



City of Maple Ridge

TO: Her Worship Mayor Nicole Read and Members of Council **MEETING DATE:** November 14, 2017
FROM: Chief Administrative Officer **MEETING:** Council
SUBJECT: 2018 – 2022 Capital Works Program

EXECUTIVE SUMMARY:

For the past number of years, the City's Business Planning process has culminated with departmental presentations to Council followed by consideration of the 5-year Financial Plan Bylaw. In recognition of the fact that 2018 is the last year of the current Council term and Council has heard from all the departments a number of times, a schedule for receiving business and financial plan presentations over the next several months was adopted by Council on October 24, 2017.

The attachment to this report is the Capital Works Program business plan. The Manager of Financial Planning will provide a short presentation and the Capital Planning Committee will be available to answer any questions Council may have.

Council will see many of these projects again when asked to award the contracts. The early adoption of the Financial Plan Bylaw, and the capital work included within, allows for the capital works to begin sooner and likely results in advantages when tendering with respect to contractor availability and pricing.

RECOMMENDATION(S):

Received For Information Only

"Original signed by Trevor Thompson"

Prepared by: Trevor Thompson, CPA, CGA
Manager of Financial Planning

"Original signed by Paul Gill"

Approved by: Paul Gill, CPA, CGA
Chief Administrative Officer

City of Maple Ridge
Capital Works Program
Business Plan 2018 – 2022

Departmental Overview

The Capital Planning Committee compiles and prepares the Capital Works Program (CWP), coordinates project information for the Long-Term Capital Works Program (15 - 20 years) with priority given to the upcoming five-year timeframe and is responsible for deployment of information relating to the CWP on the website. The Committee also provides staff support with respect to capital information enquiries and/or requests, maintains the integrity of the data in the corporate business system for long-term capital programming and creating an archive of completed and planned projects and has the responsibility for administrating the CWP and associated business systems.

Capital Planning Committee Members

Trevor Thompson (MANAGER OF FINANCIAL PLANNING), Chair

C.K. Lee (FINANCIAL ANALYST), Co-Chair

Christina Crabtree (CHIEF INFORMATION OFFICER)

David Boag (DIRECTOR OF PARKS & FACILITIES)

David Pollock (MUNICIPAL ENGINEER)

Howard Exner (FIRE CHIEF)

James Storey (DIRECTOR OF ENGINEERING OPERATIONS)

Strategic Alignment

The Capital Works Program is the City's long-term plan to meet the infrastructure needs of its citizens, both present and future. It shows how the City plans to construct, acquire, expand, rehabilitate and replace its capital assets over the next 15 to 20 years. The longer time horizon promotes better use of the City's financial resources and strengthens coordination with private development.

Each year, the Capital Planning Committee reviews the first five years of the CWP in detail to account for changes in priority and direction. This confirms that capital projects in the CWP, their funding and timing are still relevant. The Committee also ensures that the CWP supports the:

Corporate Strategic Plan

Financial Sustainability Plan Policy

Official Community Plan (OCP)

Infrastructure Sustainability Plan

The CWP is then endorsed by the Corporate Management Team (CMT) before Council approves it through adopting the Financial Plan.

The Capital Planning Committee's challenge is to develop a long term strategy which ensures that the City's infrastructure meets the community's needs, now and in the future. This strategic planning is guided by five principles:

Multi-Year Perspective

This helps avoid dangerous practices such as balancing the budget by repeatedly using one-time sources of revenue, deferring current costs to the future and ignoring the long-range lifecycle costs of a liability.

Lifecycle Costs and Reserves

Recognize lifecycle impact of aging assets, infrastructure, facilities and systems. The Committee must not only consider current operating expenses, but repairs and replacement in the future. Capital expenditures should be closely coordinated with the operating budget. This principle is explained in more detail in the Financial Sustainability Plan Policy.

Revenue and Expense Analysis

Revenue and expense analysis is considered a critical best practice by financial experts. Other financial indicators are also taken into account when making budgetary decisions. For more information, please see the Financial Sustainability Plan Policy.

