

Service #: **3.798C**
 Service Name: **Debt - Core Area Wastewater Treatment Program**

				PROJECT BUDGET & SCHEDULE									
Project Number	Capital Expenditure Type	Capital Project Title	Capital Project Description	Total Project Budget	Asset Class	Funding Source	Carryforward	2024	2025	2026	2027	2028	5 - Year Total
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.	\$ 500,000	S	Debt	\$ -	\$ -	\$ 500,000	\$ -	\$ -	\$ -	\$ 500,000
24-12	Renewal	Harriet Siphon Cleaning and Assessment	Specialized flushing and cleaning to remove solids from both 400m siphons.	\$ 500,000	S	Res	\$ -	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ 500,000
24-13	Renewal	Craigflower Inlet Reconfiguration	Increasing flows and off-gassing from the vortex drop are generating odours and causing corrosion. Re-alignment of the influent sewer is required to mitigate odours, corrosion and address health and safety concerns.	\$ 1,700,000	S	Debt	\$ -	\$ 1,700,000	\$ -	\$ -	\$ -	\$ -	\$ 1,700,000
24-14	Renewal	Parsons Siphon/Bridge Connection Repairs	The siphon pipe support connections to the Parsons Bridge require repairs.	\$ 400,000	S	Res	\$ -	\$ 400,000	\$ -	\$ -	\$ -	\$ -	\$ 400,000
25-03	Renewal	Harriet Siphon Inlet Chamber Upgrade	Assess concrete corrosion and replace seized control gates.	\$ 1,500,000	S	Debt	\$ -	\$ -	\$ 1,500,000	\$ -	\$ -	\$ -	\$ 1,500,000
27-01	Study	Forcemain Pipe Assessment Study	There are several forcemain pipes downstream from each pump station that have never been assessed. A study is proposed to investigate various technologies to evaluate the condition of the pipes.	\$ 250,000	S	Debt	\$ -	\$ -	\$ -	\$ -	\$ 250,000	\$ -	\$ 250,000
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).	\$ 400,000	S	Debt	\$ 170,000	\$ 320,000	\$ -	\$ -	\$ -	\$ -	\$ 320,000
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 unmetred Gorge and Chapman catchments. Includes installation of new metering manhole.	\$ 230,000	S	Debt	\$ 100,000	\$ 200,000	\$ -	\$ -	\$ -	\$ -	\$ 200,000
21-17	New	Esquimalt Nation Meter	Based on KWL's 2018-19 Flow Meter Audit review, KWL recommended a new custom weir, kiosk and conduit to measure the unmetred Esquimalt Nation catchment.	\$ 300,000	S	Debt	\$ 165,000	\$ 265,000	\$ -	\$ -	\$ -	\$ -	\$ 265,000
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 unmetred Shoreline catchment. Includes installation of FloDar meter, kiosk and conduit.	\$ 340,000	S	Debt	\$ 200,000	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ 250,000
21-19	New	Selkirk Meter	Based on KWL's 2018-19 Flow Meter Audit review, KWL recommended a new flume meter to measure the unmetred Selkirk catchment (install weir, kiosk and conduit).	\$ 340,000	S	Debt	\$ 160,000	\$ 310,000	\$ -	\$ -	\$ -	\$ -	\$ 310,000
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	\$ -	\$ -	\$ -	\$ -	\$ 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	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
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.	\$ 1,100,000	S	Debt	\$ 30,000	\$ 230,000	\$ 250,000	\$ 250,000	\$ -	\$ -	\$ 730,000
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.	\$ 3,900,000	S	Debt	\$ -	\$ 750,000	\$ 750,000	\$ 750,000	\$ 750,000	\$ -	\$ 3,000,000
22-03	Renewal	Acquisition of Outstanding Right-of-Ways	Some of the infrastructure is located on privately owned land that do not have rights-of-way. 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	\$ -	\$ 500,000	\$ 500,000	\$ -	\$ -	\$ -	\$ 1,000,000
21-27	New	New Infrastructure Optimization	Unforeseen and unplanned optimization at a number of new facilities to improve operation and health and safety requirements.	\$ 500,000	S	Debt	\$ 300,000	\$ 300,000	\$ -	\$ -	\$ -	\$ -	\$ 300,000
