

**CAPITAL REGIONAL DISTRICT**  
**FIVE YEAR CAPITAL EXPENDITURE PLAN SUMMARY - 2022 to 2026**

<b>Service No.</b>	<b>3.798C</b>	<b>Carry</b>						
	<b>Debt - Core Area Wastewater Capital</b>	<b>Forward from</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>TOTAL</b>
		<b>2021</b>						

**EXPENDITURE**

Buildings	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Equipment	\$120,000	\$120,000	\$0	\$0	\$0	\$0	\$120,000
Land	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Engineered Structures	\$26,575,000	\$36,168,000	\$8,030,100	\$11,280,000	\$17,380,000	\$1,510,000	\$67,868,100
Vehicles	\$220,000	\$220,000	\$0	\$0	\$0	\$0	\$220,000
	\$26,915,000	\$36,508,000	\$8,030,100	\$11,280,000	\$17,380,000	\$1,510,000	\$74,708,100

**SOURCE OF FUNDS**

Capital Funds on Hand	\$1,697,100	\$1,697,100	\$1,068,100	\$0	\$0	\$0	\$2,765,200
Debenture Debt (New Debt Only)	\$10,225,000	\$17,515,000	\$6,800,000	\$11,150,000	\$17,350,000	\$1,500,000	\$48,015,000
Equipment Replacement Fund	\$0	\$828,000	\$162,000	\$130,000	\$30,000	\$10,000	\$960,000
Grants (Federal, Provincial)	\$14,992,900	\$14,992,900	\$0	\$0	\$0	\$0	\$14,992,900
Donations / Third Party Funding	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Reserve Fund	\$0	\$1,475,000	\$0	\$0	\$0	\$0	\$1,475,000
	<b>\$26,915,000</b>	<b>\$36,508,000</b>	<b>\$8,030,100</b>	<b>\$11,280,000</b>	<b>\$17,380,000</b>	<b>\$1,510,000</b>	<b>\$74,708,100</b>