Forecasting Assumptions and Methodologies

Besides addressing asset management and financial reporting requirements, documenting the assumptions behind revenue and expense forecasts and methodology used is essential for full disclosure, discussion and critical review. It is also invaluable for training, record-keeping and succession.

Commitment, Diligence and Perseverance

Beyond these principles, support from leadership and strong organizational commitment to improve financial management is needed. CMT directs the development of policies and practices to achieve infrastructure sustainability. The City continues to focus on a viable, equitable and sustainable CWP for the community.

Business Perspective/Environmental Scan

Grant funding from senior levels of government is an important component of the capital program. If funding programs don't materialize, projects are unlikely to progress.

Ongoing Deliverables

Action Item	Status or Outcome (Optional):
Replace Infrastructure	<ul style="list-style-type: none">Update the infrastructure deficit funding projections annually, taking into account changes in asset inventory, useful life expectations, replacement cost projections and funding levels.Develop financial model for illustrative purposes only, projecting the necessary property tax rate increases to fund the infrastructure deficit in 10, 15 and 25 years.Appeal to senior levels of government for ongoing secure funding for infrastructure replacement or access to alternative revenue streams (not property taxes).Continue to explore funding alternatives (Gravel, Gaming, Grants, Growth).
Project Management	<ul style="list-style-type: none">Monitor and report project spending.Monitor and report on status of projects including rationale for projects that are not proceeding.

Prior Years' Deliverables

Action Item	Status or Outcome	% Complete (and ETA if not 100%)
Refer to the listing of 2017 Capital Projects.		Ongoing

New Deliverables for 2018 (*highlights only*) – Any incomplete items from prior years may also form part of the 2018 workplan.

Action Item	Lead	ETA
Replace existing infrastructure when it nears the end of its useful life.	All Departments	Ongoing

Measures/Outcomes

- None.

Action Item	Lead	ETA
Complete projects on time and on budget.	All Departments	Ongoing

Measures/Outcomes

- Reduce actual spending on completed projects vs. original approved budget.
- Reduce percentage of CWP not started due to specified reasons

Operating Budget

- No operating budget allocated.
- Resources for the CWP Business Plan are provided in departmental operating budgets.
- Operating costs associated with new capital projects are provided for in the departmental business plans in keeping with the business planning guidelines.

Incremental Packages

- Should continue to pursue the annual contribution needed to fund the infrastructure deficit
- Address the additional operating costs associated with new capital project requests as incremental package requests in the departmental business plans, or fund them in the operating budgets through the allocation of growth funding as discussed in the Financial Plan Overview Report.

Capital Budget

- The Capital Planning Committee reviews and prioritizes the CWP which is in turn reviewed and endorsed by the CMT. The recommended CWP project listing is included as an appendix to this plan.

Information Technology

- Technology-related capital projects are presented in the Information Technology Steering Committee.

Performance Measures/Indicators

The City tracks our performance in a number of ways. Some of the measures are tracked using Performance Reporting Scorecards which appear in the City's performance system. The scorecards for this area are listed below. Full scorecards can be found under the Scorecards tab in your binder.

To access the “live” scorecard, visit www.mapleridge.ca/787 and use the Scorecard Lookup tool.

Code	Scorecard (on following pages)	Why this Scorecard is important to this department:
FM03	Capital Works Program	Compares capital program budgets against actual expenditure, which gives an indication how accurate budgets are. Accuracy in budgeting helps to effectively allocate resources.

Appendices

- Appendix A – Capital Works Program – Proposed Capital Funding Sources
- Appendix B – Capital Works Program – Proposed Capital Spending by Section
- Appendix C – Capital Works Program – Proposed Capital Improvement Projects
- Appendix D – Capital Works Program – Proposed Capital Projects Funded by Others

