,934	45,910	17.9%	34,734	(24.3%)	29,201	(15.9%)	29,779	2.0%	26,526	(10.9%)
TOTAL EXPENDITURES	**$ 534,487**	**$ 365,575**	**$ 701,098**	**$ 651,984**	**(7.0%)**	**$ 607,247**	**(6.9%)**	**$ 649,347**	**6.9%**	**$ 704,802**	**8.5%**	**$ 624,344**	**(11.4%)**

ELECTORAL AREA SERVICE

Description of services
Electoral Area Service 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 km^2 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
Board Strategic Plan

- Use livability and sustainability objectives to guide Metro Vancouver services and operations.
- Strengthen the alignment of member and regional objectives.
- Enhance relationships between Metro Vancouver and other orders of government, First Nations and stakeholders.
- Collaborate with stakeholders to prepare for major emergencies.

Performance indicators

Indicator	Historical and/or industry benchmark	Current performance	2019 performance objective
Number of public meetings and engagement events	2014: 8 2015: 11 2016: 17 2017: 9	2018 YTD: 6	10
Number of visits to the Electoral Area A Website	2014: 5,594 2015: 10,037 2016: 10,585 2017: 10,816	2018 YTD: 9,587	10,000

2019 key actions

- Undertake a review of the Electoral Area Zoning Bylaw
- Coordinate clean up events for Indian Arm and Pitt Lake communities
- Complete a review of the building inspection program, including updating the building administration bylaw and the building permit fee schedule.
- 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

ATTACHMENT 4

METRO VANCOUVER DISTRICTS
2019-2023 PROJECTED RESERVES - ELECTORAL AREA SERVICE

OPERATING RESERVES

	2018 ENDING BALANCE	2019 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2019 ENDING BALANCE	2020 ENDING BALANCE	2021 ENDING BALANCE	2022 ENDING BALANCE	2023 ENDING BALANCE
Electoral Area Service	20,837	20,837	5,451	-	476	26,763	22,525	20,289	22,394	26,666

DISCRETIONARY RESERVES

	2018 ENDING BALANCE	2019 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2019 ENDING BALANCE	2020 ENDING BALANCE	2021 ENDING BALANCE	2022 ENDING BALANCE	2023 ENDING BALANCE
Electoral Area Service										
Electoral Area General Reserve	1,462,140	1,462,140	50,000	(74,000)	29,003	1,467,143	1,531,836	1,562,472	1,644,222	1,727,606

STATUTORY RESERVES

	2018 ENDING BALANCE	2019 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2019 ENDING BALANCE	2020 ENDING BALANCE	2021 ENDING BALANCE	2022 ENDING BALANCE	2023 ENDING BALANCE
Electoral Area Service										
Community Works Reserve	532,632	532,632	121,474	-	11,867	665,974	801,982	940,710	1,082,213	1,226,546
Electoral Area Election Reserve	-	-	30,000	-	300	30,300	61,206	92,730	3,685	34,058

Parks, Planning & Environment

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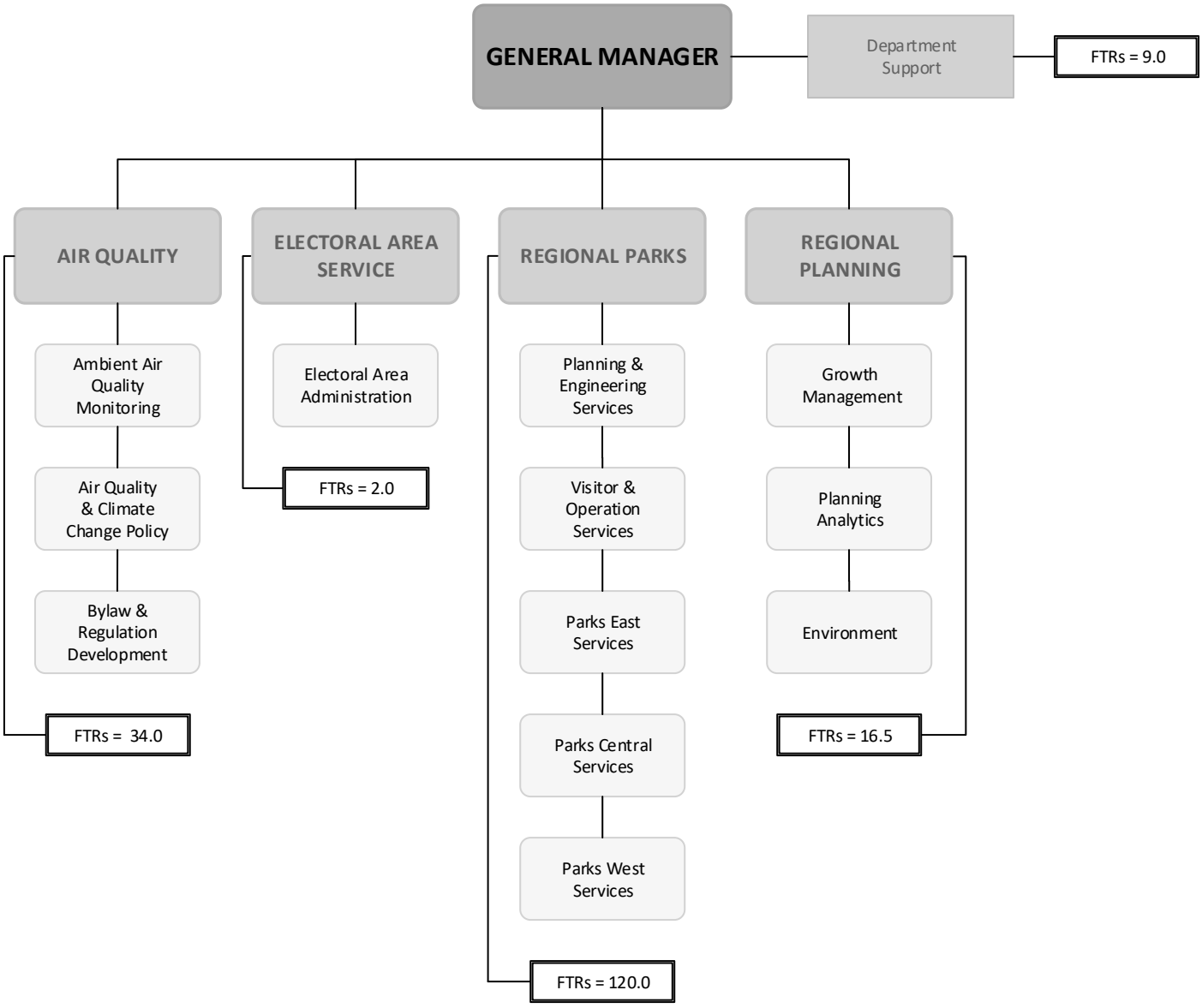
SERVICES AND SOLUTIONS FOR A LIVABLE REGION

2018



Parks, Planning and Environment
2018 Total FTRs = 182.5
2019 Proposed FTRs = 183.5

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SERVICES AND SOLUTIONS FOR A LIVABLE REGION

To: Finance and Intergovernment Committee

From: Carol Mason, Commissioner/Chief Administrative Officer
Phil Trotzuk, Chief Financial Officer

Date: September 26, 2018 Meeting Date: October 12, 2018

Subject: **2019 - 2023 Financial Plan – Regional District Service Areas**

RECOMMENDATION

That the Finance and Intergovernment Committee endorse the 2019 - 2023 Financial Plan for the Regional District Service Areas as presented in the report "2019 - 2023 Financial Plan – Regional District Service Areas" dated September 26, 2018 and forward it to the Board Budget Workshop on October 17, 2018 for consideration.

PURPOSE

To present the 2019-2023 Financial Plan for Regional District Service Areas of E911 Emergency Telephone Service, General Government Service, Labour Relations, Regional Emergency Management, Regional GPS, Regional Prosperity Initiative 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 2019 annual budget and the updated five year plan for the years 2019 to 2023 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 Service
- Labour Relations
- Regional Emergency Management
- Regional Global Positioning System
- Regional Prosperity
- Sasamat Fire Protection Service

As noted above, a new service included in the proposed 2019 – 2023 MVRD Financial Plan is a budget to provide annual funding for the Regional Prosperity function. The funding is included in the five year financial plan and is dependent upon obtaining partner funding from other levels of government along with potential funding from the private sector for specific projects to establish a new regional entity. Up to this point, funding for the Regional Prosperity Initiative has been included under the General Government function, as it has been treated as a feasibility initiative.

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. 2019 – 2023 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:

- Use livability and sustainability objectives to guide Metro Vancouver services and operations.
- Strengthen the alignment of member and regional objectives.
- Collaborate with stakeholders to prepare for major emergencies.
- Use value for service to guide Metro Vancouver operations and service provision.

2019 BUDGET AND 2019 - 2023 FINANCIAL PLAN

The five year financial plans for this cycle have been updated to address the four themes Metro Vancouver considers when developing plans and budgets. These are as follows:

- Addressing Regional Growth
- System Stewardship
- Environmental Protection and Climate Action
- Opportunities for Innovation and Enhanced Services

Annual Work Plans are developed for almost all Metro Vancouver functions. The 2019 Annual Work Plan for the Regional District Service Area budgets presented in this report are included in Attachment 3.

A summary of the Regional Service Area program highlights, 2019 - 2023 “What’s Happening”, is included under Attachment 1.

Attached are summaries of the 2019 - 2023 Financial Plan for the Regional District Service Areas (Attachment 2).

Operating Budget Highlights

In 2019, total expenditures for these Regional District Service Areas are proposed to increase $1.2 million for total expenditures of $15.9 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 2019 – 2023 $ Millions	Average Annual Expenditures $ Millions	Average Annual Increase (Decrease)
911 Emergency Telephone Service	$ 23.2	$ 4.64	2.5%
General Government Service	$ 37.5	$ 7.51	3.9%
Labour Relations	$ 14.3	$ 2.86	1.3%
Regional Emergency Management	$ 1.1	$ 0.21	(2.1%)
Regional Global Positioning System (*)	$ 1.8	$ 0.36	1.6%
Sasamat Fire Protection Service (*)	$ 1.9	$ 0.37	9.6%

(*) 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. Some of the proposed enhancements include under General Government – expanding involvement in the National Love Food Hate Waste campaign and lengthening the National Zero Waste Conference to two days from one and a half days, in Labour Relations - enhancing the availability of information for membership through web access and additional data sources and in the Sasamat Fire Protection Service – a comprehensive review of fire hall upgrades and replacement.

In addition to the six functions in the table above, the 2019 – 2023 MVRD Financial Plan includes a proposed new function for Regional Prosperity. The funding is included in the five year financial plan and is dependent upon obtaining partner funding from other levels of government along with potential funding from the private sector for specific projects to establish a new regional entity. As a feasibility initiative, this service was included under General Government function since 2017. With the feasibility work expected to complete in early 2019, the new function has been included in the financial plan should the Board approve provision of the service. The 2019 – 2023 Financial Plan for Regional Prosperity includes a budget of $400,000 in 2019 increasing to $2.5 million by 2023, subject to funding partnerships with other levels of government.

The Regional District Service Areas 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 2019-2023, tax requisitions are increasing $14.6 million over the five-year period, from $58.8 million to $73.4 million, representing an average annual increase of $2.9 million. 2019-2023 Financial Plan details for the Regional District Service Areas are included in Attachments 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 *Operating, Statutory and Discretionary Reserves Policy*, these items are funded using reserves. In 2019, $815,050 in reserve funding has been applied in these Regional District Service Areas. $130,000 for grants to cultural organizations, $175,000 funding for the Metro Vancouver newsletters, $200,000 for the upgrade and replacement of GPS monuments, $75,000 to complete

the Regional Prosperity feasibility work, $165,946 to fund one-time initiatives in Labour Relations and $69,104 to fund initiatives under Regional Emergency Management. The 2019 – 2023 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 2019 Regional District Service Area Work Plans for E911 Emergency Telephone, Labour Relations, Regional Emergency Management and Sasamat Volunteer Fire Protection Service are presented in this report. Within these four Work Plans, 7 performance indicators have been developed and are being tracked. These are:

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).
- Annual number of attendees at RES offerings.
- Total number of page visits to the RES360 website.

Regional Emergency Management:

- Conduct one region wide emergency exercise per year.

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 (1) E911 Emergency Telephone Service has seen improvements in the call answering system efficiency in recent years; (2) Labour Relations continues to expand services to member jurisdictions in the Region, indicating the value of services provided; (3) Regional Emergency Management experiences broad support among member jurisdictions and partner agencies to work cooperatively on regional emergency preparedness; and (4) Sasamat Volunteer Fire Protection Service continues to maintain dispatch response performance levels.

CONSISTENCY WITH THE 2018 – 2022 FINANCIAL PLAN

The updated five year financial plan has been developed to be consistent with the 2018 - 2022 financial plan. The requisitions for these Regional District Service Areas form part of the overall MVRD tax requisition, seven of 12 statutory functions within the Regional District. The 2019 impact on the average regional household is reduced by $1 from prior year projections for the Metro Vancouver Regional District with an average regional household cost of $55 (2018 projection: $56).

For the years 2020, 2021 and 2022 the MVRD household impact is projected to increase by an additional $2 compared to the previous five year projection. The primary driver for this change is associated with the updated financial plan for the proposed Regional Prosperity function.

APPROVAL PROCESS

The proposed 2019 - 2023 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 2019 - 2023 Financial Plan and Annual Work Plan will be presented at the Board Budget Workshop on October 17, 2018.
- The Board will consider adoption of the 2019 Budget and endorsement of the 2019 – 2023 Financial Plan on October 26, 2018.

ALTERNATIVES

1. That the Finance and Intergovernment Committee endorse the 2019 - 2023 Financial Plan for the Regional District Service Areas as presented in the report "2019 - 2023 Financial Plan – Regional District Service Areas" dated September 26, 2018 and forward it to the Board Budget Workshop on October 17, 2018 for consideration.

2. That the Finance and Intergovernment Committee make recommendations and endorse an amended 2019 - 2023 Financial Plan for the Regional District Service Areas and forward the amended Financial Plan to the Board Budget Workshop on October 17, 2018 for consideration.

FINANCIAL IMPLICATIONS

If the MVRD Board endorses the 2019 – 2023 Financial Plan for the Regional District Service Areas, as presented under Alternative 1, in 2019 the requisitions for the service areas outlined in this report, will increase by $205,494 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 $61.2 million in 2019, representing a $1 increase (2.6%) to the average regional household for an annual cost of $55 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 $706,406 per year including the Regional Prosperity function to provide the required revenue to offset projected expenditures. If the Regional Prosperity function does not proceed, the average increase in requisitions is $252,682 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 $54 in 2018 to $61 in 2023 representing an average annual increase of $1.40.

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 2019 - 2023 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 2019 to 2023 for the Regional District Service Areas of E911 Emergency Telephone Service, General Government Service, Labour Relations, Regional Emergency Management, Regional GPS, Regional Prosperity Initiative 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 2019 - 2023 Financial Plans for Regional District Service Areas as presented under alternative one.

Attachments:

1. 2019 - 2023 "What's Happening"
2. 2019-2023 Financial Plans
   - E911 Emergency Telephone Service
   - General Government Service
   - Labour Relations
   - Regional Emergency Management
   - Regional Global Positioning System
   - Regional Prosperity
   - Sasamat Fire Protection Service
3. 2019 Work Plans
4. 2019 – 2023 Projected Reserves – Regional District

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2019 – 2023 "WHAT'S HAPPENING"– Regional District Service Areas

Below are a summary of the significant initiatives to be undertaken by the Regional District Service Areas over the next 5 years.

Initiative	Description
2019 - 2023	
Zero Waste Communication	Enhanced Abandoned Waste campaign, Create Memories not Garbage, Love Food Hate Waste, Food Scraps campaign and Textile Awareness campaign.
Regional Prosperity initiative	Complete service feasibility work. An MVRD Regional Prosperity function 2019-2023 subject to federal, provincial and local partner contributions
Comprehensive Review	Perform a comprehensive review of future fire hall upgrades and replacements based on the 2018 seismic review report on the Anmore and Belcarra fire halls
Emergency Preparedness	In accordance with the Regional Exercise Program and involving local governments, the Province and regional stakeholders, conduct a regional exercise expanding the complexity from the 2018 exercise.
MyRES	Implement phase three of the technology and communication initiative by expanding the members' only portal to include increased access to online tools, data as well as customized reporting
Labour Relations Data	Continue to develop national and provincial data sources to ensure accurate and reliable data
National Zero Waste Conference	Expand the National Zero waste conference to two days from one and a half days.

METRO VANCOUVER REGIONAL DISTRICT
E911 EMERGENCY TELEPHONE SERVICE
2019 BUDGET REVIEW
2019-2023 FINANCIAL PLAN

ATTACHMENT 2

	2016 ACTUAL	2017 ACTUAL	2018 BUDGET	2019 BUDGET	% CHANGE	2020 FORECAST	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE
REVENUES													
MVRD Requisitions	$ 4,060,273	$ 4,118,674	$ 4,236,501	$ 4,344,017	2.5%	$ 4,451,980	2.5%	$ 4,562,606	2.5%	$ 4,676,513	2.5%	$ 4,792,680	2.5%
Other External Revenues	68,432	66,426	68,082	67,568		69,247		70,967		72,180		73,974	
TOTAL REVENUES	**$ 4,128,705**	**$ 4,185,100**	**$ 4,304,583**	**$ 4,411,585**	**2.5%**	**$ 4,521,227**	**2.5%**	**$ 4,633,573**	**2.5%**	**$ 4,748,693**	**2.5%**	**$ 4,866,654**	**2.5%**
EXPENDITURES													
Operating Programs:													
Emergency Telephone Service	$ 4,019,816	$ 4,102,857	$ 4,220,179	$ 4,325,083		$ 4,432,575		$ 4,542,719		$ 4,655,581		$ 4,771,229	
Allocation of Centralized Support Costs	80,920	82,115	84,404	86,502		88,652		90,854		93,112		95,425	
TOTAL EXPENDITURES	**$ 4,100,736**	**$ 4,184,972**	**$ 4,304,583**	**$ 4,411,585**	**2.5%**	**$ 4,521,227**	**2.5%**	**$ 4,633,573**	**2.5%**	**$ 4,748,693**	**2.5%**	**$ 4,866,654**	**2.5%**

METRO VANCOUVER REGIONAL DISTRICT
GENERAL GOVERNMENT
2019 BUDGET REVIEW
2019-2023 FINANCIAL PLAN

	2016 ACTUAL	2017 ACTUAL	2018 BUDGET	2019 BUDGET	% CHANGE	2020 FORECAST	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE
REVENUES													
MVRD Requisitions	$ 4,660,335	$ 4,769,656	$ 4,848,214	$ 4,943,002	2.0%	$ 5,127,751	3.7%	$ 5,157,567	0.6%	$ 5,146,190	(0.2%)	$ 5,343,258	3.8%
Love Food Hate Waste	-	-	184,000	556,000		790,000		1,090,000		1,090,000		1,026,000	
Zero Waste Conference	66,159	76,830	105,000	180,000		189,375		295,000		331,250		380,000	
Other External Revenues	759,763	1,528,781	990,500	1,010,000		992,910		995,368		997,875		1,000,433	
Reserves	100,000	110,000	395,000	305,000		140,000		150,000		150,000		150,000	
TOTAL REVENUES	**$ 5,586,257**	**$ 6,485,267**	**$ 6,522,714**	**$ 6,994,002**	**7.2%**	**$ 7,240,036**	**3.5%**	**$ 7,687,935**	**6.2%**	**$ 7,715,315**	**0.4%**	**$ 7,899,691**	**2.4%**
EXPENDITURES													
Operating Programs:													
Audit, Legal and Insurance	$ 79,027	$ 115,652	$ 110,929	$ 110,929		$ 111,774		$ 112,636		$ 113,515		$ 114,412	
Board and Legislative Services	1,556,298	2,361,937	2,464,286	2,524,121		2,548,478		2,599,602		2,656,755		2,890,128	
External Contributions	405,000	415,000	425,000	435,000		445,000		455,000		455,000		455,000	
Leadership and Engagement	270,150	252,025	604,541	488,440		495,313		502,330		509,494		516,807	
Mosquito Control Contract	93,554	109,128	115,500	135,000		117,810		120,166		122,569		125,021	
Regional Culture	36,075	36,480	35,345	36,077		36,825		37,464		38,111		38,773	
Sustainability Fund	347,000	347,000	347,000	347,000		347,000		347,000		347,000		347,000	
	2,787,105	3,637,222	4,102,601	4,076,567	(0.6%)	4,102,200	0.6%	4,174,198	1.8%	4,242,444	1.6%	4,487,141	5.8%
Communications Program	296,200	476,958	1,001,500	1,032,000	3.0%	1,007,000	(2.4%)	1,002,000	(0.5%)	972,000	(3.0%)	972,000	0.0%
Collaboration Initiatives													
National Zero Waste Council	353,484	364,141	383,128	383,128		383,128		383,128		383,128		383,128	
Love Food Hate Waste	87,113	76,438	184,000	556,000		790,000		1,090,000		1,090,000		1,026,000	
Zero Waste Conference	180,363	268,383	317,000	392,000		399,375		505,000		541,250		590,000	
Circular Economy	-	-	-	32,500		32,500		32,500		-		-	
	620,960	708,962	884,128	1,363,628	54.2%	1,605,003	17.7%	2,010,628	25.3%	2,014,378	0.2%	1,999,128	(0.8%)
Allocation of Centralized Support Costs	499,227	552,333	534,485	521,807	(2.4%)	525,833	0.8%	501,109	(4.7%)	486,493	(2.9%)	441,422	(9.3%)
TOTAL EXPENDITURES	**$ 4,203,493**	**$ 5,375,475**	**$ 6,522,714**	**$ 6,994,002**	**7.2%**	**$ 7,240,036**	**3.5%**	**$ 7,687,935**	**6.2%**	**$ 7,715,315**	**0.4%**	**$ 7,899,691**	**2.4%**

* Regional Prosperity Initiatives established as Statutory Function in 2017 and 2018

METRO VANCOUVER REGIONAL DISTRICT
LABOUR RELATIONS
2019 BUDGET REVIEW
2019-2023 FINANCIAL PLAN

	2016 ACTUAL	2017 ACTUAL	2018 BUDGET	2019 BUDGET	% CHANGE	2020 FORECAST	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE
REVENUES													
MVRD Requisitions	$ 1,033,691	$ 1,054,360	$ 1,086,930	$ 946,739	(12.9%)	$ 986,759	4.2%	$ 1,021,072	3.5%	$ 1,060,268	3.8%	$ 1,086,748	2.5%
Compensation Services Revenue	323,437	330,835	359,960	478,280		491,233		494,184		499,683		505,722	
Collective Bargaining Services Revenue	741,539	813,019	763,645	867,558		891,547		898,424		909,852		922,287	
Other External Revenues	386,296	437,730	405,196	391,190		405,834		419,701		433,743		445,567	
Reserves	123,000	18,865	50,000	165,946		-		-		-		-	
TOTAL REVENUES	**$ 2,607,963**	**$ 2,654,809**	**$ 2,665,731**	**$ 2,849,713**	**6.9%**	**$ 2,775,373**	**(2.6%)**	**$ 2,833,381**	**2.1%**	**$ 2,903,546**	**2.5%**	**$ 2,960,324**	**2.0%**
EXPENDITURES													
Operating Programs:													
Information & Advisory Services	$ 997,184	$ 1,064,789	$ 1,076,864	$ 1,199,104		$ 1,088,812		$ 1,141,476		$ 1,194,526		$ 1,233,094	
Compensation Services	256,270	319,479	424,847	516,329		528,793		539,499		550,368		561,476	
Collective Bargaining	695,701	743,791	919,952	910,279		932,357		951,720		971,398		991,522	
	1,949,154	2,128,059	2,421,663	2,625,712	8.4%	2,549,962	(2.9%)	2,632,695	3.2%	2,716,292	3.2%	2,786,092	2.6%
Allocation of Centralized Support Costs	242,353	293,775	244,068	224,001	(8.2%)	225,411	0.6%	200,686	(11.0%)	187,254	(6.7%)	174,232	(7.0%)
TOTAL EXPENDITURES	**$ 2,191,507**	**$ 2,421,834**	**$ 2,665,731**	**$ 2,849,713**	**6.9%**	**$ 2,775,373**	**(2.6%)**	**$ 2,833,381**	**2.1%**	**$ 2,903,546**	**2.5%**	**$ 2,960,324**	**2.0%**

METRO VANCOUVER REGIONAL DISTRICT
REGIONAL EMERGENCY MANAGEMENT
2019 BUDGET REVIEW
2019-2023 FINANCIAL PLAN

	2016 ACTUAL	2017 ACTUAL	2018 BUDGET	2019 BUDGET	% CHANGE	2020 FORECAST	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE
REVENUES													
MVRD Requisitions	$ 150,000	$ 150,000	$ 155,000	$ 159,000	2.6%	$ 163,000	2.5%	$ 167,000	2.5%	$ 170,000	1.8%	$ 173,000	1.8%
Other External Revenues	150,000	150,000	-	-		-		-		-		-	
Reserves	-	38,345	47,331	69,104		74,868		55,944		6,170		9,547	
TOTAL REVENUES	**$ 300,000**	**$ 338,345**	**$ 202,331**	**$ 228,104**	**12.7%**	**$ 237,868**	**4.3%**	**$ 222,944**	**(6.3%)**	**$ 176,170**	**(21.0%)**	**$ 182,547**	**3.6%**
EXPENDITURES													
Operating Programs:													
Regional Emergency Management	$ 313,292	$ 323,345	$ 192,214	$ 217,242		$ 226,541		$ 212,328		$ 167,781		$ 173,854	
Allocation of Centralized Support Costs	-	15,000	10,117	10,862		11,327		10,616		8,389		8,693	
TOTAL EXPENDITURES	**$ 313,292**	**$ 338,345**	**$ 202,331**	**$ 228,104**	**12.7%**	**$ 237,868**	**4.3%**	**$ 222,944**	**(6.3%)**	**$ 176,170**	**(21.0%)**	**$ 182,547**	**3.6%**

METRO VANCOUVER REGIONAL DISTRICT
REGIONAL GLOBAL POSITIONING SYSTEM
2019 BUDGET REVIEW
2019-2023 FINANCIAL PLAN

	2016 ACTUAL	2017 ACTUAL	2018 BUDGET	2019 BUDGET	% CHANGE	2020 FORECAST	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE
REVENUES													
User Fees	$ 324,316	$ 340,719	$ 310,688	$ 314,180	1.1%	$ 319,733	1.8%	$ 324,686	1.5%	$ 329,481	1.5%	$ 334,533	1.5%
Other External Revenues	49,667	58,561	35,000	35,700		36,628		37,580		38,557		39,559	
Reserves	257,397	-	-	200,000		-		-		-		-	
TOTAL REVENUES	**$ 631,380**	**$ 399,280**	**$ 345,688**	**$ 549,880**	**59.1%**	**$ 356,361**	**(35.2%)**	**$ 362,266**	**1.7%**	**$ 368,038**	**1.6%**	**$ 374,092**	**1.6%**
EXPENDITURES													
Operating Programs:													
Regional Global Positioning System	$ 481,832	$ 164,527	$ 283,140	$ 488,844		$ 296,042		$ 302,755		$ 309,606		$ 316,617	
Contribution to Reserve	-	30,709	31,323	31,949		32,780		33,632		34,506		35,403	
Allocation of Centralized Support Costs	51,492	62,423	31,225	29,087		27,539		25,879		23,926		22,072	
TOTAL EXPENDITURES	**$ 533,324**	**$ 257,659**	**$ 345,688**	**$ 549,880**	**59.1%**	**$ 356,361**	**(35.2%)**	**$ 362,266**	**1.7%**	**$ 368,038**	**1.6%**	**$ 374,092**	**1.6%**

METRO VANCOUVER REGIONAL DISTRICT
REGIONAL PROSPERITY *
2019 BUDGET REVIEW
2019-2023 FINANCIAL PLAN

	2016 ACTUAL	2017 ACTUAL	2018 BUDGET	2019 BUDGET	% CHANGE	2020 FORECAST	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE
REVENUES													
MVRD Requisitions	$ -	$ 233,997	$ 281,382	$ 409,500	45.5%	$ 1,020,000	149.1%	$ 1,530,000	50.0%	$ 2,040,000	33.3%	$ 2,550,000	25.0%
Reserves	-	31,000	-	75,000		-		-		-		-	
TOTAL REVENUES	**$ -**	**$ 264,997**	**$ 281,382**	**$ 484,500**	**72.2%**	**$ 1,020,000**	**110.5%**	**$ 1,530,000**	**50.0%**	**$ 2,040,000**	**33.3%**	**$ 2,550,000**	**25.0%**
EXPENDITURES													
Operating Programs:													
Vancouver Global	$ -	$ 201,543	$ 281,382	$ 400,000		$ 1,000,000		$ 1,500,000		$ 2,000,000		$ 2,500,000	
Transition	-	-	-	75,000		-		-		-		-	
	-	201,543	281,382	475,000	68.8%	1,000,000	110.5%	1,500,000	50.0%	2,000,000	33.3%	2,500,000	25.0%
Allocation of Centralized Support Costs	-	-	-	9,500	0.0%	20,000	110.5%	30,000	50.0%	40,000	33.3%	50,000	25.0%
TOTAL EXPENDITURES	**$ -**	**$ 201,543**	**$ 281,382**	**$ 484,500**	**72.2%**	**$ 1,020,000**	**110.5%**	**$ 1,530,000**	**50.0%**	**$ 2,040,000**	**33.3%**	**$ 2,550,000**	**25.0%**

* Included in the General Government function in 2017 and 2018

METRO VANCOUVER REGIONAL DISTRICT
SASAMAT FIRE PROTECTION SERVICE
2019 BUDGET REVIEW
2019-2023 FINANCIAL PLAN

	2016 ACTUAL	2017 ACTUAL	2018 BUDGET	2019 BUDGET	% CHANGE	2020 FORECAST	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE
REVENUES													
MVRD Requisitions	$ 277,146	$ 325,232	$ 321,157	$ 328,928	2.4%	$ 333,718	1.5%	$ 338,607	1.5%	$ 343,593	1.5%	$ 491,683	43.1%
Other External Revenues	15,000	15,000	10,000	10,000		10,000		10,000		10,000		10,000	
Reserves	-	560,680	65,000	-		600,000		-		-		-	
TOTAL REVENUES	**$ 292,146**	**$ 900,912**	**$ 396,157**	**$ 338,928**	**(14.4%)**	**$ 943,718**	**178.4%**	**$ 348,607**	**(63.1%)**	**$ 353,593**	**1.4%**	**$ 501,683**	**41.9%**
EXPENDITURES													
Operating Programs:													
Sasamat Fire Protection Service	$ 181,287	$ 299,010	$ 278,688	$ 224,389		$ 828,744		$ 233,188		$ 237,721		$ 372,348	
Contribution to Reserves	67,100	560,680	92,100	92,100		92,100		92,100		92,100		92,100	
	248,387	859,690	370,788	316,489	(14.6%)	920,844	191.0%	325,288	(64.7%)	329,821	1.4%	464,448	40.8%
Allocation of Centralized Support Costs	6,021	6,571	25,369	22,439	(11.5%)	22,874	1.9%	23,319	1.9%	23,772	1.9%	37,235	56.6%
TOTAL EXPENDITURES	**$ 254,408**	**$ 866,261**	**$ 396,157**	**$ 338,928**	**(14.4%)**	**$ 943,718**	**178.4%**	**$ 348,607**	**(63.1%)**	**$ 353,593**	**1.4%**	**$ 501,683**	**41.9%**

9-1-1 EMERGENCY TELEPHONE SERVICE

Description of services

911 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

Board Strategic Plan

- Livable and Sustainable Region - Use livability and sustainability objectives to guide Metro Vancouver services and operations.
- Emergency Preparedness – Collaborate with stakeholders to prepare for major emergencies.
- Fiscal Responsibility - Use value for services to guide Metro Vancouver operations and service provision.
- Effective Federation - Strengthen the alignment of member and regional objectives.

Performance indicators

Indicator	Historical and/or industry benchmark	Current performance	2019 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

2019 key actions

- Continue to provide 9-1-1 emergency telephone service to all callers in Metro Vancouver, currently contracted to the end of 2022.

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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) which was created in the spring of 2009.

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

Board Strategic Plan

- Livable and Sustainable Region - Use livability and sustainability objectives to guide Metro Vancouver services and operations.
- Emergency preparedness – Collaborate with stakeholders to prepare for major emergencies.
- Fiscal Responsibility - Use value for services to guide Metro Vancouver operations and service provision.
- Effective Federation - Strengthen the alignment of member and regional objectives.

Performance indicators

Indicator	Historical and/or industry benchmark	Current performance	2019 performance objective
Conduct one Region Wide Emergency Exercise per year	1	2 (planned)*	2

*Note one exercise is region wide, the second is sub-regional (but in three parts that make up the whole region).

2019 key actions

- Conduct a regional exercise, increasing in complexity from 2018, in accordance with the Regional Exercise Program and involving local and provincial government, regional stakeholders and align with the Provincial Exercise Program.
- Conduct annual Regional Concept of Operations exercises with CAO's, aligned with the Regional Exercise Program.
- Develop and validate a regional recovery framework.
- Complete a regional Hazard Risk and Vulnerability Assessment to identify regional planning priorities.

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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 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 2017 Sasamat Fire Protection Service responded to approximately 100 calls for service with this volume expected to increase as development continues in the service area.

Strategic directions and high level goals supported

Board Strategic Plan

- Livable and Sustainable Region - Use livability and sustainability objectives to guide Metro Vancouver services and operations.
- Emergency Preparedness – Collaborate with stakeholders to prepare for major emergencies.
- Fiscal Responsibility - Use value for services to guide Metro Vancouver operations and service provision.
- Effective Federation - Strengthen the alignment of member and regional objectives.

Performance indicators

Indicator	Historical and/or industry benchmark	Current performance	2019 performance objective
Respond to all calls for assistance received through Surrey Fire Dispatch within 15 minutes	95%	100%	100%

2019 key actions

- Conduct a comprehensive review of future fire hall upgrades/replacements based upon 2018 Seismic and Conditions Assessment Report. Determine operational requirements and funding options.
- Implement quantitative fit-testing program of Self Contained Breathing Apparatus (SCBA) for all firefighters, to meet WorkSafeBC requirements.

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SERVICES AND SOLUTIONS FOR A LIVABLE REGION

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 related to 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.
- 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 member jurisdictions and other fee for service clients.

Strategic directions and high level goals supported

Board Strategic Plan

- Strengthen the alignment of member and regional objectives.
    - Deliver services effectively and efficiently at the regional level.
    - Collaborate with members when communicating on issues that benefit from a collective voice.
    - Provide the tools and opportunities to share information, experiences, and best practices among members including online resources, workshops, and advisory committees.

Performance indicators

Indicator	Historical and/or industry benchmark	Current performance	2019 performance objective
Average turnaround time for job evaluation reviews (calendar days)	31	2018 YTD July: 23.8 Objective: 31	28

Indicator	Historical and/or industry benchmark	Current performance	2019 performance objective
Annual number of attendees at RES educational offerings	82	2018 YTD July: 174 Objective: 300	350
Total number of page visits to RES website and myRES portal	7,465	2018 YTD July: 23,521 Objective: 20,000	30,000
Collective agreements serviced	46	49	49

2019 key actions

- Implement phase three of the technology and communications by 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 Police collective agreements and continue with bargaining planning for next bargaining cycle for other groups such as Fire and Inside/Outside.
- Advance matters of regional significance through initiatives such as the Regional Workforce Strategy Committee in order to address regional workforce recruitment and retention challenges in the municipal sector.
- Continue to develop national and provincial data sources in order to ensure accurate and reliable data for collective bargaining coordination and labour strategy to ensure efficient allocation of resources.
- Expand outreach through initiatives such as the Calendar of Educational Offerings, Spring Seminar, and RES Symposium.

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 safe, clean drinking water and further develop its capacity to meet future needs.
- Ensure the long-term resilience and ability of the regional drinking water system to meet future demands and challenges in a resource-constrained world.
- Manage the liquid waste system in a manner that protects public health and the environment.
- Ensure the long-term resilience and ability of the liquid waste system to meet future demands and challenges in a resource-constrained world.
- Enhance relationships between Metro Vancouver and other orders of government, First Nations, and stakeholders.

Performance indicators

Indicator	Historical and/or industry benchmark	Current performance	2019 performance objective
Percent of service uptime (business hours, 8am – 4pm, M-F): • Real-time service to mobile surveyors	95 – 99%	99%	99%
Percent of service uptime (24 x 7, 365 days / year): • Post-mission data availability through Provincial portal	95 – 98%	98%	98%

2019 key actions

- Complete development and commence the implementation of the new 5-year strategic plan.
- Complete Active Control Point infrastructure asset replacement.

METRO VANCOUVER DISTRICTS
2019-2023 PROJECTED RESERVES - REGIONAL DISTRICT SERVICE AREAS

ATTACHMENT 4

OPERATING RESERVES

	2018 ENDING BALANCE	2019 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2019 ENDING BALANCE	2020 ENDING BALANCE	2021 ENDING BALANCE	2022 ENDING BALANCE	2023 ENDING BALANCE
E911 Emergency Telephone Service	$ 209,394	$ 209,394	$ 1,589	$ -	$ 4,246	$ 215,229	$ 220,579	$ 226,061	$ 231,679	$ 237,435
General Government	291,458	291,458	11,326	-	6,002	308,786	332,350	344,652	367,047	368,416
Labour Relations	135,176	135,176	-	(7,049)	2,660	130,787	134,188	138,769	140,169	142,177
Regional Emergency Management	12,350	12,350	-	(2,458)	225	10,117	11,405	11,893	11,147	8,809
Regional Global Positioning System	18,536	18,536	-	(3,160)	343	15,718	25,897	16,179	16,432	16,677
Regional Prosperity	-	-	13,928	-	141	14,069	20,475	51,000	76,500	102,000
Sasamat Fire Protection Services	12,657	12,657	-	(950)	246	11,953	12,341	12,581	12,825	13,075
West Nile Virus	345,205	345,205	-	-	6,904	352,109	359,151	366,334	373,661	381,134

DISCRETIONARY RESERVES

	2018 ENDING BALANCE	2019 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2019 ENDING BALANCE	2020 ENDING BALANCE	2021 ENDING BALANCE	2022 ENDING BALANCE	2023 ENDING BALANCE
Emergency 911 Telephone Service (E911)										
E911 General Reserve	$ 460,850	$ 460,850	$ -	$ -	$ 9,217	$ 470,067	$ 479,468	$ 489,058	$ 498,839	$ 508,816
General Government										
General Government General Reserve	3,695,426	3,695,426	-	(175,000)	72,159	3,592,585	3,664,436	3,737,725	3,812,479	3,888,729
Labour Relations										
Labour Relations General Reserve	1,762,196	1,762,196	-	(165,946)	33,584	1,629,834	1,662,431	1,695,680	1,729,593	1,764,185
Regional Emergency Management (REM)										
REM General Reserve	235,688	235,688	-	(69,104)	4,023	170,607	98,402	43,866	38,512	29,640
Regional Prosperity Initiative										
Regional Prosperity General Reserve	-	75,000	-	(75,000)	-	-	-	-	-	-

STATUTORY RESERVES

	2018 ENDING BALANCE	2019 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2019 ENDING BALANCE	2020 ENDING BALANCE	2021 ENDING BALANCE	2022 ENDING BALANCE	2023 ENDING BALANCE
General Government										
MVRD Sustainability Innovation Fund Reserve	$ 11,398,566	$ 11,398,566	$ 347,000	$ (70,000)	$ 230,741	$ 11,906,308	$ 12,494,904	$ 13,095,272	$ 13,707,647	$ 14,332,270
Grants Reserve Fund	2,211,838	2,211,838	-	(130,000)	42,937	2,124,775	2,025,870	1,914,887	1,801,685	1,686,219
Regional Global Positioning System										
Regional Geospatial Reference System Reserve	904,046	904,046	31,949	(200,000)	16,400	752,395	800,551	850,530	902,392	956,197
Sasamat Fire Protection Services (SFPS)										
SFPS Capital Reserve Fund	665,744	665,744	92,100	-	14,236	772,080	274,543	373,055	473,537	576,029
SFPS Communications Capital Reserve Fund	55,377	55,377	-	-	1,108	56,484	57,614	58,766	59,942	61,140
SFPS Emergency Equipment Reserve Fund	25,750	25,750	-	-	515	26,265	26,790	27,326	27,873	28,430

METRO VANCOUVER DISTRICTS
2019-2023 PROJECTED RESERVES - LABOUR RELATIONS

OPERATING RESERVES

	2018 ENDING BALANCE	2019 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2019 ENDING BALANCE	2020 ENDING BALANCE	2021 ENDING BALANCE	2022 ENDING BALANCE	2023 ENDING BALANCE
Labour Relations	135,176	135,176	-	(7,049)	2,660	130,787	134,188	138,769	140,169	142,177

DISCRETIONARY RESERVES

	2018 ENDING BALANCE	2019 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2019 ENDING BALANCE	2020 ENDING BALANCE	2021 ENDING BALANCE	2022 ENDING BALANCE	2023 ENDING BALANCE
Labour Relations										
Labour Relations General Reserve	1,762,196	1,762,196	-	(165,946)	33,584	1,629,834	1,662,431	1,695,680	1,729,593	1,764,185

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SERVICES AND SOLUTIONS FOR A LIVABLE REGION

To: Finance and Intergovernment Committee

From: Carol Mason, Commissioner/Chief Administrative Officer
Phil Trotzuk, Chief Financial Officer/General Manager, Financial Services

Date: September 26, 2018 Meeting Date: October 12, 2018

Subject: **2019 - 2023 Financial Plan – Centralized Support Program**

RECOMMENDATION

That the Finance and Intergovernment Committee endorse the 2019 - 2023 Financial Plan for the Centralized Support Program as presented in the report "2019 - 2023 Financial Plan – Centralized Support Program dated September 26, 2018 and forward it to the Board Budget Workshop on October 17, 2018 for consideration.

PURPOSE

To present the 2019 - 2023 Financial Plan for the Centralized Support Program including Corporate Services, External Relations, Financial Services, Human Resources and Legal 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 2019 annual budget and the updated five year plan for the years 2019 to 2023 for committee consideration.

CENTRALIZED SUPPORT PROGRAM

Centralized Support Program services support all business activities of the Metro Vancouver 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
- Legal and Legislative Services

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

- Use livability and sustainability objectives to guide Metro Vancouver services and operations.
- Strengthen the alignment of member and regional objectives.
- Increase Metro Vancouver's profile by leveraging events and news related to regional services.
- Enhance relationships between Metro Vancouver and other orders of government, First Nations and stakeholders.
- Advocate the merits of integrating regional land use and transportation planning.
- Clarify and strengthen Metro Vancouver's role in pursuing a collaborative approach to regional prosperity.
- Collaborate with stakeholders to prepare for major emergencies.
- Use value for service to guide Metro Vancouver operations and service provision.

As the Corporate 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.

2019 BUDGET AND 2019 - 2023 FINANCIAL PLAN

The five year financial plans for this cycle have been updated to address the four themes Metro Vancouver considers when developing plans and budgets. These are as follows:

- Addressing Regional Growth
- System Stewardship
- Environmental Protection and Climate Action
- Opportunities for Innovation and Enhanced Services

Annual Work Plans are developed for almost all Metro Vancouver functions. The 2019 Annual Work Plans for the Centralized Support Program budgets presented in this report are included in Attachment 3.

A summary of the Centralized Support Program service area program highlights, 2019 - 2023 "What's Happening", is included under Attachment 1.

Attached are summaries of the 2019 - 2023 Financial Plans for the Centralized Support Program service areas (Attachment 2).

Operating Budget Highlights

In 2019, the Centralized Support Program expenditures are increasing $2.27 million for total expenditures of $72.8 million (Attachment 2). This increase is primarily due to, in addition to labour inflationary adjustments, a proposed new position in Aboriginal Relations, the addition of temporary resources in Information Management and the transfer of a position from Solid Waste to Human Resources.

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 2019, the allocation of centralized support program costs is actually declining by $925,128 (1.5%).

This decline is the result of higher third-party lease returns at head office and an increase in reserve funding for projects meeting the criteria for funding in accordance with the *Operating, Statutory and Discretionary Reserves Policy.*

The Aboriginal Relations program within Legal and Legislative Services is proposing the addition of one new program manager position to meet the increasing responsibilities and complexities related to communication and engagement with local First Nations. The Aboriginal Relations program has been presented separately to the Aboriginal Relations Committee.

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 2019 – 2023 $ Millions	Average Annual Expenditures $ Millions	Average Annual Increase (Decrease)
Corporate Services	$ 211.6	$ 42.3	0.3%
External Relations	$ 31.9	$ 6.2	2.1%
Financial Services	$ 63.7	$ 12.7	2.2%
Human Resources	$ 27.8	$ 5.6	3.2%
Legal And Legislative Services	$ 24.0	$ 4.8	3.3%

The 2019 - 2023 Financial Plan details for the Centralized Support Program are included Attachment 2.

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 Management System including enhancements pertaining to expense tracking and procurement.
- Coordinate the completion of the initial Metro Vancouver 30 Year Financial Plan focused on managing funding requirements through the implementation of financial policy.
- Continue the development of a formalized asset management process building on the approved policies for Liquid Waste and Housing.
- Review and update job classifications and generate job descriptions for the Teamsters positions.
- Implementation of a Talent Management System for internal and external candidates.
- Implement enhancements to the corporate-wide document 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 2019, $6.8 million in reserve funding has been applied in the Centralized Support Program - $2.3 million for continued capital improvements at head office, $1.5 million to cover carrying costs associated with the old head office, $1.3 million for the purchase of computer hardware and one-time software application upgrades, $760,000 to fund one-time initiatives in External Relations, Human Resources and Finance, and $1.2 million to draw down the corporate reserve and reduce the impact on the overall financial plan. The 2019 – 2023 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 2019 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).
- CORE safety program audit score.
- CORE workplace time loss return to work audit score.
- 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 2018 – 2022 FINANCIAL PLAN

The updated five year financial plan has been developed to be consistent with the 2018 - 2022 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. For the years 2019, 2020, 2021 and 2022 the total Centralized Support Program costs allocated is generally consistent with prior year projections.

APPROVAL PROCESS

The proposed 2019 - 2023 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 2019 - 2023 Financial Plan and Annual Work Plan will be presented at the Board Budget Workshop on October 17, 2018.

- The Board will consider adoption of the 2019 Budget and endorsement of the 2019 – 2023 Financial Plan on October 26, 2018.

ALTERNATIVES

1. That the Finance and Intergovernment Committee endorse the 2019 - 2023 Financial Plan for the Centralized Support Program as presented in the report "2019 - 2023 Financial Plan – Centralized Support Program" dated September 26, 2018 and forward it to the Board Budget Workshop on October 17, 2018 for consideration.

2. That the Finance and Intergovernment Committee make recommendations and endorse an amended 2019 - 2023 Financial Plan for the Centralized Support Program and forward the amended Financial Plan to the Board Budget Workshop on October 17, 2018 for consideration.

FINANCIAL IMPLICATIONS

If the MVRD Board endorses the 2019 – 2023 Financial Plan for the Centralized Support Program, as presented under Alternative 1, in 2019 total expenditures for the Centralized Support Program are proposed to increase $2.27 million (3.2%) with the allocation to the Metro Vancouver entities and functions, net of other recoveries and reserve applications, actually decreasing $925,128 (1.5%) thereby reducing the impact on the required revenues within the financial plan. 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 0.6% 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 2019 - 2023 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 2019 to 2023 for the Centralized Support Program comprising Corporate Services, External Relations, Financial Services, Human Resources and Legal 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 2019 - 2023 Financial Plans for the Centralized Support Program as presented under alternative one.

Attachments:

1. 2019 - 2023 "What's Happening"
2. 2019-2023 Financial Plans
    - Centralized Support Program Summary
    - Corporate Services
    - External Relations
    - Financial Services
    - Human Resources
    - Legal and Legislative Services
3. 2019 Work Plans
4. 2019 – 2023 Projected Reserves – Centralized Support Program
5. Organizational Charts – Centralized Support

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2019 – 2023 "WHAT'S HAPPENING" – Centralized Support Program

Below are a summary of the significant initiatives to be undertaken by the Centralized Support Program over the next 5 years.