Service #:3.798C

Service Name:Debt - Core Area Wastewater Capital

Project List and Budget													
Project Number	Capital Expenditure Type	Capital Project Title	Capital Project Description	Total Project Budget	Asset Class	Funding Source	Carryforward from 2021	2022	2023	2024	2025	2026	5 - Year Total
GRAVITY SEWERS AND MANHOLES													
21-06	Renewal	Shoreline Trunk Sewer Upgrade	The hydraulic model and capacity assessment of the system by KWL in 2018-19, has identified that the Shoreline Trunk must be twinned to prevent overflows into Portage Inlet.	\$2,400,000	S	Debt	\$200,000	\$200,000	\$2,000,000	\$0	\$0	\$0	\$2,200,000
21-07	New	Western Trunk Sewer Twinning	The hydraulic model and capacity assessment of the system by KWL in 2018-19, has identified that the Western Trunk Sewer must be twinned from Aldeane to Craigflower PS to prevent overflows upstream of Parson's siphon. Complete an options study in 2022 and detailed design/construction between 2026-2030.	\$15,000,000	S	Debt	\$400,000	\$400,000	\$0	\$0	\$0	\$0	\$400,000
21-08	Replacement	Boundary Odour Control Replacement	The Boundary UV odour control unit has failed. Based on the 2018 KWL Odour Control Assessment review, a new carbon scrubber located closer to Gorge Siphon inlet chamber maybe more effective.	\$400,000	S	Res	\$0	\$400,000	\$0	\$0	\$0	\$0	\$400,000
21-09	Renewal	Bowker Sewer Rehabilitation	Based on results of CCTV inspection about 1,685m of sewer from North Dairy to Richmond and 1,860m from Foul Bay to Currie PS needs to be relined.	\$8,600,000	S	Debt	\$4,175,000	\$8,475,000	\$0	\$0	\$0	\$0	\$8,475,000
21-10	Renewal	Sewer Cleaning and Inspection	Regional sewers should be cleaned and inspected on a 5-year cycle. The trunk sewers from Prospect to Currie PS and from Bushby to Clover PS will be inspected in 2022. The 5-year cycle will recommence in 2024.	\$600,000	S	Debt	\$75,000	\$75,000	\$0	\$150,000	\$150,000	\$150,000	\$525,000
21-11	Renewal	Manhole Repairs and Replacement	Based upon CCTV and staff inspections on manholes, high priority repairs and replacement of deteriorated MH's.	\$1,500,000	S	Debt	\$500,000	\$500,000	\$250,000	\$250,000	\$250,000	\$250,000	\$1,500,000
23-01	Renewal	Cecelia Ravine Pipe Protection	Based on geotechnical review, a section of the exposed NWT in Cecelia Ravine should be covered & protected from falling rocks upslope from the pipe.	\$300,000	S	Debt	\$0	\$0	\$300,000	\$0	\$0	\$0	\$300,000
PRESSURE PIPES AND APPURTENANCES													
21-12	Renewal	Gorge Siphon Inlet Chamber Upgrade	The control gates are siezed on this chamber and they need to be replaced so that the individual siphons can be isolated or activated.	\$500,000	S	Res	\$0	\$475,000	\$0	\$0	\$0	\$0	\$475,000
21-13	New	Craigflower Forcemain Twinning	The hydraulic model and capacity assessment of the system by KWL in 2018-19, has identified that the Craigflower Forcemain must be twinned to prevent overflows into Portage Inlet.	\$9,600,000	S	Debt	\$300,000	\$300,000	\$300,000	\$4,500,000	\$4,500,000	\$0	\$9,600,000
21-14	Renewal	Marigold Siphon Assessment	The Marigold Siphon section is a pressurized (pre-stressed concrete pipe), nearing 50 years old, and has never been assessed. Assessment and eventual replacement of the pipe is required.	\$8,300,000	S	Debt	\$400,000	\$400,000	\$0	\$0	\$7,900,000	\$0	\$8,300,000
22-02	Renewal	Gorge and Harriet Siphon Assessment	The Gorge and Harriet Siphons are ductile iron pipe, nearing 50 years old, and have never been flushed or assessed. Flushing and assessment of the pipe is required.	\$250,000	S	Res	\$0	\$250,000	\$0	\$0	\$0	\$0	\$250,000
23-02	Renewal	Penrhyn Siphon Assessment	The Penrhyn Siphon is PVC pipe, and has never been flushed or assessed. Flushing and assessment of the pipe is required.	\$400,000	S	Debt	\$0	\$0	\$400,000	\$0	\$0	\$0	\$400,000
24-07	Renewal	Parsons Siphon Assessment	The Parsons Siphons are PVC and steel pipe, and have never been flushed or assessed. Flushing and assessment of the pipe is required.	\$400,000	S	Debt	\$0	\$0	\$0	\$400,000	\$0	\$0	\$400,000
25-01	Renewal	Admirals Siphon Assessment	The Admirals Siphon is PVC pipe, and has never been flushed or assessed. Flushing and assessment of the pipe is required.	\$400,000	S	Debt	\$0	\$0	\$0	\$0	\$400,000	\$0	\$400,000
FLOW METERS													
21-15	Replacement	Parsons Meter Replacement	Based on KWL's 2018-19 Flow Meter Audit review, Parsons meter is to be replaced with two doppler meters and one magmeter on Wilfert PS (includes install of meters, kiosk and conduit).	\$250,000	S	Debt	\$225,000	\$225,000	\$0	\$0	\$0	\$0	\$225,000
21-16	New	Gorge & Chapman Meter	Based on KWL's 2018-19 Flow Meter Audit review, KWL recommended a new flodar meter to measure the unmeterecd	\$130,000	S	Debt	\$130,000	\$130,000	\$0	\$0	\$0	\$0	\$130,000
21-17	New	Esquimalt Nation Meter	Based on KWL's 2018-19 Flow Meter Audit review, KWL recommended a new custom weir, kisok and conduit to measure the unmetered Esquimalt Nation catchment.	\$200,000	S	Debt	\$200,000	\$200,000	\$0	\$0	\$0	\$0	\$200,000
21-18	New	Shoreline Trunk Meter	Based on KWL's 2018-19 Flow Meter Audit review, KWL recommended a new flodar meter to measure the unmetered Shoreline catchment. Includes installation of FloDar meter, kiosk and conduit.	\$240,000	S	Debt	\$50,000	\$240,000	\$0	\$0	\$0	\$0	\$240,000
21-19	New	Selkirk Meter	Based on KWL's 2018-19 Flow Meter Audit review, KWL recommended a new flume meter to measure the unmetered Selkirk catchment (install weir, kiosk and conduit).	\$190,000	S	Debt	\$190,000	\$190,000	\$0	\$0	\$0	\$0	\$190,000
21-20	Replacement	Haultain, Hereward, Langford Replacement	Based on KWL's 2018-19 Flow Meter Audit review, ultrasonic meters are to be replaced with new LUT-440 models.	\$40,000	S	Debt	\$40,000	\$40,000	\$0	\$0	\$0	\$0	\$40,000
21-21	Replacement	Penrhyn Meter	Based on KWL's 2018-19 Flow Meter Audit review, the ADFM insertion probe meter is damaged and needs to be replaced.	\$90,000	S	Debt	\$90,000	\$90,000	\$0	\$0	\$0	\$0	\$90,000