Appendix A – Capital Works Program – Proposed Capital Funding Sources

<i>Fund Group</i>	2018	2019	2020	2021	2022
General Revenue	3,276	3,555	3,318	3,629	1,352
Debt	20,500	19,000	-	-	-
Capital Works Reserve	150	150	150	150	150
Development Cost Charges	10,769	9,124	7,172	4,573	2,584
Drainage Improvement Levy	1,228	1,474	1,735	2,010	2,300
Equip Replacement Reserve	3,461	2,187	1,395	1,963	2,183
Fire Dept Capital Reserve	692	-	-	-	-
Gaming	200	190	200	190	200
Grants, LAS, 3rd Parties	4,042	1,059	1,115	1,000	1,000
Infrastructure Sustainability Reserve	4,159	4,643	5,095	5,614	6,099
Parkland Acquisition Reserve	200	200	200	200	200
Police Services Reserve	12	37	131	5	-
Recycling Reserve	65	390	60	380	80
Sewer Capital	4,477	4,583	1,333	673	658
Surplus	500	500	500	-	-
Translink	100	-	450	650	-
Water Capital	5,026	3,923	3,299	4,143	2,900
Albion Amenity Reserve	1,000	-	-	-	-
Community Amenity Reserve	3,000	1,000	-	-	-
Grand Total by Funding Sources	62,857	52,015	26,154	25,179	19,706

Appendix B – Capital Works Program – Proposed Capital Spending by Section

<i>Section</i>	2018	2019	2020	2021	2022
Government	700	1,524	511	964	374
Technology	1,618	2,345	1,972	1,193	1,196
Protective Fire	1,498	-	-	-	-
Protective Police	9	40	158	-	-
Parks	26,478	23,635	2,693	2,866	1,365
Highways	15,799	9,556	12,455	12,139	7,303
Drainage	1,516	2,587	3,089	2,682	3,753
Sewage	8,328	5,786	1,966	941	941
Water	6,912	6,543	3,310	4,395	4,775
Grand Total by Section	62,857	52,015	26,154	25,179	19,706

Appendix C – Capital Works Program – Proposed Capital Improvement Projects

<i>\$ in thousands</i>	2018	2019	2020	2021	2022
Government	700	1,524	511	964	374
Conveyor Belt Sorting System	25	-	-	-	-
Drainage Design Standard Reviews	30	-	-	-	-
Equip Purch - GPS and Robotic Total Station	-	-	60	-	-
IT Office Renovations	-	-	12	-	-
LiDAR Survey (Acquire Detailed Topographic Data)	-	-	35	-	-
Minor Capital - City	-	75	100	75	100
Minor Capital - Downtown Improvements (Safety)	-	15	-	15	-
Minor Capital - Engineering	15	15	15	15	15
Minor Capital - Gen Government	15	15	15	15	15
Minor Capital - Town Centre	100	-	100	100	100
Operations Centre - Backup Emergency Generator	-	555	-	-	-
Operations Centre - Emergency Response and Training Room	60	40	-	-	-
Operations Centre - Equipment Wash Bay	-	105	-	-	-
Operations Centre - Front Counter Phase 2	50	-	-	-	-
Operations Centre - Works Yard Security	50	50	50	50	-
Recycling Collection Equipment	40	40	60	80	80
Recycling Collection Truck	-	250	-	-	-
Recycling Collection Truck - Semi-Auto, Hydraulic Lift	-	-	-	300	-
Recycling Truck - 2019	-	100	-	-	-
Survey Monument Replacement	10	4	4	4	4
Winter Maintenance Anti Icing System Upgrade	40	-	-	-	-
Winter Maintenance Salt Storage Facility	175	-	-	-	-
Works Yard LED Lighting Upgrade	30	-	-	-	-
Works Yard Paving Phase 1	-	200	-	-	-
Works Yard Paving Phase 2	-	-	-	250	-
Workstation Replacement	60	60	60	60	60