Initiative	Description
2019 - 2023	
Long-term Financial Plan	Develop a 30 Year Financial Plan focused on financial policy
Financial Management System	Upgrade Financial Management System with enhanced expense tracking and procurement
Updated Contract Templates	Implement new updated contract templates for Purchasing and Properties
Talent Management System	Implement a Talent Management System for internal and external candidates
Teamsters Job Descriptions	Review and update job classifications and generate job descriptions for the Teamsters positions.
Document Management	Enhance corporate-wide document management system and continue digitization of historical information
Staff Training	Develop a partnership to bring Water and Wastewater certification programs to Metro Vancouver
Process Review	Conduct an overall review of inventory and stores processes
Communication and Outreach	Continue with awareness campaigns regarding waste reduction, water conservation, climate change and Liquid Waste source control
System Security	Implement updated Private Cloud Security Model for securing Metro Vancouver systems

METRO VANCOUVER DISTRICTS
CENTRALIZED SUPPORT PROGRAM SUMMARY
2019 BUDGET REVIEW
2019-2023 FINANCIAL PLAN

ATTACHMENT 2

	2016 ACTUAL	2017 ACTUAL	2018 BUDGET	2019 BUDGET	% CHANGE	2020 FORECAST	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE
REVENUES													
Allocated to Functional Departments (net)	$ 44,173,807	$ 54,934,145	$ 59,743,188	$ 58,818,060	(1.5%)	$ 60,241,731	2.4%	$ 60,980,930	1.2%	$ 61,954,947	1.6%	$ 62,791,114	1.3%
Other External Revenues	6,600,052	6,281,283	6,349,433	7,179,160	13.1%	7,750,360	8.0%	7,859,119	1.4%	7,920,759	0.8%	7,967,515	0.6%
Reserves	3,941,959	8,245,044	4,412,415	6,778,309	53.6%	2,523,800	(62.8%)	2,160,000	(14.4%)	2,110,000	(2.3%)	1,930,000	(8.5%)
TOTAL REVENUES	**$ 54,715,818**	**$ 69,460,472**	**$ 70,505,036**	**$ 72,775,529**	**3.2%**	**$ 70,515,891**	**(3.1%)**	**$ 71,000,049**	**0.7%**	**$ 71,985,706**	**1.4%**	**$ 72,688,629**	**1.0%**
EXPENDITURES													
Corporate Services	30,920,261	41,451,405	43,481,528	44,459,211	2.2%	41,547,844	(6.5%)	41,590,008	0.1%	41,905,663	0.8%	42,062,197	0.4%
External Relations	5,143,847	5,582,153	5,950,596	6,106,370	2.6%	6,263,991	2.6%	6,379,873	1.8%	6,496,989	1.8%	6,613,601	1.8%
Financial Services	10,453,785	10,938,379	11,939,229	12,122,277	1.5%	12,512,224	3.2%	12,708,500	1.6%	13,061,482	2.8%	13,318,824	2.0%
Human Resources	4,521,319	4,658,880	4,905,451	5,466,732	11.4%	5,479,807	0.2%	5,523,226	0.8%	5,635,384	2.0%	5,718,163	1.5%
Legal and Legislative Services	3,755,347	3,408,345	4,228,232	4,620,939	9.3%	4,712,025	2.0%	4,798,442	1.8%	4,886,188	1.8%	4,975,844	1.8%
TOTAL EXPENDITURES	**$ 54,794,559**	**$ 66,039,162**	**$ 70,505,036**	**$ 72,775,529**	**3.2%**	**$ 70,515,891**	**(3.1%)**	**$ 71,000,049**	**0.7%**	**$ 71,985,706**	**1.4%**	**$ 72,688,629**	**1.0%**
ALLOCATED TO FUNCTIONAL DEPARTMENTS													
Water	$ 18,391,525	$ 22,156,646	$ 25,084,563	$ 23,388,522	(6.8%)	$ 23,444,732	0.2%	$ 24,245,721	3.4%	$ 24,528,220	1.2%	$ 25,031,600	2.1%
Liquid Waste	16,192,380	19,588,472	22,094,123	22,757,172	3.0%	24,806,053	9.0%	25,249,271	1.8%	26,290,833	4.1%	27,219,060	3.5%
Solid Waste	3,243,141	3,976,545	4,348,952	4,674,251	7.5%	4,258,379	(8.9%)	4,252,172	(0.1%)	4,306,778	1.3%	4,144,751	(3.8%)
Housing	2,080,217	4,124,906	2,417,680	2,119,752	(12.3%)	2,036,534	(3.9%)	1,885,711	(7.4%)	1,737,102	(7.9%)	1,601,249	(7.8%)
Affordable Housing	-	-	71,638	89,656	25.2%	64,371	(28.2%)	60,389	(6.2%)	55,665	(7.8%)	51,198	(8.0%)
Air Quality	487,127	590,504	953,910	878,401	(7.9%)	838,724	(4.5%)	773,889	(7.7%)	718,873	(7.1%)	668,486	(7.0%)
E911 Emergency Telephone Service	80,920	82,115	84,404	86,502	2.5%	88,652	2.5%	90,854	2.5%	93,112	2.5%	95,425	2.5%
Electoral Area Service	26,667	32,329	38,934	45,910	17.9%	34,734	(24.3%)	29,201	(15.9%)	29,779	2.0%	26,526	(10.9%)
General Government	499,227	552,333	534,485	521,807	(2.4%)	525,833	0.8%	501,109	(4.7%)	486,493	(2.9%)	441,422	(9.3%)
Labour Relations	242,353	293,775	244,068	224,001	(8.2%)	225,411	0.6%	200,686	(11.0%)	187,254	(6.7%)	174,232	(7.0%)
Regional Emergency Management	-	15,000	10,117	10,862	7.4%	11,327	4.3%	10,616	(6.3%)	8,389	(21.0%)	8,693	3.6%
Regional Global Positioning System	51,492	62,423	31,225	29,087	(6.8%)	27,539	(5.3%)	25,879	(6.0%)	23,926	(7.5%)	22,072	(7.7%)
Regional Parks	2,677,549	3,215,914	3,517,305	3,698,560	5.2%	3,556,182	(3.8%)	3,347,139	(5.9%)	3,188,235	(4.7%)	3,005,337	(5.7%)
Regional Planning	195,188	236,612	286,415	261,636	(8.7%)	280,387	7.2%	254,972	(9.1%)	236,515	(7.2%)	213,829	(9.6%)
Regional Prosperity Initiatives	-	-	-	9,500	0.0%	20,000	110.5%	30,000	50.0%	40,000	33.3%	50,000	25.0%
Sasamat Fire Protection Service	6,021	6,571	25,369	22,439	(11.5%)	22,874	1.9%	23,319	1.9%	23,772	1.9%	37,235	56.6%
	$ 44,173,807	**$ 54,934,145**	**$ 59,743,188**	**$ 58,818,060**	**(1.5%)**	**$ 60,241,731**	**2.4%**	**$ 60,980,930**	**1.2%**	**$ 61,954,947**	**1.6%**	**$ 62,791,114**	**1.3%**

METRO VANCOUVER DISTRICTS
CORPORATE SERVICES
2019 BUDGET REVIEW
2019-2023 FINANCIAL PLAN

	2016 ACTUAL	2017 ACTUAL	2018 BUDGET	2019 BUDGET	% CHANGE	2020 FORECAST	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE
REVENUES													
Allocated to Functional Departments	$ 19,109,959	$ 29,241,132	$ 33,131,384	$ 31,278,044	(5.6%)	$ 31,851,612	1.8%	$ 32,094,317	0.8%	$ 32,368,332	0.9%	$ 32,646,810	0.9%
Other External Revenues	6,400,491	5,793,253	6,062,729	6,804,152		7,345,432		7,400,691		7,462,331		7,520,387	
Reserves	3,893,834	8,245,044	4,287,415	6,377,015		2,350,800		2,095,000		2,075,000		1,895,000	
TOTAL REVENUES	**$ 29,404,284**	**$ 43,279,429**	**$ 43,481,528**	**$ 44,459,211**	**2.2%**	**$ 41,547,844**	**(6.5%)**	**$ 41,590,008**	**0.1%**	**$ 41,905,663**	**0.8%**	**$ 42,062,197**	**0.4%**
EXPENDITURES													
Operating Programs:													
Business Systems	$ 9,019,475	$ 9,116,659	$ 9,714,023	$ 9,012,414		$ 10,023,355		$ 9,579,386		$ 9,616,018		$ 10,001,665	
Corporate Projects and Facilities	5,964,100	6,644,506	6,994,725	7,302,169		6,718,432		6,847,784		6,989,177		7,141,612	
Safety Security and Emergency Management	3,345,972	3,017,219	3,932,950	3,931,957		3,737,238		3,845,410		3,957,146		4,072,746	
Technical Services	6,047,484	8,061,450	7,130,394	7,174,994		7,334,401		7,570,573		7,708,919		7,818,472	
Administration and Department Support	822,491	828,039	679,117	690,895		705,476		717,913		730,533		743,426	
	25,199,522	27,667,873	28,451,209	28,112,429	(1.2%)	28,518,902	1.4%	28,561,066	0.1%	29,001,793	1.5%	29,777,921	2.7%
Debt Service	5,705,436	11,135,820	14,685,319	13,976,782	(4.8%)	12,828,942	(8.2%)	12,828,942	0.0%	12,703,870	(1.0%)	12,084,276	(4.9%)
Capital	15,303	2,647,712	345,000	2,370,000	587.0%	200,000	(91.6%)	200,000	0.0%	200,000	0.0%	200,000	0.0%
TOTAL EXPENDITURES	**$ 30,920,261**	**$ 41,451,405**	**$ 43,481,528**	**$ 44,459,211**	**2.2%**	**$ 41,547,844**	**(6.5%)**	**$ 41,590,008**	**0.1%**	**$ 41,905,663**	**0.8%**	**$ 42,062,197**	**0.4%**

METRO VANCOUVER DISTRICTS
EXTERNAL RELATIONS
2019 BUDGET REVIEW
2019-2023 FINANCIAL PLAN

	2016 ACTUAL	2017 ACTUAL	2018 BUDGET	2019 BUDGET	% CHANGE	2020 FORECAST	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE
REVENUES													
Allocated to Functional Departments	$ 5,441,738	$ 5,466,114	$ 5,688,168	$ 5,743,742	1.0%	$ 5,859,063	2.0%	$ 5,921,445	1.1%	$ 6,038,561	2.0%	$ 6,166,473	2.1%
Other External Revenues	-	253,531	262,428	362,628		404,928		458,428		458,428		447,128	
TOTAL REVENUES	**$ 5,441,738**	**$ 5,719,645**	**$ 5,950,596**	**$ 6,106,370**	**2.6%**	**$ 6,263,991**	**2.6%**	**$ 6,379,873**	**1.8%**	**$ 6,496,989**	**1.8%**	**$ 6,613,601**	**1.8%**
EXPENDITURES													
Operating Programs:													
Corporate Communications	$ 1,005,502	$ 976,156	$ 1,122,750	$ 1,158,044		$ 1,201,328		$ 1,224,764		$ 1,248,032		$ 1,271,808	
Media Relations	457,050	577,161	616,347	624,434		638,801		651,279		663,916		676,797	
Multi-Media Services	1,849,657	1,952,344	1,988,817	2,032,018		2,073,670		2,109,542		2,146,372		2,183,259	
Stakeholder Engagement	805,426	785,383	853,806	881,898		897,840		911,440		925,238		939,337	
Administration and Department Support	634,732	716,196	771,321	787,858		804,765		819,187		833,821		848,772	
Collaboration Initiatives	391,480	574,913	597,555	622,118		647,587		663,661		679,610		693,628	
	5,143,847	5,582,153	5,950,596	6,106,370	2.6%	6,263,991	2.6%	6,379,873	1.8%	6,496,989	1.8%	6,613,601	1.8%
TOTAL EXPENDITURES	**$ 5,143,847**	**$ 5,582,153**	**$ 5,950,596**	**$ 6,106,370**	**2.6%**	**$ 6,263,991**	**2.6%**	**$ 6,379,873**	**1.8%**	**$ 6,496,989**	**1.8%**	**$ 6,613,601**	**1.8%**

METRO VANCOUVER DISTRICTS
FINANCIAL SERVICES
2019 BUDGET REVIEW
2019-2023 FINANCIAL PLAN

	2016 ACTUAL	2017 ACTUAL	2018 BUDGET	2019 BUDGET	% CHANGE	2020 FORECAST	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE
REVENUES													
Allocated to Functional Departments	$ 11,035,102	$ 11,374,405	$ 11,814,229	$ 12,022,277	1.8%	$ 12,407,224	3.2%	$ 12,643,500	1.9%	$ 13,026,482	3.0%	$ 13,283,824	2.0%
Other External Revenues	189,494	223,389	-	-		-		-		-		-	
Reserves	48,125	-	125,000	100,000		105,000		65,000		35,000		35,000	
TOTAL REVENUES	**$ 11,272,721**	**$ 11,597,794**	**$ 11,939,229**	**$ 12,122,277**	**1.5%**	**$ 12,512,224**	**3.2%**	**$ 12,708,500**	**1.6%**	**$ 13,061,482**	**2.8%**	**$ 13,318,824**	**2.0%**
EXPENDITURES													
Operating Programs:													
Purchasing and Risk Management	$ 3,477,981	$ 3,549,367	$ 3,780,445	$ 3,919,446		$ 3,981,821		$ 4,057,609		$ 4,134,546		$ 4,213,010	
Financial Planning and Operations	4,496,226	4,673,583	5,335,224	5,325,148		5,554,533		5,616,127		5,862,387		5,980,172	
Property Services	1,720,841	1,866,826	2,052,739	2,050,971		2,099,536		2,141,382		2,183,855		2,227,249	
Administration and Department Support	758,737	848,603	770,821	826,712		876,334		893,382		880,694		898,393	
TOTAL EXPENDITURES	**$ 10,453,785**	**$ 10,938,379**	**$ 11,939,229**	**$ 12,122,277**	**1.5%**	**$ 12,512,224**	**3.2%**	**$ 12,708,500**	**1.6%**	**$ 13,061,482**	**2.8%**	**$ 13,318,824**	**2.0%**

METRO VANCOUVER DISTRICTS
HUMAN RESOURCES
2019 BUDGET REVIEW
2019-2023 FINANCIAL PLAN

	2016 ACTUAL	2017 ACTUAL	2018 BUDGET	2019 BUDGET	% CHANGE	2020 FORECAST	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE
REVENUES													
Allocated to Functional Departments	$ 4,602,835	$ 4,727,715	$ 4,905,451	$ 5,165,438	5.3%	$ 5,411,807	4.8%	$ 5,523,226	2.1%	$ 5,635,384	2.0%	$ 5,718,163	1.5%
Reserves	-	-	-	301,294		68,000		-		-		-	
TOTAL REVENUES	**$ 4,602,835**	**$ 4,727,715**	**$ 4,905,451**	**$ 5,466,732**	**11.4%**	**$ 5,479,807**	**0.2%**	**$ 5,523,226**	**0.8%**	**$ 5,635,384**	**2.0%**	**$ 5,718,163**	**1.5%**
EXPENDITURES													
Operating Programs:													
Employee and Labour Relations	$ 959,458	$ 673,196	$ 1,211,709	$ 1,323,646		$ 1,250,406		$ 1,280,149		$ 1,310,276		$ 1,318,674	
Talent Management & Organization Development	1,992,198	1,779,231	1,975,454	2,264,283		2,218,171		2,230,008		2,272,537		2,315,958	
Systems and Processes	994,574	1,610,571	1,028,739	1,000,465		1,107,835		1,091,874		1,113,334		1,125,864	
Administration and Department Support	575,089	595,882	689,549	878,338		903,395		921,195		939,237		957,667	
TOTAL EXPENDITURES	**$ 4,521,319**	**$ 4,658,880**	**$ 4,905,451**	**$ 5,466,732**	**11.4%**	**$ 5,479,807**	**0.2%**	**$ 5,523,226**	**0.8%**	**$ 5,635,384**	**2.0%**	**$ 5,718,163**	**1.5%**

METRO VANCOUVER DISTRICTS
LEGAL AND LEGISLATIVE SERVICES
2019 BUDGET REVIEW
2019-2023 FINANCIAL PLAN

	2016 ACTUAL	2017 ACTUAL	2018 BUDGET	2019 BUDGET	% CHANGE	2020 FORECAST	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE
REVENUES													
Allocated to Functional Departments	$ 3,974,796	$ 4,019,078	$ 4,228,232	$ 4,620,939	9.3%	$ 4,712,025	2.0%	$ 4,798,442	1.8%	$ 4,886,188	1.8%	$ 4,975,844	1.8%
Other External Revenues	10,067	11,110	-	-		-		-		-		-	
TOTAL REVENUES	**$ 3,984,863**	**$ 4,030,188**	**$ 4,228,232**	**$ 4,620,939**	**9.3%**	**$ 4,712,025**	**2.0%**	**$ 4,798,442**	**1.8%**	**$ 4,886,188**	**1.8%**	**$ 4,975,844**	**1.8%**
EXPENDITURES													
Operating Programs:													
Aboriginal Relations	$ 323,574	$ 345,802	$ 379,161	$ 572,196		$ 578,648		$ 590,292		$ 602,110		$ 614,194	
Corporate Administration	861,435	820,551	722,620	979,030		996,095		1,010,652		1,025,425		1,040,516	
In House Legal	1,158,950	836,978	1,319,935	1,349,876		1,380,572		1,407,074		1,433,971		1,461,457	
Information Management	993,174	979,989	1,377,159	1,262,089		1,289,709		1,314,382		1,339,463		1,365,082	
Administration and Department Support	418,214	425,025	429,357	457,748		467,001		476,042		485,219		494,595	
TOTAL EXPENDITURES	**$ 3,755,347**	**$ 3,408,345**	**$ 4,228,232**	**$ 4,620,939**	**9.3%**	**$ 4,712,025**	**2.0%**	**$ 4,798,442**	**1.8%**	**$ 4,886,188**	**1.8%**	**$ 4,975,844**	**1.8%**

CORPORATE SERVICES

Description of services

Corporate Services is a centralized service providing support to all business activities of the Metro Vancouver entities. These services provided include business systems, corporate projects, facility operations and management, safety, security, emergency management and technical services. Corporate Services is also responsible for managing the housing development projects of Metro Vancouver Housing Corporation and the regional district functions of 9-1-1 Emergency Telephone Service, Regional Emergency Management and the Sasamat Fire Protection Service.

Strategic directions and high level goals supported

Board Strategic Plan

- Livable and Sustainable Region - Use livability and sustainability objectives to guide Metro Vancouver services and operations.
- Emergency Preparedness – Collaborate with stakeholders to prepare for major emergencies.
- Fiscal Responsibility - Use value for services to guide Metro Vancouver operations and service provision.
- Effective Federation - Strengthen the alignment of member and regional objectives.

Financial Goals

- Ensure the long-term financial sustainability of the Metro Vancouver Districts and Housing Corporation.
- 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.

Performance indicators

Indicator	Historical and/or industry benchmark	Current performance	2019 performance objective
Information technology (IT) expenditures (operating) as a percent of total corporate expenditures	Gartner Group: 2018 Benchmark for Local Government: 3.5%	2018 projected: 2.3%	Not to exceed 2.2%
IT expenditures per staff supported	Gartner Group: 2018 Benchmark for Local Government: $8,807	2018 projected: $ 8,277	Not to exceed $8,200
IT staff as % of staff supported	Gartner Group: 2018 Benchmark for Local Government: 3.9%	2018 projected: 3.8%	Not to exceed 3.8%
Building Operations MTIII Energy Star rating (overall building efficiency: electricity, water & gas)	Not Available (new building)	2018 YTD 90%	Not less than 90%
CORE Safety Program Audit Score	2014: 93% 2015: 94% 2016: 90%	2017: 95%	Greater than 90% (80% is pass)

Indicator	Historical and/or industry benchmark	Current performance	2019 performance objective
		2018 Audit underway	
CORE Workplace Time loss Return to Work Audit Score	2014: 84% 2015: 91% 2016: 89%	2017: 88% 2018 Audit underway	Greater than 85% (80% is pass)
Number of courses certified by WorkSafe for EOCP (Environmental Operators Certification Program)	2015: 6 2016: 6 2017: 6	2018: 7	6 Courses
Hours per Employee of Safety Training	2014: 8.9 2015: 8.4 2016: 9.0 2017: 9.4	2018 YTD 7.3 10.0 Projected	Greater than 9 hours per employee
WorkSafe Merit (Discount) Rates	2014: -30% 2015: -31% 2016: -24% 2017: -20%	2018 -26%	A greater than 25% rebate (-25%)

2019 key actions

Business Systems

Complete over 50 projects in 2019 involving enterprise, departmental, and work group applications. Highlights include the following projects:

- Upgrade to Unit4 v.7.4 and implement enhancements in the Travel & Expense and Procurements modules.
- Deploy mobile solution to access Unit4 financial processes (e.g. requisition entry & approval) through the private cloud.
- Implement PeopleSoft Recruitment module as the application system for internal and external job candidate.
- Deliver departmental projects, such as, eSourcing, Land Management, Fleet Management, Recreation Management, Asset Management (Ameresco for Parks), and Utility Gateway Portal.
- Conduct product research and develop implementation plan for digital payments, decision support & reporting tools, and PeopleSoft functionality for HR/Finance initiatives (e.g. talent management, mobile time entry).
- Support regional initiatives with member municipalities - Municipal Information Systems Association (MISA), Recreation management software consortium, and GIS (e.g. OpenData).

Corporate Projects and Facilities

- Monitor agreement with Colliers International, MT III property management company, to ensure Metro Vancouver and building tenants are receiving optimum service, comprehensive reporting and that all building systems and service contracts at Metrotower III are maintained.
- Continue to maintain Metrotown Place I and III buildings and provide service to building tenants until properties are sold.
- Implement capital and operational projects at Metrotower III to improve building systems, upgrade EOC, update levels 8 and 9 to secure tenants, and complete design finishing touches to MV spaces.

Safety, Security and Emergency Management

- Complete Core Audits and retain certification.
- Continuous improvement in our safety program
- Effectively manage and prevent WorkSafe time lost injuries and claims
- Implement a fleet safety awareness program

Technical Services

- Provide technical infrastructure required for the MTIII facility.
- Evergreen 20% of the PC stock moving to a more mobile work force (laptops) and smaller PCs.
- Implement Private Cloud Security Model.
- Complete Jupiter Photo Management System.
- Improve WiFi Coverage in building (elevators).
- Wireless access to remote sites.
- Continue to update disaster recovery plan, with a new remote site for data storage.

metrovancouver
SERVICES AND SOLUTIONS FOR A LIVABLE REGION

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, Stakeholder Engagement, Media Relations and Collaboration Initiatives. External Relations also provides direct communications programs for Liquid Waste, Water, Regional Parks, Regional Planning, Air Quality and the Metro Vancouver Housing Corporation and administers various initiatives under the General Government function. External Relations provides support and leadership to the organization with three key objectives:

- Increasing public awareness, understanding and alignment with Metro Vancouver services and polices;
- 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

Board Strategic Plan

- Increase Metro Vancouver's profile by leveraging events and news related to regional services.
- Enhance relationships between Metro Vancouver and other orders of government, First Nations and stakeholders.
- Clarify and strengthen Metro Vancouver's role in pursuing a collaborative approach to regional prosperity
- Enhance communications on the economic, social and environmental benefits associated with undertaking land use and growth management planning at a metropolitan scale.
- Improve public understanding of the value of clean air and greenhouse gas reductions and actions to achieve both.
- Invest in programs to promote behavior that is consistent with regional liquid waste objectives.
- Expand public awareness of the quality of Metro Vancouver drinking water and the importance of conserving it.
- Continue to promote behavior change that will reduce waste generated in the region.

Performance Indicators

Indicator	Historical and/or Industry Benchmark	Current Performance	2019 Performance Objective
Number of website page visits Metro Vancouver website	2017: 3,979,371 2016: 3,827,000 2015: 3,653,000	Projected for 2018: 4,216,886 (6.0% increase)	4,427,730 (5% increase)
Number of video views (YouTube, Facebook, Metro Vancouver website - Vimeo)	2017: 3,500,000 2016: 2,563,939 2015: 1,124,681	Projected for 2018: 4,685,214 (33.9% increase)	4,919,474 (5% increase)
Number of mailing lists subscribers – 12 lists in 2016, 26 lists in 2018)	2017: 37,844 2016: 19,468 2015: 5,180 (only SRI)	August 2018: 41,953 (10.8% increase)	44,050 (5% increase)

Indicator	Historical and/or Industry Benchmark	Current Performance	2019 Performance Objective
Number of Metro Vancouver followers on Twitter	August 2017: 28,500 August 2016: 26,900 August 2015: 24,046	August 2018: 29,363 (3.0% increase)	30,282 (3% increase)
Number of Metro Vancouver followers on Facebook (since 2016 includes Regional Parks and LFHW)	August 2017: 13,439 August 2016: 9,267 August 2015: 4,261	August 2018: 18,381 (36.8% increase)	19,300 (5% increase)

2019 key actions

- Enhance education, awareness and engagement about climate change through stakeholder engagement and branding activities around Climate 2050; promotion of EV Programs (EV Condo and Workplace) and Caring for the Air
- Increase awareness of the new lawn watering regulations and the quality of Metro Vancouver water and the need for conservation through 'source to tap messaging', the regional We Love Water campaign and the introduction of a new tanker-style water wagon
- Reduce liquid waste at source through targeted behaviour change campaigns around unflushables and grease and continue strategic communications around biosolids
- Reduce and prevent food waste through Love Food - Hate Waste Canada and support organics ban through Food Isn't Garbage public engagement campaigns with a focus on multi-family
- Reduce and prevent waste through the annual Create Memories, Not Garbage Christmas campaign
- Educate and increase awareness on the issue of abandoned waste across the region
- Launch an education and awareness program around textiles reuse and recycling
- Lead implementation of the National Zero Waste Council and the Regional Prosperity Initiative
- Host 2019 Metro Vancouver National Zero Waste Conference
- Engage with the public, business communities and other levels of government on Metro Vancouver strategic priorities through enhanced social media presence and proactive engagement of media
- Production and distribution of biannual Metro Update newsletter to all households
- Build relationships with federal/provincial/local government officials on Metro Vancouver priorities
- Host regional Council of Councils on key Metro Vancouver priorities
- Video production / distribution of Community Television shows The Sustainable Region / MV Close Up
- Enhance international collaboration and profile through study tours and engagement with United Cities and Local Governments (UCLG), Local Governments for Sustainability (ICLEI), and others

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SERVICES AND SOLUTIONS FOR A LIVABLE REGION

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 management and maintenance 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 directions and high level goals supported

Use value for service to guide Metro Vancouver operations and service provisions.

- Develop fiscal policy using equity and affordability criteria.
- Ensure that opportunities for increased efficiencies are evaluated and implemented

Financial Goals

- Ensure the long-term financial sustainability of the Metro Vancouver Districts and Housing Corporation.
- 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.

Performance indicators

Indicator	Historical and/or industry benchmark	Current performance	2019 performance objective
Current ratio (current assets / current liabilities)	2013 average ratio for BC municipalities 3.8 to 1	Projected 2018: 5.2 to 1	Minimum 3.8 to 1
Debt service costs / total revenue	Province of BC threshold 25%	Projected 2018: 19%	<20%
Operating Surplus Ratio (operating surplus as a % of own source revenues)	0 - 15%	Projected 2018: 5%	<5%

2019 key actions

Financial Planning and Operations

- Continue with refinements to the budget and financial planning and related reporting processes along with sustainment and enhancement plans to maintain and build upon the utilization and capabilities of the budget and financial planning systems.
- Coordinate the completion of the initial 30 Year Financial Plan for Metro Vancouver. This involves evaluating the impact of Metro Vancouver services and reviewing the debt management strategy and other key financial strategies and policies.
- Ongoing development of the Continuous Improvement culture/approach. Undertake Continuous Improvement projects using the CI Framework within the anticipated policy. Process Improvement and Projects team to continue to provide support and guidance to other areas within Metro Vancouver.
- Continue development of content and format of financial reports for public consumption including a financial plan report and an annual report of financial results.
- Prepare for new public sector accounting requirements related to asset retirement obligations.

Purchasing and Risk Management

- Implement improvements stemming from the Procurement Review conducted in 2015 with a focus on Category Management.
- Complete updates, including a legal review, of all bid/contract templates.
- Conduct an overall review of inventory/stores.
- Manage a pilot program for Materials Requirement Planning (MRP) at Iona in conjunction with Liquid Waste Services.

Properties

- Implement acquisition plans to support the Regional Parks Land Acquisition Strategy.
- Implement changes resulting from the 2018 Division Organizational Review
- Market and lease any surplus office space at Metrotower III.
- Complete actions or improvements identified in the independent review of the division business processes and procedures.
- Continue to source and implement the upgrade/replacement of the division's Property Database.
- Apply continuous improvement initiatives across the division.

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SERVICES AND SOLUTIONS FOR A LIVABLE REGION

HUMAN RESOURCES

Description of services

Human Resources is a centralized 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 that 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 & Processes.

Strategic directions and high level goals supported

Board Strategic Plan

- Use livability and sustainability objectives to guide Metro Vancouver services and operations.
- Use value for service to guide Metro Vancouver operations and service provision.

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	Current performance	2019 performance objective
Number of unique job applicants [1]	MV 3-year average (2015-17): 8,648 2017: 7,574 2016: 9,215 2015: 9,155	2018 YTD July: 4,137 Objective 10,000	10,200
Number of job vacancies processed [2]	MV 3-year average (2015-17): 621 2017: 670 2016: 599 2015: 595	2018 YTD July: 360 Objective 600	600

[1] One applicant may apply for multiple vacancies over the course of a year
[2] Includes all requisitions for staff, including seasonal hires

Indicator	Historical and/or industry benchmark	Current performance	2019 performance objective
Staff turnover (FTR, includes resignations and retirements)	MV 3-year average (2015-17): 5.52% 2017: 5.71% 2016: 5.81% 2015: 5.04%	2018 YTD Q2 annualized: 6.4% Objective <7.5%	<7.5%
Percentage of workforce receiving training (FTR, excludes safety training)	MV 3-year average (2015-17): 68% 2017: 65% 2016: 65% 2015: 74%	2018 YTD July: 43% Objective 70%	72%
Participants in MetroFit Health and Wellness Programs	MV 3-year average (2015-17): 2,687 2017: 2,813 2016: 2,774 2015: 2,475	2018 YTD July: 808 Objective 2,500	2,600

2019 key actions

- Review and update job classifications and generate job descriptions for the Teamsters Bargaining unit.
- Prepare for 2020 collective bargaining.
- Develop a partnership with colleges/universities to bring a Water and Wastewater Operator. Certification/Diploma program local to Metro Vancouver with targeted launch date of September.
- Formalize and embed Diversity and Inclusion initiatives into all relevant MV programs.
- Implement Talent Acquisition Management system for internal and external candidates.
- Award a new contract for Benefits Consulting services.

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SERVICES AND SOLUTIONS FOR A LIVABLE REGION

LEGAL AND LEGISLATIVE SERVICES
ABORIGINAL RELATIONS

Description of services

Aboriginal Relations provides information, advice and support to Metro Vancouver on First Nations' interests and issues, and analyses how such First Nations' interests and issues may affect corporate programs, processes and projects. Aboriginal 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:

- Enhance relationships between Metro Vancouver and other orders of government, First Nations and stakeholders.

Goal:

- Advance working relationships with First Nations on shared objectives.

Performance indicators

Indicator	Historical and/or industry benchmark	Current performance	2019 performance objective
Number of local government interests represented at treaty table meetings.	MV 3-year average (2015-2017) 11 2017: 3 2016: 4 2015: 27	2018 YTD July: 2 Objective: 3	4
Number of special Aboriginal Relations events hosted by Metro Vancouver (e.g. Community to Community Forums, workshops, lunch and learn sessions, etc.)	MV 3-year average (2015-2017) 3 2017: 3 2016: 3 2015: 3	2018 YTD July: 2 Objective: 4	4
Number of bilateral meetings between Metro Vancouver and the nine area First Nations with lands.	MV 3-year average (2015-2017) 22 2017: 32 2016: 18 2015: 15	2018 YTD July: 15 Objective: 22	25

Indicator	Historical and/or industry benchmark	Current performance	2019 performance objective
External requests for information or advice related to First Nations and/or Aboriginal Relations.	MV 3-year average (2015-2017) 87 2017: 104 2016: 87 2015: 70	2018 YTD July: 70 Objective: 120	130
Total requests for information or advice related to First Nations and/or Aboriginal Relations	MV 3-year average (2015-2017) 614 2017: 943 2016: 514 2015: 385	YTD July 2018: 776 Objective: 1,330	1,500

2019 key actions

- Complete an annual review/update of Metro Vancouver's Profile of First Nations document.
- Create an online version of Metro Vancouver's Profile of First Nations.
- Host an annual event involving the Aboriginal Relations Committee and First Nations leaders (e.g. Community to Community Forum).
- Host an annual event (e.g. workshop) involving staff of First Nations and local governments on a topical issue in local government-First Nations 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 policy for procuring First Nation services.

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SERVICES AND SOLUTIONS FOR A LIVABLE REGION

LEGAL AND LEGISLATIVE SERVICES
Information Management
Legal Services

Description of services

Legal 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.

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

Legal Services supports the *Board Strategic Plan* by:

- Using value for service to guide Metro Vancouver operations and service provision.
- Supporting other Metro Vancouver departments in achieving management plan goals.

Information Management Services supports the *Board Strategic Plan's* strategic direction to "Strengthen the alignment of member and regional objectives" by providing 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 YTD to July	2019 performance objective
Number of legal queries responded to annually	1,500	2018 YTD: 950	1500
Number of customer interactions (telephone, email and live chat).	3-year average: 35,752 interactions	2018 YTD: 21,587 interactions	35,752+ interactions

Indicator	Historical and/or industry benchmark	Current performance YTD to July	2019 performance objective
Number of library reference/research requests	5-year average: 1,092 research requests	2018 YTD July: 740 research requests	1,000+ research requests

2019 key actions

Legal Services

- Support various staff drafting bylaws: updates to Parks Regulatory Bylaw, amendments to Grease Trap Regulation, developing hospital sewer compliance plans, developing residential wood smoke regulation, developing odour management bylaw, updating Electoral Area A Zoning Bylaw;
- Support Properties Division in finalizing real estate document templates;
- Support Purchasing Division in finalizing procurement document templates;
- Support Liquid Waste Services in the completion of the procurement of major projects involving Annacis Island WWTP, Annacis Outfall, and major construction projects, including North Shore WWTP;
- Support Water Services with Second Narrows Crossing and Annacis Crossing;
- Support Solid Waste Services with implementation of anticipated new regulatory bylaws, and construction of new facilities in South Surrey and Coquitlam;
- Support Regional Planning with Metro 2040 updates;
- Support ongoing litigation.

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 introduction of a technology solution for the storage, search, retrieval and overall management of digital photograph and archival printed images
- Plan and undertake upgrades to the corporate library software
- Introduce a new learning management system for employees to improve compliance with document management, records management, and research search literacy
- Review email management practices in terms of the record-keeping issues and best practices
- Delivery technology solution to improve the management of customer/citizen inquiries received through the Information Centre

METRO VANCOUVER DISTRICTS
2019-2023 PROJECTED RESERVES - CENTRALIZED SUPPORT PROGRAMS

ATTACHMENT 4

DISCRETIONARY RESERVES

	2018 ENDING BALANCE	2019 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2019 ENDING BALANCE	2020 ENDING BALANCE	2021 ENDING BALANCE	2022 ENDING BALANCE	2023 ENDING BALANCE
Centralized Support Reserve	$ 17,037,580	$ 17,037,580	$ -	$ (6,778,309)	$ 272,969	$ 10,532,240	$ 8,193,846	$ 6,176,123	$ 4,168,546	$ 2,302,617

STATUTORY RESERVES

	2018 ENDING BALANCE	2019 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2019 ENDING BALANCE	2020 ENDING BALANCE	2021 ENDING BALANCE	2022 ENDING BALANCE	2023 ENDING BALANCE
Corporate Self Insurance Reserve	$ 2,632,009	$ 2,632,009	$ -	$ -	$ 52,640	$ 2,684,649	$ 2,738,342	$ 2,793,109	$ 2,848,971	$ 2,905,951
Corporate Fleet Reserve	6,020,696	6,020,696	5,413,843	(4,433,130)	130,221	7,131,630	8,212,297	9,281,760	10,343,034	11,394,654

ATTACHMENT 5

Corporate Services

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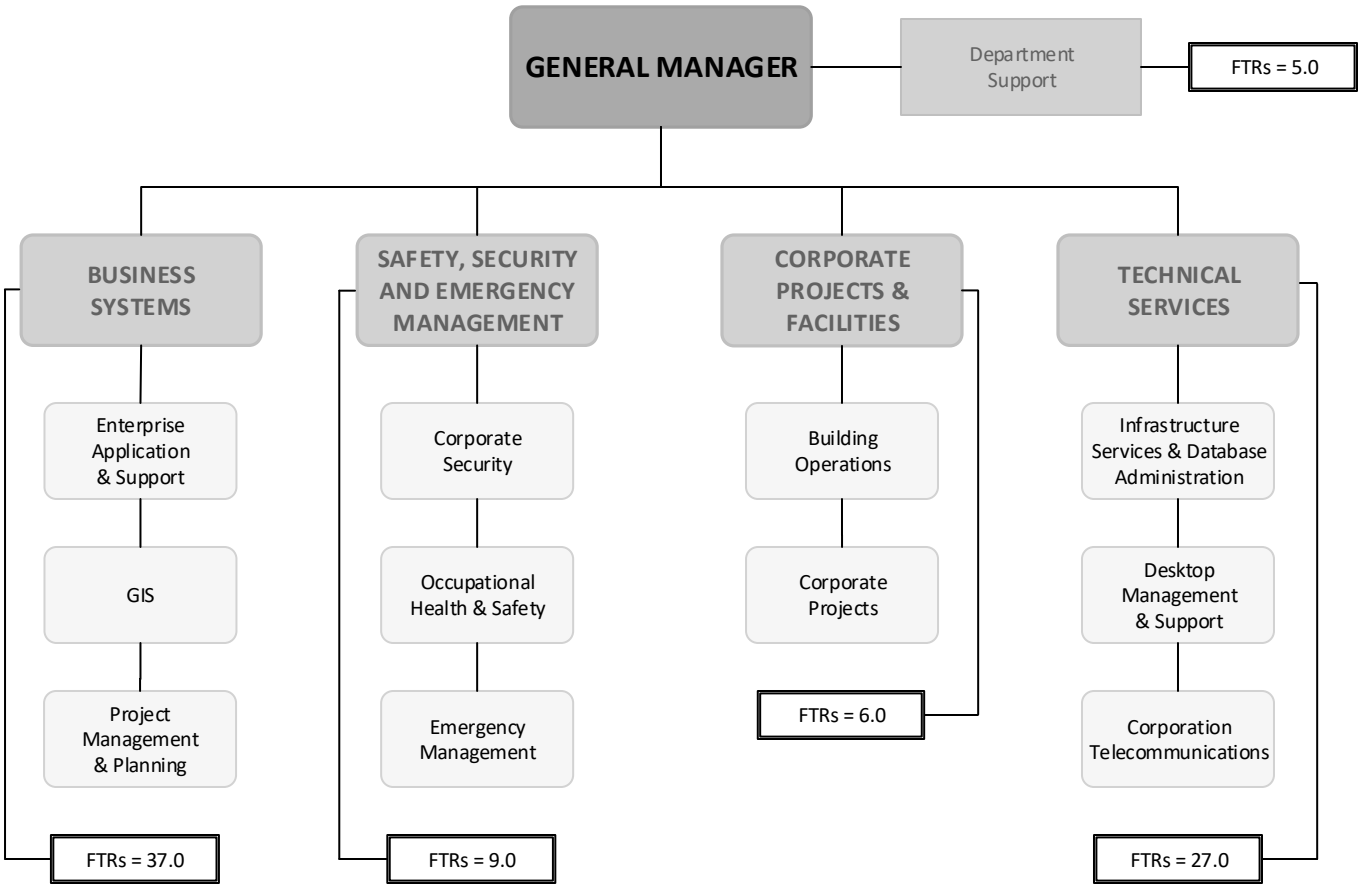
2018

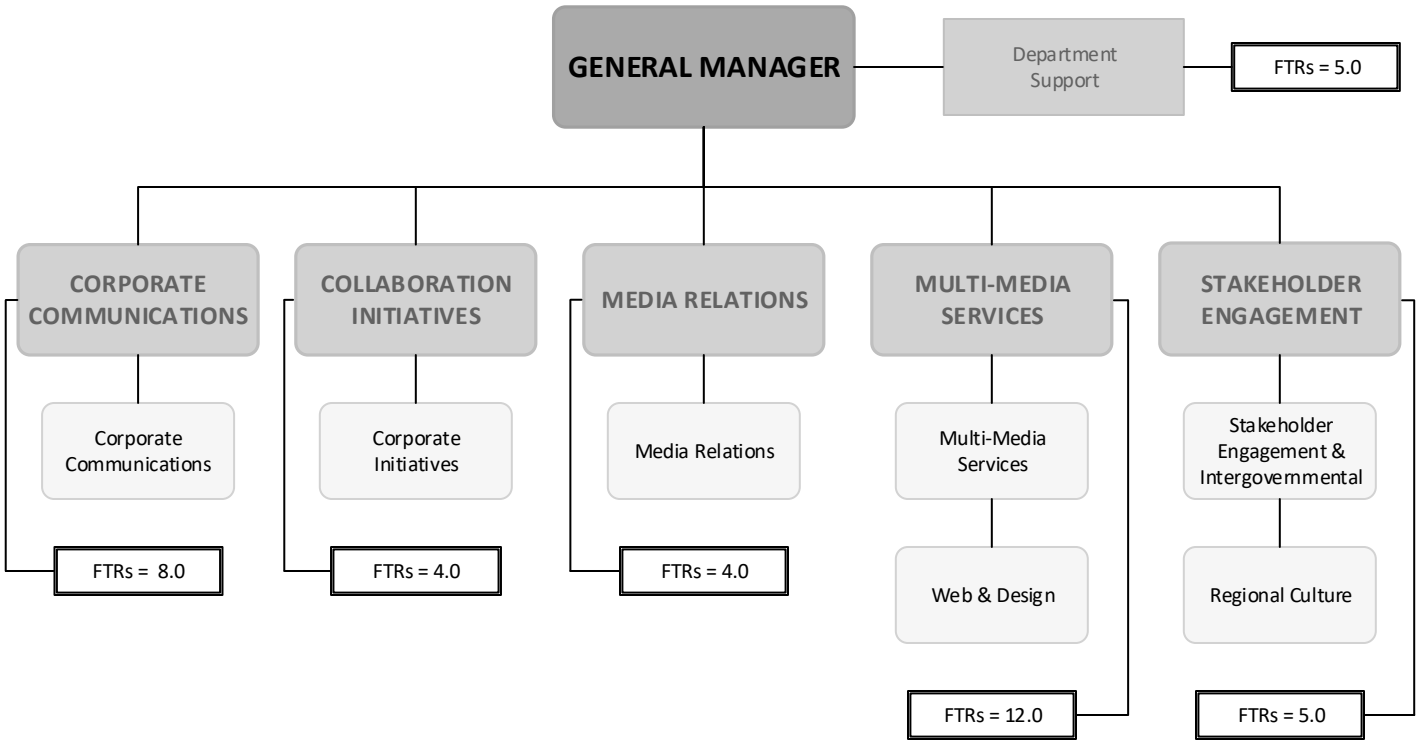


Corporate Services
2018 Total FTRs = 85.0
2019 Proposed FTRs = 85.0

26031185
September 5, 2018

External Relations

2018



External Relations
2018 Total FTRs = 39.0
2019 Proposed FTRs = 39.0

26031185
September 5, 2018

Human Resources and Housing Services

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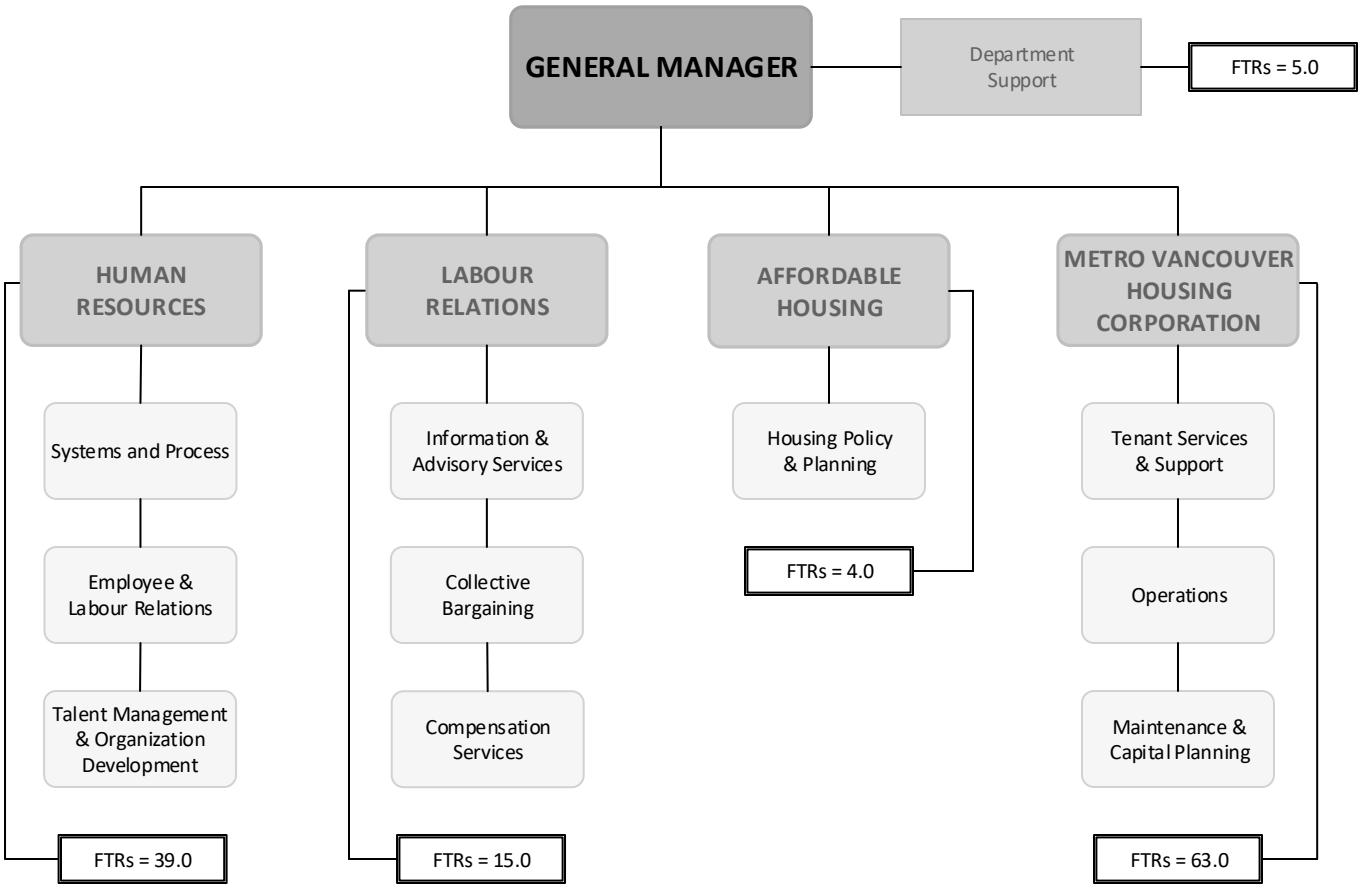
2018



Human Resources & Housing Services
2018 Total FTRs = 127.0
2019 Proposed FTRs = 127.0