22-04	New	Microwave Radio Upgrades	To provide a high bandwidth communications backbone to the CAWWT system, a microwave communications system will be installed.	\$ 600,000	S	ERF	\$ 100,000	\$ 200,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ -	\$ 500,000
23-07	New	Enterprise Data Historian Management System	A data historian is required to store large amounts of data that is required for compliance reporting to regulators, operational performance reports, cost allocation, and engineering analysis.	\$ 300,000	E	Debt	\$ 300,000	\$ 300,000	\$ -	\$ -	\$ -	\$ -	\$ 300,000
28-01	Decommission	Mariogld Surge Tank Deconstruction	The old Mariogld Surge Tank has been abandoned for many years, is becoming a safety concern for youth, a needs to be removed.	\$ 1,800,000	S	Debt	\$ -	\$ -	\$ -	\$ -	\$ 300,000	\$ 1,500,000	\$ 1,800,000
24-15	Replacement	IT Core Infrastructure Replacement	Replacement of Core IT infrastructure such as servers, network switches, UPS, etc for equipment end of life	\$ 505,000	S	ERF	\$ -	\$ 55,000	\$ -	\$ -	\$ 350,000	\$ 100,000	\$ 505,000
ANNUAL PROVISIONAL													
21-26	Replacement	Annual Provisional Emergency Repairs	Unforeseen and unplanned emergency repairs can occur which require immediate attention.	\$ 5,000,000	S	Res	\$ -	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 5,000,000
23-06	Replacement	Annual Provisional Equipment Replacement	Replacement of at end of service life, including valves, variable frequency drives, capacitors.	\$ 1,500,000	S	ERF	\$ -	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 1,500,000
23-08	New	Process & Mechanical Upgrades	Upgrades to the Core Area Wastewater Treatment and Conveyance infrastructure in order to optimize operations	\$ 4,250,000	S	Debt	\$ -	\$ 850,000	\$ 850,000	\$ 850,000	\$ 850,000	\$ 850,000	\$ 4,250,000
23-09	New	Safety & Security Upgrades	Upgrades to the Core Area Wastewater Treatment and Conveyance infrastructure to improve worker health and safety	\$ 2,400,000	S	Debt	\$ -	\$ 600,000	\$ 600,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 2,400,000
OUTFALLS / OVERFLOWS													
24-08	Renewal	Clover Point Outfall Retrofit	The existing Clover outfall is no longer operated on a regular basis since wastewater is now conveyed to McLoughlin WWTP, but it must be ready for operation during peak storm events. As a result, the existing outfall will need to be assessed for best operational and maintenance practices based on limited use.	\$ 500,000	S	Debt	\$ -	\$ -	\$ 500,000	\$ -	\$ -	\$ -	\$ 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 prepare a plan to maintain the deep outfall based on limited use.	\$ 750,000	S	Debt	\$ -	\$ -	\$ 750,000	\$ -	\$ -	\$ -	\$ 750,000
27-02	Renewal	Broom Overflow Pipe Rehabilitation	Overflow pipe is cracked and severed in multiple locations and H2S gases and odours are present.	\$ 575,000	S	Debt	\$ -	\$ -	\$ -	\$ -	\$ 75,000	\$ 500,000	\$ 575,000
RESIDUAL SOLIDS													
24-09	New	Centrate Return Line Automated Monitoring	Installation of level transducer at manhole 48 to monitor the centrate line level to avoid surcharging of the man hole and potential spill.	\$ 175,000	S	Debt	\$ -	\$ -	\$ -	\$ 175,000	\$ -	\$ -	\$ 175,000
24-16	New	Biosolids Particle Size Optimization	Installation of equipment to ensure biosolids particle size meets reuse option specifications.	\$ 250,000	E	Debt	\$ -	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ 250,000
DCC PROJECTS													
GRAND TOTAL				\$ 107,120,000			\$ 6,765,000	\$ 32,820,000	\$ 16,300,000	\$ 7,475,000	\$ 12,025,000	\$ 12,150,000	\$ 80,770,000