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Technology	1,618	2,345	1,972	1,193	1,196
Asset Management Phase 1	-	500	-	-	-
Asset Management Phase 2	-	-	500	-	-
Audio Visual Improvement	40	-	-	-	-
Backup System Migration	75	-	-	-	-
Business Licensing Upgrade and Full Online Service	145	-	-	-	-
Corporate Scanning Project	33	-	-	-	-
Disaster Recovery Infrastructure	-	-	97	-	-
End Point Security	25	-	-	-	-
Enterprise CRM, Community Engagement Tools	-	45	-	-	-
Enterprise System Replacement (Financial and HRIS)	50	450	490	250	-
Equip Purch - IT	626	1,110	535	403	923
FH1 and FH2 - CCTV	91	-	-	-	-
Fibre Extensions (various)	150	150	150	150	150
Fibre Optic Cleanup	25	-	-	-	-
Hypervisor Migration	-	-	-	200	-
Infrastructure Growth	50	50	50	50	50
Laserfiche License Increase	33	-	-	-	-
Local Area Network Security	80	-	-	-	-
Main Hall Cable Plant	-	-	150	-	-
Monitoring System Upgrades	-	40	-	-	-
Online Services	-	-	-	100	-
POC Firefighter Response Management	9	-	-	-	-
SAP BI Suite License Increase	52	-	-	-	-
Tax and Utility Intellisearch (2018)	25	-	-	-	-
Two Factor Authentication	20	-	-	-	-
Upgrade Live Streaming Infrastructure	-	-	-	40	-
Virtual Host Expansion	90	-	-	-	-
Website Redesign	-	-	-	-	72

Appendix C – Capital Works Program – Proposed Capital Improvement Projects

<i>\$ in thousands</i>	2018	2019	2020	2021	2022
Protective Fire	1,498	-	-	-	-
Edraulic Tool Upgrade	95	-	-	-	-
Equipment Revitalization - Engine 1 1-2 R1	180	-	-	-	-
FD Vehicle Tender 1 Replacement	725	-	-	-	-
FH4 Engine New	175	-	-	-	-
FH4 Tender 4	250	-	-	-	-
Firefighter Decontamination	73	-	-	-	-
Protective Police	9	40	158	-	-
Front Counter Kiosk Expansion ⁺	-	-	150	-	-
RCMP - Chair Replacement - Hilton Haider ⁺	-	40	-	-	-
RCMP - Main Building Renovation (Admin) ⁺	6	-	-	-	-
RCMP - Main Building Renovation (Fentanyl Fan) ⁺	3	-	-	-	-
RCMP - Main Building Renovation (Interview Room) ⁺	-	-	8	-	-

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<i>\$ in thousands</i>	2018	2019	2020	2021	2022
Parks	26,478	23,635	2,693	2,866	1,365
Albion Community Park Development (Elementary Site)	583	-	-	-	-
City - Youth Action Park Albion	-	750	-	-	-
Equip Purch - Sport Field Top Dresser	40	-	-	-	-
Greenbelt Acquisition	200	200	200	200	200
Haney Nokai Park Improvement	-	-	-	-	450
Haney Nokai Park Phase 2 - Acquisition 2	-	660	-	-	-
Haney Nokai Park Phase 2 - Acquisition 3	-	660	-	-	-
Intergenerational Garden	-	-	35	-	-
Minor Capital - Gen Rec	30	30	30	30	30
Minor Capital - Improvements	75	75	75	75	75
North Central Park (232 and 122)	-	-	-	-	610
Park Development (241 and 112)	-	360	-	-	-
Pickleball Courts	150	-	-	-	-
PRF Albion Neighb Learning and Community Centre	5,000	5,000	-	-	-
PRF Hammond Community Centre Improvements	2,500	-	-	-	-
PRF Ice Sheet - 4th Sheet added to Planet Ice	12,500	12,500	-	-	-
PRF MRSS Track Facility Upgrade	-	2,500	-	-	-
PRF Ridge Canoe and Kayak Improv Whonnock Lake	1,000	-	-	-	-
PRF Silver Valley Gathering Place	1,000	-	-	-	-
PRF Telosky Field 2 Synthetic Fields	2,500	-	-	-	-
Silver Valley Neigh Park Completion Phase 2B	-	-	-	1,228	-
Smart Growth Park Acquisition 1	900	-	-	-	-
Smart Growth Park Acquisition 2	-	900	-	-	-
Smart Growth Park Acquisition 3	-	-	900	-	-
Smart Growth Park Acquisition 4	-	-	-	900	-
Whispering Falls Park Development	-	-	-	311	-
Whonnock Lake Acquisition 1	-	-	1,453	-	-
Whonnock Lake Development 1	-	-	-	122	-