26044351
September 26, 2018

Legal and Legislative Services

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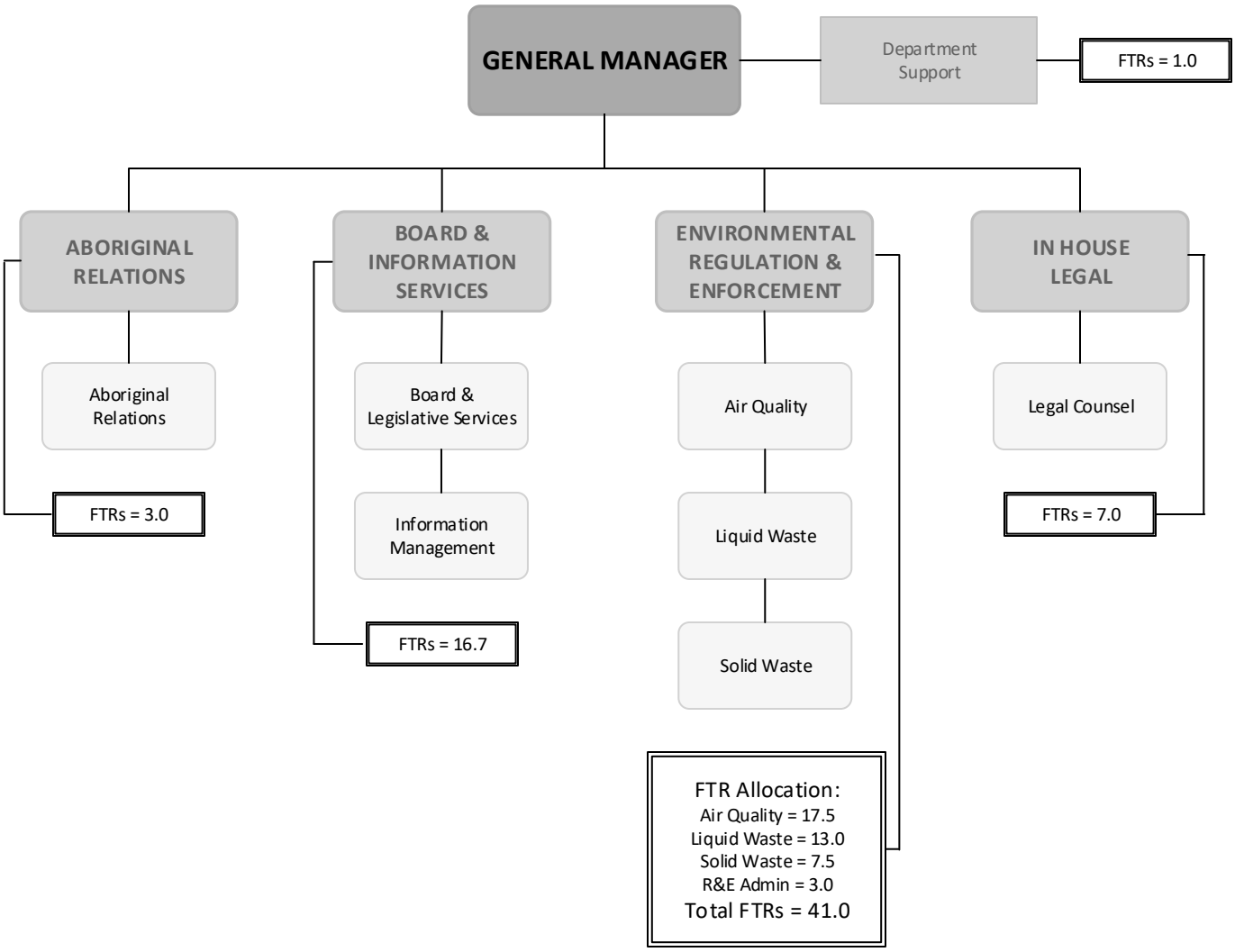
2018

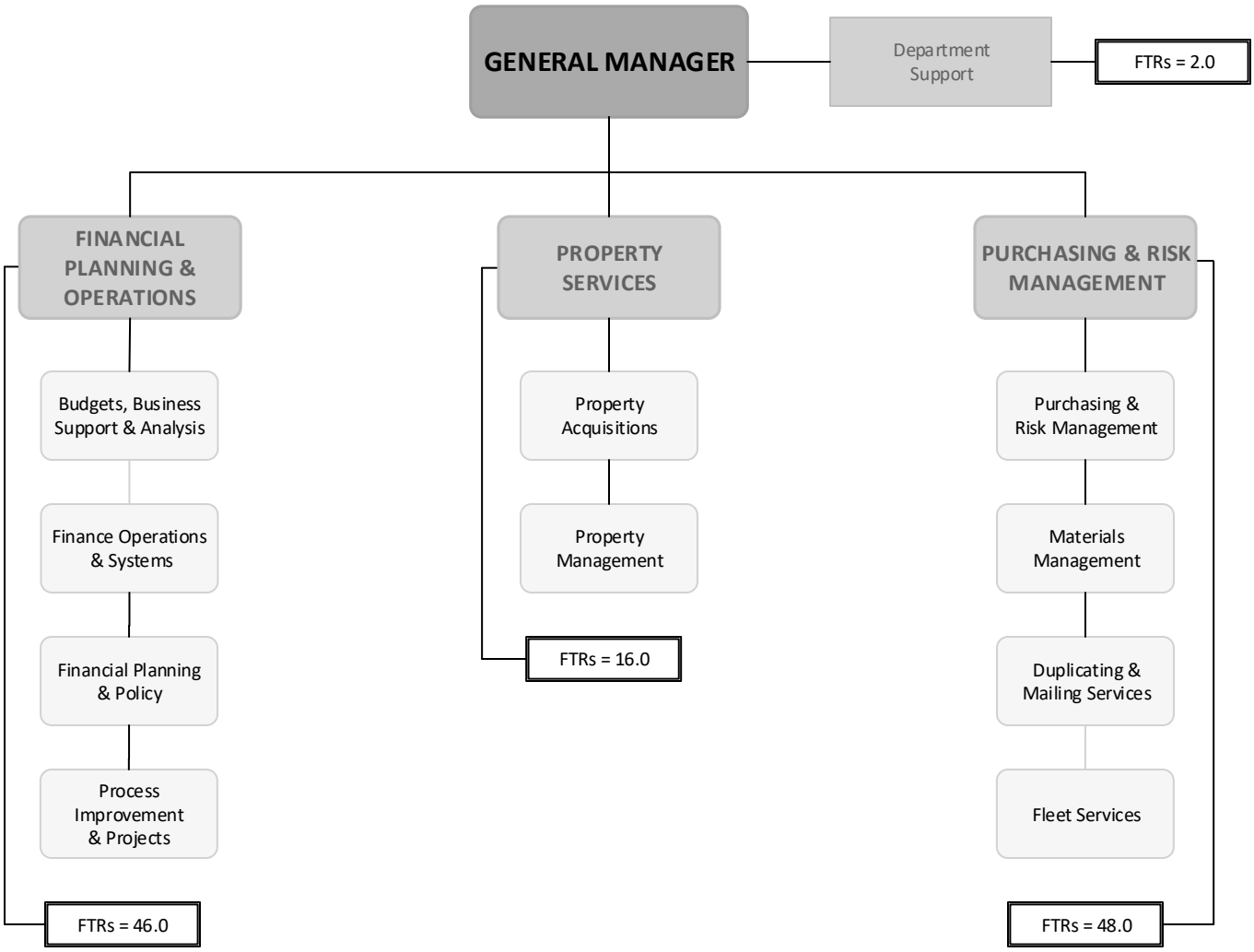


Legal & Legislative Services
2018 Total FTRs = 69.7
2019 Proposed FTRs = 71.7

26032030
September 5, 2018

Financial Services

2018



Financial Services
2018 Total FTRs = 113.0
2019 Proposed FTRs = 113.0

26026394
September 5, 2018

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SERVICES AND SOLUTIONS FOR A LIVABLE REGION

To: Housing Committee

From: Donna Brown, General Manager, Human Resources and Housing Services
Ravi Chhina, Director, MVHC, Housing Operations

Date: October 3, 2018 Meeting Date: October 12, 2018

Subject: **2019 - 2023 Financial Plan – Metro Vancouver Housing Corporation (MVHC)**

RECOMMENDATION
That the Housing Committee endorse the 2019 - 2023 Financial Plan for MVHC as presented in the report "2019 - 2023 Financial Plan – Metro Vancouver Housing Corporation (MVHC)" dated October 3, 2018 and forward it to the Board Budget Workshop on October 17, 2018 for consideration.

PURPOSE
To present the 2019 - 2023 Financial Plan for 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 MVHC and presents the 2019 annual budget and the updated five year plan for the years 2019 to 2023 for committee consideration.

MVHC PROGRAM
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 is primarily financed through the collection of tenant rents. MVHC maintains existing assets, redevelops housing complexes, manages tenants and builds communities within the housing portfolio and surrounding neighbourhoods.

MVHC is guided by direction provided in the *Board Strategic Plan*, specifically:

Board Strategic Plan:
- The need for a diverse supply of housing across the region
- Evaluate diversifying revenue sources for MVHC
- Develop and implement an asset management strategy for the maintenance and replacement of existing MVHC housing stock

2019 BUDGET AND FIVE YEAR FINANCIAL PLANS

The budget for this cycle and the five year financial plans have been updated to address the four themes Metro Vancouver considers when developing plans and budgets. These are as follows:

- Addressing Regional Growth
- System Stewardship
- Environmental Protection and Climate Action
- Opportunities for Innovation and Enhanced Services

Annual Work Plans are developed for almost all Metro Vancouver functions. The 2019 Annual Work Plan for the MVHC budget presented in this report are included in Attachment 4.

A summary of the MVHC highlights, 2019 - 2023 "What's Happening", is included under Attachment 1.

Attached are summaries of the 2019 - 2023 MVHC operating budget (Attachment 2) and the 2019 - 2023 MVHC capital budget (Attachment 3).

Operating Budget Highlights

The MVHC operating budget is separated into operating programs and funding required to support the capital program (debt service and contribution to capital). It is proposed to increase by $532,456 in 2019 for a total budget of $51.3 million (Attachment 2). This increase can essentially be attributed to increasing operational costs and contribution to capital to support infrastructure investments required for resilience upgrades and to meet service requirements and growth demands.

The 2019 operating budget includes the following key actions:

- Establish grants and partnerships for new development. Reduce building energy consumption through:
    - Mechanical System upgrades
    - Building Envelope upgrades
    - Tenant education initiatives
- Continue to develop, document and implement the asset management strategy
- Identify potential redevelopment sites using asset management plan
- Develop programs to support tenants in life skills development

Highlights of contracts and consulting projects anticipated to be undertaken in 2019 to respond to work plan requirements within the operating budget include the following:

- Maintenance projects ($120,531);
- New development and redevelopment work ($155,447);
- Management fees for 3rd party managed Single Rental Occupancy properties ($152,569); and
- Accounting and audit expenses ($25,346).

There are no new full-time staff positions proposed for 2019.

Over the next five years, the MVHC budget is expected to increase an average of $1.8 million or 3.4% per year. Of this overall increase, funding related to the expanding capital program (debt servicing and contribution to the capital) is increasing $285,513 on average over the next five years leaving the

operating programs and contributions to reserve which are increasing, on average, by $1.5 million, or 4.4% per year, slightly higher than the rate of inflation.

Communications Program
The 2019 MVHC Communications Program of $40,000 is primarily framed around 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 2019 is $21.3 million (Attachment 3). The capital program is funded by mortgage financing, reserve funding, and some contributions from external agencies. The capital projects planned and ongoing for 2019 are the redevelopment of Heather Place - Building A and Kingston Gardens - Phase I.

The capital expenditure budget for 2019 - 2023 totals $41.4 million with both Heather Place - Building A and Kingston Gardens - Phase I slated for completion in 2020 and 2021, respectively.

Reserve Funds
The application of reserve funding in MVHC is primarily made through its Development and Capital Replacement Reserve Funds. In 2019, the financial plan includes $15.9 million in funding from the Housing Development Reserve for housing development initiatives and $10.0 million from the Capital Replacement Reserve for significant capital maintenance. The 2019 - 2023 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 2019 Work Plan for MVHC is presented in this report. Within the MVHC Work Plan, 6 performance indicators have been developed and are being tracked. These include:

- Total units rented to subsidized tenants
- Vacancy percentage (based on number of units)
- MVHC communities with tenant associations
- Reduced GHG emissions
- Heather Place Phase 1 – substantial completion
- Kingston Gardens design/construction

The trend in these performance measures suggests that MVHC operations will continue to provide one third of the tenant portfolio with rental subsidizes, continued low vacancy rate and continued management of 30 tenant associations. The reduction in GHG emissions is a new performance indicator. Heather Place construction is projected to be 95% complete replacing 32 end of life housing units with 67 units. Kingston Gardens development is projected to be 35% complete replacing 24 aging units with an estimated 85 units.

CONSISTENCY WITH THE 2018 – 2022 FINANCIAL PLAN
The updated five year financial plan has been developed to be consistent with the 2018 - 2022 financial plan.

As presented in Attachment 2, the total operating programs are at or below that which were projected in the 2018 - 2022 financial plan. Variances from the prior year projections do occur with the 2019 MVHC contribution to reserve (excess operating surplus) which is now projected to be $2.0 million lower than the prior year projections with a contribution of $8.7 million. The 2020 - 2022 contribution to reserve is projected to decrease by an additional $3.0 million compared to the previous five year projection.

The primary driver for this change is increased contributions to capital replacement reserve from that proposed in the previous plan. The increases to contribution to capital are consistent with the principles in the proposed *Financial Management Policy* for the management of overall Metro Vancouver debt levels.

APPROVAL PROCESS

The proposed 2019 - 2023 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 2019 - 2023 Financial Plan and Annual Work Plan will be presented at the Board Budget Workshop on October 17, 2018.
- The Board will consider adoption of the 2019 Budget and endorsement of the 2019 – 2023 Financial Plan on October 26, 2018.

ALTERNATIVES

1. That the Housing Committee endorse the 2019 - 2023 Financial Plan for MVHC as presented in the report "2019 - 2023 Financial Plan – MVHC" dated October 3, 2018 and forward it to the Board Budget Workshop on October 17, 2018 for consideration.

2. That the Housing Committee make recommendations and endorse an amended 2019 - 2023 Financial Plan for MVHC and forward the amended Financial Plan to the Board Budget Workshop on October 17, 2018 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 Board approves alternative one, the rental revenues included in the 2019 Budget and Five Year Financial Plan for MVHC, as presented, are expected to generate a surplus from operations ranging from $8.7 million in 2019 to $13.7 million in 2023 as a result of maturing mortgages on many of the housing complexes. These surpluses will enhance the existing capital replacement reserve to fund maintenance activities on the housing complexes which are increasing due to the aging infrastructure.

Planning is currently underway to determine the long-term maintenance requirements and any excess from the generated surpluses will then be directed toward the funding of affordable housing development. The financial plan includes two redevelopment projects, one at Heather Place ($28.5 million), which started construction in 2018, and Kingston Gardens ($29.0 million) projected to start in 2019. 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 2019 Budget and Five Year Financial Plan for MVHC for consideration at the Board Budget Workshop. Any changes to the plan may have an impact on the Metro Vancouver Financial Plan.

SUMMARY / CONCLUSION

The 2019 Budget and Five Year Financial Plan for MVHC 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 2019 to 2023 for MVHC.

The presentation of the 2019 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 recommend endorsing the 2019 Budget and Five Year Financial Plan and Annual Work Plan for MVHC as presented under alternative one.

Attachments:

1. 2019 - 2023 "What's Happening"
2. 2019 - 2023 Financial Plan
3. 2019 - 2023 MVHC Capital Budget Summary
4. 2019 Work Plan
5. 2019 - 2023 Projected Reserves - MVHC
6. Organizational Chart

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ATTACHMENT 1

2019 to 2023 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
2019		
Project Redevelopments	Substantial completion of Heather Place – Phase I	Addressing Regional Growth
Project Redevelopments	Start construction of Kingston Gardens – Phase I	Addressing Regional Growth
Asset Management	Continued development and implementation of the asset management plan	System Stewardship
Capital Maintenance	Reduce consumption through replacement of aged mechanical systems and building envelop upgrades	Environmental Protection and Climate Action
Sustainability	Study to incorporate electric vehicle charging systems in housing sites	Opportunities for Innovation and Enhanced Services
Project Redevelopments	Establish funding for new development opportunities	Addressing Regional Growth
2020		
Project Redevelopments	Rent-up Heather Place 67 units	Addressing Regional Growth
Project Redevelopments	Substantial completion of Kingston Gardens – Phase I	Addressing Regional Growth
Project Redevelopments	Start construction of Heather Place – Phase II	Addressing Regional Growth
Sustainability	Installation of electric vehicle charging systems at housing sites throughout the portfolio	Opportunities for Innovation and Enhanced Services
Capital Maintenance	Energy loss and usage reduction through replacement of aged mechanical systems and building envelop upgrades	Environmental Protection and Climate Action
2021		
Project Redevelopments	Rent-up Kingston Gardens 83 Units	Addressing Regional Growth
Project Redevelopments	Construction of Heather Place - Phase II	Addressing Regional Growth
Capital Maintenance	Energy loss and usage reduction through replacement of aged mechanical systems and building envelop upgrades	Environmental Protection and Climate Action
2022		
Project Redevelopments	Rent-up Heather Place - Phase II	Addressing Regional Growth
Capital Maintenance	Energy loss and usage reduction through replacement of aged mechanical systems and building envelop upgrades	Environmental Protection and Climate Action
2023		
Capital Maintenance	Energy loss and usage reduction through replacement of aged mechanical systems and building envelop upgrades	Environmental Protection and Climate Action

METRO VANCOUVER HOUSING CORPORATION
HOUSING
2019 BUDGET REVIEW
2019-2023 FINANCIAL PLAN

ATTACHMENT 2

	2016 ACTUAL	2017 ACTUAL	2018 BUDGET	2019 BUDGET	% CHANGE	2020 FORECAST	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE
REVENUES													
Housing Rents	$ 36,885,649	$ 38,630,214	$ 38,839,322	$ 39,309,579	1.2%	$ 40,750,068	3.7%	$ 42,125,813	3.4%	$ 43,166,756	2.5%	$ 44,244,519	2.5%
Housing Subsidies	3,792,823	2,915,541	2,045,617	1,088,554		1,109,749		1,137,159		1,165,283		835,744	
Other External Revenues	1,034,000	1,155,285	1,157,147	870,086		831,124		846,792		792,711		802,359	
Reserves	6,928,686	5,708,265	8,694,919	10,001,242		10,043,042		11,452,242		13,614,242		14,004,242	
TOTAL REVENUES	**$ 48,641,158**	**$ 48,409,305**	**$ 50,737,005**	**$ 51,269,461**	**1.0%**	**$ 52,733,983**	**2.9%**	**$ 55,562,006**	**5.4%**	**$ 58,738,992**	**5.7%**	**$ 59,886,864**	**2.0%**
EXPENDITURES													
Operating Programs:													
Property Operations	$ 15,584,475	$ 14,971,816	$ 16,519,600	$ 17,243,436		$ 17,640,617		$ 18,057,604		$ 18,490,697		$ 18,830,530	
Maintenance	1,934,445	1,151,203	1,093,831	1,265,069		1,293,025		1,318,315		1,344,092		1,370,249	
Financial Services	553,347	541,266	659,856	670,587		686,580		700,407		714,453		728,903	
Tenant Program and Services	470,041	466,039	565,035	578,388		591,911		603,907		616,098		628,553	
Site Administration	1,155,924	1,433,961	1,544,372	1,474,480		1,508,991		1,540,070		1,571,696		1,604,623	
Administration and Department Support	879,580	677,784	881,120	1,210,353		1,239,567		1,266,417		1,293,682		1,320,359	
	20,577,812	19,242,069	21,263,814	22,442,313	5.5%	22,960,691	2.3%	23,486,720	2.3%	24,030,718	2.3%	24,483,217	1.9%
Communications Program	-	-	20,000	40,000	100.0%	30,000	(25.0%)	30,000	0.0%	30,000	0.0%	30,000	0.0%
Allocation of Centralized Costs	2,080,217	4,124,906	2,417,680	2,119,752	(12.3%)	2,036,534	(3.9%)	1,885,711	(7.4%)	1,737,102	(7.9%)	1,601,249	(7.8%)
Total Operating Programs	22,658,028	23,366,975	23,701,494	24,602,065	3.8%	25,027,225	1.7%	25,402,431	1.5%	25,797,820	1.6%	26,114,466	1.2%
Capital Replacement	6,928,686	5,708,265	8,694,919	10,001,242	15.0%	10,043,042	0.4%	11,452,242	14.0%	13,614,242	18.9%	14,004,242	2.9%
Debt Service	15,436,335	12,531,806	8,163,506	6,201,762	(24.0%)	4,847,835	(21.8%)	4,529,937	(6.6%)	4,514,744	(0.3%)	4,322,551	(4.3%)
Contribution to Capital Replacement Reserve	1,719,533	1,719,533	1,719,289	1,720,636	0.1%	1,729,993	0.5%	1,739,550	0.6%	1,739,550	0.0%	1,739,550	0.0%
Contribution to Reserve	882,145	1,228,407	8,457,797	8,743,756	3.4%	11,085,888	26.8%	12,437,846	12.2%	13,072,636	5.1%	13,706,055	4.8%
TOTAL EXPENDITURES	**$ 47,624,727**	**$ 44,554,986**	**$ 50,737,005**	**$ 51,269,461**	**1.0%**	**$ 52,733,983**	**2.9%**	**$ 55,562,006**	**5.4%**	**$ 58,738,992**	**5.7%**	**$ 59,886,864**	**2.0%**

METRO VANCOUVER HOUSING CORPORATION
CAPITAL PROGRAMS AND PROJECT TOTALS
HOUSING
2019 - 2023 CAPITAL PLAN

ATTACHMENT 3

	2019 CAPITAL BUDGET	2020 CAPITAL PLAN	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2019 TO 2023 TOTAL	TOTAL PROJECT COSTS
CAPITAL EXPENDITURES							
Housing Development							
Heather Place - Building A	$ 12,150,000	$ 1,000,000	$ -	$ -	$ -	$ 13,150,000	$ 28,500,000
Kingston Gardens - Phase 1	9,167,000	18,333,000	750,000	-	-	28,250,000	29,000,000
	$ 21,317,000	**$ 19,333,000**	**$ 750,000**	**$ -**	**$ -**	**$ 41,400,000**	**$ 57,500,000**
CAPITAL FUNDING							
Reserve Funding	21,317,000	19,333,000	750,000	-	-	41,400,000	
	$ 21,317,000	**$ 19,333,000**	**$ 750,000**	**$ -**	**$ -**	**$ 41,400,000**	

METRO VANCOUVER HOUSING CORPORATION

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

The annual budget includes $41,268,219 for MVHC Operations and $10,001,242 for Capital Replacement.

Strategic directions and high level goals supported
- Develop and implement a new asset management strategy for the maintenance and replacement of existing MVHC housing stock
- To provide safe, affordable rental accommodations to individuals and families across the region
- Expand the number of MVHC subsidized and market (mixed income) rental housing units through the redevelopment of existing properties

Performance indicators

Indicator	Historical and/or industry benchmark	Current performance	2019 performance objective
Total units rented to subsidized tenants	33%	33%	33%
Vacancy percentage (based on number of units)	0.8%	0.5%	0.5%
MVHC communities with tenant associations	57% (28 sites)	61% (30 sites)	61% (30 sites)
Reduce GHG emissions	MVHC 3-year average (2015-2017)	Estimated 9% overall reduction from 3 year average	2% reduction from 2018
Heather Place Phase 1 – substantial completion	n/a	35%	95%
Kingston Gardens design/construction	n/a	5%	35%

2019 key actions

- Substantial Completion of Heather Place Phase 1 redevelopment
- Begin construction on Kingston Gardens Phase 1 redevelopment
- Establish grants and partnerships for new development
- Reduce building energy consumption through:
    - Mechanical System upgrades
    - Building Envelope upgrades
    - Tenant education initiatives
- Continue to develop, document and implement the asset management strategy
- Identify potential redevelopment sites using asset management plan
- Develop programs to support tenants in life skills development
- Develop an MVHC annual report template and report

METRO VANCOUVER DISTRICTS
2019-2023 PROJECTED RESERVES - MVHC

ATTACHMENT 5

OPERATING RESERVES

	2018 ENDING BALANCE	2019 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2019 ENDING BALANCE	2020 ENDING BALANCE	2021 ENDING BALANCE	2022 ENDING BALANCE	2023 ENDING BALANCE
Housing	$ 2,546,014	$ 2,546,014	$ -	$ (225,026)	$ 49,162	$ 2,370,149	$ 2,460,207	$ 2,502,723	$ 2,540,243	$ 2,579,782

DISCRETIONARY RESERVES

	2018 ENDING BALANCE	2019 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2019 ENDING BALANCE	2020 ENDING BALANCE	2021 ENDING BALANCE	2022 ENDING BALANCE	2023 ENDING BALANCE
Housing										
MVHC Capital Replacement Reserve	$ 10,605,886	$ 10,605,886	$ 4,395,356	$ (10,001,242)	$ 156,059	$ 5,156,059	$ 5,101,561	$ 5,101,016	$ 5,101,010	$ 5,101,010
MVHC Capital Development Reserve	3,206,742	3,206,742	12,769,036	(21,317,000)	(21,345)	(5,362,567)	(2,945,362)	10,767,155	12,294,447	14,098,133

Human Resources and Housing Services

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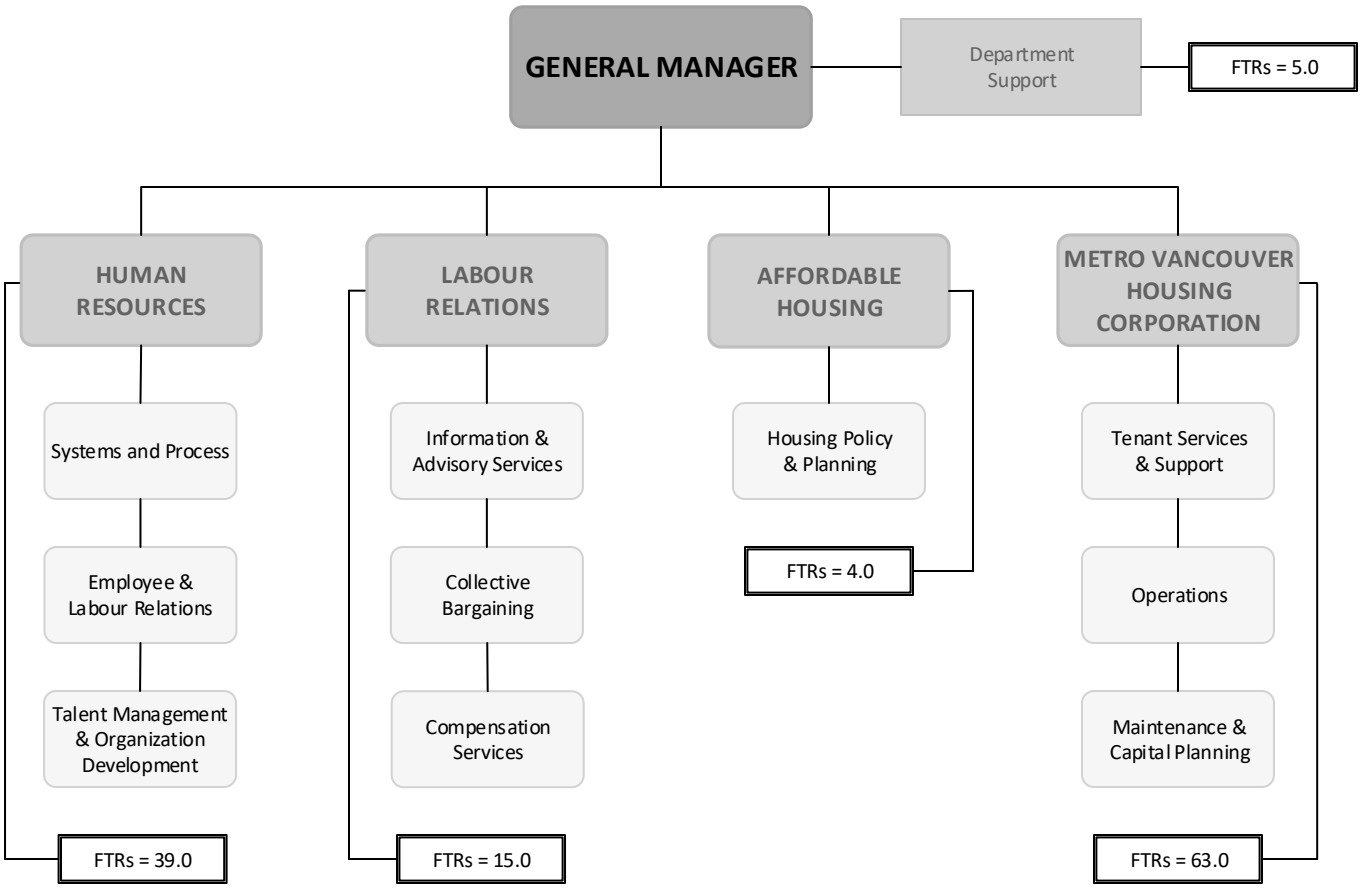
SERVICES AND SOLUTIONS FOR A LIVABLE REGION

2018



Human Resources & Housing Services
2018 Total FTRs = 127.0
2019 Proposed FTRs = 127.0

26044351
September 26, 2018

metrovancouver
SERVICES AND SOLUTIONS FOR A LIVABLE REGION

To: Housing Committee

From: Andrea Winkler, Program Manager, Affordable Housing

Date: October 3, 2018 Meeting Date: October 12, 2018

Subject: **2019 - 2023 Financial Plan – Affordable Housing**

RECOMMENDATION

That the Housing Committee endorse the 2019 - 2023 Financial Plan for Affordable Housing as presented in the report "2019 - 2023 Financial Plan – Affordable Housing" dated October 3, 2018 and forward it to the Board Budget Workshop on October 17, 2018 for consideration.

PURPOSE

To present the 2019 - 2023 Financial Plan for Affordable Housing 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 2019 annual budget and the updated five year plan for the years 2019 to 2023 for committee consideration.

AFFORDABLE HOUSING PROGRAM

Affordable Housing is responsible for undertaking activities that support and increase the availability of a stable regional supply of housing that is affordable. This includes both increasing the supply of affordable housing units and addressing broader housing affordability. It requires consideration of how to achieve an affordable and diverse housing supply across the full housing continuum, from homelessness to freehold market housing, with a special emphasis on very low, low and moderate income households. This function also contributes to processes and decisions related to the development of affordable housing projects, and in particular to both the redevelopment of the Metro Vancouver Housing Corporation portfolio of mixed-income housing complexes and to the development of vacant lands owned by local government (including the MVRD).

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

- Support an evidence-based approach to analyzing the affordability challenges in the Metro Vancouver region.
- Facilitate collaboration among members to expand the range of housing options in the region.
- Continue to advocate to other orders of government for funding and programs to improve the affordability of housing in the region.
- Advance the redevelopment of housing sites.

2019 BUDGET AND FIVE YEAR FINANCIAL PLANS

The five year financial plans for this cycle have been updated to address the four themes Metro Vancouver considers when developing plans and budgets. These are as follows:

- Addressing Regional Growth
- System Stewardship
- Environmental Protection and Climate Action
- Opportunities for Innovation and Enhanced Services

Annual Work Plans are developed for almost all Metro Vancouver functions. The 2019 Annual Work Plan for the Affordable Housing budget presented in this report are included in Attachment 3.

A summary of the Affordable Housing program highlights, 2019 - 2023 "What's Happening", is included under Attachment 1.

Attached is a summary of the Affordable Housing 2019 - 2023 Financial Plan (Attachment 2).

Operating Budget Highlights

The overall Affordable Housing operating budget is proposed to decrease by $201,430 in 2019 for a total operating budget of $1.8 million (Attachment 2). This decrease can be attributed mainly to the redistribution of staffing between Affordable Housing and Regional Planning.

The 2019 operating budget includes the following key actions:

- Establish Metro Vancouver targets for affordable housing units to be provided and/or supported through MVHC;
- Investigate and evaluate potential new financing and partnership opportunities to support affordable rental housing to increase the supply of rental housing within Metro Vancouver Housing portfolio;
- Complete Metro Vancouver Housing Strategic Plan;
- Work with member municipalities, developers, non-profits to increase affordable housing;
- Participate in regional research and innovation projects that are developing scalable best practices for affordable housing;
- Prepare policies to support the provision and expansion of affordable rental housing (including a Metro Vancouver definition of affordable housing; criteria to prioritize development sites);
- Undertake feasibility analysis and provide support for the expansion of MVHC affordable housing units and developing affordable rental housing; and,
- Research and assess alternative construction methods and methodologies to support reduction in capital expenditures for affordable housing projects.

Consulting projects anticipated to be undertaken in 2019 to respond to work plan requirements within the operating budget include technical/professional evaluation of the feasibility of affordable housing development projects, advice on financial models, real estate and peer review ($50,000).

There are no new full-time staff proposed for Affordable Housing in 2019.

Over the next five years, operating programs are decreasing by $175,625 per year. Adjusting for staffing levels in 2018, the operating programs are actually increasing on average $6,451 per year over the remaining years of the plan.

Communications Program
The 2019 Affordable Housing Communications Program of $25,000 is focused around the following initiatives:

- Public engagement on the redevelopment projects at Heather Place and Kingston Gardens.
- Focus groups on affordable housing initiatives.

Reserve Funds
There are no proposed applications of reserve funding.

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 2019 Work Plan for Affordable Housing is presented in this report. Within the Affordable Housing Work Plan, 2 performance indicators have been developed and are being tracked. These include:

- Diversity of rental housing types (based on Stars) – Laneway, Secondary Suite, Social Housing, Purpose Built Rental
- Net New Rental Supply (based on Completions) – Laneway, Secondary Suite, Social Housing, Purpose Built Rental

CONSISTENCY WITH THE 2018 – 2022 FINANCIAL PLAN
The updated five year financial plan has been developed to be consistent with the 2018 - 2022 financial plan. The Affordable Housing requisition forms part of the overall MVRD tax requisition, one of 12 statutory functions within the Regional District. The 2019 impact on the average regional household is reduced by $1 from prior year projections for the Metro Vancouver Regional District with an average regional household cost of $55 (2018 projection: $56).

For the years 2020, 2021 and 2022 the MVRD household impact is projected to increase by an additional $2 compared to the previous five year projection.

APPROVAL PROCESS
The proposed 2019 - 2023 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 2019 - 2023 Financial Plan and Annual Work Plan will be presented at the Board Budget Workshop on October 17, 2018.
- The Board will consider adoption of the 2019 Budget and endorsement of the 2019 - 2023 Financial Plan on October 26, 2018.

ALTERNATIVES
1. That the Housing Committee endorse the 2019 - 2023 Financial Plan for Affordable Housing as presented in the report "2019 - 2023 Financial Plan – Affordable Housing" dated October 3, 2018 and forward it to the Board Budget Workshop on October 17, 2018 for consideration.

2. That the Housing Committee make recommendations and endorse an amended 2019 - 2023 Financial Plan for Affordable Housing and forward the amended Financial Plan to the Board Budget Workshop on October 17, 2018 for consideration.

FINANCIAL IMPLICATIONS

If the MVRD Board endorses the 2019 - 2023 Financial Plan for Affordable Housing, as presented under Alternative 1, in 2019 the Affordable Housing requisition will decrease by $179,338 (8.9%) comprising part of the overall MVRD requisition. The Affordable Housing requisition forms part of the overall MVRD tax requisition which is projected to be $61.2 million in 2019, representing a $1 increase (2.6%) to the average regional household for a household cost of $55 after taking into account regional population growth.

Over the term of the five year plan, after the reduction in 2019 for the transfer of a staff position to Regional Planning, the annual Affordable Housing requisition is projected to remain stable across the five year timeframe. It is anticipated that the cost to the average regional household over the next five years for all MVRD services, including Affordable Housing, will rise from $54 in 2018 to $61 in 2023 representing an average annual increase of $1.40.

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 2019 - 2023 Affordable Housing Financial Plan has been prepared to respond to direction provided in the *Board Strategic Plan* and support the Affordable Housing Management Plan. It is presented to Committee and Board members to provide overview information on activities and financial impacts for the years 2019 to 2023 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 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 2019 - 2023 Financial Plan for Affordable Housing as presented under Alternative 1.

Attachments:

1. 2019 - 2023 "What's Happening"
2. 2019 - 2023 Financial Plan
3. 2019 Work Plans
4. 2019 - 2023 Projected Reserves – Affordable Housing
5. Organizational Charts

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2019 -2023 "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
2019		
Complete Strategic Plan for Metro Vancouver Housing	Prepare a strategic plan for Metro Vancouver Housing that outlines mission, vision, goals to inform levels of service and redevelopment priorities.	Opportunities for Innovation and Enhanced Services
Affordable Rental Housing: Metro Vancouver 10 Year Action Plan	Prepare and implement a plan that lays the foundation and outlines the tasks for developing new and expanded rental housing supply through Metro Vancouver Housing as well as other rental housing initiatives in partnership with member municipalities. Includes establishing targets, confirming a Metro Vancouver definition of affordable housing, identifying criteria for prioritizing affordable housing development sites.	Opportunities for Innovation and Enhanced Services
Support Implementation of Regional Affordable Housing Strategy	Prepare a plan to accompany the goals and strategies incorporated into the Regional Affordable Housing Strategy.	Addressing Regional Growth
Support for development of affordable housing units	Undertake feasibility analysis, concept development and provide support for the expansion of Metro Vancouver Housing affordable units on sites as relevant.	Opportunities for Innovation and Enhanced Services
Funding and financing partnerships	Investigation and evaluation of new financing and partnership opportunities to optimize MVRD capital contributions to affordable housing development projects and/or to support a greater number of affordable housing development/redevelopment projects to be brought to market.	Opportunities for Innovation and Enhanced Services
2020		
Support for development of affordable housing units	Undertake feasibility analysis, concept development and provide support for the expansion of Metro Vancouver Housing affordable units on sites as relevant.	Opportunities for Innovation and Enhanced Services
Support Implementation of Regional Affordable Housing Strategy	Continue to support plan implementation.	Addressing Regional Growth
Funding and financing partnerships	Continue investigation and evaluation of new financing and partnership opportunities.	Opportunities for Innovation and Enhanced Services
2021		
Support for development of affordable housing units	Undertake feasibility analysis, concept development and provide support for the expansion of Metro Vancouver Housing affordable units on sites as relevant.	Opportunities for Innovation and Enhanced Services

Support Implementation of Regional Affordable Housing Strategy	Continue to support plan implementation.	Addressing Regional Growth
Funding and financing partnerships	Continue investigation and evaluation of new financing and partnership opportunities.	Opportunities for Innovation and Enhanced Services
2022		
Support for development of affordable housing units	Undertake feasibility analysis, concept development and provide support for the expansion of Metro Vancouver Housing affordable units on sites as relevant.	Opportunities for Innovation and Enhanced Services
Support Implementation of Regional Affordable Housing Strategy	Continue to support plan implementation.	Addressing Regional Growth
Funding and financing partnerships	Continue investigation and evaluation of new financing and partnership opportunities.	Opportunities for Innovation and Enhanced Services
2023		
Strategic Plan	Review Strategic Plan and update	Opportunities for Innovation and Enhanced Services
Support for development of affordable housing units	Undertake feasibility analysis, concept development and provide support for the expansion of Metro Vancouver Housing affordable units on sites as relevant.	Opportunities for Innovation and Enhanced Services
Support Implementation of Regional Affordable Housing Strategy	Continue to support plan implementation.	Addressing Regional Growth
Funding and financing partnerships	Continue investigation and evaluation of new financing and partnership opportunities.	Opportunities for Innovation and Enhanced Services

METRO VANCOUVER REGIONAL DISTRICT
AFFORDABLE HOUSING
2019 BUDGET REVIEW
2019-2023 FINANCIAL PLAN

ATTACHMENT 2

	2016 ACTUAL	2017 ACTUAL	2018 BUDGET	2019 BUDGET	% CHANGE	2020 FORECAST	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE
REVENUES													
MVRD Requisitions	$ 177,591	$ 407,304	$ 2,018,817	$ 1,839,479	(8.9%)	$ 1,831,684	(0.4%)	$ 1,843,014	0.6%	$ 1,853,849	0.6%	$ 1,865,284	0.6%
Other External Revenues	36,427		22,092	-		-		-		-		-	
TOTAL REVENUES	**$ 214,018**	**$ 407,304**	**$ 2,040,909**	**$ 1,839,479**	**(9.9%)**	**$ 1,831,684**	**(0.4%)**	**$ 1,843,014**	**0.6%**	**$ 1,853,849**	**0.6%**	**$ 1,865,284**	**0.6%**
EXPENDITURES													
Operating Programs:													
Housing Policy and Planning	$ 168,391	$ 119,164	$ 969,271	$ 724,823		$ 742,313		$ 757,625		$ 773,184		$ 789,086	
Contribution to Reserve	-	-	1,000,000	1,000,000		1,000,000		1,000,000		1,000,000		1,000,000	
	$ 168,391	$ 119,164	$ 1,969,271	$ 1,724,823	(12.4%)	$ 1,742,313	1.0%	$ 1,757,625	0.9%	$ 1,773,184	0.9%	$ 1,789,086	0.9%
Communications Program	-	-	-	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	-	-	71,638	89,656	25.2%	64,371	(28.2%)	60,389	(6.2%)	55,665	(7.8%)	51,198	(8.0%)
TOTAL EXPENDITURES	**$ 168,391**	**$ 119,164**	**$ 2,040,909**	**$ 1,839,479**	**(9.9%)**	**$ 1,831,684**	**(0.4%)**	**$ 1,843,014**	**0.6%**	**$ 1,853,849**	**0.6%**	**$ 1,865,284**	**0.6%**

AFFORDABLE HOUSING (POLICY AND PLANNING)

Description of services

This function supports the implementation of the *Regional Affordable Housing Strategy*, provides services to Metro Vancouver Housing and provides input into regional initiatives that impact affordable housing. This function supports the redevelopment of affordable housing across Metro Vancouver region through partnerships with member municipalities, non-profits and Metro Vancouver Housing.

Strategic directions and high level goals supported

- Support an evidence-based approach to analyzing the affordability challenges in the Metro Vancouver region
- Facilitate collaboration among members to expand the range of housing options in the region
- Continue to advocate to other orders of government for funding and programs to improve the affordability of housing in the region
- Advance the redevelopment of housing sites
- Support relevant goals in the Regional Affordable Housing Strategy

Performance indicators

Indicator	Historical and/or industry benchmark	Current performance	2019 performance objective
Diversity of rental housing types (based on starts) – laneway, Secondary Suites, Social Housing, PBR, Private Condo Rental Apt	(2013 – 2015 Average) 485 laneway 1,295 Secondary Suite 495 Social Housing 865 PBR	(2017) 563 laneway 1,950 Secondary Suite 266 Social Housing 1,811 PBR	Program in transition – data will be reported in 2019
Net new rental supply (based on completions) – Laneway, Secondary Suite, Social Housing, PBR, Private Condo Rental	(2013 – 2015 Average) 490 Laneway 1,290 Secondary Suite 500 Social Housing 870 PBR	(2017) 551 Laneway 1,769 Secondary Suite 269 Social Housing 2,207 PBR	Program in transition – data will be reported in 2019

2019 key actions

- Establish Metro Vancouver targets for affordable housing units to be provided and/or supported through MVHC;
- Investigate and evaluate potential new financing and partnership opportunities to support affordable rental housing to increase the supply of rental housing within Metro Vancouver Housing portfolio;
- Complete Metro Vancouver Housing Strategic Plan;
- Work with member municipalities, developers, non-profits to increase affordable housing;
- Participate in regional research and innovation projects that are developing scalable best practices for affordable housing;
- Prepare policies to support the provision and expansion of affordable rental housing (including a Metro Vancouver definition of affordable housing; criteria to prioritize development sites);
- Undertake feasibility analysis and provide support for the expansion of MVHC affordable housing units and developing affordable rental housing; and,
- Research and assess alternative construction methods and methodologies to support reduction in capital expenditures for affordable housing projects.

METRO VANCOUVER DISTRICTS
2019-2023 PROJECTED RESERVES - AFFORDABLE HOUSING

ATTACHMENT 4

OPERATING RESERVES

	2018 ENDING BALANCE	2019 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2019 ENDING BALANCE	2020 ENDING BALANCE	2021 ENDING BALANCE	2022 ENDING BALANCE	2023 ENDING BALANCE
Affordable Housing	$ 37,731	$ 37,731	$ 13,416	$ -	$ 898	$ 52,045	$ 41,974	$ 41,584	$ 42,151	$ 42,692

STATUTORY RESERVES

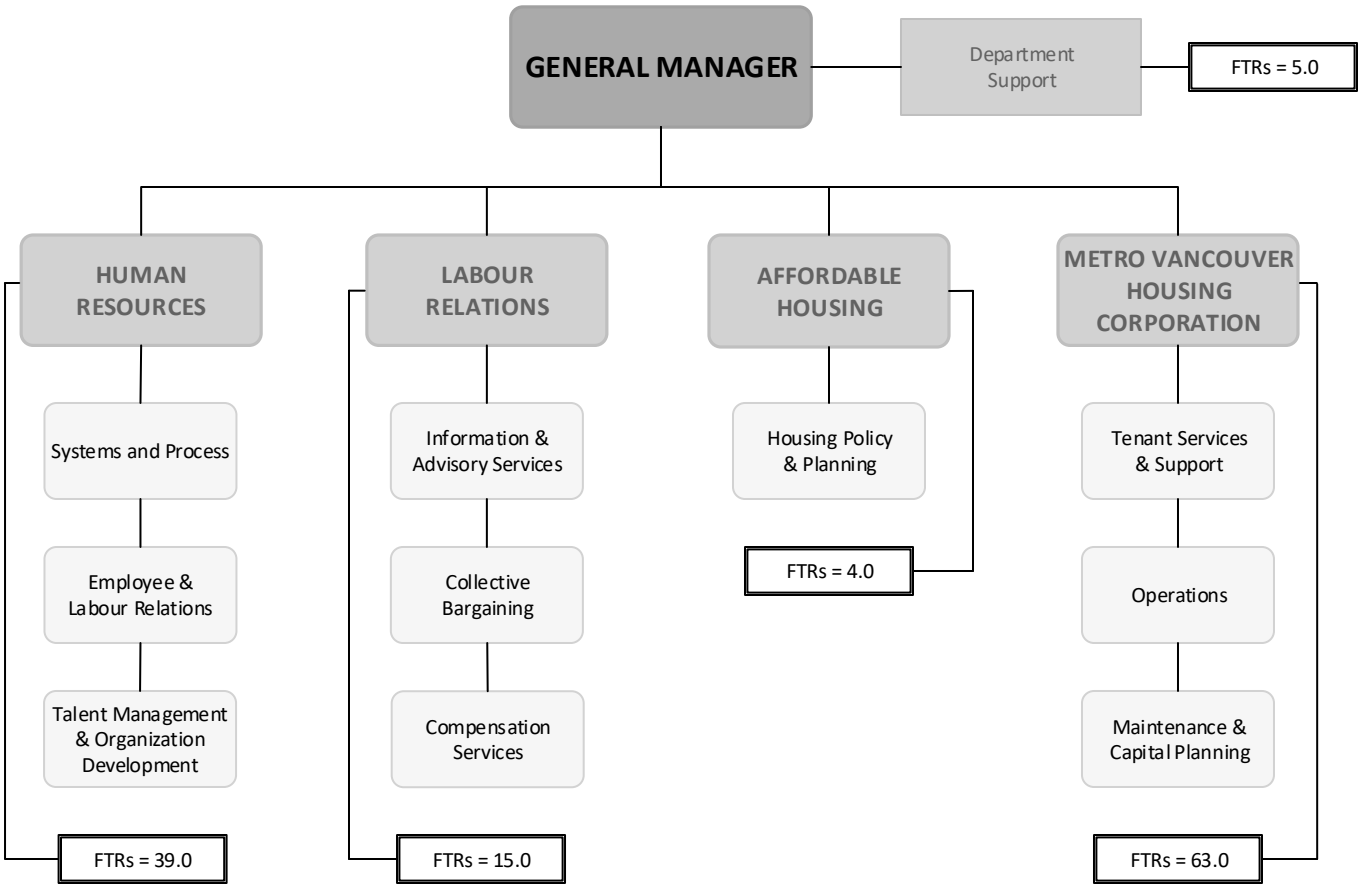
	2018 ENDING BALANCE	2019 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2019 ENDING BALANCE	2020 ENDING BALANCE	2021 ENDING BALANCE	2022 ENDING BALANCE	2023 ENDING BALANCE
Affordable Housing										
Affordable Housing Reserve	$ 1,010,000	$ 1,010,000	$ 1,000,000	$ -	$ 30,200	$ 2,040,200	$ 3,091,004	$ 4,162,824	$ 5,256,081	$ 6,371,202

ATTACHMENT 5

Human Resources and Housing Services

metrovancouver
SERVICES AND SOLUTIONS FOR A LIVABLE REGION

2018



Human Resources & Housing Services
2018 Total FTRs = 127.0
2019 Proposed FTRs = 127.0

26044351
September 26, 2018

metrovancouver
SERVICES AND SOLUTIONS FOR A LIVABLE REGION

To: Regional Parks Committee

From: Mike Redpath, Director, Regional Parks

Date: September 26, 2018 Meeting Date: October 10, 2018

Subject: **2019 - 2023 Financial Plan – Regional Parks**

RECOMMENDATION

That the Regional Parks Committee endorse the 2019 - 2023 Financial Plan for Regional Parks as presented in the report dated September 26, 2018, titled "2019 - 2023 Financial Plan – Regional Parks" and forward it to the Board Budget Workshop on October 17, 2018 for consideration.

