CAPITAL REGIONAL DISTRICT

5 YEAR CAPITAL PLAN

2024 - 2028

Service #: Service Name: 2.670

Regional Water Supply

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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
WATERSHED PROTECTION													\$ -
Planning													\$ -
17-01	Renewal	Historic Goldstream Powerhouse Building	Repairs of historic Goldstream Powerhouse building and work toward making the site accessible to the public	\$ 120,00		wu	\$ 20,000	\$ 20,000	\$ 50,000 \$		-		\$ 70,000
17-01	Renewal		Assessments (office and field) and planning for managing wildlife habitat, in particular species-at-risk habitat, in the	\$ 376,00		Grant		\$ - :	\$ 300,000 \$	- 5			\$ 300,000
18-10	Study	Species-at-Risk Wildlife Habitat	GVWSA.	\$ 185,00	0 L	WU	\$ 40,000	\$ 40,000	ş - ş	- 5	-		\$ 40,000
19-30	Study	Leech WSA Lakes/Tributaries Assessment	An assessment of the physical, chemical and biological parameters of the lakes in the Leech WSA	\$ 75,00	0 L	WU	\$ 41,000	\$ 41,000	s - s	- ;	-		\$ 41,000
20-05	Renewal	Leech WSA Terrestrial Ecosystem Mapping & Wetland Classification/Mapping	Classification and mapping of terrestrial ecosystems and wetlands and integration with Sooke and Goldstream data.	\$ 180,00	0 L	wu	\$ 38,000	\$ 38,000	s - s		-		\$ 38,000
20-06	Study	Addressing mining in Leech WSA (impacts, agreements)	Funding to support work to reduce the impact of mining claims in the Leech WSA	\$ 70,00	0 L	wu	\$ -	\$ 16,000	\$ 12,000 \$	12,000	-		\$ 40,000
20-27	Study	GVWSA Forest Resilience - wildfire/forest modelling and forest management field trials	Modelling forest and wildfire risk under climate change scenarios & forest/fuel management field trials.	\$ 1,495,00		wu	-	\$ 500,000	s - s	- 5	-		\$ 500,000
20-27	Study	GVWSA Forest Resilience - Assessments of forest health			L	Other	\$ -	,					\$ 450,000
20-28	Study	and resilience	Field assessments to better understand current forest health and resilience.	\$ 230,00		WU	\$ 65,000		\$ 60,000 \$		-		\$ 125,000
21-20	Study	West Leech Road	Plan followed by construction of a road to access the western portion of the Leech WSA.	\$ 320,00		WU	\$ 100,000		\$ 100,000 \$	- 5	-		\$ 200,000
23-02 22-04	Renewal Renewal	GVWSA LiDAR Mapping GVWSA Orthophotography	Detailed contour mapping of ground, vegetation and tree cover (3D scanning) Annual contribution to capture of regional digital orthophotography for baseline mapping and monitoring.	\$ 300,00		WU WU	\$ 65,000	\$ 165,000	S - S \$ 35,000 S	- 1	40,000		\$ 165,000 \$ 75,000
22-04			A detailed assessment, options and plan to reduce the risk of wildfire start from tree fall onto CRD powerlines in the	\$ 95,00		WII	\$ 23,000				40,000		\$ 75,000
22-09	Study	GVWSA Powerlines Wildfire Risk Mitigation Plan	GVWSA.	\$ 110,00	0 L	WU	\$ 23,000	\$ 43,000	\$ 40,000 \$		-		\$ 83,000
22-10	New	GVWSA/RWS Educational Videos Spill Management Plan and Implementation	Development of educational videos to address Regional Water Supply issues of interest to the public such as: wildfire risk and mitigation; climate change; water supply master plan update. Review, assessment and re-development of a spill management plan for the GVWSA along with potential procurement	\$ 60,00		wu	\$ 27,000 \$ 50,000	\$ 27,000 \$ 70,000	\$ 30,000 \$		-		\$ 57,000 \$ 70,000
	,		of additional equipment or supplies.				3 30,000	3 70,000	, .	,	,		,
24-03	Study	Biosecurity Risk Assessment & Procedures	Assess GVWSA biosecurity risks and develop mitigating protocols/procedures	\$ 50,00	0 L	WU	\$ -	-	\$ 50,000 \$	- 5	-		\$ 50,000
Capital													\$ -
09-01	Renewal	Leech River Watershed Restoration	A 17 year project to restore the Leech WSA lands for water supply.	\$ 5,756,00	0 L	WU	\$ 180.000	\$ 380.000	S 200.000 S				S 580,000