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Highways	15,799	9,556	12,455	12,139	7,303
102 Ave at 241 - Acquisition	-	-	-	545	-
116 Ave Urban Road Upgrade 203 to Warsley Design	-	-	50	-	-
117 Ave (Laity to 207) Corridor Improvements	-	100	-	-	-
118 Ave (230 - 231) ⁺	-	-	152	-	-
123 Ave Corridor - 203 to Laity Construction	500	500	-	-	-
123 Ave Corridor - Laity to 216 Reconstruction Design	75	-	-	-	-
123 Ave Corridor - Laity to 216 Reconstruction Phase 1	-	-	-	600	-
132 Ave (Balsam - 236) - Fern Crescent Construction	-	-	2,500	-	-
132 Ave (Balsam - 236) - Fern Crescent Design	-	200	-	-	-
132 Ave Traffic Corridor Improv (216 - 232) Approvals	-	-	300	-	-
132 Ave Traffic Corridor Improv (216 - 232) Construction	-	-	-	1,150	-
132 Ave Traffic Corridor Improv (216 - 232) Detailed Design	-	150	-	-	-
207 St S of Loughheed Phase 2	200	-	-	-	-
210 St 200m N of 128 Road and Drainage Improv Acq	-	-	-	-	358
210 St 200m N of 128 Road and Drainage Improv Design	-	-	-	150	-
224 St at 124 Ave - Intersection Safety Improv (Construction)	-	-	-	250	-
224 St at 132 Ave (N Alouette Bridge) Construction	-	2,823	-	-	-
228 St at 119 Ave Crosswalk Improvements	-	75	-	-	-
228 St at Selkirk Crosswalk Improvements	75	-	-	-	-
232 St (116 - Slager) Construction ⁺	-	-	1,601	-	-
232 St (116 - Slager) Design ⁺	-	250	-	-	-
232 St (132 - Silver Valley Rd) Construction Phase 2 ⁺	6,300	-	-	-	-
233 St (132 - Larch) Design	-	-	100	-	-
240 at McClure Traffic Signal	-	250	-	-	-
248 St Traffic Intersection Upgrade	180	-	-	-	-
Abernethy (224 - 227) Construction	-	-	1,579	-	-
Abernethy (227 - 232) Construction	-	-	-	2,503	-
Access Culverts	22	22	22	22	22
Bridge Repairs Struct Upgrade	150	150	150	150	150
Bus Stop Improv, Sidewalk Letdown, Tactile Installation ⁺	90	90	90	90	90
Cycling Improvements	200	200	200	200	200
Dewdney Trunk at 238B St Intersection Improvements ⁺	-	200	-	-	-
Dewdney Trunk at Burnett Ped Signal	-	-	-	200	-
Ditton St Rail Crossing Upgrade	-	-	50	-	-
Downtown Improvements - Loughheed 224 - 226 Phase 3 ⁺	3,400	-	-	-	-
Dunn Ave and West Intersection Improvements	-	-	-	-	150
Emergency Traffic Pre-Empt	50	50	50	50	50
Equip Purch - Asphalt Patcher	-	-	165	-	-

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<i>\$ in thousands</i>	2018	2019	2020	2021	2022
Highways (cont)					
Equip Purch - Bucket Truck (Elec Mec)	200	-	-	-	-
Equip Purch - Fleet	1,870	1,017	800	1,500	1,200
Illuminated Street Signs Program	10	10	10	10	10
Local Area Service - Road	250	250	250	250	250
Lougheed at Burnett RRFB Installation	50	-	-	-	-
Pavement Management	-	-	45	-	-
Pedestrian Improvements	400	400	400	-	-
Princess St (Wharf - Lorne)	-	-	-	150	-
Private Driveway Crossings	7	7	7	7	7
Road Rehabilitation Program	1,379	2,272	3,291	3,771	4,276
Sidewalk Replacement	90	90	90	90	90
Skillen Urban Road Upg Wicklund to 123 (Design)	-	-	25	-	-
Street Lighting Upgrade Program	100	250	250	250	250
Streetlight Pole Replace Program	50	50	50	50	50
Telep Ave (202 - 100 M West 203 St)	-	-	78	-	-
Traffic Calming Program	50	50	50	50	50
Traffic Signal Replacements	100	100	100	100	100