PURPOSE

To present the 2019 - 2023 Financial Plan for Regional Parks for consideration by the Regional Parks 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 2019 annual budget and the updated five year plan for the years 2019 to 2023 for committee consideration.

REGIONAL PARKS SERVICE

Regional Parks within the Metro Vancouver Regional District (MVRD) represents functions that include all 23 members. Regional Parks provides 22 regional parks, three reserves, two ecological conservancy areas and five regional greenways, manages approximately 13,500 hectares of land and receives over 11.9 million visitors annually. The Regional Parks Program provides safe and effective park operations and maintenance, land management, park planning, land acquisition, educational programs and events, stewardship of natural resources, replacement and new facilities development.

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

- Protect important natural areas, to contribute to regional livability and to enhance connections.
- Within the context of natural area protection, provide opportunities for people to connect with, enjoy, be active and learn about the environment.
- Integrate the Regional Parks system with others' efforts to protect important natural areas and systems in the region.

The 2018 Regional Parks' boundary re-alignment and related staff/parks area reporting relationship changes have necessitated a reallocation of specific cost centres within Regional Parks operational "Areas" (Central, East and West).

Effective June 23, 2018, Regional Parks operations in City of Surrey and on Barnston Island transferred from the Central Area to the East Area, and Regional Parks in Delta transferred from the West Area to the Central Area. As a result of the service area boundary realignment, the functional budget responsibilities for the three operating areas have been reallocated within the existing Regional Parks Operating budget for 2019, to reflect the most efficient operating Regional Parks service areas.

Although the eastern portion of Aldergrove Regional Park has been transferred to the City of Abbotsford, Metro Vancouver and the City of Abbotsford have reached an interim arrangement to allow for continued operation of this eastern portion under Metro Vancouver until December 31, 2019, pending a legislative solution to permit Metro Vancouver to continue to own and operate Aldergrove Regional Park in its entirety.

2019 BUDGET AND 2019 - 2023 FINANCIAL PLAN

The five year financial plans for this cycle have been updated to address the four themes Metro Vancouver considers when developing plans and budgets. These are as follows:

- Addressing Regional Growth
- System Stewardship
- Environmental Protection and Climate Action
- Opportunities for Innovation and Enhanced Services

Annual Work Plans are developed for almost all Metro Vancouver functions. The 2019 Annual Work Plan for the Regional Parks budget presented in this report is included in Attachment 4.

A summary of the Regional Parks Program highlights, 2019 - 2023 "What's Happening", is included under Attachment 1.

Attached are the summaries of the 2019 - 2023 Regional Parks operating budget (Attachment 2) and the 2019 - 2023 Regional Parks capital budget (Attachment 3).

Operating Budget Highlights

The Regional Parks operating budget is proposed to increase by $614,002 in 2019, for a total budget of $42.7 million (Attachment 2). This overall increase can be attributed to an increase in labour costs for inflation, increase in fleet charges for vehicles, and equipment, and an increase on the contribution to the capital reserve.

The 2019 operating budget includes the following key actions:

- Implement Regional Parks buildings asset maintenance forecasting and scheduling initiative;
- Develop models and capital investment scenarios to effectively maintain the existing building inventory in Regional Parks;
- Develop a Regional Parks asset management policy;
- Undertake visitor satisfaction survey to provide data to guide park planning, development and management;

- Continue to share knowledge, build working relationships and collaborate with municipal members through the Regional Park Municipal Advisory Group;
- Continue to explore ways to engage local First Nations in the spectrum of cooperation and co-management opportunities;
- Initiate and complete a Regional Parks Programming and Interpretation Strategic Plan to guide the future development of Regional Parks' programs, future pricing strategies, program delivery models and events;
- Investigate and implement opportunities to include more opportunities for volunteer recognition and recruitment;
- Adopt the Widgeon Marsh Regional Park Management Plan;
- Begin public engagement for the *Campbell Valley Regional Park Management Plan* update;
- Development of a regional greenways strategy and plan;
- Continue implementation of the *Regional Parks Land Acquisition 2050* strategy; and
- Renew and update the service agreement with the Pacific Parklands Foundation.

Highlights of consulting projects anticipated to be undertaken in 2019, to respond to work plan requirements within the operating budget include the following:

- Centralization of Regional Parks archaeological services to ensure a coordinated approach to archeological studies and First Nations considerations;
- Development of a greenways strategy and plan, as well as the development of a Regional Parks visitor use and visitor satisfaction survey; and
- Prepare a traffic management study for Belcarra Regional Park at White Pine and the Belcarra Picnic Area to address ongoing traffic issues and pedestrian safety.

There are no new full-time staff positions proposed for 2019.

Over the next five years, operating programs are increasing by $6.2 million per year. In addition to those noted above, key projects through 2023 include:

- Future planning studies including regional park management planning, archaeology, natural resource management, and research;
- Asset management planning studies; and
- Planning, design and construction of Widgeon Marsh Regional Park

Communications Program

The 2019 Regional Parks Communications Program of $110,000, is framed around the following initiatives:

- Public consultations (Widgeon Marsh Regional Park Reserve, Burns Bog Delta Nature Reserve);
- Ongoing Multimedia work to build awareness of regional parks sub brand, and increased bear aware education; and
- Parksfest annual event.

Capital Budget Highlights

The Regional Parks capital budget for 2019 is $8.3 million (Attachment 3). The Capital Program is funded by reserve funds.

Highlights of capital projects planned or ongoing for 2019 include the following:

- Colony Farm Regional Park - Sheep Paddocks trail rebuild;
- Aldergrove Regional Park - Implement management plan;
- New service yards for Crippen and Capilano Regional Parks; and
- Capital maintenance projects.

Capital program increases from 2020 - 2023 are largely driven by new regional park developments, land acquisition and required infrastructure replacements. These include:

- Belcarra Regional Parks - South Picnic Area, cabins;
- Widgeon Marsh Regional Park Reserve - management plan implementation;
- Burns Bog Delta Nature Reserve – boardwalk replacement;
- Crippen Regional Park - Davies Orchard Cabins; and
- Pacific Spirit Regional Park - service yard replacement.

Reserve Funds

The work plan for the Regional Parks function includes several one-time operating initiatives which are delivered through consulting or contract services. In accordance with the *Operating, Statutory and Discretionary Reserves Policy*, these items are funded using reserves. In 2019, $171,380 of such initiatives are funded from reserves.

The capital programs for Regional Parks are also funded fully from reserves. In 2019, $8.3 million in reserve funding will be applied for capital projects. The 2019 - 2023 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 2019 Work Plan for Regional Parks is presented in this report. Within the Regional Parks Work Plans, 4 performance indicators have been developed and are being tracked. These are:

- Annual number of visits to regional parks
- Annual number of participants in Regional Parks Public Programming (includes group programs, individual programs, events, workshops, nature house, roving, outreach, partner led interpretation)
- Annual number of volunteer hours through stewardship, partnership and visitor services programs; and
- Total area of the Region's sensitive ecosystems protected in regional parks.

The trend in these performance measures suggests that the popularity and use of regional parks by the public continues to grow annually.

CONSISTENCY WITH THE 2018 – 2022 FINANCIAL PLAN

The updated five year financial plan has been developed to be consistent with the 2018 - 2022 financial plan. The Regional Parks requisition forms part of the overall MVRD tax requisition, one of 11 statutory functions within the Regional District. The 2019 impact on the average regional household is reduced by $1 from prior year projections for the Metro Vancouver Regional District with an average regional household cost of $55 (2018 projection: $56).

For the years 2020, 2021 and 2022 the MVRD household impact is projected to increase by an additional $2 compared to the previous five year projection.

APPROVAL PROCESS
The proposed 2019 - 2023 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 2019 - 2023 Financial Plan and annual Work Plan will be presented at the MVRD Board Budget Workshop on October 17, 2018.
- The MVRD Board will consider adoption of the 2019 Budget and endorsement of the 2019 - 2023 Financial Plan on October 26, 2018.

ALTERNATIVES

1. That the Regional Parks Committee endorse the 2019 - 2023 Financial Plan for Regional Parks as presented in the report dated September 26, 2018, titled "2019 - 2023 Financial Plan – Regional Parks" and forward it to the Board Budget Workshop on October 17, 2018 for consideration.

2. That the Regional Parks Committee make recommendations and endorse an amended 2019 - 2023 Financial Plan for Regional Parks forward the amended Financial Plan to the Board Budget Workshop on October 17, 2018 for consideration.

FINANCIAL IMPLICATIONS
If the MVRD Board endorses the 2019 - 2023 Financial Plan for Regional Parks, as presented under Alternative 1, in 2019 the Regional Parks requisition will increase by $1.8 million (4.6%) comprising part of the overall MVRD requisition. The Regional Parks requisition forms part of the overall MVRD tax requisition which is projected to be $61.2 million in 2019, representing a $1 increase (2.6%) to the average regional household for a household cost of $55 after taking into account regional population growth.

Over the term of the five year plan, the annual Regional Parks requisition is projected to increase by an average of $1.5 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 for all MVRD services, including Regional Parks, will rise from $54 in 2018 to $61 in 2023 representing an average annual increase of $1.40.

Under Alternative 2, the Regional Parks 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 2019 - 2023 Financial Plan for Regional Parks has been prepared to respond to direction provided in the *Board Strategic Plan* and support the goals and policies of *Metro 2040*. It is presented to Committee and Board members to provide overview information on activities and financial impacts for the years 2019 to 2023 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 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 2019 - 2023 Financial Plan for Regional Parks as presented under alternative one.

Attachments *(Orbit # 27100190)*

1. 2019 - 2023 "What's Happening"
2. 2019 - 2023 Regional Parks Financial Plan
3. 2019 - 2023 Regional Parks Capital Budget Summary
4. 2019 Work Plan
5. 2019 - 2023 Projected Reserves - Regional Parks
6. Organizational Chart

2019 to 2023 - WHAT'S HAPPENING

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

Initiative	Description	Theme
2019		
Outreach and Engagement	Undertake Public Programming and Interpretation Strategy	System Stewardship
Capital Development Program	Complete construction of Aldergrove Regional Park Nature Discovery Area and Trail	Opportunities for Innovation and Enhanced Services
Capital Development Program	Continue development of Sheep Paddocks Trail at Colony Farm Regional Park	Opportunities for Innovation and Enhanced Services
Capital Development Program	Complete detained design of Davies Orchard park improvements at Crippen Regional Park	System Stewardship
Regional Parks Plan	Undertake Visitor Satisfaction Survey	Addressing Regional Growth
Regional Parks Land Acquisition 2050	Initiate update of Regional Greenways Recreational Network	Opportunities for Innovation and Enhanced Services
Capital Development Program	Implement Grouse Mountain Regional Park priority improvements	System Stewardship
Regional Parks Land Acquisition 2050	Complete land transfer with City of Delta for Delta Nature Reserve/Burns Bog properties	Opportunities for Innovation and Enhanced Services
Regional Parks Land Acquisition 2050	Implement Regional Parks Land Acquisition 2050 strategy	Addressing Regional Growth
Capital Development Program	Implement Aldergrove Regional Park Management Plan	System Stewardship
Outreach and Engagement	Review and renew partnership agreement with the Pacific Parklands Foundation	System Stewardship
Capital Development Program	Complete Crippen Regional Park service yard replacement	System Stewardship
Capital Development Program	Replace Capilano Service Yard	System Stewardship
Outreach and Engagement	Explore opportunities for working cooperatively with local First Nations on Regional Parks initiatives	Opportunities for Innovation and Enhanced Services
2020		
Capital Development Program	Commence design for Widgeon Marsh Regional Park	Addressing Regional Growth
Regional Parks System Stewardship Planning	Complete Campbell Valley Regional Park Management Plan update	System Stewardship
Regional Parks Land Acquisition 2050	Implement Regional Parks Land Acquisition 2050 strategy	Addressing Regional Growth
Capital Development Program	Open Brunette Fraser Greenway – Sapperton Landing new amenities	Opportunities for Innovation and Enhanced Services

Capital Development Program	Construct full service washrooms and day use upgrades at Derby Reach Regional Park	Opportunities for Innovation and Enhanced Services
Outreach and Engagement	Explore opportunities for working cooperatively with local First Nations on Regional Parks initiatives	Opportunities for Innovation and Enhanced Services
2021		
Capital Development Program	Commence construction at Widgeon Marsh Regional Park	Opportunities for Innovation and Enhanced Services
Capital Development Program	Complete full service washrooms and day-use upgrades at Derby Regional Park	System Stewardship
Regional Parks Land Acquisition 2050	Implement Regional Parks Land Acquisition 2050 strategy	Addressing Regional Growth
Capital Development Program	Initiate construction of Davies Orchard park improvements at Crippen Regional Park	Opportunities for Innovation and Enhanced Services
Outreach and Engagement	Explore opportunities for working cooperatively with local First Nations on Regional Parks initiatives	Opportunities for Innovation and Enhanced Services
2022		
Capital Development Program	Ongoing construction at Widgeon Marsh Regional Park Reserve	Addressing Regional Growth
Regional Parks Land Acquisition 2050	Implement Regional Parks Land Acquisition 2050 strategy	Addressing Regional Growth
Capital Development Program	Initiate Belcarra Regional Park South Picnic Area Construction	Opportunities for Innovation and Enhanced Services
Regional Parks System Stewardship Planning	Update Regional Parks Plan	System Stewardship
Outreach and Engagement	Explore opportunities for working cooperatively with local First Nations on Regional Parks initiatives	Opportunities for Innovation and Enhanced Services
Capital Development Program	Complete construction of Crippen Regional Park Davies Orchard park improvements	Opportunities for Innovation and Enhanced Services
2023		
Regional Parks Land Acquisition 2050	Implement Regional Parks Land Acquisition 2050 strategy	Addressing Regional Growth
Outreach and Engagement	Explore opportunities for working cooperatively with local First Nations on Regional Parks initiatives	Opportunities for Innovation and Enhanced Services
Capital Development Program	Complete construction of Belcarra South picnic area at Belcarra Regional Park	Opportunities for Innovation and Enhanced Services
Capital Development Program	Pacific Spirit Regional Park service yard replacement	Opportunities for Innovation and Enhanced Services

METRO VANCOUVER REGIONAL DISTRICT
REGIONAL PARKS
2019 BUDGET REVIEW
2019-2023 FINANCIAL PLAN

ATTACHMENT 2

	2016 ACTUAL	2017 ACTUAL	2018 BUDGET	2019 BUDGET	% CHANGE	2020 FORECAST	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE
REVENUES													
MVRD Requisitions	$ 31,840,537	$ 33,916,446	$ 38,455,889	$ 40,231,083	4.6%	$ 41,029,940	2.0%	$ 42,612,270	3.9%	$ 44,171,311	3.7%	$ 45,879,384	3.9%
User Fees	1,133,286	1,100,093	1,035,113	1,043,741		1,037,153		1,055,170		1,073,583		1,089,609	
Other External Revenues	1,331,242	1,255,746	1,358,324	1,233,504		1,217,434		1,221,466		1,225,603		1,216,913	
Reserves	259,598	264,698	1,216,380	171,380		71,380		188,860		56,000		56,000	
TOTAL REVENUES	**$ 34,564,663**	**$ 36,536,983**	**$ 42,065,706**	**$ 42,679,708**	**1.5%**	**$ 43,355,907**	**1.6%**	**$ 45,077,766**	**4.0%**	**$ 46,526,497**	**3.2%**	**$ 48,241,906**	**3.7%**
EXPENDITURES													
Operating Programs:													
Systems Planning and Engineering Services													
Planning and Research	$ 1,048,748	$ 989,426	$ 1,117,385	$ 1,123,834		$ 1,092,682		$ 1,111,023		$ 1,262,079		$ 1,283,737	
Engineering Services	931,121	1,095,159	1,198,596	1,303,096		1,329,770		1,352,527		1,375,618		1,398,709	
	1,979,869	2,084,585	2,315,981	2,426,930	4.8%	2,422,452	(0.2%)	2,463,550	1.7%	2,637,697	7.1%	2,682,446	1.7%
Systems Visitor and Operations Services													
Visitor Services	1,505,308	1,572,085	1,505,175	1,752,235		1,668,540		1,704,432		1,719,241		1,700,436	
Operations Services	1,919,704	1,855,260	2,147,145	2,313,319		2,395,876		2,500,042		2,603,539		2,716,674	
	3,425,012	3,427,345	3,652,320	4,065,554	11.3%	4,064,416	0.0%	4,204,474	3.4%	4,322,780	2.8%	4,417,110	2.2%
Central Area Services													
Operations and Maintenance	3,560,116	3,695,141	3,870,690	4,809,481		4,915,084		5,249,883		5,223,775		5,320,475	
Area Visitor Services	560,036	609,202	653,562	672,698		679,810		725,580		752,588		788,543	
Area Management and Administration	472,019	482,528	531,676	541,978		553,411		563,900		574,544		585,421	
Area Resource Management	220,162	209,814	237,521	261,334		264,689		269,043		273,461		318,559	
Area Planning	173,611	170,125	176,223	154,031		156,902		159,351		161,836		164,375	
Burns Bog Ecological Conservancy Area	327,083	386,566	403,368	353,124		361,311		367,809		384,388		391,219	
Contribution to Reserve			-	23,000		23,000		23,000		23,000		23,000	
	5,313,027	5,553,376	5,873,040	6,815,646	16.0%	6,954,207	2.0%	7,358,566	5.8%	7,393,592	0.5%	7,591,592	2.7%
East Area Services													
Operations and Maintenance	3,496,199	3,760,080	4,650,285	4,189,494		4,278,682		4,410,430		4,480,097		4,539,805	
Area Visitor Services	587,509	628,666	678,952	706,235		709,285		740,224		752,251		764,524	
Area Management and Administration	521,326	522,322	541,285	552,500		564,899		575,507		586,274		596,753	
Area Resource Management	223,633	223,246	225,330	247,393		252,498		256,852		261,270		306,368	
Area Planning	100,733	127,452	138,988	152,091		154,962		157,411		159,896		162,444	
	4,929,400	5,261,766	6,234,840	5,847,713	(6.2%)	5,960,326	1.9%	6,140,424	3.0%	6,239,788	1.6%	6,369,894	2.1%
West Area Services													
Operations and Maintenance	4,574,577	4,855,648	5,127,289	4,008,383		4,069,999		4,163,657		4,276,158		4,354,260	
Area Visitor Services	585,968	628,007	692,567	702,524		716,698		745,090		769,559		782,526	
Area Management and Administration	716,231	740,414	788,756	812,988		825,590		836,332		847,235		858,374	
Area Resource Management	194,298	210,713	245,606	269,739		274,844		279,198		283,616		328,714	
Area Planning	157,695	118,635	190,300	149,721		152,592		155,041		157,526		160,065	
Contribution to Reserve	36,575	20,571	23,000	-		-		-		-		-	
	6,265,343	6,573,988	7,067,518	5,943,355	(15.9%)	6,039,723	1.6%	6,179,318	2.3%	6,334,094	2.5%	6,483,939	2.4%
Administration and Department Support	1,256,329	1,269,028	1,529,388	1,532,352	0.2%	1,560,016	1.8%	1,583,638	1.5%	1,607,612	1.5%	1,886,735	17.4%
Communications Program	39,602	79,267	70,000	110,000	57.1%	110,000	0.0%	110,000	0.0%	110,000	0.0%	110,000	0.0%
Utility Voice Radio	65,292	72,955	77,154	82,306	6.7%	83,148	1.0%	83,911	0.9%	84,686	0.9%	85,478	0.9%
Quality Control Allocated	51,012	51,803	49,286	51,385	4.3%	53,437	4.0%	54,746	2.4%	56,013	2.3%	57,375	2.4%
Allocation of Centralized Support Costs	2,677,549	3,215,914	3,517,305	3,698,560	5.2%	3,556,182	(3.8%)	3,347,139	(5.9%)	3,188,235	(4.7%)	3,005,337	(5.7%)
Total Operating Programs	26,002,435	27,590,027	30,386,832	30,573,801	0.6%	30,803,907	0.8%	31,525,766	2.3%	31,974,497	1.4%	32,689,906	2.2%
Debt Service	219,007	140,599	126,874	53,907	(57.5%)	-	(100.0%)	-	0.0%	-	0.0%	-	0.0%
Contribution to Capital Infrastructure Reserve	2,790,720	3,770,000	3,982,000	4,482,000		4,982,000		5,982,000		6,982,000		7,982,000	
Contribution to Parkland Acquisition Reserve	4,961,280	3,982,000	7,570,000	7,570,000		7,570,000		7,570,000		7,570,000		7,570,000	
	7,752,000	7,752,000	11,552,000	12,052,000	4.3%	12,552,000	4.1%	13,552,000	8.0%	14,552,000	7.4%	15,552,000	6.9%
TOTAL EXPENDITURES	**$ 33,973,442**	**$ 35,482,626**	**$ 42,065,706**	**$ 42,679,708**	**1.5%**	**$ 43,355,907**	**1.6%**	**$ 45,077,766**	**4.0%**	**$ 46,526,497**	**3.2%**	**$ 48,241,906**	**3.7%**

METRO VANCOUVER REGIONAL DISTRICT
CAPITAL PROGRAMS & PROJECT TOTALS
REGIONAL PARKS
2019 - 2023 CAPITAL PLAN

ATTACHMENT 3

	2019 CAPITAL BUDGET	2020 CAPITAL PLAN	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2019 TO 2023 TOTAL	TOTAL PROJECT COSTS
CAPITAL EXPENDITURES							
Parks-Capital Replacement and Development							
Colony Farm - Sheep Paddocks Trail Rebuild	$ 2,690,000	$ 430,000	$ 100,000	$ 100,000	$ -	$ 3,320,000	$ 3,320,000
Crippen - New Service yard	750,000	-	-	-	-	750,000	750,000
Aldergrove - Implement Management Plan	690,000	-	-	-	-	690,000	690,000
Capilano - New Service Yard	500,000	500,000	150,000	-	-	1,150,000	1,150,000
Colony Farm - Service Yard Building Replacement`	230,000	-	-	-	-	230,000	230,000
Belcarra - South Picnic Area, Cabins	150,000	100,000	-	1,000,000	1,500,000	2,750,000	2,750,000
Belcarra - Septic System Replacements	50,000	300,000	-	-	-	350,000	350,000
Small Capital Replacement and Development Projects	50,000	-	-	100,000	-	150,000	150,000
Derby Reach - Full Service Washroom and Day Use Upgrades	-	600,000	500,000	-	-	1,100,000	1,100,000
Widgeon Marsh - Management Plan Implementation	-	500,000	3,000,000	3,000,000	-	6,500,000	6,500,000
Brunette Fraser Greenway - Sapperton Staging Area	-	200,000	200,000	200,000	200,000	800,000	800,000
Belcarra - Connection to Water	-	50,000	350,000	-	-	400,000	400,000
Burns Bog Delta Nature Reserve - Boardwalk Replacement	-	50,000	50,000	500,000	500,000	1,100,000	1,100,000
Crippen - Davies Orchard Cabins	-	-	1,000,000	1,000,000	-	2,000,000	2,000,000
Pacific Spirit - Service Yard Replacement	-	-	150,000	-	1,500,000	1,650,000	1,650,000
Campbell Valley - Nature House	-	-	-	200,000	-	200,000	200,000
Brunette Fraser Greenway - Coal House Repairs	-	-	-	160,000	-	160,000	160,000
Belcarra - Washroom Renovation / Replacement Picnic Area & White Pine	-	-	-	50,000	150,000	200,000	200,000
Grouse - Trailhead Development	-	-	-	-	250,000	250,000	250,000
	$ 5,110,000	**$ 2,730,000**	**$ 5,500,000**	**$ 6,310,000**	**$ 4,100,000**	**$ 23,750,000**	**$ 23,750,000**
Regional Parks Land Acquisition							
Regional Parks Land Acquisition Projects	7,570,000	7,570,000	7,570,000	7,570,000	7,570,000	37,850,000	37,850,000
	$ 7,570,000	**$ 7,570,000**	**$ 7,570,000**	**$ 7,570,000**	**$ 7,570,000**	**$ 37,850,000**	**$ 37,850,000**
Capital Maintenance Projects							
Capital Maintenance Projects	3,175,000	3,410,000	3,605,000	3,555,000	3,570,000	17,315,000	17,315,000
	$ 3,175,000	**$ 3,410,000**	**$ 3,605,000**	**$ 3,555,000**	**$ 3,570,000**	**$ 17,315,000**	**$ 17,315,000**
TOTAL CAPITAL EXPENDITURES	**$ 15,855,000**	**$ 13,710,000**	**$ 16,675,000**	**$ 17,435,000**	**$ 15,240,000**	**$ 78,915,000**	**$ 78,915,000**

CAPITAL FUNDING						
Reserve Funding	15,855,000	13,710,000	16,675,000	17,435,000	15,240,000	78,915,000
	$ 15,855,000	**$ 13,710,000**	**$ 16,675,000**	**$ 17,435,000**	**$ 15,240,000**	**$ 78,915,000**

REGIONAL PARKS

Description of services
Regional Parks is a Metro Vancouver Regional District function established to provide a regional parks service for the region. Regional Parks provides planning, operations, development, property acquisition and management, resource management, bylaw enforcement, public relations, community stewardship, visitor services and nature education and interpretation programs for its system.

The regional parks system includes 13,500 hectares of parkland, receives approximately 11.9 million visits annually, and contains 22 regional parks, 5 regional greenways, 2 ecological conservancy areas and 3 regional parks reserves.

Strategic directions and high level goals supported
Board Strategic Plan:
- Protect important natural areas in the region.
- Provide opportunities for the region's growing and diverse population to connect with, enjoy, be active within and learn about the natural environment.
- Integrate the Regional Parks system with others' effort to protect important natural areas and systems in the region.

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

Mission:
Regional Parks contribute to a livable region by conserving natural assets and connecting people with nature. They enhance the quality of life of residents and visitors and provide opportunities to experience nature. The important natural landscapes protected in regional parks contribute ecological goods and services to the region and mitigate climate change. The Regional Parks service fosters environmental interpretation, education and stewardship through community development and promotes a sense of responsibility for, and connection to, the place in which we live.

Vision:
- Regional Parks protect natural areas and connect people to nature

Values:
- The Necessity of Nature:
    - We understand the critical role that the natural world plays in the survival of the planet and our role in protecting and enhancing it.

- Stewardship:
    - Through our relationships with our regional parks' partners, we strive to educate and empower people to help them become ambassadors of nature.

- The Sharing of Expertise:
    - We believe environmental sciences have the power to not only find solutions to new challenges, but also amaze, inspire and educate in the process.

- Wellness:
    - We continue to witness the positive impact our service has on the mind, body and spirit of the members of our community.

Performance indicators

Indicator	Historical and/or industry benchmark	Current performance	2019 performance objective
Annual number of visits to regional parks	5-year average: 10,614,000 2016 11,074,000 2015 11,349,000 2014 10,818,000 2013 10,364,000 2012 9,467,000	2017: 11,895,000	12,250,000
Annual number of participants in regional park public programming (includes group programs, individual programs, events, workshops, nature house, roving, outreach, partner led interpretation)	4-year average: 55,000 2016 57,600 2015 55,900 2014 61,600 2013 44,900	2017: 65,900	60,000
Annual number of volunteer hours through stewardship, partnership and visitor services programs	4-year average: 26,800 2016 26,400 2015 26,200 2014 24,000 2013 30,500	2017: 29,700 hrs	34,000 hrs
Total Area of the Region's sensitive ecosystems protected in Regional Parks	3-year average: 9,976 ha 2016 9,939 ha 2015 10,002 ha 2014 9,988 ha	2017: 9,988 ha	10,000 ha

Notes:

Visits:
- 2019 Performance objective is 3% higher than 2017's Current performance

Participants in Programming:
- 2017 Current performance figure includes 50th Anniversary events
- 2019 Performance Objective recognizes fewer staff resources following the 50th Celebration

Volunteer hours:

- 2019 Performance Objective rises with anticipated increase in Stewardship Technician resourcing

Sensitive Ecosystems Protected:

- Sensitive Ecosystems Inventory (SEI) calculations use combined base data, including the 2014 dataset for lands outside of Abbotsford and the 2009 dataset for lands within Abbotsford
- Admiralty Point lands removed from this calculation in 2016
- 2019 Performance objective reflect modest land acquisitions expected in 2018 & 2019

2019 key actions

- Implement Regional Parks Buildings asset maintenance forecasting and scheduling initiative. Develop models and capital investment scenarios to effectively maintain the existing building inventory in Regional Parks.
- Regional Park Asset Management Policy
- Undertake visitor satisfaction survey to provide data to guide park planning, development and management.
- Continue to share knowledge, build working relationships and collaborate with municipal members through the Regional Park Municipal Advisory Group.
- Continue to explore ways to engage local First Nations in the spectrum of cooperation and co-management opportunities.
- Investigate opportunities for the development of a First Nations park and place naming policy
- Initiate and complete a Parks Programming and Interpretation Strategic Plan to guide the future development of Parks' programs, future pricing strategies, program delivery models and events.
- Investigate and implement opportunities to include more opportunities for volunteer recognition and recruitment at the annual Parks Fest event
- Adopt the Widgeon Marsh Regional Park Management Plan
- Begin public engagement for the Campbell Valley Management Plan Update
- Initiate the Regional Greenways Plan
- Continue implementation of the Regional Parks Land Acquisition 2050 Strategy
- Renew and update the service agreement with the Pacific Parklands Foundation
- Update the George Ross Legacy Stewardship Program Framework
- Implement new volunteer management software
- Deliver 40th anniversary Campbell Valley Country Celebration event
- Launch public communications campaign to raise awareness of regional parks' role in protecting Metro Vancouver's natural areas
- Investigate new incentive-based product to increase awareness of and visitation to regional parks
- Complete transfer of the Delta lands for Burns Bog, including the Delta Nature Reserve
- Address Burnaby Lake Regional Park Agreement with the City of Burnaby
- Continue to facilitate the Service Area Boundary amendment agreement for Aldergrove Regional Park with the City of Abbotsford and the Fraser Valley Regional District
- Complete the Nature Discovery Trail and Rock 'n' Horse Trail connector at Aldergrove
- Construct the Crippen Regional Park replacement service yard on Bowen Island
- Advance the design of Pacific Spirit Regional Park replacement service yard co-located with the University Endowment Lands

- Complete priority improvements to both the Grouse Grind and 'BCMC' Trail Grouse Mountain Regional Park
- Complete detailed design of Davies Orchard Concept at Crippen Regional Park
- Complete detailed design for Belcarra South Picnic Area at Belcarra Regional Park
- Complete Phase three of the Colony Farm Regional Park Sheep Paddocks Trail
- Initiate the Capilano Regional Park Service Yard relocation
- Participate in the Greater Vancouver Gateway 2030 initiatives at Colony Farm Regional Park
- Update *the Corporate Filming Policy and Filming Guidelines*

METRO VANCOUVER DISTRICTS
2019-2023 PROJECTED RESERVES - REGIONAL PARKS

ATTACHMENT 5

OPERATING RESERVES

	2018 ENDING BALANCE	2019 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2019 ENDING BALANCE	2020 ENDING BALANCE	2021 ENDING BALANCE	2022 ENDING BALANCE	2023 ENDING BALANCE
Regional Parks	$ 1,414,964	$ 1,414,964	$ 73,896	$ -	$ 29,332	$ 1,518,192	$ 1,527,540	$ 1,539,045	$ 1,575,138	$ 1,597,575

DISCRETIONARY RESERVES

	2018 ENDING BALANCE	2019 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2019 ENDING BALANCE	2020 ENDING BALANCE	2021 ENDING BALANCE	2022 ENDING BALANCE	2023 ENDING BALANCE
Regional Parks										
Regional Parks General Reserve	$ 100,000	$ 100,000	$ -	$ (100,000)	$ -	$ -	$ -	$ -	$ -	$ -

STATUTORY RESERVES

	2018 ENDING BALANCE	2019 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2019 ENDING BALANCE	2020 ENDING BALANCE	2021 ENDING BALANCE	2022 ENDING BALANCE	2023 ENDING BALANCE
Regional Parks										
Regional Parks Infrastructure Reserve	$ 5,249,200	$ 5,249,200	$ 4,482,000	$ (8,300,380)	$ 66,800	$ 1,497,620	$ 342,459	$ 90,889	$ 210,877	$ 530,215
Regional Parkland Acquisition Reserve Fund	16,849,737	16,849,737	7,570,000	(7,570,000)	336,995	17,186,732	17,530,466	14,851,076	12,118,097	12,360,459
Delta Airpark Reserve	55,270	55,270	23,000	-	1,335	79,606	104,428	129,746	155,571	181,913
Regional Parks Legacy Fund	2,606,870	2,606,870	-	(56,000)	51,577	2,602,447	2,597,936	2,593,335	2,588,642	2,583,855

Parks, Planning & Environment

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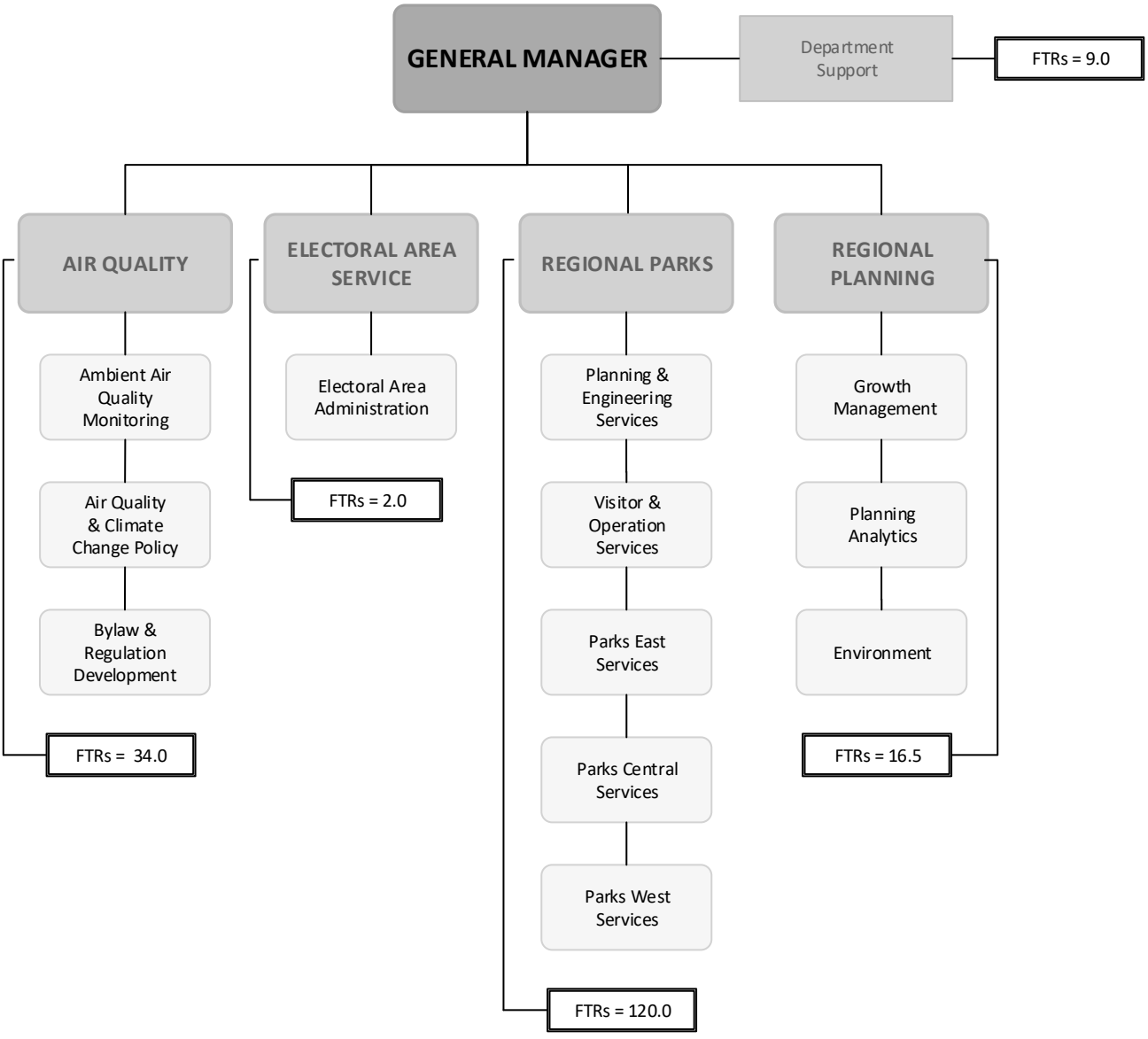
SERVICES AND SOLUTIONS FOR A LIVABLE REGION

2018



Parks, Planning and Environment
2018 Total FTRs = 182.5
2019 Proposed FTRs = 183.5

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SERVICES AND SOLUTIONS FOR A LIVABLE REGION

To: Regional Planning Committee

From: Heather McNell, Director of Regional Planning and Electoral Area Services

Date: September 19, 2018 Meeting Date: October 5, 2018

Subject: **2019 - 2023 Financial Plan – Regional Planning**

RECOMMENDATION

That the Regional Planning Committee endorse the 2019 - 2023 Financial Plan for Regional Planning as presented in the report "2019 - 2023 Financial Plan – Regional Planning" dated September 19, 2018 and forward it to the Board Budget Workshop on October 17, 2018 for consideration.

PURPOSE

To present the 2019 - 2023 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 2019 annual budget and the updated five year plan for the years 2019 to 2023 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.

Regional Planning is guided by direction provided in the *Board Strategic Plan*, specifically:

- 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;
- Develop policies, plans, tools and creative solutions for managing competing demands on land in the region; and
- Advocate the merits of integrating regional land use and transportation planning.

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

2019 BUDGET AND 2019 - 2023 FINANCIAL PLAN

The five year financial plans for this cycle have been updated to address the four themes Metro Vancouver considers when developing plans and budgets. These are as follows:

- Addressing Regional Growth
- System Stewardship
- Environmental Protection and Climate Action
- Opportunities for Innovation and Enhanced Services

Annual Work Plans are developed for almost all Metro Vancouver functions. The 2019 Annual Work Plan for the Regional Planning budget presented in this report is included in Attachment 3.

A summary of the Regional Planning program highlights, 2019 -2023 "What's Happening", is included under Attachment 1.

Attached is a summary of the Regional Planning 2019 -2023 Financial Plan (Attachment 2).

Operating Budget Highlights

The Regional Planning operating budget is proposed to increase by $354,469 in 2019 for a total budget of $3.53 million (Attachment 2). This overall increase can be attributed to the transfer of a Senior Policy and Planning Analyst from Affordable Housing and additional consulting and contract projects. Further, the allocation of department support from Parks, Planning and Environment (PPE) has been adjusted to more accurately reflect department support provided to Regional Planning. This reallocation of support is reflected by corresponding reductions in department support costs to other PPE functions.

The transferred position integrates regional housing policy into the Growth Management and Transportation program. As a result, the agricultural portfolio has been transferred from the Growth Management and Transportation program to the Environment program, which now includes the Agricultural Awareness Grants and the Young Agrarians Land Matching program.

The 2019 operating budget includes the following key actions:

- Development of Long Range Growth Scenarios
- Development of the Regional Industrial Land Strategy
- Metro 2040 Industrial and Mixed Employment Policy Review
- Metro 2040 Urban Centres and FTDA Policy Review
- Metro 2040 Environment and Climate Change Policy Review
- Metro 2040 Agricultural Policy Review

- Frequent Transit Corridor Study
- Development of Invasive Species Best Management Practices
- Urban Forestry / Climate Adaptation Project
- Regional Development Modeling and Projections
- Land Utilization Monitoring and Modeling

Highlights of consulting projects anticipated to be undertaken in 2019 to respond to work plan requirements within the operating budget include the following:

- Long Range Growth Scenarios ($75,000)
- Regional Industrial Land Strategy ($120,000)
- Metro 2040 Industrial and Mixed Employment Policy Review ($15,000)
- Metro 2040 Urban Centres and FTDA Policy Review ($25,000)
- Frequent Transit Corridor Study ($20,000)
- Equity in Growth Management ($20,000)
- Regional Housing Policy Implementation ($20,000)
- Regional Connectivity ($25,000)
- Invasive Species Best Management Practices ($20,000)
- Grow Green UBC Support ($15,000)
- Metro 2040 Environment and Climate Change Policy Review ($15,000)
- Urban Forestry / Climate Adaptation ($15,000)
- Food Flow Study ($25,000)
- Data acquisition ($44,000)

There are no new full-time staff positions proposed for 2019. A Senior Policy and Planning Analyst position was transferred from the Affordable Housing function in 2018 to Regional Planning to support housing policy and data needs associated with the implementation of *Metro 2040* and the *Regional Affordable Housing Strategy*.

Over the next five years, operating programs are increasing by $478,525, or an average of 2.9% per year. However, most of this increase is in 2019, with expenditures in the next four years increasing by only 0.9% per year on average. In addition to those noted above, key projects through 2023 include:

- Completion of five year updates to all regional land use inventories including: Sensitive Ecosystem Inventory (2021), Industrial Lands Inventory (2021), Office in Centres Inventory (2020), Agricultural Land Use Inventory (2021);
- Series of Census Bulletins (2022); and
- Update to the Regional Growth Strategy (2022).

Communications Program

The 2019 Regional Planning Communications Program of $80,000 is framed around the following initiatives:

- Metro 2040 Performance Monitoring Dashboard;
- Video and animation support for Metro 2040 update;
- Stakeholder engagement for Long Range Growth Scenarios and the Regional Industrial Land Strategy.

Reserve Funds

The work plan for the Regional Planning function includes several one-time initiatives which are delivered through consulting or contract services. In accordance with the *Operating, Statutory and Discretionary Reserves Policy*, these items are funded using reserves. In 2019, $420,000 of such initiatives are funded from reserves. The years 2020 to 2023 follow a similar funding model for these one-time initiatives. The 2019 – 2023 Projected Reserves for Regional Planning 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 2019 Work Plan for Regional Planning is presented in this report. Within the Regional Planning Work Plans, 5 performance indicators have been developed and are being tracked. These are:

- 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
- 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 objectives 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 to a network of 26 Urban Centres. Since the strategy's adoption, 39% of dwelling unit growth has occurred in Urban Centres.

CONSISTENCY WITH THE 2018 – 2022 FINANCIAL PLAN

The updated five year financial plan has been developed to be consistent with the 2018 - 2022 financial plan. The Regional Planning requisition forms part of the overall MVRD tax requisition, one of 11 statutory functions within the Regional District. The 2019 impact on the average regional household is reduced by $1 from prior year projections for the Metro Vancouver Regional District with an average regional household cost of $55 (2018 projection: $56).

For the years 2020, 2021 and 2022 the MVRD household impact is projected to increase by an additional $2 compared to the previous five year projection.

APPROVAL PROCESS

The proposed 2019 - 2023 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 2019 - 2023 Financial Plan and Annual Work Plan will be presented at the Board Budget Workshop on October 17, 2018.
- The Board will consider adoption of the 2019 Budget and endorsement of the 2019 – 2023 Financial Plan on October 26, 2018.

ALTERNATIVES

1. That the Regional Planning Committee endorse the 2019 - 2023 Financial Plan for Regional Planning as presented in the report "2019 - 2023 Financial Plan – Regional Planning" dated September 19, 2018 and forward it to the Board Budget Workshop on October 17, 2018 for consideration.

2. That the Regional Planning Committee make recommendations and endorse an amended 2019 - 2023 Financial Plan for Regional Planning forward the amended Financial Plan to the Board Budget Workshop on October 17, 2018 for consideration.

FINANCIAL IMPLICATIONS

If the MVRD Board endorses the 2019 – 2023 Financial Plan for Regional Planning, as presented under Alternative 1, in 2019 the Regional Planning requisition will increase by $265,282 (9.3%) comprising part of the overall MVRD requisition. The Regional Planning requisition forms part of the overall MVRD tax requisition which is projected to be $61.2 million in 2019, representing a $1 increase (2.6%) to the average regional household for a household cost of $55 after taking into account regional population growth.

Over the term of the five year plan, the annual Regional Planning requisition is projected to increase by an average of $94,468 per year (3.2%) 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 all MVRD services, including Regional Planning, will rise from $54 in 2018 to $61 in 2023 representing an average annual increase of $1.40 (2.5%).

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 2019 - 2023 Financial Plan for Regional Planning has been prepared to respond to direction provided in the *Board Strategic Plan* and support the goals and policies of Metro 2040. It is presented to Committee and Board members to provide overview information on activities and financial impacts for the years 2019 to 2023 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 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 2019 - 2023 Financial Plan for Regional Planning as presented under alternative one.

Attachments

1. 2019 - 2023 "What's Happening"
2. 2019 - 2023 Financial Plan *(Orbit #27012642)*

3. 2019 Work Plan *(Orbit #27012642)*
4. 2019 - 2023 Projected Reserves – Regional Planning *(Orbit #27012642)*
5. Organizational Chart *(Orbit #27012642)*

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ATTACHMENT 1

2019 -2023 "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
2019		
Long Range Growth Scenarios	Metro Vancouver and TransLink are co-leading the development of scenarios to project population, housing and employment to 2121 in preparation for the update to the Regional Transportation Strategy and Regional Growth Strategy and to support regional utilities planning.	Addressing Regional Growth
Regional Industrial Land Strategy	A strategy to ensure sufficient industrial lands to meet the needs of a growing and evolving regional economy to 2050.	Addressing Regional Growth
Metro 2040 Policy Reviews	Series of Metro 2040 policy reviews: Urban Centres and FTDAs, Industrial and Mixed Employment, Agriculture, Environment and Climate Change to prepare for the next regional growth strategy	Addressing Regional Growth; Environmental Protection and Climate Action
Food Flow Study	Define the extent of the agri-food distribution system and the connections to land use policy and transportation infrastructure necessary for 'food flow' across the region.	System Stewardship
2020		
Equity in Growth Management	Identify opportunities to bring an equity lens to the next regional growth strategy.	Addressing Regional Growth
Missing Middle – Capacity for Gentle Density	Provide guidance on extent of capacity available for 'gentle density' including consideration of affordability, servicing, and climate change.	Addressing Regional Growth
Frequent Corridor Study	Collaborative transit provision and growth management planning initiative along corridors that cross municipal boundaries. One corridor study is undertaken each year.	Addressing Regional Growth
Enhancing Connectivity	Network Analysis and Policy and Management Guidance. This is the culmination of a multi-year project.	Environmental Protection and Climate Action
2021		
Regional Growth Strategy – Metro 2050	Develop the policy framework and draft policy options stemming from the suite of Metro 2040 Policy Reviews completed in 2019.	Addressing Regional Growth
Sensitive Ecosystem Inventory	5 year update to continue to assess the extent and loss of sensitive ecosystems across the region	Environmental Protection and Climate Action

Agricultural Land Use Inventory	5 year update to continue to assess the supply of and how agricultural lands are being utilized across the region	System Stewardship
Integrating Housing and Transportation	Ongoing studies on housing and transportation to advance objectives laid out in *Metro 2040* and the Regional Affordable Housing Strategy (e.g. H+T Study, Transit Oriented Affordable Housing Study)	Addressing Regional Growth
2022		
Regional Growth Strategy – Metro 2050	Complete Metro 2050, the next iteration of the regional growth strategy.	Addressing Regional Growth
Regional Parking Study	5 year update on the Regional Parking Study – first undertaken in 2012 and updated in 2017.	Addressing Regional Growth
2023		
Regional Affordable Housing Strategy	Update to the 2016 Regional Affordable Housing Strategy	System Stewardship
Ecological Health Framework	Update to the 2018 Metro Vancouver's Ecological Health Framework	Environmental Protection and Climate Action

METRO VANCOUVER REGIONAL DISTRICT
REGIONAL PLANNING
2019 BUDGET REVIEW
2019-2023 FINANCIAL PLAN

ATTACHMENT 2

	2016 ACTUAL	2017 ACTUAL	2018 BUDGET	2019 BUDGET	% CHANGE	2020 FORECAST	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE
REVENUES													
MVRD Requisitions	$ 2,891,733	$ 2,944,465	$ 2,842,450	$ 3,107,732	9.3%	$ 3,180,119	2.3%	$ 3,215,243	1.1%	$ 3,265,134	1.6%	$ 3,314,788	1.5%
Sustainability Reserve Funds	58,600	83,187	58,313	-		-		-		-		-	
Reserves	20,000	89,137	272,500	420,000		340,000		365,000		305,000		337,000	
TOTAL REVENUES	**$ 2,970,333**	**$ 3,116,789**	**$ 3,173,263**	**$ 3,527,732**	**11.2%**	**$ 3,520,119**	**(0.2%)**	**$ 3,580,243**	**1.7%**	**$ 3,570,134**	**(0.3%)**	**$ 3,651,788**	**2.3%**
EXPENDITURES													
Operating Programs:													
Growth Management and Transportation	$ -	$ 1,034,231	$ 1,352,460	$ 1,360,783		$ 1,332,159		$ 1,300,898		$ 1,346,982		$ 1,403,838	
Planning Analytics	-	429,294	596,646	538,966		550,450		560,247		600,188		624,845	
Environment	1,960,516	476,667	498,562	775,070		753,919		850,734		782,722		794,970	
Administration and Department Support	501,681	473,163	364,180	511,277		523,204		533,392		543,727		554,306	
	2,462,197	2,413,355	2,811,848	3,186,096	13.3%	3,159,732	(0.8%)	3,245,271	2.7%	3,273,619	0.9%	3,377,959	3.2%
Communications Program	32,200	53,645	75,000	80,000	6.7%	80,000	0.0%	80,000	0.0%	60,000	(25.0%)	60,000	0.0%
Allocation of Centralized Support Costs	195,188	236,612	286,415	261,636	(8.7%)	280,387	7.2%	254,972	(9.1%)	236,515	(7.2%)	213,829	(9.6%)
TOTAL EXPENDITURES	**$ 2,689,585**	**$ 2,703,612**	**$ 3,173,263**	**$ 3,527,732**	**11.2%**	**$ 3,520,119**	**(0.2%)**	**$ 3,580,243**	**1.7%**	**$ 3,570,134**	**(0.3%)**	**$ 3,651,788**	**2.3%**

REGIONAL PLANNING

Description of services
Regional Planning is a Metro Vancouver Regional District function established to provide policy research, development, and 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.