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GENERAL													
21-22	Study	Asset Management Plan Update	Previous condition assessment studies will be updated and incorporated into a long-term asset management plan to meet expected level-of-service requirements.	\$250,000	S	Debt	\$250,000	\$250,000	\$0	\$0	\$0	\$0	\$250,000
21-23	Study	DCC Program Development	With the completion of CAWTP and amendment of the Service Establishment Bylaw, it was noted that a DCC Program would be established to fund future wastewater projects related to growth. This project is to create the program, consult with stakeholders and prepare a new DCC bylaw.	\$400,000	S	Debt	\$100,000	\$200,000	\$0	\$0	\$0	\$0	\$200,000
21-24	Renewal	Record Drawing and Wastewater Agreement Updates	The old as-built drawings, connection points and wastewater agreements with the contributing municipalities has not been updated in many years. Updates are required to reflect changes in the system, identify clear demarcation points, and reflect updates in the LWMP.	\$600,000	S	Debt	\$50,000	\$150,000	\$100,000	\$100,000	\$100,000	\$100,000	\$550,000
21-25	Renewal	SCADA and Radio Assessment	Majority of the radio and SCADA equipment are nearing end of life, technological advances do not allow for straight replacements, funding is required for assessments of existing equipment and site requirements. Replacement will happen over many years commencing in 2022.	\$3,150,000	S	Debt	\$50,000	\$800,000	\$750,000	\$750,000	\$750,000	\$0	\$3,050,000
22-03	Renewal	Acquisition of Outstanding Right-of-Ways	Some of the infrastructure is located on privately owned land that do not have right-of-ways. A plan is being developed to acquire SRW's for all infrastructure over time. Initial spending requires a study and plan prior to acquisition.	\$1,200,000	S	Debt	\$0	\$200,000	\$0	\$0	\$1,000,000	\$0	\$1,200,000
21-26	Replacement	Annual Provisional Emergency Repairs	Unforeseen and unplanned emergency repairs can occur which require immediate attention.	\$5,000,000	S	Debt	\$0	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$5,000,000
22-04	New	Microwave Radio Upgrades	To provide a high bandwidth communications backbone to the CAWWT system, a microwave communications system will be installed.	\$200,000	S	ERF	\$0	\$200,000	\$0	\$0	\$0	\$0	\$200,000
OUTFALLS													
24-08	Renewal	Clover Point Outfall Retrofit	The existing outfall will see a significant reduction in usage once the Clover Point Pump Station is commissioned and wastewater flows up to 3 times ADWF are redirected to the McLoughlin WWTP. As a result, the existing outfall will need to be assessed for best operational and maintenance practices based on expected limited use instead of current continuous use.	\$500,000	S	Debt	\$0	\$0	\$0	\$500,000	\$0	\$0	\$500,000
25-02	Renewal	Macaulay Point Outfall Retrofit	A section of coating the emergency short outfall has failed and the pipe is corroding, and the long outfall needs to be modified to suit reduced usage. This project is to repair the coating, provide shoreline protection, and modify the deep outfall.	\$750,000	S	Debt	\$0	\$0	\$0	\$0	\$750,000	\$0	\$750,000
RESIDUAL SOLIDS													
21-29	Renewal	Quonset removal	Demo old storage facility	\$100,000	S	Debt	\$0	\$50,000	\$0	\$0	\$0	\$0	\$50,000
GRAND TOTAL				\$849,750,000			\$26,915,000	\$36,508,000	\$8,030,100	\$11,280,000	\$17,380,000	\$1,510,000	\$74,708,100