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Drainage	1,516	2,587	3,089	2,682	3,753
288 St (Storm Main at Watkins Sawmill) ⁺	50	-	30	-	-
Culvert Replacement Program	450	450	450	450	450
Diking District 13 Pump Station Level of Service Analysis ⁺	100	-	-	-	-
Drainage Replacement Program	110	300	332	350	400
Drainage Upgrade Program	239	1,364	1,705	1,510	2,630
Flood Abatement North Alouette	-	-	100	-	-
ISMP Watershed Review (2019)	-	200	-	-	-
Local Area Service - Drain	250	250	250	250	250
Maple Ridge Flood Protection Measures Compound	95	-	-	-	-
Material Crushing	-	-	200	-	-
MR Drainage to PM Diking Area ISMP ⁺	200	-	-	-	-
Private Storm Sewer Connections	22	23	23	23	23
Stormwater Runoff and Stream	-	-	-	100	-

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Sewage	8,328	5,786	1,966	941	941
223 St (117 to North)	110	-	-	-	-
225 St (Haney Bypass to 116)	190	-	-	-	-
225 St Forcemain and PS Upgrade - Phase 2	4,160	-	-	-	-
225 St Forcemain and PS Upgrade - Phase 3	-	4,200	-	-	-
225 St Forcemain and PS Upgrade - Phase 4	-	-	1,000	-	-
227 St, Abernethy to 124 Ave (H006-H007)	30	-	-	-	-
228 St S of 123 (H014 - H015)	27	-	-	-	-
232 St (Sections north of 126th)	400	-	-	-	-
DTR Sanitary Main Replacement 216 - 222	-	550	-	-	-
Equip Purch - Sewer Dept Truck 2018-1	45	-	-	-	-
Equip Purch - Sewer Dept Truck 2018-2	45	-	-	-	-
Equip Purch - Upgrade to Service truck with Crane (Elec Mec)	45	-	-	-	-
Inflow and Infiltration Reduction Program	75	50	75	50	50
Local Area Service - Sewer	250	250	250	250	250
Private Sewer Connections	41	41	41	41	41
River Rd Kanaka Creek to McKay Phase 2	1,600	-	-	-	-
Royal Cres at 225 St Diversion MH Overbuild (2018)	25	-	-	-	-
Sanitary Flow Monitoring	120	70	-	-	-
Sanitary Pump Station Capacity Upgrade Timing Study	70	-	-	-	-
Sanitary Servicing Plan - Silver Valley	75	-	-	-	-
SCADA Replacement Program	100	100	100	100	100
Sewage System Rehab and Replacement	600	500	500	500	500
Sewer Department Shoring System	40	-	-	-	-
Sewer SE of Leisure Centre	-	25	-	-	-
SSI Sediment Removal	200	-	-	-	-
Town Centre Growth Study and Capital Investment (Sewer)	80	-	-	-	-