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: agriculture and food systems; complete communities; employment land; housing policy 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* environmental and climate change policies as well as broader ecological health and environment issues.

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;
- Develop policies, plans, tools and creative solutions for managing competing demands on land in the region; and
- Advocate the merits of integrating regional land use and transportation planning.

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	2019 Performance Objective
Percentage of residential growth occurring within the Urban Containment Boundary (UCB)	2011 baseline: 97% 2014 review: 98% 2015 review: 99%	2017: 98%	98%
Percentage of new dwelling units located within Urban Centres	2011 target 40% of growth to Centres 2011 baseline: 26% located in Centres	2017: 39% of growth to Centres 2016 = 28% located in Centres	40%
Number of hectares of land with a Metro 2040 Agricultural Designation	2011 baseline: 55,345	2017: 55,240	No net loss
Number of hectares of land with a Metro 2040 Industrial Designation	2011 baseline: 10,195	2017: 10,170	No net loss
Number of hectares of land with a Metro 2040 Mixed Employment Designation	2011 baseline: 3,389	2017: 3,380	No net loss

2019 key actions

Growth Management and Transportation

- Long Range Growth Scenarios
- Regional Industrial Land Strategy
- Metro 2040 Industrial and Mixed Employment Policy Review
- Metro 2040 Urban Centres and FTDA Policy Review
- Frequent Transit Corridor Study
- Equity in Growth Management
- Transit Oriented Affordable Housing Study Phase II
- Regional Housing Policy Review (RAHS Implementation)

Environment

- Regional Connectivity
- Invasive Species Best Management Practices
- Grow Green UBC Support
- Metro 2040 Environment and Climate Change Policy Review
- Urban Forestry / Climate Adaptation
- Metro 2040 Agricultural Policy Review
- Food Flow Study

Planning Analytics

- Regional Development Modeling and Projections
- Land Utilization Monitoring and Modeling
- Data acquisition
- Data and Information Strategy

METRO VANCOUVER DISTRICTS
2019-2023 PROJECTED RESERVES - REGIONAL PLANNING

ATTACHMENT 4

OPERATING RESERVES

	2018 ENDING BALANCE	2019 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2019 ENDING BALANCE	2020 ENDING BALANCE	2021 ENDING BALANCE	2022 ENDING BALANCE	2023 ENDING BALANCE
Regional Planning	$ 150,857	$ 150,857	$ 4,711	$ -	$ 3,095	$ 158,663	$ 176,387	$ 176,006	$ 179,012	$ 178,507

DISCRETIONARY RESERVES

	2018 ENDING BALANCE	2019 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2019 ENDING BALANCE	2020 ENDING BALANCE	2021 ENDING BALANCE	2022 ENDING BALANCE	2023 ENDING BALANCE
Regional Planning										
Regional Planning General Reserve	$ 1,987,916	$ 1,987,916	$ -	$ (420,000)	$ 35,558	$ 1,603,474	$ 1,292,144	$ 949,337	$ 660,273	$ 333,109

ATTACHMENT 5

Parks, Planning & Environment

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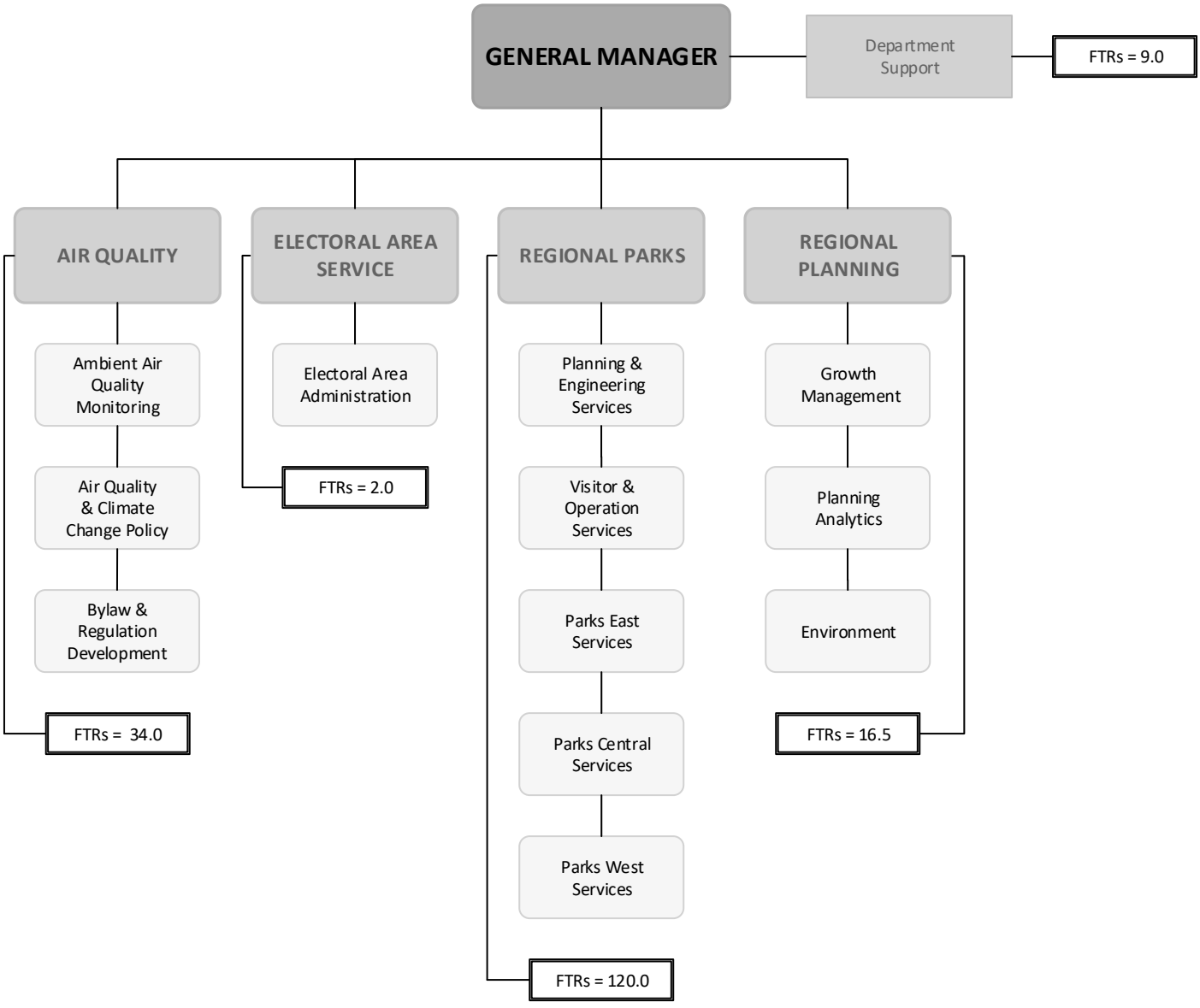
SERVICES AND SOLUTIONS FOR A LIVABLE REGION

2018



Parks, Planning and Environment
2018 Total FTRs = 182.5
2019 Proposed FTRs = 183.5

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September 26, 2108

metrovancouver
SERVICES AND SOLUTIONS FOR A LIVABLE REGION

To: Utilities Committee

From: Tim Jervis, General Manager, Water Services

Date: September 26, 2018 Meeting Date: October 11, 2018

Subject: **2019 - 2023 Financial Plan – Water Services**

RECOMMENDATION
That the Utilities Committee endorse the 2019 - 2023 Financial Plan for Water Services as presented in the report "2019 - 2023 Financial Plan – Water Services" dated September 26, 2018 and forward it to the Board Budget Workshop on October 17, 2018 for consideration.

PURPOSE
To present the 2019 - 2023 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 2019 annual budget and the updated five year plan for the years 2019 to 2023 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 is guided by direction provided in the *Board Strategic Plan*, and 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 further develop its capacity to meet future needs.
- Ensure the long-term resilience and ability of the regional drinking water system to meet future demands and challenges in a resource-constrained world.
- Expand public awareness of the quality of Metro Vancouver drinking water and the importance of conserving it.

Drinking Water Management Plan:

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

2019 BUDGET AND FIVE YEAR FINANCIAL PLANS

The budget for this cycle and the five year financial plans have been updated to address the four themes Metro Vancouver considers when developing plans and budgets. These are as follows:

- Addressing Regional Growth
- System Stewardship
- Environmental Protection and Climate Action
- Opportunities for Innovation and Enhanced Services

Annual Work Plans are developed for almost all Metro Vancouver functions. The 2019 Annual Work Plans for the Water Services budget presented in this report are included in Attachment 4.

A summary of the Water Services highlights, 2019 - 2023 "What's Happening", is included under Attachment 1.

Attached are summaries of the 2019 - 2023 Water Services operating budget (Attachment 2) and the 2019 - 2023 Water Services capital budget (Attachment 3).

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 $16.2 million in 2019 for a total budget of $289.1 million (Attachment 2). This increase can essentially be attributed to increasing costs, debt service and contribution to capital, to support infrastructure investments required to meet service requirements and growth demands and resilience upgrades.

The 2019 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.
- Commence development of a Facility Master Plan that aligns with the long-term water supply strategy outlined in the Comprehensive Regional Water System Plan.
- Commence the development of an updated Drinking Water Management Plan.
- Complete Patton Creek drainage erosion control works in the Seymour Watershed.
- Complete fisheries habitat studies downstream of the Cleveland Dam associated with the approved Joint Water Use Plan for the Capilano and Seymour Watersheds.
- Complete asset condition assessment on Seymour Main No. 2 between Seymour Falls Dam and the Seymour Capilano Filtration Plant.
- Increase remote on-line water quality monitoring to improve real-time water quality data collection and analyses.

Highlights of contracts and consulting projects anticipated to be undertaken in 2019 to respond to work plan requirements within the operating budget include the following:

- Residential Indoor and Outdoor End Uses of Water project funded from the Sustainability Innovation Fund ($300,000);
- Development of Water Services Asset Management Plan ($265,000);
- Replacement of Cleveland Dam East Abutment Piezometers ($250,000);
- New public safety fencing at Cleveland Dam ($250,000);
- Coquitlam Watershed security improvements ($230,000);
- Cleveland and Seymour Falls Dams geotechnical surveillance ($225,000);
- Cathodic protection system repairs, maintenance and testing ($205,000);
- Greywater Reuse and Rainwater Harvesting Demonstration project funded from the Sustainability Innovation Fund ($200,000);
- Water main condition assessments ($200,000);
- Alpine Lake automated data acquisition system design ($200,000);
- Development of Environmental Management System ($125,000);
- Reservoir Limnology Program - Capilano, Seymour and Coquitlam Watersheds ($120,000);
- Cleveland Dam and Seymour Falls Dam Strong Motion Accelerographs ($100,000);
- Long-term water supply planning technical studies ($100,000);
- Watershed hydrometric monitoring program ($100,000).

In 2019, Water Services is proposing to add 4 new full-time staff positions. A Senior Project Engineer to assist in the development and implementation of a joint utility environmental management system, a Records Clerk to support increasing requirements for physical and electronic records maintenance, a Senior Project Engineer in Engineering and Construction to support electrical and instrumentation projects including backup power and an Engineering Technician II supporting coordinated dam safety actions at the Cleveland and Seymour Falls dams.

In addition to these new positions, a temporary Project Engineer position in Interagency Projects and Quality Control is proposed to be converted to full time to coordinate Metro Vancouver involvement in joint infrastructure projects.

Over the next five years, the Water Services budget is expected to increase an average of $36.0 million or 10.7% per year. Of this overall increase, funding related to the expanding capital program (debt servicing and contribution to the capital) is increasing $33.3 million on average over the next five years leaving the operating programs which are increasing, on average, by $2.8 million per year, roughly the rate of inflation.

Communications Program

The 2019 Water Services Communications Program of $490,000 is primarily framed around the Regional Water Conservation Campaign ($290,000) and the Water Wagon Program ($200,000).

Capital Budget Highlights

The Water Services capital budget for 2019 is $231.4 million (Attachment 3). The capital program is funded by long-term debt, contributions from the operating budget, and some external (interagency) contributions.

Highlights of capital projects planned or ongoing for 2019 include the following:

- Complete Coquitlam Intake No. 2 Project Definition Report;
- Continue design of Coquitlam Main No. 4 (Central, South and Cape Horn Sections);
- Continue construction of Second Narrows Water Supply Tunnel;
- Continue detailed design of Annacis Water Supply Tunnel;
- Continue construction of Mackay Creek Debris Flow Mitigation project;
- Continue design of Kennedy-Newton Main;
- Continue design of Annacis Main No. 5 (South);
- Complete construction of South Delta Main No. 1 Replacement (Phases 3 and 4);
- Complete design of Capilano Raw Water Pump Station Backup Power;
- Continue design of Capilano Main No. 5 (Stanley Park Section);
- Commence construction of Fleetwood Reservoir;
- Continue construction of Jericho Reservoir;
- Commence construction of Port Mann Main No. 2 (South);
- Commence construction of Whalley Main; and
- Commence construction of Douglas Road Main No. 2 (Still Creek Section).

The capital expenditure budget for 2019 - 2023 totals $2.03 billion, an average of $406 million per year. The largest 10 projects (all but one over $50 million) make up approximately 60% of the capital spending over the next 5 years. There are an additional 124 projects on the plan. Seven of these ten projects also represent the most significant expenditure drivers beyond the term of 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 system resiliency and maintenance of aging infrastructure. The following seven projects are the largest projects included in the five year plan:

- Coquitlam Intake No. 2, Tunnel and Treatment - $2.3B (Completion: 2035);
- Second Narrows Crossing (Tunnel) - $469M (Completion: 2025);
- Annacis Main No. 5 (Marine Crossing) - $448M (Completion: 2026);
- Coquitlam Main No. 4 (Central Section) - $200M (Completion: 2026);
- Coquitlam Main No. 4 (South Section) - $154M (Completion: 2025);
- Kennedy Newton Main - $142M (Completion: 2024); and
- Capilano Main No. 5 (South Shaft to Lost Lagoon) - $139M (Completion: 2025).

Reserve Funds

The application of reserve funding in Water Services is primarily made through the Sustainable Innovation Fund and the Laboratory Equipment Reserve. In 2019, the financial plan includes $500,000 in funding from the Water Sustainability Innovation Fund for sustainability initiatives and $115,000 from the Laboratory Equipment Reserve for equipment. The 2019 - 2023 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 2019 Work Plans for Water Services are presented in this report. Within the Water Services Work Plans, 32 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 GVWD capital plan and energy usage for water treatment and delivery continues to increase following the completion and commissioning of major new pumping and treatment facilities.

CONSISTENCY WITH THE 2018 – 2022 FINANCIAL PLAN

The updated five year financial plan has been developed to be consistent with the 2018 - 2022 financial plan. As presented in Attachment 2, the overall 2019 Water impact on the average regional household is consistent with prior year projections with an average regional household cost of $172 (2018 projection: $172). The 2020 - 2022 household rate is projected to increase by an additional $36 compared to the previous five year projection. The primary driver for this change is increased contributions to capital from that proposed in the previous plan. The increases to contribution to capital are consistent with the principles in the proposed *Financial Management Policy* for the management of overall Metro Vancouver debt levels.

APPROVAL PROCESS

The proposed 2019 - 2023 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 2019 - 2023 Financial Plan and Annual Work Plan will be presented at the Board Budget Workshop on October 17, 2018.
- The Board will consider adoption of the 2019 Budget and endorsement of the 2019 - 2023 Financial Plan on October 26, 2018.

ALTERNATIVES

1. That the Utilities Committee endorse the 2019 - 2023 Financial Plan for Water Services as presented in the report "2019 - 2023 Financial Plan – Water Services" dated September 26, 2018 and forward it to the Board Budget Workshop on October 17, 2018 for consideration.

2. That the Utilities Committee make recommendations and endorse an amended 2019 - 2023 Financial Plan for Water Services and forward the amended Financial Plan to the Board Budget Workshop on October 17, 2018 for consideration.

FINANCIAL IMPLICATIONS

If the GVWD Board endorses the 2019 Budget and Five Year Financial Plan for Water Services, as presented under Alternative 1, in 2019 the average water rate will increase to $0.7395/m^3 (5.8%) with revenue from the sale of water increasing by $17.1 million (6.3%) to $286.9 million which will generate the majority of the $289.1 million in total revenue required to offset projected expenditures. The increase in the levy represents a $7 increase in the cost to the average regional household to $172 (2018 forecast for 2019: $172).

Over the term of the five year plan, the water rate is projected to increase by an average of $0.0872/m^3 with water sales increasing by an average of $36.3 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 $165 in 2018 to $253 in 2023 representing an average annual increase of $18.

Under Alternative 2, the Committee may wish to consider recommending amendments to the 2019 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 GVWD Financial Plan.

SUMMARY / CONCLUSION

The 2019 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 Drinking Water Management Plan. It is presented to Committee and Board members to provide overview information on activities and financial impacts for the years 2019 to 2023 for Water Services.

The presentation of the 2019 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 2019 Budget and Five Year Financial Plan and Annual Work Plans for Water Services as presented under alternative one.

Attachments:

1. 2019 - 2023 "What's Happening"
2. 2019 - 2023 Financial Plan
3. 2019 - 2023 Water Services Capital Budget Summary
4. 2019 Work Plans
5. 2019 - 2023 Projected Reserves – Water
6. Organizational Chart

2019 to 2023 – "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
2019		
Regional assessment of residential water metering	Seek GVWD Board endorsement for a regional approach to residential water metering.	Addressing Regional Growth
Capilano Hydropower Financial Assessment update	Review conceptual power development scheme, updating capital costs, and reassessing the cost/benefits of the project based on current information.	Environmental Protection and Climate Action
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.	Addressing Regional Growth
Asset Management Program	Approve Asset Management for Water Services Policy.	System Stewardship
Commence construction of Second Narrows Water Supply Tunnel	Commence construction of a 1.1 km long, 6.5 m diameter water supply tunnel under Burrard Inlet between the District of North Vancouver and the City of Burnaby.	System Stewardship
Comprehensive Regional Water System Plan	Seek GVWD Board approval of a long term water supply strategy and integrate into the facility master planning process.	Addressing Regional Growth
Complete Coquitlam Intake No. 2 project definition report	The Coquitlam Intake No. 2 project is required to increase the capacity of the Coquitlam source. The project includes a new intake, tunnel and treatment plant and is required to be in service by the mid-2030's.	Addressing Regional Growth
Complete detailed design and commence construction of Kennedy Newton Main and Annacis Main No. 5 South	Kennedy Newton Main and Annacis Main No. 5 South are required to convey water from the south shaft of Annacis Water Supply Tunnel to the Kennedy and Newton Reservoirs in Surrey.	Addressing Regional Growth
Begin construction of Watershed Administration Building	This is a joint facility for LSCR staff and watershed education programming.	Opportunities for Innovation and Enhanced Services
Complete design of Annacis Water Supply Tunnel	Complete detailed design and issue RFQ/RFP for new water supply tunnel under the Fraser River between the Cities of New Westminster and Surrey.	Addressing Regional Growth
Water infrastructure relocation/protection for Broadway Subway Project	Work with Ministry of Transportation and Infrastructure to coordinate inter-agency proximal work affecting Water Services infrastructure.	System Stewardship

2020		
Treated water pH and alkalinity adjustments	Commence implementation of final phase of treated water pH and alkalinity level adjustments at SCFP and CWTP.	System Stewardship
New Drinking Water Management Plan	Seek Board approval of an updated 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 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.	Addressing 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.	Addressing Regional Growth
Commence Cambie-Richmond Main marine crossing	Commence preliminary 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
Implement Watershed Bridge Replacement Program	A structural assessment of watershed bridges will result in a prioritized replacement plan that will be implemented as part of the divisional asset management program.	System Stewardship
Water Infrastructure protection for Surrey LRT Project	Work with TransLink and concessionaire to coordinate interagency proximal work affecting Water Services infrastructure.	System Stewardship
Commence construction of Central Park Main Replacement (Patterson to 10th Avenue)	This project is required to replace the aging Central Park Main. This section is approximately 7.5 km long extending from Central Park at Patterson Avenue to 10th Avenue in the City of Burnaby.	System Stewardship
2021		
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 an underground tunnel.	System Stewardship
Complete seismic upgrade of the existing Coquitlam Intake	The existing Coquitlam Intake, located in the southeast corner of Coquitlam Lake adjacent to BC Hydro's Coquitlam Dam, will be upgraded to meet current seismic standards.	System Stewardship

Complete Dam Safety Review for Seymour Falls Dam.	Regulatory Dam Safety Reviews are required at 7-year intervals for extreme consequence dams.	System Stewardship
2022		
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 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
Commence Haney Main No. 4 marine crossing preliminary design.	Commence preliminary design of a new trenchless crossing of the Pitt River between Port Coquitlam and Pitt Meadows to address growth in demand and system resiliency.	System Stewardship
2023		
Updated BC Hydro Coquitlam Water Use Plan	Work with BC Hydro on the review and update of the Coquitlam Water Use Plan	Environmental Protection and Climate Action
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	Environmental Protection and Climate Action
Complete construction of Kennedy Newton Main and Annacis Main No. 5 South	Kennedy Newton Main and Annacis Main No. 5 South are required to convey water from the south shaft of Annacis Water Supply Tunnel to the Kennedy and Newton Reservoirs in Surrey. The project consists of 12 km of 1.8 m diameter steel water main.	Addressing Regional Growth
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

ATTACHMENT 2

GREATER VANCOUVER WATER DISTRICT
WATER SERVICES
2019 BUDGET REVIEW
2019-2023 FINANCIAL PLAN

	2016 ACTUAL	2017 ACTUAL	2018 BUDGET	2019 BUDGET	% CHANGE	2020 FORECAST	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE
REVENUES													
Water Sales	$ 251,217,868	$ 264,484,281	$ 269,801,873	$ 286,908,565	6.3%	$ 321,211,826	12.0%	$ 357,746,692	11.4%	$ 401,957,293	12.4%	$ 451,327,213	12.3%
Other External Revenues	1,348,186	5,080,297	1,192,881	1,596,366		1,600,366		1,604,446		1,608,608		1,572,853	
Sustainability Reserve Funds	478,541	179,927	346,532	500,000		230,000		-		-		-	
Reserves	427,787	523,370	1,515,000	115,000		115,000		115,000		115,000		115,000	
TOTAL REVENUES	**$ 253,472,382**	**$ 270,267,875**	**$ 272,856,286**	**$ 289,119,931**	**6.0%**	**$ 323,157,192**	**11.8%**	**$ 359,466,138**	**11.2%**	**$ 403,680,901**	**12.3%**	**$ 453,015,066**	**12.2%**
EXPENDITURES													
Operating Programs:													
Policy Planning and Analysis													
Utility Analysis and Infrastructure	$ 1,665,842	$ 1,742,192	$ 1,513,672	$ 1,540,418		$ 1,762,668		$ 1,797,470		$ 1,832,827		$ 1,869,625	
Utility Policy and Planning	835,263	982,890	1,209,207	1,520,388		1,272,983		1,064,337		1,085,911		1,106,798	
	2,501,105	2,725,082	2,722,878	3,060,806	12.4%	3,035,651	(0.8%)	2,861,807	(5.7%)	2,918,738	2.0%	2,976,423	2.0%
Engineering and Construction													
Minor Capital Projects	8,168,652	7,965,914	9,052,888	9,840,909		10,238,680		10,510,116		10,780,987		11,074,940	
Dispatch	140,221	136,386	132,121	129,736		132,791		135,506		138,268		141,093	
Public Involvement	891,260	943,607	986,526	1,147,432		1,175,828		1,201,852		1,228,380		1,255,529	
	9,200,133	9,045,907	10,171,536	11,118,076	9.3%	11,547,299	3.9%	11,847,474	2.6%	12,147,635	2.5%	12,471,563	2.7%
Major Projects, Management Systems and Utility Services													
Department Technical Training	972,833	1,039,638	935,688	566,644		568,207		571,040		570,892		571,524	
Engineering Standards	111,344	112,581	121,794	118,520		121,393		123,889		126,426		129,017	
Engineers in Training	522,484	354,729	575,439	588,263		602,380		614,462		626,720		639,247	
Management Systems Utility Services	825,654	1,049,065	1,319,234	2,038,165		2,069,981		2,108,406		2,147,540		2,355,762	
Minor Capital Projects	461,452	561,989	907,381	873,316		908,616		932,704		956,742		982,829	
Records Management	104,903	108,747	112,778	109,800		112,463		114,776		117,127		119,529	
	2,998,670	3,226,749	3,972,313	4,294,709	8.1%	4,383,039	2.1%	4,465,276	1.9%	4,545,448	1.8%	4,797,908	5.6%
Watershed and Environmental Management													
Watershed and Environmental Management	10,299,302	10,347,734	12,087,392	12,621,419		12,480,074		12,666,917		12,752,441		12,830,911	
	10,299,302	10,347,734	12,087,392	12,621,419	4.4%	12,480,074	(1.1%)	12,666,917	1.5%	12,752,441	0.7%	12,830,911	0.6%
Operations and Maintenance													
Drinking Water Residuals	882,074	894,485	995,752	1,014,608		998,153		1,026,247		1,052,913		1,080,184	
Lake City Operations	1,024,083	986,342	957,644	965,126		1,033,884		1,047,911		1,066,235		1,084,949	
Maintenance	8,968,645	9,622,538	9,360,982	9,340,499		9,871,506		10,182,644		10,568,493		10,962,038	
SCADA Control Systems	4,544,347	4,817,590	5,256,746	5,251,889		5,371,683		5,381,024		5,482,854		5,663,158	
Secondary Disinfection	917,815	1,066,148	1,078,395	1,664,588		1,693,202		1,795,893		1,834,618		1,940,193	
Seymour Capilano Filtration Plant	8,133,694	8,620,239	9,065,017	9,001,545		9,574,978		10,105,409		10,611,816		10,948,465	
Coquitlam WaterTreatment Plant	4,311,193	4,539,561	5,402,998	4,886,545		5,324,555		5,872,781		6,350,577		6,686,766	
Technical Support	788,949	816,623	1,248,644	1,499,628		1,636,793		1,665,585		1,795,705		1,828,059	
Utility Voice Radio	152,501	143,144	135,064	122,149		123,398		124,531		125,682		126,857	
Water Supply	14,246,801	14,614,901	18,822,973	17,830,503		18,277,037		18,959,669		19,695,748		20,620,354	
	43,970,102	46,121,571	52,324,215	51,577,079	(1.4%)	53,905,189	4.5%	56,161,694	4.2%	58,584,641	4.3%	60,941,023	4.0%
Interagency Projects and Quality Control													
Sustainability Fund	723,000	723,000	723,000	723,000		723,000		723,000		723,000		723,000	
Drinking Water Quality Control	2,585,177	2,582,554	2,592,084	2,637,574		2,721,043		2,820,195		2,872,676		2,919,549	
Energy Management	91,325	123,413	104,993	105,748		111,453		111,098		117,497		117,252	
Research and Innovation	520,487	473,883	745,203	744,758		771,839		799,523		828,477		858,809	
Interagency Projects	-	-	371,527	367,242		517,434		526,175		703,946		716,304	
Contribution to Reserve	46,000	46,000	46,000	46,000		46,000		46,000		46,000		46,000	
	3,965,989	3,948,850	4,582,807	4,624,322	0.9%	4,890,769	5.8%	5,025,991	2.8%	5,291,596	5.3%	5,380,914	1.7%
Administration and Department Support	1,679,625	1,619,680	1,956,661	2,117,455	8.2%	2,168,613	2.4%	2,213,529	2.1%	2,259,200	2.1%	2,305,886	2.1%
Communications Program	409,075	369,583	465,287	490,000	5.3%	440,000	(10.2%)	440,000	0.0%	440,000	0.0%	440,000	0.0%
Allocation of Centralized Costs	18,391,525	22,156,646	25,084,563	23,388,522	(6.8%)	23,444,732	0.2%	24,245,721	3.4%	24,528,220	1.2%	25,031,600	2.1%
Total Operating Programs	93,415,526	99,561,802	113,367,651	113,292,388	(0.1%)	116,295,366	2.7%	119,928,408	3.1%	123,467,918	3.0%	127,176,227	3.0%
Debt Service	93,782,607	92,972,679	90,996,415	72,683,912	(20.1%)	74,786,198	2.9%	94,561,971	26.4%	116,943,838	23.7%	139,522,550	19.3%
Contribution to Capital	55,115,575	60,523,143	68,492,220	103,143,631	50.6%	132,075,627	28.1%	144,975,759	9.8%	163,269,144	12.6%	186,316,289	14.1%
TOTAL EXPENDITURES	**$ 242,313,708**	**$ 253,057,624**	**$ 272,856,286**	**$ 289,119,931**	**6.0%**	**$ 323,157,192**	**11.8%**	**$ 359,466,138**	**11.2%**	**$ 403,680,901**	**12.3%**	**$ 453,015,066**	**12.2%**
Blended Water Rate ($/m^3)			$ 0.6990	$ 0.7395	5.8%	$ 0.8200	10.9%	$ 0.9100	11.0%	$ 1.0166	11.7%	$ 1.1351	11.6%
Household Impact			$ 165	$ 172	4.5%	$ 189	10.0%	$ 207	9.5%	$ 229	10.5%	$ 253	10.5%

GREATER VANCOUVER WATER DISTRICT
CAPITAL PROGRAMS AND PROJECT TOTALS
WATER SERVICES
2019 - 2023 CAPITAL PLAN

ATTACHMENT 3

	2019 CAPITAL BUDGET	2020 CAPITAL PLAN	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2019 TO 2023 TOTAL	TOTAL PROJECT COSTS
CAPITAL EXPENDITURES							
Water Infrastructure Growth Capital							
Annacis Main No. 5							
Annacis Main No. 5 (Marine Crossing)	$ 7,000,000	$ 25,000,000	$ 55,000,000	$ 65,000,000	$ 65,000,000	$ 217,000,000	$ 448,000,000
Annacis Main No. 5 (North)	1,000,000	750,000	5,000,000	12,000,000	12,000,000	30,750,000	44,900,000
Annacis Main No. 5 (South)	650,000	-	-	-	9,000,000	9,650,000	48,100,000
Burnaby Mountain Pump Station No. 2							
Burnaby Mountain Pump Station No. 2	-	200,000	800,000	1,700,000	9,000,000	11,700,000	23,000,000
Cape Horn Pump Station No. 3							
Cape Horn Pump Station No. 3	500,000	1,600,000	2,150,000	12,400,000	15,000,000	31,650,000	56,950,000
Coquitlam Intake No. 2 (Tunnel & Treatment)							
Coquitlam Intake No. 2 & Tunnel	2,000,000	3,000,000	10,500,000	21,500,000	32,000,000	69,000,000	1,369,230,000
Coquitlam Intake No. 2 (Water Treatment)	-	2,000,000	6,000,000	10,000,000	13,000,000	31,000,000	957,000,000
Coquitlam Main No. 4							
Coquitlam Main No. 4 (Cape Horn)	2,000,000	2,500,000	2,500,000	4,100,000	22,500,000	33,600,000	130,600,000
Coquitlam Main No. 4 (Central Section)	3,000,000	8,500,000	30,500,000	32,000,000	30,000,000	104,000,000	200,470,000
Coquitlam Main No. 4 (South Section)	3,000,000	11,500,000	19,800,000	34,000,000	30,000,000	98,300,000	153,650,000
Fleetwood Reservoir							
Fleetwood Reservoir	2,550,000	16,000,000	7,000,000	4,800,000	-	30,350,000	43,367,000
Grandview Reservoir Unit No. 2							
Grandview Reservoir Unit No. 2	-	-	-	400,000	800,000	1,200,000	26,000,000
Haney Main No. 4 (West Section)							
Haney Main No. 4 (West Section) Westwood to Dominion	1,100,000	1,500,000	5,700,000	15,000,000	14,600,000	37,900,000	93,000,000
Hellings Tank No. 2							
Hellings Tank No. 2	3,350,000	12,000,000	8,000,000	2,000,000	-	25,350,000	29,411,000
Jericho Reservoir No. 1							
Jericho Reservoir No. 1 Construction	11,000,000	15,000,000	4,400,000	-	-	30,400,000	38,065,000
Kennedy Newton Main							
Kennedy Newton Main (72 Ave to Newton)	-	-	8,100,000	16,200,000	9,600,000	33,900,000	39,600,000
Kennedy Newton Main (84 Ave to 72 Ave)	4,700,000	22,200,000	22,700,000	20,200,000	-	69,800,000	69,800,000
Kennedy Newton Main (Kennedy to 84 Ave)	-	5,000,000	10,000,000	5,000,000	4,000,000	24,000,000	24,000,000
Kennedy Newton Main - Design	750,000	3,350,000	-	-	-	4,100,000	8,500,000

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Newton Pump Station No. 2							
Newton Pump Station No. 2	1,850,000	7,000,000	7,900,000	5,400,000	3,600,000	25,750,000	28,800,000
Port Mann Main No. 2 (South)							
Port Mann Main No. 2 (South)	9,000,000	15,000,000	10,000,000	-	-	34,000,000	44,800,000
South Delta Main No. 1 Upgrade							
South Delta Main No. 1 Upgrade	150,000	-	-	-	-	150,000	16,150,000
South Surrey Main No. 2							
South Surrey Main No. 2	250,000	250,000	-	-	-	500,000	108,400,000
Whalley Kennedy Main No. 2							
Whalley Kennedy Main No. 2	-	-	500,000	1,700,000	1,900,000	4,100,000	61,800,000
Whalley Main							
Whalley Main	7,000,000	8,500,000	1,700,000	6,300,000	-	23,500,000	33,300,000
	$ **60,850,000**	$ **160,850,000**	$ **218,250,000**	$ **269,700,000**	$ **272,000,000**	$ **981,650,000**	$ **4,096,893,000**
Water Infrastructure Maintenance Capital							
Annacis Main No. 2 - Queensborough Crossover Improvement							
Annacis Main No. 2 - Queensborough Crossover Improvement	$ 300,000	$ 800,000	$ 100,000	$ -	$ -	$ 1,200,000	$ 1,200,000
Annacis Main No. 2 (River Crossing Removal)							
Annacis Main No. 2 (River Crossing Removal)	-	-	-	-	400,000	400,000	10,400,000
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	600,000	-	-	-	-	600,000	600,000
Boundary Road Main No. 2 & No. 3 Decommissioning							
Boundary Road Main No. 2 & No. 3 Decommissioning	500,000	500,000	300,000	-	-	1,300,000	1,500,000
Capilano Main No. 4 Abandoning							
Capilano Main No. 4 Abandoning	600,000	100,000	-	-	-	700,000	700,000
Capilano Main No. 5 (South Shaft to Lost Lagoon)							
Capilano Main No.5 (South Shaft to Lost Lagoon)	1,950,000	3,500,000	8,500,000	25,500,000	32,000,000	71,450,000	139,000,000
Capilano Main No. 7 Line Valve & Swing Connection							
Capilano Main No. 7 Line Valve & Swing Connection	300,000	1,500,000	300,000	-	-	2,100,000	2,100,000

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Capilano Raw Water Pump Station Bypass PRV Upgrades							
Capilano Raw Water Pump Station Bypass PRV Upgrades	-	-	-	-	200,000	200,000	900,000
Capilano Watershed Security Gatehouse							
Capilano Watershed Security Gatehouse	400,000	1,000,000	500,000	-	-	1,900,000	2,300,000
Central Park Main Replacement (10th Ave to Westburnco)							
Central Park Main Replacement (10th Ave to Westburnco)	-	-	1,300,000	1,200,000	6,300,000	8,800,000	28,350,000
Central Park Main Replacement (Patterson to 10th Ave)							
Central Park Main Replacement (Patterson to 10th Ave)	4,400,000	7,100,000	14,000,000	14,000,000	12,700,000	52,200,000	66,100,000
Central Park PS Seismic Upgrade							
Central Park PS Seismic Upgrade	1,000,000	1,650,000	-	-	-	2,650,000	3,700,000
Central Park WPS Starters Replacement							
Central Park WPS Starters Replacement	1,800,000	1,750,000	-	-	-	3,550,000	5,300,000
CLD & SFD Fasteners Replacement & Coating Repairs							
CLD & SFD Fasteners Replacement & Coating Repairs	650,000	250,000	-	-	-	900,000	900,000
Cleveland Dam - Lower Outlet HBV Rehabilitation							
Cleveland Dam - Lower Outlet HBV Rehabilitation	1,000,000	1,700,000	700,000	800,000	-	4,200,000	4,600,000
Cleveland Dam - Spillway Concrete Repairs							
Cleveland Dam - Spillway Concrete Repairs	2,700,000	-	-	-	-	2,700,000	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	400,000	100,000	-	-	-	500,000	500,000
Coquitlam Pipeline Road Remediation							
Coquitlam Pipeline Road Remediation	2,000,000	-	-	-	-	2,000,000	2,000,000
CWTP pH, Alkalinity Upgrades							
CWTP pH, Alkalinity Upgrades	700,000	1,000,000	-	-	-	1,700,000	1,700,000
Douglas Road Main No. 2 - Kincaid Section							
Douglas Road Main No. 2 - Kincaid Section	600,000	1,300,000	-	-	-	1,900,000	12,300,000
Douglas Road Main No. 2 (Vancouver Heights Section)							
Douglas Road Main No. 2 (Vancouver Heights Section)	8,150,000	6,700,000	5,300,000	-	-	20,150,000	28,486,000
Douglas Road Main No. 2 Still Creek							
Douglas Road Main No. 2 Still Creek	3,550,000	16,800,000	15,200,000	9,000,000	15,250,000	59,800,000	63,100,000

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E2 Shaft Phase 3							
E2 Shaft Phase 3 Production Well	2,400,000	-	-	-	-	2,400,000	16,500,000
First Narrows Tunnel Isolation Chamber Improvements							
First Narrows Tunnel Isolation Chamber Improvements	2,500,000	1,500,000	1,000,000	2,000,000	-	7,000,000	7,000,000
Improvements to Capilano Mains No. 4 and 5							
Improvements to Capilano Mains No. 4 and 5	800,000	550,000	350,000	-	-	1,700,000	1,700,000
Kersland Reservoir No. 1 Structural Improvements							
Kersland Reservoir No. 1 Structural Improvements	450,000	1,800,000	700,000	500,000	-	3,450,000	3,750,000
Little Mountain Reservoir Roof Upgrades							
Little Mountain Reservoir Roof Upgrades	200,000	700,000	200,000	-	-	1,100,000	1,100,000
Lulu Island - Delta Main - Bridgeport Road Relocation							
Lulu Island - Delta Main - Bridgeport Road Relocation	450,000	1,450,000	2,000,000	1,600,000	2,000,000	7,500,000	7,500,000
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	370,000,000
Maple Ridge Main West Lining Repairs							
Maple Ridge Main West Lining Repairs	550,000	300,000	-	-	-	850,000	1,350,000
Maple Ridge Pump Station Decommissioning							
Maple Ridge Pump Station Decommissioning	200,000	-	-	-	-	200,000	800,000
Port Mann Main No. 1 (Fraser River Crossing Removal)							
Port Mann Main No. 1 (Fraser River Crossing Removal) Phase 2	1,000,000	-	2,000,000	5,000,000	5,000,000	13,000,000	13,500,000
Port Moody Main No. 3 Dewdney Trunk Rd Relocation							
Port Moody Main No. 3 Dewdney Trunk Rd Relocation	-	1,800,000	300,000	-	-	2,100,000	2,100,000
Port Moody Main No. 3 Scott Creek Section							
Port Moody Main No. 3 Scott Creek Section	400,000	1,400,000	2,000,000	700,000	-	4,500,000	4,750,000
Queensborough Main Royal Avenue Relocation							
Queensborough Main Royal Avenue Relocation	100,000	3,400,000	2,400,000	1,500,000	-	7,400,000	7,500,000
Rechlorination Station SHS Storage Tank Replacement							
Rechlorination Station SHS Storage Tank Replacement	-	400,000	400,000	-	-	800,000	800,000
Rechlorination Station Upgrades							
Rechlorination Station Upgrades	100,000	700,000	1,200,000	6,000,000	4,700,000	12,700,000	12,900,000

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Relocation and Protection for Translink Exp Projects							
Relocation and Protection for Translink Exp Projects South of Fraser Ph. 1	100,000	3,700,000	5,000,000	2,000,000	-	10,800,000	22,900,000
River Road West Main Hwy 99 Crossing Relocation							
River Road West Main Hwy 99 Crossing Relocation	-	100,000	500,000	500,000	100,000	1,200,000	1,200,000
Sasamat Reservoir Joint Upgrades							
Sasamat Reservoir Joint Upgrades	50,000	450,000	100,000	-	-	600,000	700,000
SCFP Clearwell Membrane Replacement							
SCFP Clearwell Membrane Replacement	-	200,000	800,000	11,000,000	5,000,000	17,000,000	17,000,000
SCFP Concrete Coatings							
SCFP Concrete Coatings	600,000	200,000	-	-	-	800,000	6,500,000
SCFP Filter Underdrain Repairs							
SCFP Filter Underdrain Repairs	7,200,000	7,000,000	7,000,000	4,500,000	-	25,700,000	29,000,000
SCFP OMC Building Expansion							
SCFP OMC Building Expansion	150,000	350,000	800,000	100,000	-	1,400,000	1,400,000
SCFP Polymer System Upgrade							
SCFP Polymer System Upgrade	2,000,000	500,000	-	-	-	2,500,000	2,950,000
Seymour Falls Dam-Relief Wells Inspection & Rehab							
Seymour Falls Dam-Relief Wells Inspection & Rehab	100,000	-	-	-	-	100,000	350,000
South Delta Main No. 1 - Ferry Road Check Valve Replacement							
South Delta Main No. 1 - Ferry Road Check Valve Replacement	400,000	200,000	-	-	-	600,000	600,000
South Surrey Supply Main (Serpentine River) Bridge Support Modification							
South Surrey Supply Main (Serpentine River) Bridge Support Modification	200,000	-	-	-	-	200,000	400,000
Tilbury Main North Fraser Way Valve Addition							
Tilbury Main North Fraser Way Valve Addition	400,000	1,000,000	500,000	-	-	1,900,000	1,900,000
Westburnco #1 Water PS Main Transformer and MCC Replacement							
Westburnco #1 Water PS Main Transformer and MCC Replacement	100,000	-	-	-	-	100,000	943,000
Westburnco Pump Station No. 2 VFD Replacements							
Westburnco Pump Station No. 2 VFD Replacements	300,000	1,950,000	300,000	-	-	2,550,000	2,550,000
Whalley Clayton Main Fraser Highway Relocation							
Whalley Clayton Main Fraser Highway Relocation	100,000	-	-	-	-	100,000	650,000
	$ **52,450,000**	$ **75,700,000**	$ **77,200,000**	$ **87,300,000**	$ **88,650,000**	$ **381,300,000**	$ **926,929,000**

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Water Infrastructure Resilience Capital							
Barnston/Maple Ridge Pump Station - Back-up Power							
Barnston/Maple Ridge Pump Station - Back-up Power	$ 300,000	$ 200,000	$ 1,000,000	$ 3,000,000	$ 2,700,000	$ 7,200,000	$ 9,000,000
Burnaby Mountain Reservoir Seismic Upgrade							
Burnaby Mountain Reservoir Seismic Upgrade	400,000	-	-	-	-	400,000	5,300,000
Burnaby Mountain Tank Upgrades							
Burnaby Mountain Tank Upgrades	2,750,000	6,200,000	9,000,000	3,000,000	-	20,950,000	21,350,000
Cambie Richmond Main (Marine Crossing)							
Cambie Richmond Main (Marine Crossing)	5,000,000	5,000,000	5,000,000	10,000,000	10,000,000	35,000,000	370,250,000
Cape Horn PS 1 & 2 Seismic Upgrade							
Cape Horn PS 1 & 2 Seismic Upgrade	300,000	-	-	-	-	300,000	2,300,000
Cape Horn Pump Station 2 - Back-Up Power							
Cape Horn Pump Station 2 - Back-Up Power	50,000	650,000	450,000	2,000,000	3,500,000	6,650,000	8,150,000
Capilano Raw Water Pump Station - Back-up Power							
Capilano Raw Water Pump Station - Back-up Power	8,000,000	14,900,000	8,000,000	-	-	30,900,000	33,000,000
Clayton Langley Main Alternate Supply							
Clayton Langley Main Alternate Supply	-	-	600,000	1,300,000	500,000	2,400,000	30,300,000
Cleveland Dam Pump House Seismic Upgrade							
Cleveland Dam Pump House Seismic Upgrade Construction	200,000	-	-	-	-	200,000	2,800,000
Coquitlam Intake Tower Seismic Upgrade							
Coquitlam Intake Tower Seismic Upgrade	100,000	2,000,000	8,500,000	5,100,000	-	15,700,000	16,600,000
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	300,000	-	-	-	-	300,000	400,000
Grandview Pump Station Improvements							
Grandview Pump Station Improvements	150,000	1,350,000	700,000	-	-	2,200,000	2,200,000
Haney Main No 4 (Marine Crossing)							
Haney Main No. 4 (Marine Crossing)	-	-	5,000,000	5,000,000	5,000,000	15,000,000	370,250,000

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Mackay Creek Debris Flow Mitigation							
Mackay Creek Debris Flow Mitigation	3,000,000	-	-	-	-	3,000,000	9,000,000
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	300,000	6,700,000	1,900,000	-	-	8,900,000	8,900,000
Pebble Hill Reservoir Seismic Upgrade							
Pebble Hill Reservoir Seismic Upgrade Unit 1	4,200,000	3,000,000	-	-	-	7,200,000	7,400,000
Pebble Hill Reservoir Seismic Upgrade Unit 2	4,200,000	3,000,000	-	-	-	7,200,000	7,400,000
Reservoir Isolation Valve Automation							
Reservoir Isolation Valve Automation	2,000,000	2,150,000	1,000,000	-	-	5,150,000	6,450,000
SCFP UPS Reconfiguration							
SCFP UPS Reconfiguration	100,000	-	-	-	-	100,000	1,270,000
Second Narrows Crossing (Tunnel)							
Second Narrows Crossing (Tunnel)	51,000,000	75,000,000	75,000,000	75,000,000	75,000,000	351,000,000	468,550,000
Seymour Main No. 2 Joint Improvements							
Seymour Main No. 2 Joint Improvements	50,000	50,000	300,000	-	-	400,000	827,000
Seymour Main No. 5 III (North)							
Seymour Main No. 5 III (North)	2,000,000	2,000,000	1,900,000	-	-	5,900,000	198,000,000
Seymour Reservoir Mid-Lake Debris Boom							
Seymour Reservoir Mid-Lake Debris Boom	700,000	200,000	-	-	-	900,000	1,200,000
South Delta Main No. 3 - 12th Ave to Pebble Hill							
South Delta Main No. 3 - 12th Ave to Pebble Hill	200,000	-	-	-	-	200,000	18,200,000
Sunnyside Reservoir Unit 1 Upgrades							
Sunnyside Reservoir Unit 1 Upgrades	2,000,000	150,000	-	-	-	2,150,000	8,050,000
Sunnyside Reservoir Units 1 and 2 Seismic Upgrade							
Sunnyside Reservoir Unit 1 Seismic Upgrade	3,300,000	2,200,000	-	-	-	5,500,000	8,500,000
Sunnyside Reservoir Unit 2 Seismic Upgrade	-	2,000,000	3,000,000	3,200,000	-	8,200,000	8,200,000
Sunnyside Reservoir Units 1 and 2 Seismic Upgrade	200,000	-	-	-	-	200,000	600,000
System Seismic Upgrade							
System Seismic Upgrade	-	-	600,000	600,000	7,600,000	8,800,000	122,800,000

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Westburnco Pump Station - Back-up Power							
Westburnco Pump Station - Back-up Power	2,000,000	11,000,000	3,000,000	-	-	16,000,000	19,000,000
	$ **92,800,000**	$ **138,700,000**	$ **127,600,000**	$ **112,900,000**	$ **106,500,000**	$ **578,500,000**	$ **1,777,147,000**
Water Infrastructure Upgrade Capital							
Burwell Alpine Reservoir Valve Improvements							
Burwell Alpine Reservoir Valve Improvements	$ 100,000	$ -	$ -	$ -	$ -	$ 100,000	$ 650,000
Cleveland Dam East Abutment Additional GV Series Pump Wells							
Cleveland Dam East Abutment Additional GV Series Pump Wells	150,000	50,000	-	-	-	200,000	750,000
Coquitlam Communication Improvements							
Coquitlam Communication Improvements	900,000	-	-	-	-	900,000	1,801,000
CWTP Ozone Generation Upgrades for Units 2 & 3							
CWTP Ozone Generation Upgrades for Units 2 & 3	3,200,000	1,000,000	-	-	-	4,200,000	12,000,000
Haney Main No. 2 Valve Chamber Upgrade - Abernethy Way and 232nd St							
Haney Main No. 2 Valve Chamber Upgrade - Abernethy Way and 232nd St	700,000	-	-	-	-	700,000	1,600,000
Infrastructure Upgrade Allowance - Water							
Infrastructure Upgrade Allowance - Water	-	-	-	-	1,400,000	1,400,000	134,900,000
LCOC Metal Shop Expansion and Dry Storage Development							
LCOC Metal Shop Expansion and Dry Storage Development	500,000	2,200,000	1,000,000	-	-	3,700,000	3,820,000
Lower Seymour Conservation Reserve Learning Lodge Replacement							
Lower Seymour Conservation Reserve Learning Lodge Replacement	2,000,000	2,600,000	-	-	-	4,600,000	5,000,000
Sapperton Main No. 1 New Line Valve and Chamber							
Sapperton Main No. 1 New Line Valve and Chamber	1,250,000	-	-	-	-	1,250,000	3,800,000
SCFP Interior Lighting Efficiency Upgrade							
SCFP Interior Lighting Efficiency Upgrade	450,000	50,000	-	-	-	500,000	500,000
South Delta Main No. 1 - 28 Ave to 34B Ave							
South Delta Main No. 1 - 28 Ave to 34B Ave	6,500,000	3,500,000	-	-	-	10,000,000	18,050,000
South Delta Mains - 28 Ave Crossover							
South Delta Mains - 28 Ave Crossover	2,500,000	-	-	-	-	2,500,000	8,500,000
Tilbury Junction Chamber Valves Replacement with Actuators							
Tilbury Junction Chamber Valves Replacement with Actuators	1,600,000	-	-	-	-	1,600,000	4,700,000
Water Meter Upgrades							
Water Meter Upgrades	2,750,000	4,750,000	6,100,000	5,000,000	-	18,600,000	22,400,000

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	2019 CAPITAL BUDGET	2020 CAPITAL PLAN	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2019 TO 2023 TOTAL	TOTAL PROJECT COSTS
Water Optimization - Flow Meters (Non-billing) Phase 1							
Water Optimization - Flow Meters (Non-billing) Phase 1	-	1,500,000	4,000,000	6,900,000	5,600,000	18,000,000	18,000,000
Water Optimization - Flow Meters (Non-billing) Phase 2							
Water Optimization - Flow Meters (Non-billing) Phase 2	-	-	-	-	1,500,000	1,500,000	18,000,000
Water Optimization - Instrumentation							
Water Optimization - Instrumentation	-	800,000	4,200,000	4,200,000	1,500,000	10,700,000	10,700,000
Water Optimization Automation & Instrumentation							
Water Optimization Automation & Instrumentation	2,000,000	2,000,000	1,500,000	-	-	5,500,000	9,540,000
	$ **24,600,000**	$ **18,450,000**	$ **16,800,000**	$ **16,100,000**	$ **10,000,000**	$ **85,950,000**	$ **274,711,000**
Water Opportunity Capital							
Capilano Hydropower							
Capilano Hydropower	700,000	2,000,000	1,000,000	-	-	3,700,000	99,250,000
	$ **700,000**	$ **2,000,000**	$ **1,000,000**	$ **-**	$ **-**	$ **3,700,000**	$ **99,250,000**
TOTAL CAPITAL EXPENDITURES	$ **231,400,000**	$ **395,700,000**	$ **440,850,000**	$ **486,000,000**	$ **477,150,000**	$ **2,031,100,000**	$ **7,174,930,000**
CAPITAL FUNDING							
New External Borrowing	$ 74,150,000	$ 247,100,000	$ 279,900,000	$ 312,000,000	$ 283,750,000	$ 1,196,900,000	
Contribution to Capital	103,100,000	132,100,000	145,000,000	163,300,000	186,300,000	729,800,000	
Surplus from Prior Year	52,500,000	6,000,000	5,500,000	5,000,000	5,000,000	74,000,000	
External Funding - Interagency	1,650,000	10,500,000	10,450,000	5,700,000	2,100,000	30,400,000	
	$ **231,400,000**	$ **395,700,000**	$ **440,850,000**	$ **486,000,000**	$ **477,150,000**	$ **2,031,100,000**	
DEBT SERVICING							
Debt Servicing - Existing	$ 72,600,000	$ 72,700,000	$ 74,800,000	$ 94,600,000	$ 116,900,000	$ 431,600,000	
Debt Servicing - From New Borrowing	100,000	2,100,000	19,800,000	22,300,000	22,600,000	66,900,000	
	$ **72,700,000**	$ **74,800,000**	$ **94,600,000**	$ **116,900,000**	$ **139,500,000**	$ **498,500,000**	

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 safe, clean drinking water and further develop its capacity to meet future needs.
- Ensure the long-term resilience and ability of the regional drinking water system to meet future demands and challenges in a resource-constrained world.
- Expand public awareness of the quality of Metro Vancouver drinking water and the importance of conserving it.

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	2019 performance objective
Peak day per capita water use (litres)	MV 5-year average (2013 - 2017): 661 2017: 661 2016: 613 2015: 692 2014: 682 2013: 659	2018 YTD August: 687 Objective: 635	635
Average day per capita water use (litres)	MV 5-year average (2013-2017): 455 2017: 451 2016: 444 2015: 447 2014: 459 2013: 474	2018 Estimate to Year End: 446 Objective: 431	431

2019 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.
- Commence development of a Facility Master Plan that aligns with the long-term water supply strategy outlined in the Comprehensive Regional Water System Plan.
- Commence 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.

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SERVICES AND SOLUTIONS FOR A LIVABLE REGION

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 safe, clean drinking water and further develop its capacity to meet future needs.
- Ensure the long-term resilience and ability of the regional drinking water system to meet future demands and challenges in a resource-constrained world.

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	2019 performance objective
Percent of GVWD Capital Program Expenditures Achieved:	5 yr average (2013 – 2017) 65%	60%	80%
Percent of Minor Capital Program Expenditures Achieved:	5 yr average (2013 – 2017) 85%	85%	85%
Percent of project complete:			
• Kennedy-Newton Main – Design	n/a	60%	90%
• Annacis Main No. 5 (South) – Design	n/a	60%	90%
• South Delta Main No. 1 Replacement (Phases 3 and 4) – Construction	n/a	0%	80%
• Capilano Raw Water Pump Station Backup Power – Design	n/a	50%	100%
• Capilano Main No. 5 (Stanley Park Section) – Design	n/a	10%	40%
• Fleetwood Reservoir – Construction	n/a	0%	30%

Indicator	Historical and/or industry benchmark	Current performance	2019 performance objective
• Jericho Reservoir – Construction	n/a	0%	60%
• Coquitlam WTP – Ozone Generation Upgrade – Construction	n/a	5%	90%
• Coquitlam Main No. 4 (South) – Design	n/a	0%	50%
• Port Mann Main No. 2 (South) – Construction	n/a	0%	40%
• Whalley Main – Construction	n/a	0%	30%
• Douglas Road Main No. 2 (Still Creek Section) – Construction	n/a	0%	10%

2019 key actions

- Complete Coquitlam Intake No. 2 Project Definition Report
- Continue design of Coquitlam Main No. 4 (South)
- Continue design of Kennedy-Newton Main
- Continue design of Annacis Main No. 5 (South)
- Commence construction of Port Mann Main No. 2 (South)
- Commence construction of Whalley Main
- Complete construction of South Delta Main No. 1 Replacement (Phases 3 and 4)
- Complete design of Capilano Raw Water Pump Station Backup Power
- Continue design of Capilano Main No. 5 (Stanley Park Section)
- Commence construction of Fleetwood Reservoir
- Continue construction of Jericho Reservoir
- Continue construction of Coquitlam Water Treatment Plant – Ozone Generation Upgrade
- Commence construction of Douglas Road Main No. 2 (Still Creek Section)

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, safety and emergency management, 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 safe, clean drinking water and further develop its capacity to meet future needs.
- Ensure the long-term resilience and ability of the regional drinking water system to meet future demands and challenges in a resource-constrained world.

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	2019 performance objective
Percent of GVWD Capital Program Expenditures Achieved:	5 yr average (2013 – 2017) 65%	60%	80%
Percent of Minor Capital Program Expenditures Achieved:	5 yr average (2013 – 2017) 85%	85%	85%
Percent of project complete: • Mackay Creek Debris Flow Mitigation Construction	n/a	0%	100%
• Second Narrows Water Supply Tunnel Construction	n/a	0%	15%
• Annacis Water Supply Tunnel Detailed Design	n/a	60%	100%

2019 key actions

- Continue construction of Second Narrows Water Supply Tunnel.
- Complete detailed design of Annacis Water Supply Tunnel.
- Complete construction of Mackay Creek Debris Flow Mitigation project.
- Complete E2 Shaft Replacement production well drilling.
- Continue to develop Asset Management Plan for Water Services.

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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. The Watershed & Environmental Management division provides management of 60,000 hectares of GVWD watershed lands surrounding the source reservoirs 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 safe, clean drinking water and further develop its capacity to meet future needs.
- Ensure the long-term resilience and ability of the regional drinking water system to meet future demands and challenges in a resource-constrained world.
- Expand public awareness of the quality of Metro Vancouver's drinking water and the importance of conserving it.

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	2019 Performance Objectives
Annual number participants in watershed tours and K-12 school programs conducted within the LSCR and watersheds.	MV 5-year average (2013-2017): 4,852 2017: 6,000 2016: 4,789 2015: 4,292 2014: 4,012 2013: 5,170	2018 YTD August: 4,343 Objective 5,600	6,000

Performance Indicators (cont'd)

Indicator	Historical and/or Industry Benchmark	Current Performance	2019 Performance Objectives
Number of water samples collected from source reservoirs and the distribution system.	MV 5-year average (2013-2017): 22,250 2017: 24,354 2016: 20,023 2015: 21,399 2014: 22,219 2013: 22,230	2018 YTD August: 11,988 Objective 22,500	22,500
Smolt capture in the Capilano Watershed.	MV 5-year average (2013-2017): 29,049 2017: 18,727 2016: 47,653 2015: 27,759 2014: 34,166 2013: 16,943	2018 YTD August: 16,943 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)	2018 YTD July: 92% Objective: 94%	95%

2019 Key Actions

- Commence implementation of the Water Services Environmental Management System (joint project with Liquid Waste Services).
- Complete fisheries habitat studies downstream of the Cleveland Dam associated with the approved Joint Water Use Plan.
- Commence construction of Watershed Administration Building in the Lower Seymour Conservation Reserve to replace previous facility that had reached the end of its useful life.
- Commence construction of the Capilano Watershed Security Field Office.
- Complete Patton Creek drainage erosion control works (Seymour Watershed).
- Commence implementation of LSCR Trail Strategy (10-year plan).

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SERVICES AND SOLUTIONS FOR A LIVABLE REGION

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 safe, clean drinking water and further develop its capacity to meet future needs.
- Ensure the long-term resilience and ability of the regional drinking water system to meet future demands and challenges in a resource-constrained world.

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	2019 Performance Objective
Annual volume of drinking water treated, delivered (in million litres)	MV 5-year average (2013-17): 384,669 ML	2018 YTD July: 227,031 Objective:385,000	387,000
Energy use in the treatment and delivery of drinking water (amount of gigajoules (GJ) used per ML of water)	MV 5-year average (2013-17): 0.50	2018 YTD July: 0.53 Objective: 0.55	0.57
Compliance with treatment operating permit criteria	MV 5-year average (2013-17): 99.08%	2018 YTD August: 100% Objective: 100%	100%
Number of leak repairs in water transmission system piping per 100 kilometers of pipe[1]	MV 5-year average (2013-17): 3.57	2018 YTD September: 1.75 Objective: <3.9	< 3.5
Number of remote monitoring and control points to ensure system resiliency	MV recent average (2014-17): 29,575	2018 YTD September: 30,177 Objective: 30,300	30,700

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

2019 key actions

- Commission facilities to allow for final phase of pH and alkalinity adjustments at both water treatment plants.
- Complete asset condition assessment on Seymour Main No. 2 between Seymour Falls Dam and the Seymour Capilano Filtration Plant.
- Complete the SCADA/CDACS Alarm Rationalization Initiative for all Water Services facilities.
- Support the completion of the current program for refurbishment of the Cleveland Dam spillway.

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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 safe, clean drinking water and further develop its capacity to meet future needs.
- Ensure the long-term resilience and ability of the regional drinking water system to meet future demands and challenges in a resource-constrained world.
- Continue to liaise with other orders of government and their agencies about the risks to water crossings resulting from port development, other infrastructure projects and dredging, and confirm appropriate mitigation and compensation measures.

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	2019 performance objectives
Number of water samples analyzed from source reservoirs, water treatment plants and distribution system	MV 5-year average (2013-2017): 38,063 2017: 38,956 2016: 38,184 2015: 38,295 2014: 37,234 2013: 37,644	2018 YTD August: 29,041 Objective: 37,000	38,000
Number of major interagency projects coordinated	N/A	2018 YTD August: 10 Objective: 10	12

2019 key actions

- Increase remote on-line water quality monitoring to improve real-time water quality data collection and analyses.
- Update risk assessments and critical control procedures for the Quality Management System for Drinking Water.
- Implement the revised ISO 17025 standard as part the laboratory quality assurance program (joint initiative with Liquid Waste Services).
- Coordinate interagency work for the Pattullo Bridge Replacement Project, Broadway Subway Project and Surrey LRT Project.

ATTACHMENT 5

METRO VANCOUVER DISTRICTS
2019-2023 PROJECTED RESERVES - WATER SERVICES

OPERATING RESERVES

	2018 ENDING BALANCE	2019 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2019 ENDING BALANCE	2020 ENDING BALANCE	2021 ENDING BALANCE	2022 ENDING BALANCE	2023 ENDING BALANCE
Water Services	$ 16,019,534	$ 16,019,534	$ 541,170	$ -	$ 329,093	$ 16,889,798	$ 16,878,508	$ 17,328,955	$ 17,873,911	$ 18,404,838

STATUTORY RESERVES

	2018 ENDING BALANCE	2019 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2019 ENDING BALANCE	2020 ENDING BALANCE	2021 ENDING BALANCE	2022 ENDING BALANCE	2023 ENDING BALANCE
Water Services										
Water Laboratory Equipment Reserve	$ 510,739	$ 510,739	$ 46,000	$ (115,000)	$ 9,525	$ 451,264	$ 390,599	$ 328,721	$ 265,605	$ 201,228
Water Sustainability Innovation Fund Reserve	11,840,755	11,840,755	723,000	(500,000)	239,045	12,302,800	13,046,786	14,037,952	15,048,941	16,080,149

ATTACHMENT 6

Water Services

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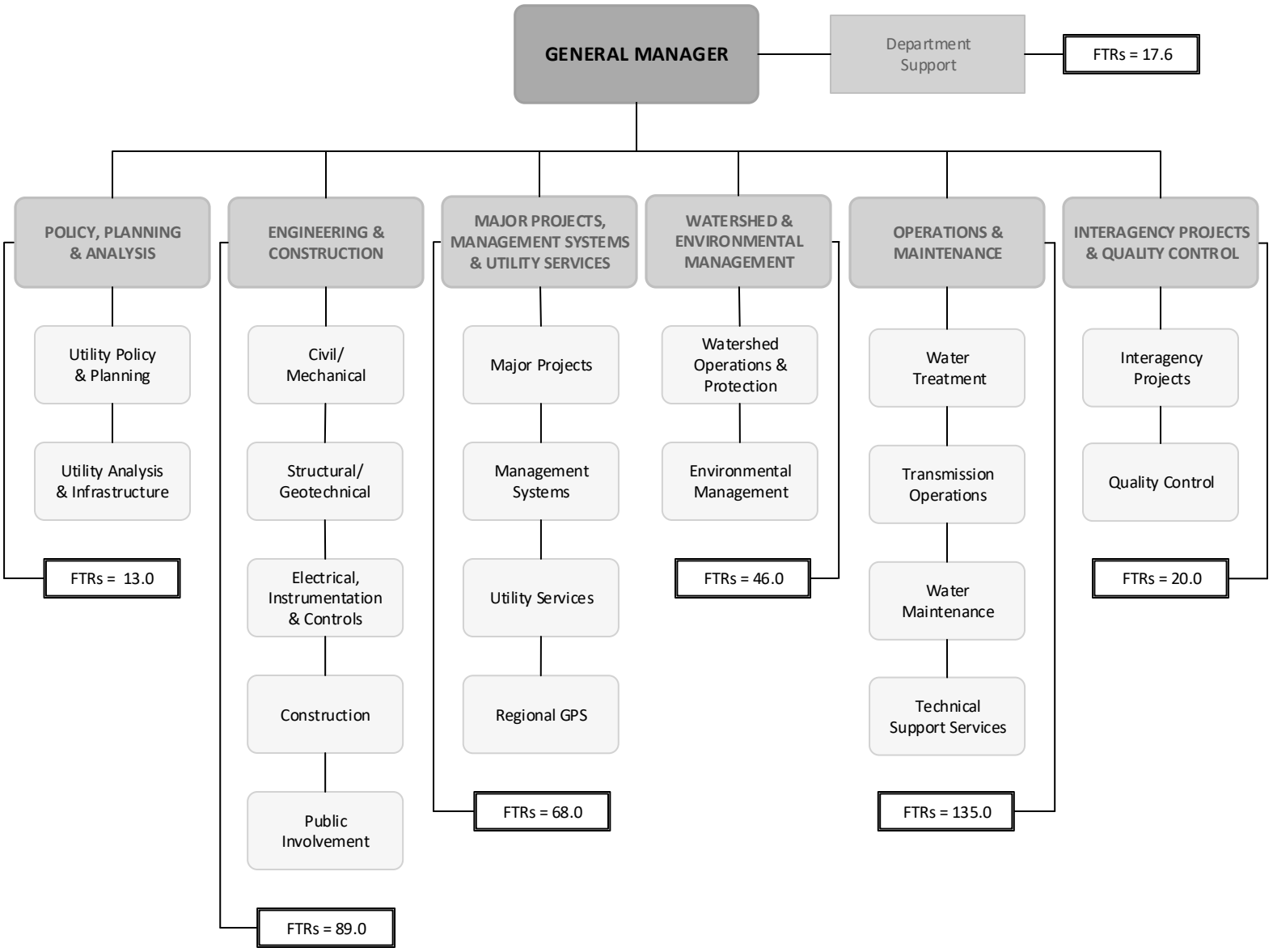
2018



Water Services
2018 Total FTRs = 389.6
2019 Proposed FTRs = 394.6

26035678
September 5, 2018

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SERVICES AND SOLUTIONS FOR A LIVABLE REGION

To: Utilities Committee

From: Peter Navratil, General Manager, Liquid Waste Services

Date: September 27, 2018 Meeting Date: October 11, 2018

Subject: **2019 - 2023 Financial Plan - Liquid Waste Services**

RECOMMENDATION

That the Utilities Committee endorse the 2019 - 2023 Financial Plan for Liquid Waste Services as presented in the report "2019 - 2023 Financial Plan - Liquid Waste Services" dated September 27, 2018 and forward it to the Board Budget Workshop on October 17, 2018 for consideration.

PURPOSE

To present the 2019 - 2023 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 2019 annual budget and the updated five year plan for the years 2019 to 2023 for committee consideration.

LIQUID WASTE SERVICES PROGRAM

The Liquid Waste Services function 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.

Liquid Waste Services is guided by direction provided in the *Board Strategic Plan*, and the 2010 *Integrated Liquid Waste and Resource Management Plan*, specifically:

Board Strategic Plan:

- Manage the liquid waste system in a manner that protects public health and the environment;
- Ensure the long-term resilience and ability of the liquid waste system to meet future demands and challenges in a resource-constrained world;
- Invest in programs to promote behavior that is consistent with regional liquid waste objectives.

Integrated Liquid Waste and Resource Management Plan:

- Protect public health and the environment;

- Use liquid waste as a resource;
- Effective, affordable and collaborative management.

2019 BUDGET AND FIVE YEAR FINANCIAL PLANS

The budget for this cycle and the five year financial plans have been updated to address the four themes Metro Vancouver considers when developing plans and budgets. These are as follows:

- Addressing Regional Growth
- System Stewardship
- Environmental Protection and Climate Action
- Opportunities for Innovation and Enhanced Services

Annual Work Plans are developed for almost all Metro Vancouver functions. The 2019 Annual Work Plans for the Liquid Waste Services budget presented in this report are included in Attachment 4.

A summary of the Liquid Waste Services highlights, 2019 - 2023 "What's Happening", is included under Attachment 1.

Attached are summaries of the 2019 - 2023 Liquid Waste Services operating budget (Attachment 2) and the 2019 - 2023 Liquid Waste Services capital budget (Attachment 3).

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 $41.7 million in 2019 for a total budget of $308.6 million (Attachment 2). A significant portion of the increase can be attributed to increased debt servicing costs of $28.7 million from the accelerating capital program, and increased annual contributions to capital of $3.95 million to support infrastructure investments required to meet service requirements and growth demands. Increasing the annual contribution to capital is a planned strategy which will reduce the future impact of debt servicing costs on ratepayers.

The 2019 operating budget includes the following key actions:

- Continuation of the decommissioning of the Iona Island WWTP biosolids stockpile. Acceleration of the grit dump decommissioning, increased disposal volumes due to weed seed contamination and shortage of beneficial use sites and delays in the decommissioning of the sludge lagoons are driving cost increases for 2019. The decommissioning of the biosolids stockpile will be completed by 2023.
- Complete the Project Definition Report for the Iona Island WWTP Secondary upgrade, including development of the indicative design for the new plant.
- Commence preparation for the commissioning and eventual takeover of operation of the North Shore WWTP. The 2019 budget includes a request for certified wastewater treatment plant operators to initiate the training of existing and new staff on the operation of the new secondary treatment processes.
- Update the Biosolids Management Strategy, identifying an action plan to manage future increases in biosolids generation resulting from growth and secondary treatment plant upgrades.

- Accelerated development of an updated hydraulic model for Vancouver Sewerage Area to support City of Vancouver planning for significant growth in Oakridge and other communities and to integrate combined sewer separation actions with these plans.
- Increased monitoring of Burrard Inlet to fulfill Metro Vancouver's responsibilities in the implementation of the Tsleil-Waututh Nation Burrard Inlet Action Plan.
- Increase enforcement, compliance support and outreach for new regulations being introduced in 2019 for hospitals, recently implemented regulations for fermentation operations and existing regulations for grease management in the food 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 2019 to respond to work plan requirements within the operating budget include the following:

- Sewer modelling/analytics consulting services directed at updating system models ($430,000);
- Still Creek – Brunette Drainage Area Flood Management Strategy ($100,000);
- Combined sewer separation planning and quantification of costs, benefits and risks of CSO elimination strategies such as green infrastructure ($150,000);
- Development of procedures and training materials, focused primarily on new infrastructure or facilities with updated asset data and information ($300,000);
- Iona Island WWTP and Strait of Georgia monitoring and hydrodynamic modeling ($779,000);
- Burrard Inlet and Lions Gate WWTP monitoring programs ($746,000);
- Fraser River WWTPs and the Fraser River monitoring programs ($269,000);
- Boundary Bay monitoring program ($124,000);
- Effluent toxicity monitoring ($467,000);
- Wastewater characterization for contaminants of emerging concern ($266,000);
- CSO characterization and risk assessments ($367,000);
- SSO pump stations comparative risk assessment and public notification ($102,000);
- Development of Environmental Management System (EMS) ($111,000);
- Key Manhole Monitoring and CCME Strategy compliance monitoring for endocrine disrupting substances ($316,000); and
- Data management and National Pollutant Release Inventory (NPRI) reporting for contaminants of emerging concern ($107,000).

In 2019, Liquid Waste Services proposes the addition of 5 new full-time staff positions. Three Wastewater Treatment Plant Operators will join the existing operations team at the new North Shore WWTP and receive training on the operation of advanced secondary treatment processes at the new plant. A Digital Control Software Specialist is proposed to respond to demands for automation of the WWTPs as additional treatment process units are added through plant upgrades and expansions, ensuring that operational staffing needs are optimized. A Senior Project Engineer is also being proposed to develop, apply and maintain hydrodynamic and effluent transport models for receiving water bodies, reducing costs and reliance on contracted resources in meeting regulatory reporting requirements and enabling expanded use of these models in optimizing environmental monitoring activities.

Over the next five years. The Liquid Waste budget is expected to increase an average of $43.1 million per year. Of this overall increase, funding related to the expanding capital program (debt servicing

and contribution to the capital) is increasing $39.1 million on average over the next five years while the operating programs are increasing, on average, by $4.0 million per year, roughly 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 2019, the budget for Liquid Waste Environmental Regulation and Enforcement program is increasing $129,021 to $1.9 million due to the addition of a Permit and Enforcement Officer to support the enforcement of recently implemented regulations including the *Fermentation Operations Bylaw*.

Communications Program
The 2019 Liquid Waste Services Communications Program of $400,000 is primarily framed around the Regional Grease Campaign ($170,000) and the Regional Unflushables Campaign ($190,000).

Capital Budget Highlights
The Liquid Waste Services capital budget for 2019 is $564.9 million (Attachment 2). The capital program is funded by long-term debt, contributions from the operating budget, and some external contributions such as the grants from the Federal and Provincial governments for the North Shore WWTP.

Highlights of capital projects planned or ongoing for 2019 include the following:

- Commence detailed design for the Northwest Langley Wastewater Treatment Plant expansion and commence ground improvements;
- Continue construction of the North Shore WWTP and commence construction of the Conveyance Project;
- Substantially complete construction of the Annacis Island WWTP Cogeneration Back-Up Power Project;
- Substantially complete construction of the Sapperton Pump Station;
- Continue construction of the Annacis Island WWTP Stage 5 expansion;
- Commence construction of the Annacis Island WWTP Outfall System;
- Continue construction of the last section of the twinning of the South Surrey Interceptor; and
- Commence construction on the Gilbert/Brighouse Trunk Pressure Sewer Twinning.

Capital program increases over the next five years are largely driven by federally mandated upgrades to the two primary WWTPs, system expansion to meet the needs of a growing population and maintenance of aging infrastructure. The capital expenditures budgeted for 2019 - 2023 total $3.17 billion, an average of $634.2 million per year. The largest 8 projects (each over $60 million) make up approximately 75% of the capital spending over the next 5 years. There are an additional 122 projects on the plan. Six of these eight projects also represent the most significant drivers of the plan: the two mandated upgrades to secondary treatment and new infrastructure that is responding to growth that has already occurred and is continuing in the South East area of the Fraser Sewerage Area.

- Iona Secondary Treatment Upgrade - $1.9B (Completion: 2032)
- Northwest Langley WWTP and Golden Ears Projects - $1.3B (Completion: 2027)
- Annacis Stage 5 Expansion and Outfall System - $1.1B (Completion: 2027)
- North Shore WWTP Secondary Upgrade and Conveyance - $778M (Completion: 2023)

- Gilbert/Brighouse Trunk Pressure Sewer Twinning - $183M (Completion: 2026)
- Burnaby Lake North Interceptor - $165M (Completion: 2023)
- AIWWTP Secondary Clarifier Corrosion Repair - $90M (Completion: 2024)
- IIWWTP Biosolids Dewatering Facility - $61M (Completion: 2022)

Reserve Funds

The application of reserve funding in Liquid Waste Services is primarily made through the Biosolids Inventory Reserve, the Sustainability Innovation Fund and the Laboratory Equipment Reserve. In 2019, the financial plan includes a $4.8 million net application from the Biosolids Inventory Reserve for removal of the stockpile at Iona Island WWTP and $475,000 from the Liquid Waste Sustainability Innovation Fund for sustainability initiatives. In addition to these regular reserve applications, $1.5 million, in remaining reserve funds from a long standing reserve, was applied against capital.

In addition to the operating budget reserve applications noted above, approximately $8.25 million will be applied from the Liquid Waste Sustainability Innovation Fund Reserve over the next four years to offset the funding requirements for a Hydrothermal Processing pilot project at the Annacis WWTP.

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 2019 Work Plans for Liquid Waste Services are presented in this report. Within the Liquid Waste Services Work Plans, 37 performance indicators have been developed and are being tracked. These include:

- Operating cost per million litres processed, collection and treatment;
- Compliance with treatment plant Operational Certificates;
- Annual 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, kilowatt hour per million litres;
- Percent 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 key infrastructure expansions needed to keep pace with growth. In the longer term, numerous projects are underway, and when completed will reduce overflow volumes and frequency.

Overall progress on capital expenditures is meeting budgeted projections. This is being achieved by higher than projected progress on large construction projects, which are over-compensating for lower than projected progress on smaller and more labour-intensive projects that carry high project risks and design phases of projects that are experiencing increasing permitting demands.

Energy efficiency gains realized are being offset primarily by the addition of new facilities. As well, energy recovery is being temporarily impacted by cogeneration system replacement projects at the treatment plants.

CONSISTENCY WITH THE 2018 – 2022 FINANCIAL PLAN

The updated five year financial plan has been developed to be consistent with the 2018 - 2022 financial plan. As presented in attachment 2, the overall Liquid Waste 2019 impact on the average regional household is consistent with prior year projections for all four sewer areas with an average regional household cost of $250 (2018 projection: $250). For the years 2020, 2021, and 2022 the household impact varies as described below:

- **Vancouver Sewerage Area.** The 2020 - 2022 household impact is projected to increase by an additional $25 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.
- **North Shore Sewerage Area.** The 2020 - 2022 household impact is projected to increase by an additional $22 compared to the previous five year projection. The primary driver for this change is associated with the increase in the 'pay as you go' contribution to avoid future debt.
- **Lulu Island West Sewerage Area.** The 2020 - 2022 household impact is projected to increase by an additional $153 compared to the previous five year projection. The primary driver for this change is associated with the increase in capital expenditures for the twinning of the Gilbert Trunk sewer project anticipated for completion by 2026.
- **Fraser Sewerage Area.** The 2020 - 2022 household impact is projected to increase by an additional $30 compared to the previous five year projection. The primary driver for this change is associated with the increase in debt servicing costs from capital expenditures due to escalation of project costs.

APPROVAL PROCESS

The proposed 2019 - 2023 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 2019 - 2023 Financial Plan and Annual Work Plan will be presented at the Board Budget Workshop on October 17, 2018.
- The Board will consider adoption of the 2019 Budget and endorsement of the 2019 - 2023 Financial Plan on October 26, 2018.

ALTERNATIVES

1. That the Utilities Committee endorse the 2019 - 2023 Financial Plan for Liquid Waste Services as presented in the report "2019 - 2023 Financial Plan – Liquid Waste Services" dated September 27, 2018 and forward it to the Board Budget Workshop on October 17, 2018 for consideration.

2. That the Utilities Committee make recommendations and endorse an amended 2019 - 2023 Financial Plan for Liquid Waste Services and forward the amended Financial Plan to the Board Budget Workshop on October 17, 2018 for consideration.

FINANCIAL IMPLICATIONS

If the GVS&DD Board endorses the 2019 Budget and Five Year Financial Plan for Liquid Waste Services, as presented under Alternative 1, in 2019 the revenue from the annual levy for the system will increase by $23.7 million (10.2%) to $255.8 million which will generate the majority of the $308.6 million in total revenue required to offset projected expenditures. The increase in the levy represents a $19 increase in the cost to the average regional household to $250 (no change from the 2018 forecast).

Over the term of the five year plan, the annual levy is projected to increase by an average of $28.8 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 $231 in 2018 to $343 in 2023 representing an average annual increase of $22.

Under Alternative 2, the Committee may wish to consider recommending amendments to the 2019 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 GVS&DD Financial Plan.

SUMMARY / CONCLUSION

The 2019 Budget and Five Year Financial Plan for Liquid Waste Services has been prepared to respond to direction provided in the *Board Strategic Plan* and support the Liquid Waste Management Plan. It is presented to Committee and Board members to provide overview information on activities and financial impacts for the years 2019 to 2023 for Liquid Waste Services.

The presentation of the 2019 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 2019 Budget and Five Year Financial Plan and Annual Work Plans for Liquid Waste Services as presented under alternative one.

Attachments:

1. 2019 - 2023 "What's Happening"
2. 2019 - 2023 Liquid Waste Services Financial Plan
3. 2019 - 2023 Liquid Waste Services Capital Budget Summary
4. 2019 Work Plans
5. 2019 - 2023 Projected Reserves - Liquid Waste Services
6. Organizational Chart

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2019 - 2023 "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
2019		
Annacis Island WWTP Cogeneration Upgrade	Installation of new Cogeneration engines complete and engines operating.	Environmental Protection and Climate Action
Iona Island WWTP Secondary Upgrade	Complete the scope definition, cost estimate and indicative design for the new Iona Island secondary WWTP.	Environmental Protection and Climate Action
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.	Addressing Regional Growth
Biosolids Management Strategy Update	Update the Biosolids Management Strategy, identifying action plant to manage future increases in biosolids generation resulting from growth and secondary treatment upgrades.	Environmental Protection and Climate Action
2020		
Lulu Island WWTP Green Biomethane Project	Commencement of operation of biogas scrubbing system that will use excess Digester Gas to generate green biomethane that will be sold to the natural gas utility.	Environmental Protection and Climate Action
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	Start-up and commencement of operation of the North Shore WWTP to meet the Federally mandated 2020 timeline for secondary treatment.	Environmental Protection and Climate Action
2021		
Integrated Liquid Waste and Resource Management Plan	Update the Integrated Liquid Waste and Resource Management Plan. The Plan was approved in 2011.	Environmental Protection and Climate Action
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 Protection and Climate Action
Hydrothermal Processing Demonstration Facility	Commencement of operation of the facility demonstration facility and initial production of biocrude oil.	Environmental Protection and Climate Action
Iona Island WWTP Temporary 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.	Environmental Protection and Climate Action

North Shore WWTP	Increased production of biosolids from the secondary plant and commencement of decommissioning of the Lions Gate WWTP.	Environmental Protection and Climate Action
Sanitary Storage Overflow (SSO) Tanks	Completion of construction and commencement of operation of the SSO tanks at Golden Ears and the North Surrey Interceptor to manage excess Inflow and Infiltration entering the system upstream of the trunk sewers.	Environmental Protection and Climate Action
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 Protection and Climate Action
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.	Environmental Protection and Climate Action
North Shore WWTP	Hand-over of the North Shore WWTP including responsibility for all costs associated with operating the new secondary treatment plant.	Environmental Protection and Climate Action
Annacis Island WWTP Stage 5 Expansion and Outfall System	Completion of construction of Phase 1 of the Annacis Island WWTP Stage 5 Expansion (Primary Sedimentation Tanks, Solids Contact Tanks and Secondary Clarifiers) and commencement of operation.	Addressing Regional Growth
2023		
Annacis Island WWTP Outfall System	Completion of construction of the Outfall System	Addressing Regional Growth
Iona Island WWTP Secondary Upgrade	First release of construction tenders for Iona Island WWTP Upgrade.	Environmental Protection and Climate Action

ATTACHMENT 2

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
LIQUID WASTE SERVICES
2019 BUDGET REVIEW
2019-2023 FINANCIAL PLAN

	2016 ACTUAL	2017 ACTUAL	2018 BUDGET	2019 BUDGET	% CHANGE	2020 FORECAST	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE
REVENUES													
GVS&DD Levy	$ 200,250,619	$ 213,889,658	$ 232,134,204	$ 255,810,755	10.2%	$ 281,805,671	10.2%	$ 315,510,034	12.0%	$ 353,685,341	12.1%	$ 376,133,837	6.3%
User Fees	2,345,849	2,500,967	2,537,546	2,403,269		2,449,334		2,501,321		2,549,248		2,603,133	
Transfer from DCC Reserves	6,045,889	5,201,933	12,926,848	31,665,173		42,233,468		58,294,850		75,879,458		91,550,577	
BOD/TSS Industrial Charges	8,495,783	9,838,338	10,144,566	11,022,967		10,870,331		11,087,737		11,309,491		11,535,681	
Other External Revenues	974,425	1,064,312	150,000	540,000		545,000		545,000		550,000		550,000	
Sustainability Reserve Funds	428,417	187,863	2,034,818	475,000		290,000		-		-		-	
Reserves	566,412	35,871	6,981,936	6,663,461		3,777,974		2,619,746		1,565,461		25,000	
TOTAL REVENUES	**$ 219,107,394**	**$ 232,718,942**	**$ 266,909,919**	**$ 308,580,625**	**15.6%**	**$ 341,971,778**	**10.8%**	**$ 390,558,688**	**14.2%**	**$ 445,538,999**	**14.1%**	**$ 482,398,228**	**8.3%**
EXPENDITURES													
Operating Programs:													
Policy Planning and Analysis													
Sustainability Fund	$ 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	1,140,350	1,327,637	1,591,433	1,992,283		1,769,335		1,796,819		1,749,680		1,628,120	
Utility Policy and Planning	1,123,427	1,426,255	1,656,183	1,844,851		2,469,096		2,514,693		1,851,642		2,006,266	
	3,390,777	3,880,892	4,374,616	4,964,134	13.5%	5,365,431	8.1%	5,438,512	1.4%	4,728,322	(13.1%)	4,761,386	0.7%
Management Systems and Utility Services													
Annacis Research Centre	443,286	442,392	484,596	513,674		480,038		518,293		520,910		503,514	
Department Technical Training	972,834	1,071,804	935,688	566,644		568,206		571,040		570,892		571,524	
Dispatch	126,409	122,953	117,352	127,983		130,997		133,676		136,401		139,188	
Energy Management	213,092	219,498	244,983	246,745		260,058		259,229		274,159		273,587	
Engineers in Training	522,484	354,357	575,440	588,263		602,380		614,461		626,721		639,247	
Engineering Standards	100,377	101,491	108,180	116,919		119,753		122,215		124,717		127,274	
Liquid Waste Residuals	14,736,438	16,514,470	23,501,906	28,392,006		28,023,839		27,595,480		28,454,971		20,743,327	
Management Systems Utility Services	1,212,139	1,430,222	1,559,041	2,457,172		2,488,642		2,715,432		2,894,269		2,938,776	
Records Management	94,571	98,036	100,171	108,318		110,944		113,225		115,544		117,914	
Utility Voice Radio	136,180	161,480	146,803	159,409		161,038		162,517		164,019		165,553	
Wastewater Research and Innovation	1,345,782	1,376,492	3,245,620	1,747,459		1,689,563		1,419,275		1,443,732		1,464,060	
	19,903,592	21,893,195	31,019,780	35,024,592	12.9%	34,635,458	(1.1%)	34,224,843	(1.2%)	35,326,335	3.2%	27,683,964	(21.6%)
Environmental Management and Quality Control													
Environmental Management and Quality Control	9,473,073	10,227,747	11,199,616	11,529,370		12,141,095		12,708,200		12,846,497		13,111,851	
Source Compliance Monitoring	229,530	363,894	417,302	420,620		428,845		437,382		446,005		454,813	
Contribution to Reserve	91,890	93,819	95,788	97,800		99,854		101,951		104,092		106,278	
	9,794,493	10,685,460	11,712,706	12,047,790	2.9%	12,669,794	5.2%	13,247,533	4.6%	13,396,594	1.1%	13,672,942	2.1%
Project Delivery													
Minor Capital Projects	4,751,842	4,259,572	7,053,192	8,025,514		7,333,155		7,375,916		7,552,186		7,712,447	
Public Involvement	1,106,776	1,131,284	1,180,470	1,207,174		1,234,458		1,259,139		1,284,227		1,309,845	
	5,858,618	5,390,856	8,233,662	9,232,688	12.1%	8,567,613	(7.2%)	8,635,055	0.8%	8,836,413	2.3%	9,022,292	2.1%
Operations and Maintenance													
Lake City Operations	1,024,083	983,882	957,645	965,125		1,033,884		1,047,912		1,066,235		1,084,949	
Maintenance	28,785,795	28,661,200	30,398,028	29,390,557		30,457,633		31,695,203		32,652,957		33,439,799	
SCADA Control Systems	968,751	848,848	976,099	984,573		1,003,169		994,751		1,010,854		1,027,364	
Urban Drainage	975,441	846,217	1,141,794	1,048,272		1,073,950		1,097,908		1,122,551		1,147,701	
Wastewater Collection	11,831,353	12,712,575	12,889,510	14,977,385		15,772,916		16,085,750		16,081,459		16,523,770	
Wastewater Treatment	35,014,593	35,783,299	38,568,317	39,767,060		40,239,393		41,640,383		45,261,447		46,401,029	
	78,600,016	79,836,021	84,931,393	87,132,972	2.6%	89,580,945	2.8%	92,561,907	3.3%	97,195,503	5.0%	99,624,612	2.5%
Administration and Department Support	1,883,917	1,891,856	2,058,772	2,126,503	3.3%	2,176,016	2.3%	2,219,405	2.0%	2,263,891	2.0%	2,308,794	2.0%
Communication and Outreach	375,387	409,201	400,000	400,000	0.0%	400,000	0.0%	400,000	0.0%	400,000	0.0%	400,000	0.0%
Environmental Regulation and Enforcement	1,534,419	1,543,920	1,770,679	1,899,700	7.3%	1,944,520	2.4%	1,983,672	2.0%	2,023,465	2.0%	2,062,778	1.9%
Allocation of Centralized Costs	16,192,380	19,588,472	22,094,123	22,757,172	3.0%	24,806,053	9.0%	25,249,271	1.8%	26,290,833	4.1%	27,219,060	3.5%
Total Operating Programs	137,533,599	145,119,873	166,595,731	175,585,551	5.4%	180,145,830	2.6%	183,960,198	2.1%	190,461,356	3.5%	186,755,828	(1.9%)
Debt Service	12,072,032	14,175,516	25,611,895	54,340,894	112.2%	80,015,606	47.2%	124,530,354	55.6%	172,072,147	38.2%	212,368,696	23.4%
Contribution to Capital	60,250,687	64,788,365	74,702,292	78,654,181	5.3%	81,810,342	4.0%	82,068,135	0.3%	83,005,495	1.1%	83,273,704	0.3%
TOTAL EXPENDITURES	**$ 209,856,318**	**$ 224,083,754**	**$ 266,909,919**	**$ 308,580,625**	**15.6%**	**$ 341,971,778**	**10.8%**	**$ 390,558,688**	**14.2%**	**$ 445,538,999**	**14.1%**	**$ 482,398,228**	**8.3%**
Household Impact			$ 231	$ 250	8.2%	$ 271	8.2%	$ 298	10.0%	$ 328	10.2%	$ 343	4.5%

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
LIQUID WASTE REGULATION
2019 BUDGET REVIEW

	2016 ACTUAL	2017 ACTUAL	2018 BUDGET	2019 BUDGET	% CHANGE	2020 FORECAST	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE
REVENUES													
Liquid Waste Revenues	$ 1,534,419	$ 1,543,920	$ 1,770,679	$ 1,899,700	7.3%	$ 1,944,520	2.4%	$ 1,983,672	2.0%	$ 2,023,465	2.0%	$ 2,062,778	1.9%
TOTAL REVENUES	**$ 1,534,419**	**$ 1,543,920**	**$ 1,770,679**	**$ 1,899,700**	**7.3%**	**$ 1,944,520**	**2.4%**	**$ 1,983,672**	**2.0%**	**$ 2,023,465**	**2.0%**	**$ 2,062,778**	**1.9%**
EXPENDITURES													
Operating Programs:													
Environmental Regulation and Enforcement	$ 1,411,681	$ 1,413,674	$ 1,596,829	$ 1,765,868		$ 1,807,555		$ 1,843,997		$ 1,881,038		$ 1,918,903	
Administration and Department Support	122,738	130,246	173,850	133,832		136,965		139,675		142,427		143,875	
TOTAL EXPENDITURES	**$ 1,534,419**	**$ 1,543,920**	**$ 1,770,679**	**$ 1,899,700**	**7.3%**	**$ 1,944,520**	**2.4%**	**$ 1,983,672**	**2.0%**	**$ 2,023,465**	**2.0%**	**$ 2,062,778**	**1.9%**

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
LIQUID WASTE SERVICES
VANCOUVER SEWERAGE AREA
2019-2023 FINANCIAL PLAN

	2016 ACTUAL	2017 ACTUAL	2018 BUDGET	2019 BUDGET	% CHANGE	2020 FORECAST	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE
REVENUES													
GVS&DD Levy	$ 64,653,215	$ 65,382,851	$ 73,438,596	$ 79,609,908	8.4%	$ 84,364,454	6.0%	$ 87,186,354	3.3%	$ 91,543,170	5.0%	$ 93,771,001	2.4%
User Fees	476,311	609,571	523,302	579,307		589,847		602,618		613,584		626,789	
Transfer from DCC Reserves	507,749	-	1,814,366	3,096,988		4,654,003		6,176,219		7,665,751		8,781,541	
BOD/TSS Industrial Charges	2,416,910	2,693,709	2,912,153	2,849,111		2,532,998		2,583,658		2,635,331		2,688,038	
Other External Revenues	215,034	140,656	-	82,120		84,140		84,140		86,160		86,160	
Sustainability Reserve Funds	174,751	74,957	834,886	191,900		117,160		-		-		-	
Reserves	-	-	2,693,075	5,251,461		3,661,251		2,594,746		1,540,461		-	
TOTAL REVENUES	**$ 68,443,970**	**68,901,744**	**$ 82,216,378**	**$ 91,660,795**	**11.5%**	**$ 96,003,854**	**4.7%**	**$ 99,227,735**	**3.4%**	**$ 104,084,456**	**4.9%**	**$ 105,953,529**	**1.8%**
EXPENDITURES													
Operating Programs:													
Policy Planning and Analysis	$ 1,349,763	$ 1,521,582	$ 1,701,400	$ 1,912,926		$ 2,112,903		$ 2,141,979		$ 1,854,605		$ 1,867,498	
Management Systems and Utility Services	7,710,532	9,429,855	13,433,319	15,998,571		15,200,583		15,264,184		15,801,815		12,043,280	
Environmental Management and Quality Control	3,015,680	3,202,158	4,619,952	4,686,358		4,928,398		5,160,415		5,216,268		5,322,804	
Project Delivery	1,798,972	1,876,841	2,935,190	3,903,059		3,082,348		3,095,486		3,166,274		3,225,961	
Operations and Maintenance	20,411,594	20,981,794	21,905,116	22,358,251		23,541,683		23,252,307		24,247,665		25,288,780	
Administration and Department Support	561,428	568,578	624,755	654,601		669,843		683,199		696,896		710,715	
Communications Program	153,120	163,271	164,120	161,600		161,600		161,600		161,600		161,600	
Environmental Regulation and Enforcement	317,994	316,842	337,137	353,913		362,264		369,558		376,972		384,296	
Allocation of Centralized Support Costs	4,825,488	5,887,122	6,704,683	7,034,097		7,372,265		7,090,274		6,675,748		6,377,721	
Total Operating Programs	40,144,571	43,948,043	52,425,671	57,063,376	8.8%	57,431,887	0.6%	57,219,002	(0.4%)	58,197,843	1.7%	55,382,655	(4.8%)
Debt Service	2,591,680	2,505,248	4,103,480	5,864,427	42.9%	8,588,871	46.5%	11,978,023	39.5%	15,200,367	26.9%	19,835,090	30.5%
Contribution to Capital	22,816,743	21,430,406	25,687,227	28,732,992	11.9%	29,983,096	4.4%	30,030,710	0.2%	30,686,246	2.2%	30,735,784	0.2%
TOTAL EXPENDITURES	**$ 65,552,994**	**$ 67,883,697**	**$ 82,216,378**	**$ 91,660,795**	**11.5%**	**$ 96,003,854**	**4.7%**	**$ 99,227,735**	**3.4%**	**$ 104,084,456**	**4.9%**	**$ 105,953,529**	**1.8%**
Household Impact			$ 274	$ 293	7.0%	$ 307	4.8%	$ 314	2.1%	$ 325	3.8%	$ 329	1.0%