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Water	6,912	6,543	3,310	4,395	4,775
104 Ave Pipe Upsize	200	-	-	-	-
216 St 124 - 128 LTC017131	-	-	-	650	-
232 N of Abernethy PRV	550	-	-	-	-
232 St 122 Ave to 124 Ave Watermain Replacement	-	-	600	-	-
232 St at 136 PS - 140m to 175m conversion	100	2,000	-	-	-
232 St DTR to 122 Ave Watermain Replacement	600	-	-	-	-
236 St PS CL Facility & Station Upgrade Concept Plan Phase 2	425	-	-	-	-
240 at Kanaka Way to 112	-	-	-	-	280
240 St and 136 Ave W to Forest PS at Granite Way Construction	-	725	-	-	-
240 St and 136 Ave W to Forest PS at Granite Way Design	100	-	-	-	-
263 St Reservoir Expansion Construction	-	-	-	-	1,100
263 St Reservoir Expansion Design	-	-	-	100	-
270A St Reservoir Replacement	-	-	-	-	1,500
84m Zone PRV Assess and Failure Contingency Planning	100	-	-	-	-
Albion PS Improv (on 104 Ave at 245) Construction	-	-	-	1,500	-
Albion PS Improv (on 104 Ave at 245) Design	-	-	150	-	-
Albion Reservoir Expansion Phase 2	800	-	-	-	-
Ansell St (124 - 125)	-	360	-	-	-
CL2 Equipment Replacement Program	50	50	50	50	50
Dewdney Trunk (240 - 246)	50	-	-	-	-
DTR - 216 St to 222 St Watermain Replacement Construction	-	1,500	-	-	-
DTR - 216 St to 222 St Watermain Replacement Design	100	-	-	-	-
DTR - Edge St to 228 St - Construction	-	-	715	-	-
DTR - Edge St to 228 St - Design	50	-	-	-	-
Dunn Ave (Maple Meadows Way - West St)	-	-	-	250	-
Equip Purch - Water Truck Unit 46 Upgrade	25	-	-	-	-
Equip Purch - Waterworks Department Truck	45	-	-	-	-
Foreman Dr at 232 Street PRV Construction	450	-	-	-	-
Hydrant Flow Rates and Coding	150	-	-	-	-
Hydrant Installation	200	-	-	-	-
Local Area Service - Water	250	250	250	250	250
McNutt PRV Replacement	400	-	-	-	-
Mitigating Risk of High System Pressures	75	-	-	-	-
Post-Disaster Provision of Drinking Water	500	-	-	-	-
Private Water Connections	407	408	410	410	410
River Rd Seismic Event Automatic Isolation Valves (Concept Plan)	40	-	-	-	-
SE of 136 and Foreman (connection to 84m Zone)	-	50	-	-	-
Seismic Upgrade Program	150	150	150	150	150
Town Centre Growth Study and Capital Investment (Water)	-	40	-	-	-

Appendix C – Capital Works Program – Proposed Capital Improvement Projects

<i>\$ in thousands</i>	2018	2019	2020	2021	2022
Water (cont)					
Water Pump Station Upgrades	60	60	60	60	60
Water Remote Security Program	50	50	50	50	50
Water Reservoir Upgrades	50	50	50	50	50
Water System Capacity Upgrades	400	400	400	400	400
Water System Improvement Program	75	50	25	25	25
Watermain Replacement Program	400	400	400	450	450
Whonnock Well Inspection & Repairs	60	-	-	-	-
Grand Total	62,857	52,015	26,154	25,179	19,706

+ indicates that the project has at least one funding source that is external (i.e. grant)

Appendix D – Capital Works Program – Proposed Capital Projects Funded by Others

<i>\$ in thousands</i>	2018	2019	2020	2021	2022
118 Ave (230 - 231)	-	-	152	-	-
232 St (116 - Slager) Construction	-	-	1,601	-	-
232 St (116 - Slager) Design	-	250	-	-	-
232 St (132 - Silver Valley Rd) Construction Phase 2	6,300	-	-	-	-
288 St (Storm Main at Watkins Sawmill)	50	-	30	-	-
Bus Stop Improv, Sidewalk Letdown, Tactile Installation	90	90	90	90	90
Dewdney Trunk at 238B St Intersection Improvements	-	200	-	-	-
Diking District 13 Pump Station Level of Service Analysis	100	-	-	-	-
Downtown Improvements - Lougheed 224 - 226 Phase 3	3,400	-	-	-	-
Front Counter Kiosk Expansion	-	-	150	-	-
MR Drainage to PM Diking Area ISMP	200	-	-	-	-
RCMP - Chair Replacement - Hilton Haider	-	40	-	-	-
RCMP - Main Building Renovation	9	-	8	-	-
Proposed Capital Funded By Others	10,149	580	2,031	90	90