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
LIQUID WASTE SERVICES
NORTH SHORE SEWERAGE AREA
2019-2023 FINANCIAL PLAN

	2016 ACTUAL	2017 ACTUAL	2018 BUDGET	2019 BUDGET	% CHANGE	2020 FORECAST	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE
REVENUES													
GVS&DD Levy	$ 18,604,713	$ 20,407,056	$ 21,950,741	$ 23,045,180	5.0%	$ 28,011,369	21.5%	$ 35,609,582	27.1%	$ 44,624,166	25.3%	$ 47,730,816	7.0%
User Fees	76,588	81,849	85,585	71,525		72,848		74,533		75,909		77,649	
Transfer from DCC Reserves	487,479	70,828	963,543	1,409,438		1,563,300		2,227,516		2,327,883		2,901,370	
BOD/TSS Industrial Charges	534,966	695,989	667,407	759,135		774,318		789,804		805,600		821,712	
Other External Revenues	2,491	1,818	-	2,016		2,352		2,352		2,688		2,688	
Sustainability Reserve Funds	67,404	13,319	141,827	31,920		19,488		-		-		-	
Reserves	-	-	-	-		11,305		-		-		-	
TOTAL REVENUES	**$ 19,773,641**	**$ 21,270,859**	**$ 23,809,103**	**$ 25,319,214**	**6.3%**	**$ 30,454,980**	**20.3%**	**$ 38,703,787**	**27.1%**	**$ 47,836,246**	**23.6%**	**$ 51,534,235**	**7.7%**
EXPENDITURES													
Operating Programs:													
Policy Planning and Analysis	$ 227,554	$ 266,107	$ 289,027	$ 318,189		$ 351,453		$ 356,289		$ 308,488		$ 310,633	
Management Systems and Utility Services	992,597	827,999	1,135,070	1,230,109		1,207,369		1,203,084		1,246,956		1,067,686	
Environmental Management and Quality Control	1,799,156	1,967,466	903,032	905,015		951,972		992,338		1,004,743		1,025,722	
Project Delivery	345,059	236,999	376,467	351,874		361,852		362,455		370,620		378,559	
Operations and Maintenance	9,432,767	9,739,934	10,540,446	11,167,622		12,222,511		11,688,692		14,723,931		14,730,390	
Administration and Department Support	167,254	172,178	186,833	189,577		193,992		197,860		201,826		205,829	
Communications Program	25,827	29,012	27,880	26,880		26,880		26,880		26,880		26,880	
Environmental Regulation and Enforcement	99,757	99,795	109,959	112,653		115,310		117,632		119,991		122,323	
Allocation of Centralized Support Costs	1,437,559	1,782,745	2,005,042	2,024,686		2,019,344		2,258,203		2,613,845		2,923,592	
Total Operating Programs	14,527,530	15,122,235	15,573,756	16,326,605	4.8%	17,450,683	6.9%	17,203,434	(1.4%)	20,617,281	19.8%	20,791,615	0.8%
Debt Service	2,022,851	1,480,450	2,855,516	3,082,684	8.0%	5,363,676	74.0%	13,828,423	157.8%	19,447,657	40.6%	22,938,737	18.0%
Contribution to Capital	2,765,755	3,953,505	5,379,831	5,909,925	9.9%	7,640,621	29.3%	7,671,931	0.4%	7,771,308	1.3%	7,803,883	0.4%
TOTAL EXPENDITURES	**$ 19,316,136**	**$ 20,556,190**	**$ 23,809,103**	**$ 25,319,214**	**6.3%**	**$ 30,454,980**	**20.3%**	**$ 38,703,787**	**27.1%**	**$ 47,836,246**	**23.6%**	**$ 51,534,235**	**7.7%**
Household Impact			$ 292	$ 304	4.1%	$ 366	20.3%	$ 460	25.8%	$ 571	24.1%	$ 605	5.9%

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
LIQUID WASTE SERVICES
LULU ISLAND WEST SEWERAGE AREA
2019-2023 FINANCIAL PLAN

	2016 ACTUAL	2017 ACTUAL	2018 BUDGET	2019 BUDGET	% CHANGE	2020 FORECAST	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE
REVENUES													
GVS&DD Levy	$ 20,226,292	$ 19,561,956	$ 19,914,895	$ 21,446,957	7.7%	$ 25,352,868	18.2%	$ 30,452,494	20.1%	$ 34,514,478	13.3%	$ 35,946,478	4.1%
User Fees	140,750	165,376	174,622	138,058		140,704		143,763		146,516		149,684	
Transfer from DCC Reserves	174,315	113,583	438,017	519,742		1,115,863		1,804,863		2,677,196		3,423,625	
BOD/TSS Industrial Charges	459,523	843,586	744,778	907,497		925,647		944,160		963,043		982,304	
Other External Revenues	86,623	177,256	-	2,160		2,520		2,520		2,880		2,880	
Sustainability Reserve Funds	31,103	13,902	142,844	34,200		20,880		-		-		-	
Reserves	-	-	-	-		11,334		-		-		-	
TOTAL REVENUES	**$ 21,118,606**	**$ 20,875,659**	**$ 21,415,155**	**$ 23,048,613**	**7.6%**	**$ 27,569,816**	**19.6%**	**$ 33,347,800**	**21.0%**	**$ 38,304,113**	**14.9%**	**$ 40,504,971**	**5.7%**
EXPENDITURES													
Operating Programs:													
Policy Planning and Analysis	$ 236,636	$ 277,742	$ 291,099	$ 340,917		$ 376,557		$ 381,739		$ 330,524		$ 332,821	
Management Systems and Utility Services	1,814,486	1,800,089	2,124,573	2,099,468		2,213,803		2,068,791		2,142,769		1,779,545	
Environmental Management and Quality Control	1,009,140	1,111,352	865,651	909,069		955,963		997,827		1,009,558		1,030,648	
Project Delivery	544,908	480,329	1,178,910	1,193,030		1,224,842		1,252,115		1,283,631		1,315,756	
Operations and Maintenance	7,301,286	7,506,394	8,188,276	8,496,802		8,919,301		9,178,693		9,366,929		9,566,056	
Administration and Department Support	172,868	173,729	175,922	169,674		173,624		177,086		180,636		184,219	
Communications Program	27,253	30,281	28,080	28,800		28,800		28,800		28,800		28,800	
Environmental Regulation and Enforcement	168,358	161,744	185,744	182,562		186,868		190,631		194,455		198,233	
Allocation of Centralized Support Costs	1,485,812	1,798,811	1,887,943	1,815,715		1,842,055		2,045,470		2,248,486		2,336,193	
Total Operating Programs	12,760,747	13,340,471	14,926,198	15,236,037	2.1%	15,921,813	4.5%	16,321,152	2.5%	16,785,788	2.8%	16,772,271	(0.1%)
Debt Service	188,388	164,089	876,668	1,571,032	79.2%	5,376,619	242.2%	10,724,826	99.5%	15,185,456	41.6%	17,368,165	14.4%
Contribution to Capital	4,780,089	4,755,631	5,612,289	6,241,544	11.2%	6,271,385	0.5%	6,301,822	0.5%	6,332,868	0.5%	6,364,535	0.5%
TOTAL EXPENDITURES	**$ 17,729,224**	**$ 18,260,191**	**$ 21,415,155**	**$ 23,048,613**	**7.6%**	**$ 27,569,816**	**19.6%**	**$ 33,347,800**	**21.0%**	**$ 38,304,113**	**14.9%**	**$ 40,504,971**	**5.7%**
Household Impact			$ 205	$ 214	4.7%	$ 249	16.2%	$ 293	17.9%	$ 326	11.2%	$ 333	2.2%

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
LIQUID WASTE SERVICES
FRASER SEWERAGE AREA
2019-2023 FINANCIAL PLAN

	2016 ACTUAL	2017 ACTUAL	2018 BUDGET	2019 BUDGET	% CHANGE	2020 FORECAST	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE
REVENUES													
GVS&DD Levy	$ 94,465,317	$ 105,989,926	$ 114,012,490	$ 129,540,876	13.6%	$ 141,545,458	9.3%	$ 159,715,748	12.8%	$ 180,414,748	13.0%	$ 196,035,971	8.7%
User Fees	1,652,200	1,644,171	1,754,037	1,614,379		1,645,935		1,680,407		1,713,239		1,749,011	
Transfer from DCC Reserves	4,876,346	5,017,522	9,710,923	26,639,005		34,900,302		48,086,252		63,208,628		76,444,040	
BOD/TSS Industrial Charges	5,084,384	5,605,054	5,820,228	6,507,224		6,637,368		6,770,115		6,905,517		7,043,627	
Other External Revenues	541,877	744,582	150,000	453,704		455,988		455,988		458,272		458,272	
Sustainability Reserve Funds	155,159	85,685	915,261	216,980		132,472		-		-		-	
Reserves	566,412	-	4,140,000	950,000		69,084		-		-		-	
TOTAL REVENUES	**$ 107,341,695**	**$ 119,086,940**	**$ 136,502,939**	**$ 165,922,169**	**21.6%**	**$ 185,386,607**	**11.7%**	**$ 216,708,510**	**16.9%**	**$ 252,700,404**	**16.6%**	**$ 281,730,921**	**11.5%**
EXPENDITURES													
Operating Programs:													
Policy Planning and Analysis	$ 1,474,333	$ 1,711,869	$ 1,865,196	$ 2,162,933		$ 2,389,046		$ 2,421,920		$ 2,096,990		$ 2,111,567	
Management Systems and Utility Services	9,359,500	9,806,615	14,288,979	15,663,432		15,980,095		15,652,678		16,096,577		12,754,772	
Environmental Management and Quality Control	3,970,517	4,404,484	5,324,071	5,547,348		5,833,461		6,096,953		6,166,025		6,293,768	
Project Delivery	3,069,093	2,434,501	3,225,356	3,032,756		3,122,558		3,130,995		3,203,515		3,271,827	
Operations and Maintenance	40,271,058	40,530,550	42,763,661	43,753,258		43,515,645		47,047,602		47,426,214		48,554,836	
Administration and Department Support	959,987	955,198	1,045,569	1,089,153		1,114,512		1,136,735		1,159,519		1,182,518	
Communications Program	169,187	186,637	179,920	182,720		182,720		182,720		182,720		182,720	
Environmental Regulation and Enforcement	948,310	965,539	1,137,839	1,250,572		1,280,078		1,305,851		1,332,047		1,357,926	
Allocation of Centralized Support Costs	8,251,149	9,890,224	11,220,721	11,647,527		13,366,811		13,670,301		14,583,058		15,424,782	
Total Operating Programs	68,473,134	70,885,617	81,051,312	84,329,698	4.0%	86,784,926	2.9%	90,645,755	4.4%	92,246,664	1.8%	91,134,716	(1.2%)
Debt Service	7,269,113	9,919,135	17,824,576	43,822,751	145.9%	60,686,441	38.5%	87,999,082	45.0%	122,238,666	38.9%	152,226,704	24.5%
Contribution to Capital	29,492,206	34,252,929	37,627,051	37,769,719	0.4%	37,915,241	0.4%	38,063,673	0.4%	38,215,073	0.4%	38,369,502	0.4%
TOTAL EXPENDITURES	**$ 105,234,453**	**$ 115,057,681**	**$ 136,502,939**	**$ 165,922,169**	**21.6%**	**$ 185,386,607**	**11.7%**	**$ 216,708,510**	**16.9%**	**$ 252,700,404**	**16.6%**	**$ 281,730,921**	**11.5%**
Household Impact			$ 205	$ 226	10.5%	$ 243	7.1%	$ 268	10.4%	$ 296	10.6%	$ 315	6.5%

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
LIQUID WASTE SERVICES
DRAINAGE
2019-2023 FINANCIAL PLAN

	2016 ACTUAL	2017 ACTUAL	2018 BUDGET	2019 BUDGET	% CHANGE	2020 FORECAST	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE
REVENUES													
GVS&DD Levy	$ 2,301,082	$ 2,547,869	$ 2,866,240	$ 2,167,834	(24.4%)	$ 2,531,521	16.8%	$ 2,545,856	0.6%	$ 2,588,780	1.7%	$ 2,649,571	2.3%
Other External Revenues	128,400	-	-	-		-		-		-		-	
Reserves	-	35,871	148,861	462,000		25,000		25,000		25,000		25,000	
TOTAL REVENUES	**$ 2,429,482**	**$ 2,583,740**	**$ 3,015,101**	**2,629,834**	**(12.8%)**	**$ 2,556,521**	**(2.8%)**	**$ 2,570,856**	**0.6%**	**$ 2,613,780**	**1.7%**	**$ 2,674,571**	**2.3%**
EXPENDITURES													
Operating Programs:													
Policy Planning and Analysis	$ 102,491	$ 103,592	$ 227,894	$ 229,169		$ 135,472		$ 136,585		$ 137,715		$ 138,867	
Management Systems and Utility Services	26,477	28,637	38,252	33,012		33,608		36,106		38,218		38,681	
Project Delivery	100,586	362,186	517,739	751,969		776,013		794,004		812,373		830,189	
Operations and Maintenance	1,183,311	1,077,349	1,533,894	1,357,039		1,381,805		1,394,613		1,430,764		1,484,550	
Administration and Department Support	22,380	22,173	25,693	23,498		24,045		24,525		25,014		25,513	
Allocation of Centralized Support Costs	192,372	229,570	275,735	235,147		205,578		185,023		169,696		156,771	
Total Operating Programs	1,627,617	1,823,507	2,619,207	2,629,834	0.4%	2,556,521	(2.8%)	2,570,856	0.6%	2,613,780	1.7%	2,674,571	2.3%
Contribution to Capital	395,894	395,894	395,894	-	(100.0%)	-	0.0%	-	0.0%	-	0.0%	-	0.0%
TOTAL EXPENDITURES	**$ 2,151,911**	**$ 2,219,401**	**$ 3,015,101**	**$ 2,629,834**	**(12.8%)**	**$ 2,556,521**	**(2.8%)**	**$ 2,570,856**	**0.6%**	**$ 2,613,780**	**1.7%**	**$ 2,674,571**	**2.3%**

GREATER VANCOUVER SEWERAGE DRAINAGE DISTRICT
CAPITAL PROGRAMS PROJECT TOTALS
LIQUID WASTE SERVICES
2019 - 2023 CAPITAL PLAN

ATTACHMENT 3

	2019 CAPITAL BUDGET	2020 CAPITAL PLAN	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2019 TO 2023 TOTAL	TOTAL PROJECT COSTS
CAPITAL EXPENDITURES							
SD Infrastructure Growth Capital							
AIWWTP Site Construction Layout							
FSA - AIWWTP Site Construction Layout	$ 450,000	$ -	$ -	$ -	$ -	$ 450,000	$ 600,000
AIWWTP Stage 5 Expansion & Outfall System							
FSA - Annacis Outfall System	28,600,000	81,000,000	83,000,000	76,000,000	57,950,000	326,550,000	378,000,000
FSA - Annacis Stage 5 Expansion Phase 1 T1 & T2	34,000,000	2,200,000	-	-	-	36,200,000	243,500,000
FSA - Annacis Stage 5 Expansion Phase 2	550,000	3,000,000	3,000,000	5,100,000	-	11,650,000	22,000,000
FSA - Annacis Stage 5 Expansion Phase 2a	35,500,000	35,000,000	8,000,000	6,400,000	-	84,900,000	180,000,000
FSA - Annacis Stage 5 Expansion Phase 2b	10,000,000	15,000,000	15,000,000	10,500,000	18,500,000	69,000,000	150,000,000
FSA - Annacis Stage 5 Expansion Phase 2c	-	-	-	5,000,000	5,000,000	10,000,000	90,000,000
Albert Street Trunk Sewer							
FSA - Albert Street Trunk Sewer	2,700,000	600,000	1,500,000	300,000	-	5,100,000	5,550,000
Burnaby Lake North Interceptor							
FSA - Burnaby Lake North Interceptor Cariboo Section	1,200,000	2,300,000	15,000,000	10,500,000	12,000,000	41,000,000	41,000,000
FSA - Burnaby Lake North Interceptor Winston Section	1,900,000	25,000,000	40,000,000	29,600,000	16,950,000	113,450,000	116,950,000
Burnaby South Slope Interceptor							
FSA - Burnaby South Slope Interceptor Main Branch	-	150,000	550,000	450,000	3,450,000	4,600,000	9,500,000
FSA - Burnaby South Slope Interceptor West Branch Extension	-	-	-	250,000	750,000	1,000,000	13,200,000
Cloverdale PS Upgrade							
FSA - Cloverdale PS Upgrade	500,000	1,200,000	750,000	10,000,000	10,500,000	22,950,000	31,100,000
Cloverdale Trunk Sewer Upgrade							
FSA - Cloverdale Trunk Sewer Upgrade	-	300,000	1,050,000	1,200,000	8,400,000	10,950,000	29,000,000
Collingwood Trunk Sewer							
VSA - Collingwood Trunk Sewer	100,000	-	-	-	-	100,000	5,415,000
Glenbrook Combined Trunk Kingsway Sanitary Section							
FSA - Glenbrook Combined Trunk Kingsway Sanitary Section	150,000	200,000	2,000,000	500,000	-	2,850,000	3,000,000
Hastings Sanitary Trunk Sewer							
VSA - Hastings Sanitary Trunk Sewer	6,000,000	1,050,000	-	-	-	7,050,000	15,031,000
VSA - Hastings Sanitary Trunk Sewer No. 2	9,000,000	3,300,000	4,000,000	-	-	16,300,000	20,000,000
Hastings-Cassiar Intake Connection							
VSA - Hastings-Cassiar Intake Connection	300,000	200,000	-	-	-	500,000	750,000

GREATER VANCOUVER SEWERAGE DRAINAGE DISTRICT
CAPITAL PROGRAMS PROJECT TOTALS
LIQUID WASTE SERVICES
2019 - 2023 CAPITAL PLAN

	2019 CAPITAL BUDGET	2020 CAPITAL PLAN	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2019 TO 2023 TOTAL	TOTAL PROJECT COSTS
LIWWTP Digester No 3							
LSA - Lulu Island WWTP Digester No 3	2,250,000	2,350,000	10,100,000	12,000,000	10,000,000	36,700,000	53,300,000
Lozells Sanitary Trunk Golf Course Section							
FSA - Lozells Sanitary Trunk Golf Course Section	-	-	-	1,000,000	1,000,000	2,000,000	27,650,000
Marshend Pump Station							
FSA - Marshend Pump Station Capacity Upgrade	600,000	750,000	4,000,000	1,000,000	3,000,000	9,350,000	10,025,000
NLWWTP Clarifiers							
FSA - NLWWTP Clarifiers	2,000,000	2,000,000	2,000,000	2,000,000	1,800,000	9,800,000	64,300,000
North Road Trunk Sewer							
FSA - North Road Trunk Sewer	3,000,000	2,000,000	1,500,000	-	-	6,500,000	7,675,000
FSA - North Road Trunk Sewer Phase 2	300,000	500,000	500,000	2,000,000	500,000	3,800,000	3,938,000
North Vancouver Interceptor - Lynn Branch Pre-build							
NSA - North Vancouver Interceptor - Lynn Branch Pre-build	100,000	-	-	-	-	100,000	3,950,000
Northwest Langley Wastewater Treatment Projects							
FSA - Golden Ears Forcemain and River Crossing	6,500,000	8,500,000	40,000,000	30,000,000	-	85,000,000	86,000,000
FSA - Golden Ears Pump Station	5,700,000	12,200,000	15,000,000	7,100,000	100,000	40,100,000	50,200,000
FSA - NLWWTP Ground Improvements	18,000,000	22,000,000	3,000,000	-	15,000,000	58,000,000	83,000,000
FSA - NLWWTP Outfall	-	1,500,000	6,500,000	4,000,000	22,000,000	34,000,000	159,000,000
FSA - NLWWTP Stage 1	12,000,000	35,000,000	39,000,000	40,000,000	146,000,000	272,000,000	901,000,000
NSI Flow Management							
FSA - NSI Flow Management	3,800,000	15,000,000	15,000,000	5,000,000	-	38,800,000	42,500,000
Port Moody PS Upgrade							
FSA - Port Moody PS Upgrade	400,000	50,000	4,500,000	3,800,000	-	8,750,000	9,755,000
Port Moody South Interceptor Upgrade							
FSA - Port Moody South Interceptor Upgrade	-	150,000	350,000	1,000,000	1,000,000	2,500,000	3,450,000
Rosemary Heights Pressure Sewer Upgrade							
FSA - Rosemary Heights Pressure Sewer Upgrade	-	150,000	500,000	650,000	4,800,000	6,100,000	10,750,000
Sapperton Pump Station							
FSA - Sapperton Forcemain Pump Station Connections	500,000	-	-	-	-	500,000	10,000,000
FSA - Sapperton Pump Station	10,000,000	8,000,000	15,000,000	-	-	33,000,000	82,003,000
South Surrey Interceptor Twinning							
FSA - South Surrey Interceptor Johnston Section	20,000,000	10,000,000	4,750,000	-	-	34,750,000	66,176,000
FSA - SSI - King George Section - Odor Control Facility (OCF) and Grit Chamber	6,500,000	3,500,000	500,000	-	-	10,500,000	19,500,000

GREATER VANCOUVER SEWERAGE DRAINAGE DISTRICT
CAPITAL PROGRAMS PROJECT TOTALS
LIQUID WASTE SERVICES
2019 - 2023 CAPITAL PLAN

	2019 CAPITAL BUDGET	2020 CAPITAL PLAN	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2019 TO 2023 TOTAL	TOTAL PROJECT COSTS
Sperling Pump Station							
FSA - Sperling PS Increase Pump Capacity	750,000	400,000	-	-	-	1,150,000	3,150,000
Surrey Central Valley Upgrade							
FSA - Surrey Central Valley Upgrade	-	-	150,000	450,000	1,000,000	1,600,000	60,800,000
	$ 223,350,000	**$ 294,550,000**	**$ 336,200,000**	**$ 265,800,000**	**$ 339,700,000**	**$ 1,459,600,000**	**$ 3,112,718,000**
SD Infrastructure Maintenance Capital							
AIWWTP Fibre Optic Infrastructure							
FSA - AIWWTP Fibre Optic Infrastructure	$ 950,000	$ 100,000	$ -	$ -	$ -	$ 1,050,000	$ 1,500,000
AIWWTP Gravity Thickner and DAF Steel Repair and Recoating							
FSA - AIWWTP Gravity Thickner and DAF Steel Repair and Recoating	150,000	-	-	-	-	150,000	2,000,000
AIWWTP IPS Pump Building Roof Replacement Phase 2							
FSA - AIWWTP IPS Pump Building Roof Replacement Phase 2	100,000	700,000	-	-	-	800,000	830,000
AIWWTP Outfall Repair							
FSA - AIWWTP Outfall Repair	250,000	600,000	550,000	450,000	450,000	2,300,000	2,300,000
AIWWTP Replacement of CDAC Equipment							
FSA - AIWWTP Replacement of CDAC Equipment in Galleries	600,000	1,050,000	350,000	100,000	-	2,100,000	2,895,000
FSA - Annacis Island WWTP - CDAC Component Replacement and Upgrade Program	100,000	-	-	-	-	100,000	1,500,000
AIWWTP Scheduled 64kV Potential & Current Transformer Replacements							
FSA - AIWWTP Scheduled 64kV Potential & Current Transformer Replacements	400,000	300,000	100,000	-	-	800,000	800,000
AIWWTP Secondary Clarifier Corrosion Repair							
FSA - AIWWTP SCL Flow Balancing	-	600,000	900,000	250,000	50,000	1,800,000	2,450,000
FSA - AIWWTP SCL Flow Control	1,050,000	8,000,000	14,000,000	11,000,000	16,000,000	50,050,000	63,500,000
FSA - Annacis Secondary Clarifier Corrosion Repair	50,000	-	-	-	-	50,000	2,534,000
FSA - Annacis Secondary Clarifier Corrosion Repair and Leveling Phase 2	400,000	4,000,000	3,700,000	5,800,000	-	13,900,000	22,000,000
AIWWTP Secondary Effluent Discharge Flowmeter Replacement							
FSA - AIWWTP Secondary Effluent Discharge Flowmeter Replacement	150,000	150,000	100,000	-	-	400,000	400,000
AIWWTP Spare Trickling Filter Pump & Motor Purchase							
FSA - AIWWTP Spare Trickling Filter Pump & Motor Purchase	1,650,000	300,000	-	-	-	1,950,000	1,950,000
AIWWTP Station Battery Replacement							
FSA - AIWWTP Station Battery Replacement - PHASE 2	150,000	100,000	50,000	-	-	300,000	400,000
AIWWTP Trickling Filter Media & Distributor Arms & Ducting Replacement							
FSA - AIWWTP Trickling Filter Media & Distributor Arms & Ducting Replacement	4,750,000	12,000,000	11,900,000	11,200,000	11,200,000	51,050,000	57,900,000

GREATER VANCOUVER SEWERAGE DRAINAGE DISTRICT
CAPITAL PROGRAMS PROJECT TOTALS
LIQUID WASTE SERVICES
2019 - 2023 CAPITAL PLAN

	2019 CAPITAL BUDGET	2020 CAPITAL PLAN	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2019 TO 2023 TOTAL	TOTAL PROJECT COSTS
Annacis MCC 80 051, 80 070, 80 071 Replacement							
FSA - Annacis MCC 80 051, 80 070, 80 071 Replacement	600,000	750,000	150,000	100,000	-	1,600,000	2,844,000
Cambie Trunk Sewer Relocation for Translink Millennium Broadway Extension							
VSA - Cambie Trunk Sewer Relocation for Translink Millennium Broadway Extensior	3,500,000	1,000,000	-	-	-	4,500,000	4,500,000
Cost Allocation Billing Network (Combined 96 F4)							
FSA - Cost Allocation Billing Network (Combined 96 F4)	50,000	-	-	-	-	50,000	5,230,000
Crescent Beach FM - Replacement							
FSA - Crescent Beach FM - Replacement	800,000	7,350,000	1,500,000	-	-	9,650,000	21,515,000
English Bay/Balaclava Outfalls Improvement							
VSA - English Bay/Balaclava Outfalls Improvement	-	-	250,000	500,000	150,000	900,000	900,000
Gilbert/Brighouse Trunk Pressure Sewer							
LSA - Gilbert/Brighouse Trunk Pressure Sewer Rehab Phase 5	-	-	-	-	200,000	200,000	23,200,000
LSA - Gilbert/Brighouse Trunk Pressure Sewer Twinning Phase 2	21,000,000	9,500,000	-	-	-	30,500,000	50,501,000
LSA - Gilbert/Brighouse Trunk Pressure Sewer Twinning Phase 3	-	20,000,000	23,400,000	-	-	43,400,000	44,400,000
LSA - Gilbert/Brighouse Trunk Pressure Sewer Twinning Phase 4	10,000,000	15,000,000	10,000,000	5,400,000	-	40,400,000	41,400,000
Glen Eagles Forcemain Replacement							
NSA - Glen Eagles Forcemains Replacement Phase 2	-	250,000	2,300,000	2,500,000	2,500,000	7,550,000	7,750,000
Glen Eagles Pump Stations							
NSA - Glen Eagles Pump Stations Phase 1	1,500,000	600,000	5,000,000	5,000,000	4,900,000	17,000,000	17,500,000
NSA - Glen Eagles Pump Stations Phase 2	-	1,500,000	2,500,000	6,000,000	5,000,000	15,000,000	25,000,000
Golden Ears SSO Storage							
FSA - Golden Ears SSO Storage	4,500,000	19,000,000	15,000,000	10,000,000	-	48,500,000	51,500,000
Harbour West & East Interceptors Reloc & Protect							
VSA - Harbour West & East Interceptors Reloc & Protect	3,050,000	3,000,000	-	-	-	6,050,000	19,500,000
IIWWTP CDAC IPS Control Replacement							
VSA - IIWWTP CDAC IPS Control Replacement	800,000	950,000	-	-	-	1,750,000	1,750,000
IIWWTP HVAC upgrade							
VSA - IIWWTP HVAC upgrade	50,000	-	-	-	-	50,000	2,095,000
IIWWTP Influent Gate Refurbishment							
VSA - IIWWTP Influent Gate Refurbishment	500,000	250,000	250,000	250,000	-	1,250,000	1,350,000
IIWWTP Maintenance and Administration Building HVAC							
VSA - IIWWTP Maintenance and Administration Building HVAC	150,000	-	-	-	-	150,000	550,000

GREATER VANCOUVER SEWERAGE DRAINAGE DISTRICT
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LIQUID WASTE SERVICES
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	2019 CAPITAL BUDGET	2020 CAPITAL PLAN	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2019 TO 2023 TOTAL	TOTAL PROJECT COSTS
IIWWTP MCC/Power Distribution Assess/Replace - Phase 2							
VSA - IIWWTP MCC/Power Distribution Assess/Replace - Phase 2	200,000	100,000	-	-	-	300,000	1,000,000
IIWWTP PA-Sed Tank & Gallery Wall Refurbishment							
VSA - IIWWTP PA-Sed Tank & Gallery Wall Refurbishment	550,000	450,000	300,000	-	-	1,300,000	1,375,000
IIWWTP Replacement of CoGen Control System							
VSA - IIWWTP Replacement of CoGen Control System	1,350,000	250,000	-	-	-	1,600,000	2,470,000
IIWWTP Sedimentation Tank							
VSA - IIWWTP Sed Tank Trough Replacement	50,000	-	-	-	-	50,000	1,600,000
IIWWTP Siphon Chamber Refurbishment							
VSA - IIWWTP Siphon Chamber Refurbishment	250,000	750,000	750,000	450,000	-	2,200,000	2,200,000
IIWWTP Water Supply							
VSA - IIWWTP Water Supply	150,000	650,000	2,000,000	2,500,000	1,000,000	6,300,000	6,500,000
Iona Island Control & Instrumentation Replacement 2011							
VSA - Iona Island Control & Instrumentation Replacement 2011	950,000	200,000	-	-	-	1,150,000	2,750,000
Iona MCC/Power Distribution Assess/Replace							
VSA - Iona MCC/Power Distribution Assess/Replace	400,000	200,000	-	-	-	600,000	2,918,000
Iona Solids Handling Upgrade Project							
VSA - IIWWTP Digester 4 Roof Replacement & Mixing Upgrade	3,550,000	5,900,000	3,200,000	2,600,000	-	15,250,000	24,800,000
VSA - Iona Grit System Upgrade	250,000	250,000	250,000	-	-	750,000	8,100,000
VSA - Iona Solids Handling Upgrade Project	1,050,000	500,000	-	-	-	1,550,000	30,500,000
Lions Gate Control and Instrumentation Replacement							
NSA - Lions Gate Control and Instrumentation Replacement 2011	50,000	50,000	50,000	-	-	150,000	600,000
LIWWTP - Process Waste Drainage (PWD) Replacement							
LSA - LIWWTP - Process Waste Drainage (PWD) Replacement	50,000	-	-	-	-	50,000	600,000
LIWWTP CCT Isolation Gates							
LSA - LIWWTP CCT Isolation Gates	100,000	400,000	500,000	600,000	450,000	2,050,000	2,050,000
LIWWTP CDAC Component Upgrade							
LSA - LIWWTP CDAC Component Upgrade	150,000	50,000	-	-	-	200,000	360,000
LIWWTP Fibre Optic Infrastructure							
LSA - LIWWTP Fibre Optic Infrastructure	200,000	-	-	-	-	200,000	600,000
LIWWTP High Efficiency Boiler							
LSA - LIWWTP High Efficiency Boiler	-	400,000	150,000	-	-	550,000	730,000

GREATER VANCOUVER SEWERAGE DRAINAGE DISTRICT
CAPITAL PROGRAMS PROJECT TOTALS
LIQUID WASTE SERVICES
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	2019 CAPITAL BUDGET	2020 CAPITAL PLAN	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2019 TO 2023 TOTAL	TOTAL PROJECT COSTS
LIWWTP PA-Sed Tank Refurbishment							
LSA - LIWWTP PA-Sed Tank Refurbishment	1,150,000	1,000,000	1,000,000	900,000	-	4,050,000	4,115,000
Marshend PS Rehab							
FSA - Marshend PS Rehab	100,000	100,000	2,200,000	2,000,000	1,800,000	6,200,000	7,000,000
New West Interceptor - Annacis Section 2							
FSA - NWI - Annacis Section 2 Improvement	2,400,000	3,400,000	8,000,000	15,000,000	16,000,000	44,800,000	45,000,000
New West Interceptor Grit Chamber							
FSA - New West Interceptor Grit Chamber	-	3,000,000	3,000,000	2,000,000	-	8,000,000	8,250,000
New Westminster Interceptor Repair Columbia St. Section							
FSA - New Westminster Interceptor Repair Columbia St. Section	200,000	400,000	4,300,000	2,600,000	2,450,000	9,950,000	10,882,000
NLWWTP Screw Pump Replacement							
FSA - NLWWTP Screw Pump Replacement	1,300,000	250,000	-	-	-	1,550,000	1,550,000
NSI Rehab or Replacement							
FSA - NSI Rehab or Replacement - Phase 2	2,500,000	11,450,000	5,000,000	5,000,000	-	23,950,000	24,750,000
NWL WWTP 25 kV Substation Replacement							
FSA - NWL WWTP 25 kV Substation Replacement	4,550,000	3,000,000	1,000,000	-	-	8,550,000	10,025,000
NWL WWTP CDAC System Hardware Upgrade							
FSA - NWL WWTP CDAC System Hardware Upgrade	200,000	-	-	-	-	200,000	1,500,000
Ocean Park Trunk Manholes Lining							
FSA - Ocean Park Trunk Manholes Lining	-	-	50,000	350,000	150,000	550,000	550,000
Royal Ave. Sewer Pump Station (RYA) Building Expansion & Electrical Upgrade							
FSA - Royal Ave. Sewer Pump Station (RYA) Building Expansion & Electrical Upgrade	1,500,000	1,300,000	-	-	-	2,800,000	4,218,000
Sewer Relocations and Protections at Fraser Surrey Docks							
FSA - Sewer Relocations and Protections at Fraser Surrey Docks	1,600,000	1,600,000	16,000,000	5,000,000	-	24,200,000	24,200,000
Sewer Relocations and Protections for Pattullo Bridge Replacement Project							
FSA - Sewer Relocations and Protections for Pattullo Bridge Replacement Project	1,000,000	4,500,000	1,500,000	-	-	7,000,000	7,000,000
South Surrey Interceptor Fraser River Crossing Scour Protection							
FSA - South Surrey Interceptor Fraser River Crossing Scour Protection	1,700,000	500,000	-	-	-	2,200,000	2,200,000
Surrey H2S Control Facility Replacement							
FSA - Surrey H2S Control Facility Replacement	100,000	1,550,000	1,200,000	-	-	2,850,000	2,900,000
West Ridge Pump Stations 1 and 2							
FSA - Westridge PS 1 & 2 Upgrades	150,000	500,000	6,500,000	6,300,000	1,500,000	14,950,000	15,950,000

GREATER VANCOUVER SEWERAGE DRAINAGE DISTRICT
CAPITAL PROGRAMS PROJECT TOTALS
LIQUID WASTE SERVICES
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	2019 CAPITAL BUDGET	2020 CAPITAL PLAN	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2019 TO 2023 TOTAL	TOTAL PROJECT COSTS
Westridge FM Replacement							
FSA - Westridge FM Replacement	500,000	2,000,000	600,000	-	-	3,100,000	3,650,000
WWTPs Electrical System Studies & Upgrades							
FSA - WWTPs Electrical System Studies & Upgrades	100,000	450,000	450,000	550,000	250,000	1,800,000	1,900,000
	$ **85,600,000**	$ **152,200,000**	$ **150,000,000**	$ **104,400,000**	$ **64,050,000**	$ **556,250,000**	$ **749,237,000**
SD Infrastructure Resilience Capital							
AIWWTP Automation of Influent Gates							
FSA - AIWWTP Automation of Influent Gates	$ 1,000,000	$ -	$ -	$ -	$ -	$ 1,000,000	$ 3,700,000
AIWWTP Cogeneration Backup Power							
FSA - AIWWTP 69 kV Substation Modifications	600,000	2,550,000	2,950,000	2,150,000	-	8,250,000	8,500,000
FSA - AIWWTP Cogeneration Backup Power	16,300,000	3,100,000	750,000	-	-	20,150,000	75,003,000
AIWWTP Influent System Remediation							
FSA - AIWWTP Influent System Remediation	500,000	1,100,000	3,000,000	13,000,000	15,000,000	32,600,000	82,600,000
AIWWTP PST Area Walkway & Column Remediation							
FSA - AIWWTP PST Area Walkway & Column Remediation	1,300,000	350,000	300,000	300,000	-	2,250,000	3,100,000
FSA Easement Acquisition							
FSA - FSA Easement Acquisition Program	50,000	-	-	-	-	50,000	1,500,000
FSA Sewer Seismic Upgrades Implementation							
FSA - FSA Sewer Seismic Upgrades Implementation	100,000	-	-	-	-	100,000	187,100,000
Highbury Interceptor Air Treatment Facilities							
VSA - Highbury Interceptor Air Treatment Facilities	1,000,000	700,000	-	-	-	1,700,000	11,500,000
IIWWTP Biogas Lines Relocation							
VSA - IIWWTP - Biogas Lines Relocation	3,200,000	500,000	-	-	-	3,700,000	5,780,000
IIWWTP Standby Diesel Generators							
VSA - IIWWTP Standby Diesel Generators	500,000	600,000	1,600,000	2,300,000	2,000,000	7,000,000	8,500,000
New CSO Management Gates for New Westminster Interceptor							
FSA - New CSO Management Gates for New Westminster Interceptor	350,000	3,250,000	1,000,000	1,200,000	-	5,800,000	5,925,000
Ocean Park Trunk Crescent Section (OPC) Pipe Rehabilitation/Replacement							
FSA - Ocean Park Trunk Crescent Section (OPC) Pipe Rehabilitation/Replacement	100,000	1,500,000	2,000,000	500,000	500,000	4,600,000	4,953,000
SSI Sulfide Odour and Corrosion Control							
FSA - SSI Sulfide Odour and Corrosion Control	1,450,000	4,000,000	1,500,000	-	-	6,950,000	7,700,000

GREATER VANCOUVER SEWERAGE DRAINAGE DISTRICT
CAPITAL PROGRAMS PROJECT TOTALS
LIQUID WASTE SERVICES
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	2019 CAPITAL BUDGET	2020 CAPITAL PLAN	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2019 TO 2023 TOTAL	TOTAL PROJECT COSTS
VSA Easement Acquisition Program							
VSA - VSA Easement Acquisition Program	50,000	-	-	-	-	50,000	670,000
VSA Emergency Backup Power							
VSA - VSA Emergency Backup Power	5,700,000	4,600,000	4,000,000	1,950,000	-	16,250,000	20,510,000
	$ 32,200,000	**$ 22,250,000**	**$ 17,100,000**	**$ 21,400,000**	**$ 17,500,000**	**$ 110,450,000**	**$ 427,041,000**
SD Infrastructure Upgrade Capital							
8th Avenue Interceptor Air Treatment Facilities							
VSA - 8th Avenue Interceptor Air Treatment Facilities	$ 650,000	$ 500,000	$ -	$ -	$ -	$ 1,150,000	$ 14,200,000
AIWWTP Ammonia Removal							
FSA - AIWWTP Ammonia Removal	100,000	-	-	-	-	100,000	112,900,000
AIWWTP Biosolids Dryer							
FSA - AIWWTP Biosolids Dryer	7,700,000	7,000,000	-	-	-	14,700,000	14,700,000
AIWWTP DAF Polymer Building Replacement							
FSA - AIWWTP DAF Polymer Building Replacement	300,000	200,000	50,000	-	-	550,000	550,000
AIWWTP Electrical Distribution System Protection Control and Monitoring							
FSA - AIWWTP Electrical Distribution System Protection Control and Monitorinc	900,000	1,100,000	350,000	-	-	2,350,000	2,650,000
AIWWTP Replacement of Protective Relays							
FSA - AIWWTP Replacement of Protective Relays	750,000	500,000	400,000	-	-	1,650,000	3,258,000
AIWWTP Secondary Bypass							
FSA - AIWWTP Secondary Bypass	300,000	-	-	-	-	300,000	1,725,000
All WWTPs Power Quality Monitoring & Outage Alarming Network							
FSA - All WWTPs Power Quality Monitoring & Outage Alarming Network	850,000	400,000	300,000	100,000	-	1,650,000	2,870,000
Big Bend Forcemain - Gate Replacement							
FSA - Big Bend Forcemain - Gate Replacement	-	-	-	-	50,000	50,000	2,680,000
Combined Sewer Overflow Sampling Station Enhancements							
FSA - Combined Sewer Overflow Sampling Station Enhancements	600,000	400,000	500,000	400,000	-	1,900,000	1,900,000
FSA Flow Metering Program – Phase 1							
FSA - FSA Flow Metering Program – Phase 1	800,000	800,000	500,000	-	-	2,100,000	2,700,000
FSA Wastewater Meter Upgrades							
FSA - FSA Wastewater Meter Upgrades	50,000	-	-	-	-	50,000	600,000
Glenbrook Combined Trunk Sewer Separation							
FSA - Glenbrook Combined Trunk Sewer Separation	600,000	-	-	-	-	600,000	74,950,000

GREATER VANCOUVER SEWERAGE DRAINAGE DISTRICT
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LIQUID WASTE SERVICES
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	2019 CAPITAL BUDGET	2020 CAPITAL PLAN	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2019 TO 2023 TOTAL	TOTAL PROJECT COSTS
IIWWTP Biosolids Dewatering Facility							
VSA - IIWWTP Biosolids Dewatering Facility	14,700,000	36,550,000	6,250,000	2,000,000	-	59,500,000	61,300,000
IIWWTP Provision of a Redundant 12.5 kV Feeder to Switch House							
VSA - IIWWTP Provision of a Redundant 12.5 kV Feeder to Switch House	300,000	150,000	-	-	-	450,000	850,000
Lions Gate Sludge Thickener No. 2							
NSA - Lions Gate Sludge Thickener No. 2	50,000	-	-	-	-	50,000	3,380,000
LIWSA Wastewater Meter Upgrades							
LSA - LIWSA Wastewater Meter Upgrades	50,000	50,000	50,000	50,000	-	200,000	300,000
LIWWTP Ammonia Removal							
LSA - LIWWTP Ammonia Removal	150,000	150,000	100,000	-	-	400,000	600,000
LIWWTP Power Reliability							
LSA - LIWWTP Power Reliability	1,800,000	1,900,000	1,000,000	200,000	-	4,900,000	5,702,000
NSA Flow Metering Program – Phase 1							
NSA - NSA Flow Metering Program – Phase 1	50,000	-	-	-	-	50,000	300,000
NSSA Wastewater Meter Upgrades							
NSA - NSSA Wastewater Meter Upgrades	50,000	-	-	-	-	50,000	300,000
Sperling Pump Station Upgrade							
FSA - Sperling Pump Station Upgrade	300,000	-	-	-	-	300,000	7,500,000
SSI Influent Control Chamber Repair and Replace Gates							
FSA - SSI Influent Control Chamber Repair and Replace Gates	400,000	750,000	-	-	-	1,150,000	1,305,000
VSA Flow Metering Program – Phase 1							
VSA - VSA Flow Metering Program – Phase 1	500,000	800,000	800,000	850,000	-	2,950,000	3,200,000
VSA Wastewater Meter Upgrades							
VSA - VSA Wastewater Meter Upgrades	50,000	-	-	-	-	50,000	464,000
	$ **32,000,000**	$ **51,250,000**	$ **10,300,000**	$ **3,600,000**	$ **50,000**	$ **97,200,000**	$ **320,884,000**
SD Infrastructure Upgrade: Secondary Treatment Capital							
Iona Secondary Wastewater Treatment							
VSA - Iona Secondary Treatment Upgrade	6,000,000	3,000,000	10,000,000	60,000,000	100,000,000	179,000,000	1,904,500,000
North Shore WWTP Secondary Upgrade and Conveyance							
NSA - North Shore WWTP Secondary Upgrade and Conveyance	176,100,000	336,300,000	191,500,000	36,800,000	600,000	741,300,000	777,900,000
	$ **182,100,000**	$ **339,300,000**	$ **201,500,000**	$ **96,800,000**	$ **100,600,000**	$ **920,300,000**	$ **2,682,400,000**

GREATER VANCOUVER SEWERAGE DRAINAGE DISTRICT
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LIQUID WASTE SERVICES
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SD Opportunity Capital							
AIWWTP Hydrothermal Processing Pilot							
FSA - AIWWTP Hydrothermal Processing Pilot	$ 2,800,000	$ 4,800,000	$ 950,000	$ 200,000	$ -	$ 8,750,000	$ 8,980,000
Fraser Sewerage Area Integrated Resource Recovery (IRR) Study							
FSA - Fraser Sewerage Area Integrated Resource Recovery (IRR) Study	-	300,000	400,000	500,000	-	1,200,000	1,200,000
LIWWTP Biogas Clean-up Project							
LSA - LIWWTP Biogas Clean-up Project	5,000,000	2,000,000	500,000	-	-	7,500,000	10,400,000
LIWWTP Pilot Digestion Optimization Facility							
LSA - LIWWTP Pilot Digestion Optimization Facility	1,050,000	1,300,000	-	-	-	2,350,000	2,500,000
North Surrey Interceptor - Port Mann Section - Odour Control							
FSA - North Surrey Interceptor - Port Mann Section - Odour Control	750,000	5,100,000	1,600,000	-	-	7,450,000	7,500,000
	$ **9,600,000**	$ **13,500,000**	$ **3,450,000**	$ **700,000**	$ **-**	$ **27,250,000**	$ **30,580,000**
TOTAL CAPITAL EXPENDITURES	$ **564,850,000**	$ **873,050,000**	$ **718,550,000**	$ **492,700,000**	$ **521,900,000**	$ **3,171,050,000**	$ **7,322,860,000**

CAPITAL FUNDING						
New External Borrowing	$ 375,650,000	$ 584,650,000	$ 534,100,000	$ 383,300,000	$ 433,600,000	$ 2,311,300,000
Contribution to Capital	78,700,000	81,800,000	82,100,000	83,000,000	83,300,000	408,900,000
Surplus from Prior Year/ Reserves	9,300,000	10,800,000	6,450,000	5,200,000	5,000,000	36,750,000
External Funding - North Shore WWTP	96,700,000	190,300,000	94,400,000	21,200,000	-	402,600,000
External Funding - Interagency	4,500,000	5,500,000	1,500,000		-	11,500,000
	$ **564,850,000**	$ **873,050,000**	$ **718,550,000**	$ **492,700,000**	$ **521,900,000**	$ **3,171,050,000**

DEBT SERVICING						
Debt Servicing - Existing	$ 53,000,000	$ 54,300,000	$ 80,000,000	$ 124,500,000	$ 172,100,000	$ 483,900,000
Debt Servicing - From New Borrowing	1,300,000	25,700,000	44,500,000	47,600,000	40,300,000	159,400,000
	$ **54,300,000**	$ **80,000,000**	$ **124,500,000**	$ **172,100,000**	$ **212,400,000**	$ **643,300,000**

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

- Manage the liquid waste system in a manner that protects public health and the environment.
- Ensure the long-term resilience and ability of the liquid waste system to meet future demands and challenges in a resource-constrained world.
- Invest in programs to promote behaviour that is consistent with regional liquid waste objectives.

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	2019 performance objective
Annual number of wet-weather related sanitary sewer overflow (SSO) events from Metro Vancouver sewers	MV 5-year average (2012-16): 20	2017: 39	0
Annual CSO Volume (ML)	MV 4-year average (2013-16): 27,300	2017: 33,300	28,500
Percentage of Assets Meeting Basic Service	2015: 95%	2017: 94.9%	94.9%

2019 key actions

- Commence 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.
- Finalize model calibration and initiate 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).
- Continue to work with members to identify strategies and options leading to improved management of inflow and infiltration into sanitary sewers.
- Finalize development of the Still Creek-Brunette River Drainage Area Flood Management Strategy
- 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 for system optimization as a Sustainability Innovation Fund project.
- Work with members to produce the biennial report on the *Integrated Liquid Waste and Resource Management Plan* implementation.
- Complete Iona Island WWTP Project Definition report including the development of the indicative design for the new plant.

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SERVICES AND SOLUTIONS FOR A LIVABLE REGION

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 Training and Procedures Program (TTAP); and the Annacis Research Centre.

Strategic directions and high level goals supported
Board Strategic Plan
- Manage the liquid waste system in a manner that protects public health and the environment.
- Ensure the long-term resilience and ability of the liquid waste system to meet future demands and challenges in a resource-constrained world.
- Invest in programs to promote behavior that is consistent with regional liquid waste objectives.

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	2019 performance objective
Percent of biosolids beneficially used	MV 5-year average (2012-16): 95%	2017: 98%	97%
Percentage of Biosolids beneficially used in Metro Vancouver Region	MV 2-year average (2015-16): 9.8%	2017: 25%	17%
Number of event-days at Annacis Research Centre	MV 5-year average (2012-16): 115	2017: 129	125
Energy Savings Realized (kWh/y)	MV 5-year average (2012-16): 1,286,604	2017: 510,121	600,000

2019 key actions

- Continue with the decommissioning of Iona Island WWTP sludge lagoons and stockpiled biosolids, and grit dump material.
- Complete decommissioning of Northwest Langley sludge lagoons.
- Complete development of LWS 30-year plan (projected capital and operating expenditures).
- Update Biosolids Long Range Management Strategy.
- Continue to support projects at the Annacis Research Centre that are aimed at developing compact treatment processes; optimizing H_2S mitigation and odour management options; and testing advanced aeration processes.
- Explore opportunities for use of space at the Annacis Research Centre with technical colleges.
- Continue Sustainability Innovation Fund projects: High Efficiency Aeration, Microwave-enhanced Sludge Destruction, Optimization of Anaerobic Digestion through Genomic Analysis, Sludge-based Activated Carbon, and Hydrothermal Processing Technology Pilot.
- Develop Reclaimed Water Policy and complete engagement plan for external users of reclaimed water at the North Shore WWTP.
- Develop and implement reporting systems to track progress toward meeting LWS energy performance improvement targets.
- Continue development of Asset Management program in alignment with the *Asset Management for Liquid Waste Services Policy*, including asset condition assessment plans, facility-level risk assessments and asset management plans.
- Implement revised development and maintenance model for Technical Knowledge Management program.

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SERVICES AND SOLUTIONS FOR A LIVABLE REGION

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:

- Manage the liquid waste system in a manner that protects public health and the environment.
- Ensure the long-term resilience and ability of the liquid waste system to meet future demands and challenges in a resource-constrained world.
- Invest in programs to promote behaviour that is consistent with regional liquid waste objectives.

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	2019 performance objective
Percent of recreational water quality results that do not meet the applicable criteria	MV 5-year average (2012-16): 2.3%	2017: 0%	2.3%

2019 key actions

- Produce the 2018 GVS&DD Environmental Management & Quality Control Annual Report.
- Complete a comparative ecological and human health risk assessment for pump stations associated with sanitary sewer overflows.
- Finalize design of the Integrated Water Quality Monitoring Program for Burrard Inlet.
- Initiate mass balance calculations for selected contaminants of emerging concern for Annacis Island Wastewater Treatment Plant.
- Complete characterization of the collection system at key manholes to establish baseline concentrations of metals for the Source Control and Biosolids Management Programs.
- Develop a three-dimensional hydrodynamic model for the Strait of Georgia to improve accuracy of regulatory reporting of the liquid waste system environmental performance.
- Initiate Detailed Site Investigation (DSI) for Iona Island Wastewater Treatment Plant including the sludge lagoons and biosolids land-drying area as part of the plant secondary upgrade.
- Complete Regulatory Compliance Register and Environmental Risk Register as part of the initiative to develop and implement an Environmental Management System (EMS) for the Liquid Waste Utility.
- Complete Canadian Association for Laboratory Accreditation (CALA) assessment and accreditation for analysis of hydrocarbons in liquids, to create efficiencies and lower ultimate analytical costs.
- Implement the revised ISO 17025 standard as part the laboratory's quality assurance program (joint initiative with Water Services).

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SERVICES AND SOLUTIONS FOR A LIVABLE REGION

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
- Manage the liquid waste system in a manner that protects public health and the environment.
- Ensure the long-term resilience and ability of the liquid waste system to meet future demands and challenges in a resource-constrained world.
- Invest in programs to promote behavior that is consistent with regional liquid waste objectives.

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	2019 performance objective
Percent of Major Capital program expenditures achieved	MV 5-year average (2013-17): 93.5%	2017: 100%	80%
Percent of Budgeted Progress Achieved for Major Capital Projects (Average)	MV 4-year average (2014-17): 52%	2017: 52%	65%
AIWWTP Stage 5 Expansion Phase 1	2017: 55%	2018: 85%	93%
AIWWTP Outfall - Design - Construction	 2017: 95% n/a	 2018: 100% n/a	 n/a 5%
AIWWTP Cogeneration Construction	2017: 5%	2018: 75%	100%
IIWWTP Solids Handling Construction	2017: 75%	2018: 85%	90%
Northwest Langley WWTP Projects - Project Definition - Design & Ground Improvements	 2017: 40% n/a	 2018: 100% n/a	 n/a 32%

Indicator	Historical and/or industry benchmark	Current performance	2019 performance objective
North Shore WWTP Construction	2017: 3%	2018: 5%	27%
Burnaby Lake North Interceptor Design (Phases 2-3)	2017: 30%	2018: 67%	100%
Gilbert Trunk Sewer Construction (Phases 2-4)	n/a	2018: 8%	30%
Sapperton Pumping Station Construction	2017: 40%	2018: 60%	95%

2019 key actions

- Complete 80% of concrete work on AIWWTP Stage 5 Phase 1 main construction
- Substantially complete AIWWTP Outfall System site preparation construction.
- Commence construction and achieve 10% completion on AIWWTP Outfall System.
- Substantially complete construction of the AIWWTP Cogeneration Back-Up Power Project.
- Complete 80% of IIWWTP Cogen Control System installation/construction.
- Complete installation of LIWWTP Power Quality Monitoring and Alarm Network.
- Commence detailed design and ground improvement construction for the North West Langley Wastewater Treatment Projects
- Complete design of Phase 2 & 3 of Burnaby Lake North Interceptor.
- Substantially complete construction of the Hastings Sanitary Trunk Sewer
- Continue design on the Golden Ears SSO Tank and Pump Station
- Substantially complete construction of the Sapperton Pumping Station
- Substantially complete tunnel section of the twinning of the South Surrey Interceptor
- Commence construction of the conveyance for the North Shore WWTP.
- Award Design-Build contract, complete 60% design with ground improvement work underway onsite to commence construction of the IIWTTP Sludge Dewatering Facility
- Tender the design-build of North Surrey Interceptor SSO Tank
- Complete back-up power systems for 5 of 7 VSA pumping stations

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

- Manage the liquid waste system in a manner that protects public health and the environment.
- Ensure the long-term resilience and ability of the liquid waste system to meet future demands and challenges in a resource-constrained world.
- Invest in programs to promote behavior that is consistent with regional liquid waste objectives.

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	2019 performance objective
Operating cost per million litres processed, collection and treatment ($/ML)	MV 5-year average (2013-17): $323	2017: $336	$395
Energy use in the collection and treatment of liquid waste kilowatt hour per million litres (kWh/ML)	MV 5-year average (2013-17): 198	2017: 209	241
Percent of digester gas used at the Wastewater Treatment Plants	MV 5-year average (2013-17): 67%	2017: 68%	53%
Compliance with treatment plant Operational Certificates (%)	MV 5-year average (2013-17): 99.95%	2017: 99.93%	100%

Indicator	Historical and/or industry benchmark	Current performance	2019 performance objective
Number of reported events of sanitary sewer overflows (SSOs): non-weather related	MV 5-year average (2013-17): 12	2017: 16	0
Number of odour complaints received	MV 5-year average (2013-17): 20	2017: 21	<20

2019 key actions

- Begin the training of wastewater treatment plant staff including secondary treatment familiarization to enable them to be ready for the operation of the new North Shore Wastewater Treatment Plant.
- Enhance development of staff for both the Wastewater Treatment and Sewer Operations Divisions to develop a skilled operator base that will be used to fill anticipated future vacancies.
- Support the Asset Management Program with condition assessment activities including, developing maintenance equipment condition standards and procedures, sewer condition assessments including full pipe condition inspections, inspection of outfalls, and inspection of combined sewer overflow (CSO) facilities, and develop a wastewater treatment plant asset condition assessment framework and maintenance program for buried infrastructure at all the wastewater treatment plants.
- Monitor odour and flow at various sites in Vancouver Sewerage Area to support the development of an odour/corrosion control strategy that will be used for Policy, Planning and Analysis hydraulic module program.
- Review operational processes at the Lulu Island and Annacis Island wastewater treatment plants to optimize ammonia discharges from the plants and reduce the risks of exceeding ammonia limits until longer term ammonia removal capital projects are completed.
- Initiate fiber optic system and control system upgrade projects required to replace/upgrade the aging control systems at the five wastewater treatment Plants.
- Finalize Drainage right of way needs based on operational and member municipality requirements.

ATTACHMENT 5

METRO VANCOUVER DISTRICTS
2019-2023 PROJECTED RESERVES - LIQUID WASTE SERVICES

OPERATING RESERVES

	2018 ENDING BALANCE	2019 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2019 ENDING BALANCE	2020 ENDING BALANCE	2021 ENDING BALANCE	2022 ENDING BALANCE	2023 ENDING BALANCE
Liquid Waste Services	$ 15,350,121	$ 15,350,121	$ 868,299	$ -	$ 318,874	$ 16,537,294	$ 17,436,075	$ 17,891,898	$ 18,273,125	$ 18,923,026

DISCRETIONARY RESERVES

	2018 ENDING BALANCE	2019 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2019 ENDING BALANCE	2020 ENDING BALANCE	2021 ENDING BALANCE	2022 ENDING BALANCE	2023 ENDING BALANCE
Liquid Waste Services										
Biosolids Inventory Reserve	$ 12,137,463	$ 12,137,463	$ 12,408,884	$ (17,160,345)	$ 195,235	$ 7,581,237	$ 4,093,858	$ 1,555,041	$ 30,277	$ 30,882
Liquid Waste General Debt Reserve Fund	1,450,000	1,450,000	-	(1,450,000)	-	-	-	-	-	-
Lions Gate Contingency	1,406,451	1,406,451	-	-	28,129	1,434,580	1,463,272	1,492,537	1,522,388	1,552,836
Drainage General Reserve	5,432,954	5,432,954	-	(462,000)	104,039	5,074,993	5,151,243	5,229,018	5,308,348	5,389,265

STATUTORY RESERVES

	2018 ENDING BALANCE	2019 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2019 ENDING BALANCE	2020 ENDING BALANCE	2021 ENDING BALANCE	2022 ENDING BALANCE	2023 ENDING BALANCE
Liquid Waste Services										
Liquid Waste Laboratory Equipment Reserve	$ 571,800	$ 571,800	$ 97,800	$ -	$ 12,414	$ 682,014	$ 645,006	$ 760,877	$ 881,228	$ 1,006,193
Liquid Waste Sustainability Innovation Fund Reserve	14,424,787	14,424,787	1,127,000	(3,087,500)	268,891	12,733,177	9,174,586	9,726,223	11,046,392	12,405,590

ATTACHMENT 6

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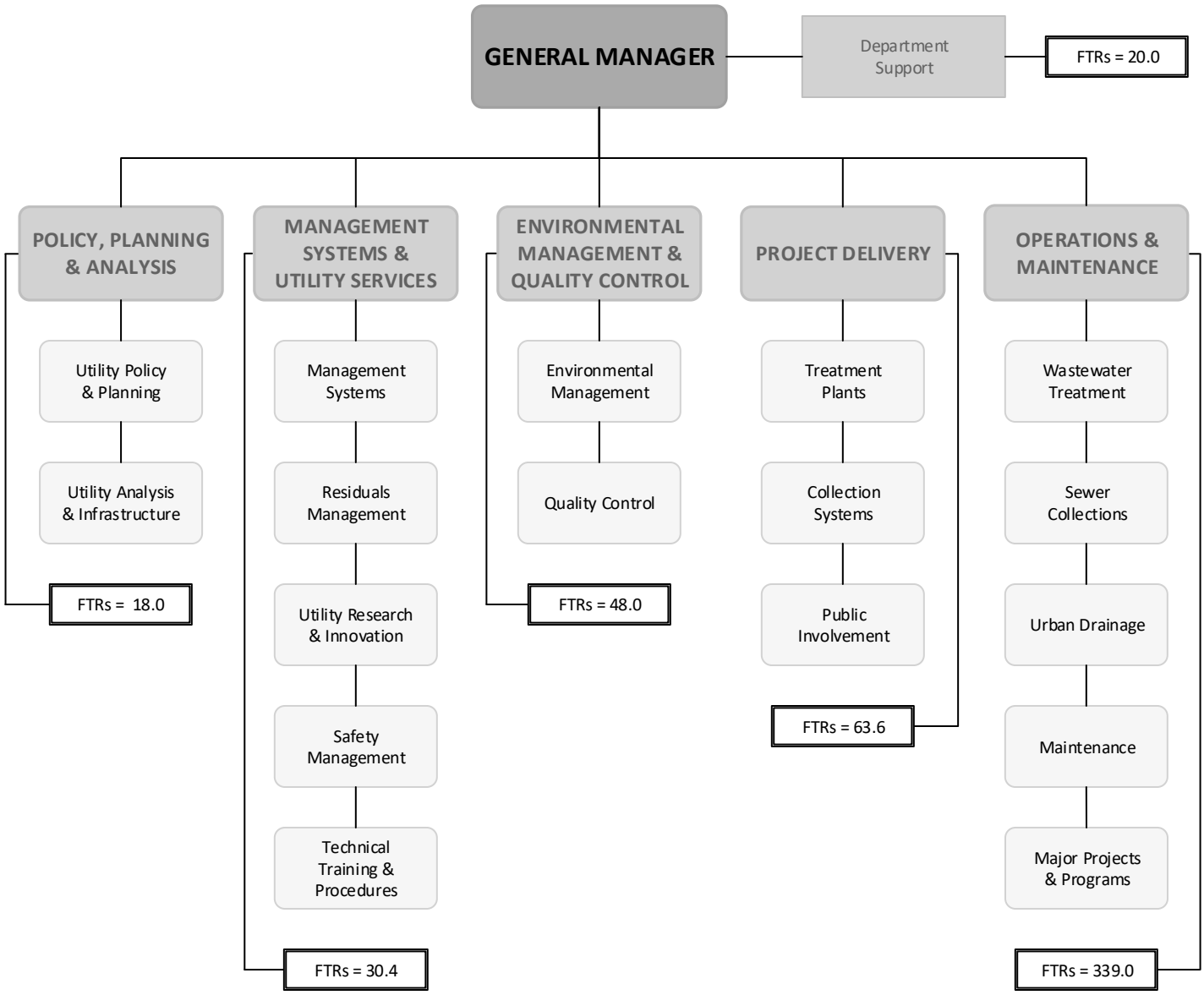
SERVICES AND SOLUTIONS FOR A LIVABLE REGION

Liquid Waste Services

2018



Liquid Waste Services
2018 Total FTRs = 520.0
2019 Proposed FTRs = 525.0

26041892
September 5, 2018

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SERVICES AND SOLUTIONS FOR A LIVABLE REGION

To: Zero Waste Committee

From: Paul Henderson, General Manager, Solid Waste Services

Date: September 27, 2018 Meeting Date: October 11, 2018

Subject: **2019 - 2023 Financial Plan - Solid Waste Services**

RECOMMENDATION
That the Zero Waste Committee endorse the 2019 - 2023 Financial Plan for Solid Waste Services as presented in the report "2019 - 2023 Financial Plan - Solid Waste Services" dated September 27, 2018 and forward it to the Board Budget Workshop on October 17, 2018 for consideration.

PURPOSE
To present the 2019 Budget and Five Year 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 2019 annual budget and the updated five year plan for the years 2019 to 2023 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, transfer station and disposal facility operations.

Solid Waste Services initiatives planned over the next five years are guided by direction provided in the *2015 to 2018 Board Strategic Plan*, and the *Integrated Solid Waste and Resource Management Plan* specifically:

- *Metro Vancouver Board Strategic Plan*
  - Reduce solid waste through an aggressive waste reduction campaign and the recovery of materials and energy from the waste that remains.
  - Continue to promote behaviour change 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

2019 BUDGET AND FIVE YEAR FINANCIAL PLANS

The budget for this cycle and the five year financial plans have been updated to address the four themes Metro Vancouver considers when developing plans and budgets. These are as follows:

- Addressing Regional Growth
- System Stewardship
- Environmental Protection and Climate Action
- Opportunities for Innovation and Enhanced Services

Annual Work Plans are developed for almost all Metro Vancouver functions. The 2019 Annual Work Plans for the Solid Waste Services budget presented in this report are included in Attachment 4.

A summary of the Solid Waste Services highlights, 2019 - 2023 "What's Happening", is included under Attachment 1.

Attached are summaries of the 2019 - 2023 Solid Waste Services operating budget (Attachment 2) and the 2019 - 2023 Solid Waste Services capital budget (Attachment 3).

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 $5.6 million in 2019 for a total budget of $107.2 million (Attachment 2). The two primary drivers of increased expenditures are increased landfill operating costs, and increased debt servicing costs through implementation of various capital projects primarily related to transfer station development and upgrades to the Waste-to-Energy Facility.

The 2019 operating budget includes the following key actions:

- Operate non-ferrous metal recovery system commissioned in fall 2018;
- Continue biosolids management research and design;
- Continue implementation of new solid waste regulatory framework;
- Monitor implementation of Expanded Polystyrene Disposal Ban;
- Review options for adding best practices into solid waste licensing for organics processing facilities;
- 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;
- Conduct market sounding and assess potential for development of new local construction and demolition processing capacity;
- Update regional waste composition monitoring;
- Track and manage waste flows;
- Update transfer stations customer service survey;
- Continue with replacement Coquitlam Transfer Station construction;
- 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 2019 to respond to work plan requirements within the operating budget include the following:

- Continue ongoing landfill gas and leachate management ($392,000);
- Implement Matsqui demolition, scale projects ($690,000);
- Waste-to-Energy Facility condition assessment report, site roadway improvements, site safety study ($325,000);
- Research economic incentives for waste diversion;
- Increase acceptance of reusable take-away food containers, compostable plastics;
- Research fibre-to-fibre textiles recycling;
- Continue to research construction and demolition waste processing options;
- Update guidelines for recycling space and access; and
- Monitor waste composition.

There are no new full-time staff positions proposed for 2019.

Over the next five years, the Solid Waste budget is expected to increase an average of $5.7 million per year. Of this overall increase, funding related to the expanding capital program (debt servicing and contribution to the capital) is increasing $3.7 million on average over the next five years while the operating programs which are increasing, on average, by $2.0 million roughly the rate of inflation.

Environmental Regulation and Enforcement

Working with the commercial and industrial sectors, staff continue with initiatives that ensure compliance with Metro Vancouver's solid waste regulatory bylaws. In 2019, subject to approval of Metro Vancouver's new regulatory initiatives by the Minister of Environment and Climate Change Strategy resources are being reallocated from the Solid Waste Services to Solid Waste Environmental Regulation and Enforcement program. This will increase the Solid Waste Environmental Regulation and Enforcement budget by $101,152 to $962,853 due to the addition of a Permit and Enforcement Officer to support the new regulatory initiatives.

Capital Budget Highlights

The proposed Solid Waste Services capital budget for 2019 is $89.2 million (Attachment 3). 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 2019 include the following:

- Coquitlam Transfer Station replacement and Coquitlam Landfill Closure;
- Surrey Recycling and Waste Drop-off Facility;
- refuse crane at the Waste-to-Energy Facility; and
- second pass super heater replacement at the Waste-to-Energy Facility.

The capital program over the next five years is largely driven by the need to replace and build new transfer stations and upgrades to the Waste-to-Energy Facility. The capital expenditure budget for 2019 - 2023 totals $210.8 million, an average of $42.2 million per year. The largest four projects

(each over $10 million) make up approximately 78% of the capital spending over the next five years, with an additional 19 projects on the plan making up the balance. Key projects are:

- Coquitlam Transfer Station replacement - $63.0M ($70.2M total project) (Completion: 2020);
- Surrey Recycling and Waste Drop-off Facility - $42.3M (Completion: 2021);
- Waste-to-Energy Facility infrastructure allowance - $10.8M ($12.8M total project) (Completion: 2023); and
- Waste-to-Energy Facility acid gas reduction project - $45.6M ($47.0M total project) (Completion: 2022).

2019 – 2022 Tipping Fee Projections
The following table shows the 2019-2023 tipping fee projections. The projected tipping fees are based on the required revenue to offset expected expenditures.

Projected Tipping Fees for Municipal Solid Waste ($/t)	2018	2019	2020	2021	2022	2023
Municipal Tipping Fee	$103	$108	$113	$120	$127	$134
Small Vehicles (0-1t)	$137	$142	$147	$154	$161	$168
Medium Vehicles (1-8t)	$115	$120	$125	$132	$139	$146
Large Vehicles (>9t)	$82	$90	$99	$106	$113	$120

Reserve Funds
There are no proposed applications of reserve funding.

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 2019 Work Plans for Solid Waste Services are presented in this report. Within the Solid Waste Services Work Plans, five 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);
- Waste disposed per capita (tonnes); and
- Total number of licenses issued to private facilities managing municipal solid waste and recyclable materials that must be managed and monitored.

The trend in these performance measures show waste diversion is seeing 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. Other communities such as Victoria have also seen stabilizing and in some cases increasing waste flows both on a total and per capita basis. Operating performance of the existing Waste-to-Energy Facility while meeting contractual requirements has declined over recent years consistent with the impacts of aging infrastructure at the facility. Repairs and shut-downs have increased over recent years.

CONSISTENCY WITH THE 2018 – 2022 FINANCIAL PLAN

The updated five year financial plan has been developed to be consistent with the 2018 - 2022 financial plan. As presented in Attachment 2, the overall 2019 Solid Waste impact on the average regional household is generally consistent with prior year projections with an average regional household cost of $57 (2018 projection: $55). The 2020 - 2022 household rate is projected to increase by an additional $17 compared to the previous five year projection.

The primary drivers for this change are increased landfill operating costs, adjustments to expected waste flows, and changes in capital costs, and therefore debt servicing, for transfer station development and Waste-to-Energy Facility projects. The increases to debt servicing costs are consistent with the principles in the proposed *Financial Management Policy* for the management of overall Metro Vancouver debt levels.

APPROVAL PROCESS

The proposed 2019 - 2023 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 2019 - 2023 Financial Plan and Annual Work Plan will be presented at the Board Budget Workshop on October 17, 2018.
- The Board will consider adoption of the 2019 Budget and endorsement of the 2019 - 2023 Financial Plan on October 26, 2018.

ALTERNATIVES

1. That the Zero Waste Committee endorse the 2019 - 2023 Financial Plan for Solid Waste Services as presented in the report "2019 - 2023 Financial Plan - Solid Waste Services" dated September 27, 2018 and forward it to the Board Budget Workshop on October 17, 2018 for consideration.

2. That the Zero Waste Committee make recommendations and endorse an amended 2019 - 2023 Financial Plan for Solid Waste Services and forward the amended Financial Plan to the Board Budget Workshop on October 17, 2018 for consideration.

FINANCIAL IMPLICATIONS

If the GVS&DD Board endorses the 2019 Budget and Five Year Financial Plan for Solid Waste Services, as presented under Alternative 1, in 2019 the revenue from the tipping fees for the system will increase by $4.9 million (5.3%) to $98.4 million which will generate the majority of the $107.2 million in total revenue required to offset projected expenditures. The increase in the tipping fees represents a $1 increase in the cost to the average regional household to $57 (2018 forecast: $55).

Over the term of the five year plan, the annual tipping fee revenue is projected to increase by an average of $5.3 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 $56 in 2018 to $65 in 2023 representing an average annual increase of $2.

Under Alternative 2, the Committee may wish to consider recommending amendments to the 2019 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 GVS&DD Financial Plan.

SUMMARY / CONCLUSION

The 2019 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 Solid Waste Management Plan. It is presented to Committee and Board members to provide overview information on activities and financial impacts for the years 2019 to 2023 for Solid Waste Services.

The presentation of the 2019 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 2019 Budget and Five Year Financial Plan and Annual Work Plans for Solid Waste Services as presented under alternative one.

Attachments:

1. 2019 - 2023 "What's Happening"
2. 2019 - 2023 Financial Plan
3. 2019 - 2023 Solid Waste Services Capital Budget Summary
4. 2019 Work Plans
5. 2019 - 2023 Projected Reserves – Solid Waste Services
6. Organizational Chart

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ATTACHMENT 1

2019 - 2023 "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
2019		
Asset Management Planning	Develop and implement an integrated asset management system for solid waste facilities	System Stewardship
Coquitlam Transfer Station Replacement	Continue construction of replacement *Coquitlam Transfer Station*	System Stewardship
Generator Levy	Ensure ongoing compliance with Generator Levy requirements	System Stewardship
Solid Waste Regulatory Bylaws	Implement new bylaws subject to approval by Minister of Environment and Climate Change Strategy	System Stewardship
Surplus Land Strategy	Develop a strategy for the sale of surplus lands owned by GVS&DD	System Stewardship
Surrey Transfer Station Compactor Replacement	Replace *Surrey Transfer Station* compactor	System Stewardship
Surrey Recycling and Waste Drop-Off Facility	Begin construction of new *Surrey Recycling and Waste Drop-Off Facility*	Addressing Regional Growth
Construction and Demolition Material Processing Capacity	Continue to explore regulatory and other options to increase construction and demolition material processing capacity	Environmental Protection and Climate Action
Non-Ferrous Metal Recovery	Operate non-ferrous metal recovery system at *Waste-to-Energy Facility*	Environmental Protection and Climate Action
Organics Management	Continue to explore purchasing and regulatory measures to improve organics management.	Environmental Protection and Climate Action
Zero Waste Initiatives	Support programs for textiles, single-use items, seasonal and food wastes, illegal dumping, circular economy and the National Zero Waste Council	Environmental Protection and Climate Action
Biosolids utilization at the *Waste-to-Energy Facility*	Design biosolids injection system at *Waste-to-Energy Facility*	Opportunities for Innovation and Enhanced Service
2020		
Coquitlam Transfer Station Replacement	Begin operations of new *Coquitlam Transfer Station*	System Stewardship
Surrey Recycling and Waste Drop-Off Facility	Complete construction and begin operations of new *Surrey Recycling and Waste Drop-Off Facility*	Addressing Regional Growth
Extended Producer Responsibility Programs	Review and enhance Extended Producer Responsibility programs, including new priority items such as ocean plastics	Environmental Protection and Climate Action
Initiate Review of *Integrated Solid Waste and Resource Management Plan*	Initiate approximately 3-4 year review of *Integrated Solid Waste and Resource Management Plan*	Environmental Protection and Climate Action

Zero Waste Initiatives	Develop diversion initiatives for reusable take-away food containers, fibre-to-fibre textiles recycling and construction and demolition material recycling	Environmental Protection and Climate Action
2021		
Maple Ridge Transfer Station Upgrade	Conduct *Maple Ridge Transfer Station* upgrades, including enhancements to the green waste area	System Stewardship
Organics Management	Implement Organics Management strategies developed in collaboration with member municipalities	Addressing Regional Growth
Integrated Solid Waste and Resource Management Plan Review	Continue review of *Integrated Solid Waste and Resource Management Plan*	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
2022		
North Shore Transfer Station Compactor Replacement	Replace *North Shore Transfer Station* compactor	System Stewardship
Integrated Solid Waste and Resource Management Plan Review	Continue review of *Integrated Solid Waste and Resource Management Plan*	Environmental Protection and Climate Action
Waste-to-Energy Facility Upgrade	Complete Acid Gas Reduction Project at *Waste-to-Energy Facility*	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
2023		
Coquitlam Landfill Closure	Close eastern area of landfill	System Stewardship
Integrated Solid Waste and Resource Management Plan Review	Complete *Integrated Solid Waste and Resource Management Plan* review and submit to the Minister of Environment and Climate Change Strategy for consideration	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

ATTACHMENT 2

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
SOLID WASTE SERVICES
2019 BUDGET REVIEW
2019-2023 FINANCIAL PLAN

	2016 ACTUAL	2017 ACTUAL	2018 BUDGET	2019 BUDGET	% CHANGE	2020 FORECAST	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE
REVENUES													
Tipping Fees	$ 93,385,063	$ 98,635,607	$ 93,451,819	$ 98,362,329	5.3%	$ 103,180,526	4.9%	$ 108,758,157	5.4%	$ 114,321,470	5.1%	$ 119,945,930	4.9%
Energy Sales	5,796,681	5,642,942	5,777,099	5,927,304		5,681,540		6,239,530		6,401,758		6,568,204	
Other External Revenues	1,876,407	4,075,089	2,322,753	2,868,134		3,603,091		3,662,672		3,723,317		3,535,695	
TOTAL REVENUES	**$ 101,058,151**	**$ 108,353,638**	**$ 101,551,671**	**$ 107,157,766**	**5.5%**	**$ 112,465,156**	**5.0%**	**$ 118,660,359**	**5.5%**	**$ 124,446,545**	**4.9%**	**$ 130,049,829**	**4.5%**
EXPENDITURES													
Operating Programs:													
Solid Waste Operations													
Allocated Quality Control	$ 22,760	$ 16,621	$ 25,917	$ 26,437		$ 30,919		$ 32,120		$ 33,081		$ 32,754	
Ashcroft Ranch	197,410	213,155	1,149,289	587,543		364,995		372,166		379,495		387,005	
Engineers in Training	116,108	78,746	127,875	130,725		133,862		136,547		139,271		142,055	
Transfer Stations-Environmental Initiatives	4,516,937	4,757,414	6,379,410	6,303,746		6,332,422		6,662,568		6,837,184		7,005,687	
Landfills	28,888,160	37,591,183	31,098,048	33,507,835		32,662,871		34,328,439		34,921,414		34,880,040	
Transfer Station System	36,419,754	25,879,493	27,586,878	28,088,004		29,916,319		29,506,228		29,933,729		30,553,555	
Waste to Energy Facility	20,437,204	20,575,965	22,033,577	22,646,504		23,355,471		23,939,153		24,637,764		24,987,543	
	90,598,333	89,112,577	88,400,994	91,290,794	3.3%	92,796,859	1.6%	94,977,221	2.3%	96,881,938	2.0%	97,988,639	1.1%
Solid Waste Planning													
Policy and Facility Development	784,399	739,270	921,561	836,841		857,123		875,483		894,186		913,321	
Zero Waste Implementation	1,316,507	1,327,223	1,843,729	1,741,398		2,284,452		2,823,826		2,863,955		2,405,021	
Programs and Public Involvement	218,911	302,483	437,604	369,758		378,802		386,844		395,027		403,396	
	2,319,817	2,368,976	3,202,894	2,947,997	(8.0%)	3,520,377	19.4%	4,086,153	16.1%	4,153,168	1.6%	3,721,738	(10.4%)
Administration and Department Support	764,044	705,811	743,910	657,069	(11.7%)	672,320	2.3%	685,662	2.0%	699,216	2.0%	713,544	2.0%
Environmental Regulation and Enforcement	737,654	783,766	861,701	962,853	11.7%	985,400	2.3%	1,004,997	2.0%	1,024,799	2.0%	1,044,396	1.9%
Allocation of Centralized Costs	3,243,141	3,976,545	4,348,952	4,674,251	7.5%	4,258,379	(8.9%)	4,252,172	(0.1%)	4,306,778	1.3%	4,144,751	(3.8%)
Total Operating Programs	97,662,989	96,947,675	97,558,451	100,532,964	3.0%	102,233,335	1.7%	105,006,205	2.7%	107,065,899	2.0%	107,613,068	0.5%
Debt Service	739,234	581,197	1,041,891	2,494,949	139.5%	8,080,816	223.9%	13,283,987	64.4%	16,784,376	26.4%	19,094,889	13.8%
Contribution to Capital	2,655,928	10,824,766	2,951,329	4,129,853	39.9%	2,151,005	(47.9%)	370,167	(82.8%)	596,271	61.1%	3,341,871	460.5%
TOTAL EXPENDITURES	**$ 101,058,151**	**$ 108,353,638**	**$ 101,551,671**	**$ 107,157,766**	**5.5%**	**$ 112,465,156**	**5.0%**	**$ 118,660,359**	**5.5%**	**$ 124,446,545**	**4.9%**	**$ 130,049,829**	**4.5%**
Household Impact			$ 56	$ 57	1.1%	$ 58	2.4%	$ 61	3.9%	$ 63	3.6%	$ 65	3.6%

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
SOLID WASTE REGULATION
2019 BUDGET REVIEW

	2016 ACTUAL	2017 ACTUAL	2018 BUDGET	2019 BUDGET	% CHANGE	2020 FORECAST	% CHANGE	2021 FORECAST	% CHANGE	2022 FORECAST	% CHANGE	2023 FORECAST	% CHANGE
REVENUES													
Solid Waste Revenues	$ 737,654	$ 783,766	$ 861,701	$ 962,853	11.7%	$ 985,400	2.3%	$ 1,004,997	2.0%	$ 1,024,799	2.0%	$ 1,044,396	1.9%
TOTAL REVENUES	$ 737,654	$ 783,766	$ 861,701	$ 962,853	11.7%	$ 985,400	2.3%	$ 1,004,997	2.0%	$ 1,024,799	2.0%	$ 1,044,396	1.9%
EXPENDITURES													
Operating Programs:													
Environmental Regulation and Enforcement	$ 658,235	$ 713,647	$ 781,486	$ 901,103		$ 922,204		$ 940,550		$ 959,082		$ 978,012	
Administration and Department Support	79,419	70,119	80,215	61,750		63,196		64,447		65,717		66,384	
TOTAL EXPENDITURES	**$ 737,654**	**$ 783,766**	**$ 861,701**	**$ 962,853**	**11.7%**	**$ 985,400**	**2.3%**	**$ 1,004,997**	**2.0%**	**$ 1,024,799**	**2.0%**	**$ 1,044,396**	**1.9%**

ATTACHMENT 3

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
CAPITAL PROGRAMS & PROJECT TOTALS
SOLID WASTE SERVICES
2019 - 2023 CAPITAL PLAN

	2019 CAPITAL BUDGET	2020 CAPITAL PLAN	2021 CAPITAL PLAN	2022 CAPITAL PLAN	2023 CAPITAL PLAN	2019 TO 2023 TOTAL	TOTAL PROJECT COSTS
CAPITAL EXPENDITURES							
SW Landfills Capital							
Coquitlam Landfill Closure	$ 4,500,000	$ -	$ -	$ -	$ -	$ 4,500,000	$ 5,000,000
Coquiltam Landfill East Closure	-	400,000	-	-	3,500,000	3,900,000	5,000,000
Coquitlam Landfill Fly Ash Cell 2 Closure Final Cover	3,200,000	-	-	-	-	3,200,000	3,200,000
Coquitlam Landfill Gas Collection Upgrades	1,000,000	-	-	-	-	1,000,000	3,300,000
Coquitlam Landfill Pump Station Upgrade	500,000	100,000	-	-	-	600,000	600,000
Coquitlam Landfill: Leachate Collection System Grade Realignment	200,000	480,000	320,000	-	-	1,000,000	1,000,000
	$ 9,400,000	**$ 980,000**	**$ 320,000**	**$ -**	**$ 3,500,000**	**$ 14,200,000**	**$ 18,100,000**
SW Opportunity Capital							
WTE Facility District Heating Opportunities	210,000	2,090,000	-	-	-	2,300,000	2,300,000
	$ 210,000	**$ 2,090,000**	**$ -**	**$ -**	**$ -**	**$ 2,300,000**	**$ 2,300,000**
SW Transfer Stations Capital							
Coquitlam Transfer Station Replacement	$ 40,000,000	$ 23,000,000	$ -	$ -	$ -	$ 63,000,000	$ 70,200,000
Maple Ridge Transfer Station Upgrades	-	-	2,000,000	-	-	2,000,000	2,000,000
North Shore Transfer Station Compactor Replacement	-	-	-	2,000,000	-	2,000,000	2,000,000
Surrey Recycling and Waste Drop-Off	22,000,000	12,800,000	7,500,000	-	-	42,300,000	42,300,000
Surrey Transfer Station Building Upgrades	1,000,000	-	-	-	-	1,000,000	1,000,000
Surrey Transfer Station Compactor Replacement	2,000,000	-	-	-	-	2,000,000	2,000,000
	$ 65,000,000	**$ 35,800,000**	**$ 9,500,000**	**$ 2,000,000**	**$ -**	**$ 112,300,000**	**$ 119,500,000**
SW Waste to Energy Facility Capital							
Biosolids Processing	$ 500,000	$ -	$ -	$ -	$ -	$ 500,000	$ 500,000
Bottom Ash Dischargers / Conveyors	500,000	-	-	-	-	500,000	1,700,000
Feed Hopper/Chute	2,300,000	-	-	-	-	2,300,000	2,600,000
Feedwater Pump Replacement	1,000,000	-	-	-	-	1,000,000	1,000,000
Furnace Liner Upgrade	800,000	-	-	-	-	800,000	2,500,000
Infrastructure Allowance	-	9,000,000	-	1,500,000	350,000	10,850,000	12,850,000
Primary Economizer Replacement	-	-	2,000,000	3,000,000	-	5,000,000	5,000,000
Refuse Crane	4,000,000	-	-	-	-	4,000,000	7,000,000
Scrubber	-	5,550,000	20,000,000	20,000,000	-	45,550,000	47,000,000
Second Pass Superheater Replacement	5,500,000	-	-	-	-	5,500,000	5,500,000
Secondary Economizers Replacement	-	4,000,000	2,000,000	-	-	6,000,000	6,000,000
	$ 14,600,000	**$ 18,550,000**	**$ 24,000,000**	**$ 24,500,000**	**$ 350,000**	**$ 82,000,000**	**$ 91,650,000**
TOTAL CAPITAL EXPENDITURES	**$ 89,210,000**	**$ 57,420,000**	**$ 33,820,000**	**$ 26,500,000**	**$ 3,850,000**	**$ 210,800,000**	**$ 231,550,000**

CAPITAL FUNDING						
New External Borrowing	$ 86,010,000	$ 53,320,000	$ 31,620,000	$ 26,100,000	$ 3,250,000	$ 200,300,000
Surplus from Prior Year	3,200,000	4,100,000	2,200,000	400,000	600,000	10,500,000
	$ 89,210,000	**$ 57,420,000**	**$ 33,820,000**	**$ 26,500,000**	**$ 3,850,000**	**$ 210,800,000**

DEBT SERVICING						
Debt Servicing - Existing	$ 1,800,000	$ 2,500,000	$ 8,100,000	$ 13,300,000	$ 16,800,000	$ 42,500,000
Debt Servicing - From New Borrowing	700,000	5,600,000	5,200,000	3,500,000	2,300,000	17,300,000
	$ 2,500,000	**$ 8,100,000**	**$ 13,300,000**	**$ 16,800,000**	**$ 19,100,000**	**$ 59,800,000**

SOLID WASTE SERVICES
Solid Waste Operations

Description of services
Solid Waste Services provides waste reduction and recycling planning and solid waste disposal services to the region through the Solid Waste function 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.

The Metro Vancouver facilities are the *North Shore, Coquitlam, Surrey, Maple Ridge*, and *Langley Transfer Stations*; and *Waste-to-Energy Facility* (WTEF); these facilities are managed though several large contracts/agreements. 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 promote behaviour change that will reduce waste generated in the region
- Continue to advance waste diversion and recycling in the region
- Manage residuals in a cost-effective and environmentally sustainable manner

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	2019 performance objective
Annual solid waste flows in Metro Vancouver system (tonnes)	2017: 904,000 2016: 897,000 2015: 822,000	2018 projected: 905,000	850,000
Availability of the WTEF	Contract Requirement: 90% 2017: 91.1% 2016: 91.7% 2015: 93.3% 2014: 93.2%	2018 projected: 91%	93%

2019 key actions

General

- Solid Waste Asset Management Policy and condition assessments
- Surplus lands strategy

Transfer Stations

- Prepare for operation of the replacement Coquitlam transfer station
- Implement small-scale gypsum disposal at *Surrey, Coquitlam and North Shore Transfer Stations*
- Autoscale update and implementation of electronic disposal ban surcharge tool
- New camera system to provide real-time line-up and estimated wait times information on website
- *North Shore Transfer Station* structural modifications

Waste-to-Energy Facility

- Operation of non-ferrous metal recovery system commissioned in fall 2018
- Continue biosolids management research and design
- Complete upgrade and replacement projects, including bottom dischargers/ conveyors upgrade, feed hopper/ chute construction, furnace liner upgrades and secondary economizers replacement
- *Waste-to-Energy Facility* development options review

Landfills

- *Coquitlam Landfill* closure works with site preparation for the replacement Coquitlam transfer station including gas collection, surface water management and final cover
- Continue contingency disposal

Ashcroft Ranch

- Drainage, irrigation and upgrades to McLean Lake Dam spillway

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SERVICES AND SOLUTIONS FOR A LIVABLE REGION

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 through the Solid Waste function 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;
- plan for the establishment of additional waste-to-energy capacity;
- provide public involvement and consultation 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

- Continue to promote behaviour change that will reduce waste generated in the region
- Continue to advance waste diversion and recycling in the region
- Manage residuals in a cost-effective and environmentally sustainable manner

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	2019 performance objective
Waste diversion rate (percent of solid waste flow diverted from final disposal)	Canadian average*: 26.5% Metro Vancouver historical: 61% (2014) 62% (2015) 62% (2016)	63% 2017	65% (Aspirational goal of 80% by 2020)
Waste disposed per capita (tonnes)	Canadian average*: 0.71 Metro Vancouver historical: 0.53 (2014) 0.49 (2015) 0.49 (2016) 0.51 (2017)	0.50 (2018 projected)	0.48

**Most recent figures (2014) from Statistics Canada. 255kg/cap diverted in 2014*

2019 key actions

- Continue implementation of new solid waste regulatory framework
- Monitor implementation of Expanded Polystyrene Disposal Ban
- Review options for adding best practices into solid waste licensing for organics processing facilities
- 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
- Conduct market sounding and assess potential for development of new local construction and demolition processing capacity
- 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

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SERVICES AND SOLUTIONS FOR A LIVABLE REGION

LEGAL AND LEGISLATIVE SERVICES
ENVIRONMENTAL REGULATION AND ENFORCEMENT
SOLID WASTE

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

Strategic directions and high level goals supported
The Solid Waste Regulatory Programs support Metro Vancouver's Integrated Solid Waste and Resource Management Plan:

- License private municipal solid waste and recyclables facilities
- Ensure compliance with solid waste regulatory bylaws

2019 Performance indicators

Indicator	Historical and/or industry benchmark	Current Performance (YTD)	2019 Performance objectives
Total number of licenses issued to private facilities managing municipal solid waste and recyclable materials that must be managed and monitored	2017: 45	2018 YTD: 45	47 (many more expected if Minister approves proposed solid waste bylaws)

2019 key actions

- Promote compliance with current and potential new bylaws through the issuance of authorizations and compliance promotion work on both current and potential new regulated activities.

ATTACHMENT 5

METRO VANCOUVER DISTRICTS
2019-2023 PROJECTED RESERVES - SOLID WASTE SERVICES

OPERATING RESERVES

	2018 ENDING BALANCE	2019 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2019 ENDING BALANCE	2020 ENDING BALANCE	2021 ENDING BALANCE	2022 ENDING BALANCE	2023 ENDING BALANCE
Solid Waste Services	$ 13,195,982	$ 13,195,982	$ 1,159,488	$ -	$ 278,297	$ 14,633,768	$ 15,079,945	$ 15,335,000	$ 15,750,931	$ 16,059,885

DISCRETIONARY RESERVES

	2018 ENDING BALANCE	2019 OPENING BALANCE	CONTRIBUTION	WITHDRAWALS	INTEREST	2019 ENDING BALANCE	2020 ENDING BALANCE	2021 ENDING BALANCE	2022 ENDING BALANCE	2023 ENDING BALANCE
Solid Waste Services										
Solid Waste General Reserve	$ 32,407,182	$ 32,407,182	$ -	$ -	$ 648,144	$ 33,055,326	$ 33,716,432	$ 34,390,761	$ 35,078,576	$ 35,780,148
Landfill Post Closure Reserve	10,638,679	10,638,679	-	-	212,774	10,851,453	11,068,482	11,289,851	11,515,648	11,745,961

Solid Waste Services

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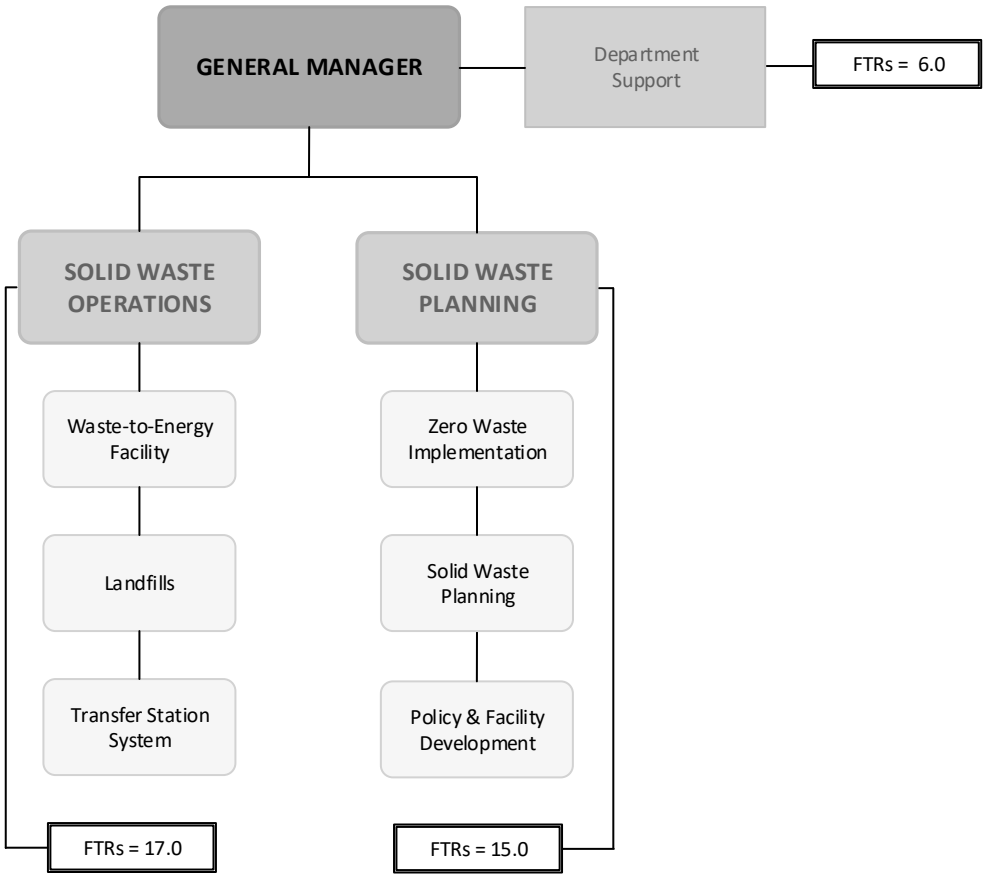
SERVICES AND SOLUTIONS FOR A LIVABLE REGION

2018



Solid Waste Services
2018 Total FTRs = 39.0
2019 Proposed FTRs = 39.0