16-06	Renewal	Goldstream IWS Field Office	Renewal of Water Quality field office/lab and equipment storage and Watershed Protection office, yard, training space and equipment storage, replacing longstanding temporary facilities.	\$ 12,000,00	0 В	wu	\$ 100,000	\$ 3,540,000	\$ 2,000,000 \$		-		\$ 5,540,000
16-06	Renewal				В	Other	\$ 3,000,000	\$ 4,000,000	\$ 1,000,000 \$		-		\$ 5,000,000
17-02	New	Leech River HydroMet System	Installation of a network of hydrometeorological stations to collect water quantity and quality information for the Leech	\$ 585,00	0 E	WU	\$ 71,000	\$ 116,000	s - s		-		\$ 116,000
18-05	New		Implementation of forest fuel management and FireSmart actions in strategic locations for wildfire risk management in	\$ 1,200,00	0 L	wu		\$ 151,000	S 100.000 S	100.000	100,000	\$ 100.000	\$ 551.000
19-02	New	GVWSA Forest Fuel Management/FireSmart Activities Whiskey Creek Bridge Replacement (Sooke WSA)	the GVWSA.	\$ 1,200,00		WU	\$ 51,000 \$ 10.000			100,000 \$	100,000	\$ 100,000	\$ 310,000
19-19	New	Hydromet Upgrades Sooke and Goldstream	Replacement of the existing undersized bridge with a longer and higher concrete structure. Install additional hydrology monitoring sites on Sooke Lake Reservoir inflow streams and increase instrumentation on meteorological stations in Sooke and Goldstream watersheds.	\$ 400,00		wu	\$ 13,000		\$ - \$				\$ 183,000
20-01	Replacement	Kapoor Main Mile 1 Bridge and Asphalt Upgrade	Replacement of the existing undersized culvert with a large bridge as well as subsequent 500 m road asphalt replacement.	\$ 1,050,00		wu	\$ 418,000		\$ 160,000 \$	5			\$ 1,028,000
20-29		GVWSA Gravel Crushing	Production of gravel at existing quarries in Sooke and Goldstream WSAs.	\$ 650,00 \$ 360,00		WU		\$ 100,000 \$ 108,000	\$ - \$	200,000 \$	-		\$ 300,000 \$ 308,000
21-26	New	Road Deactivation/Rehabilitation in the GVWSA	Deactivate or rehabilitate unneeded roads in the Sooke and Goldstream WSAs. Install autogates on the main access routes where the Sooke Hills Wilderness Trail and E&N rail line cross to improve			WU	\$ 108,000		\$ 100,000 \$	100,000 \$			
21-27	New	Autogate Installations on Primary Access Routes	security	\$ 600,00		WU	\$ -	\$ 50,000	\$ 300,000 \$	- ;	-		\$ 350,000
22-02 23-04	New Renewal	Muckpile Bridge Supply and Install (Deception) 17S/Sooke Main Bridge Replacement	Replacement of undersized culverts with bridge which will allow for fish and western toad migration. Undersized bridge replacement	\$ 340,00 \$ 315,00		WU	\$ -	\$ -	\$ 15,000	325,000	300,000		\$ 325,000 \$ 315,000
22-11	New	Additional Boom Anchors for Sooke Lake Reservoir debris	The log boom protecting the Sooke Lake Reservoir Intake Tower from floating woody debris is inadequately anchored	\$ 60.00		WU	\$ 60,000	\$ 60,000	\$ 15,000				\$ 60,000
23-10	New	boom Work platform for Sooke Lake Reservoir	and requiring two additional anchors. A towable work platform for conducting stationary on-water work activities such as boom and intake tower maintenance and spill response.	\$ 30,00		wu	\$ 10,000	,	s - s		-		\$ 10,000
23-11	New	Purchase and Deployment of Second Wildfire Camera for Leech WSA, and Analytic software	A secondary wildfire camera to monitor for heat and smoke signatures in the Leech WSA during fire season.	\$ 100,00	0 E	wu	\$ -	\$ 50,000	s - s	5			\$ 50,000
23-23	Replacement	Brushcutting head for Excavator	The existing brushcutting head from the excavator used in roadside maintenance has reached end of life and requires	\$ 30,00	0 V	WU	\$ 10,000	\$ 10,000	-	-	-		\$ 10,000
24-05	New	Dock for Sooke Lake Reservoir	replacement. Sooke Lake Reservoir requires a dock for safe deployment of boats, gear and crew.	\$ 100,00	0 S	WU	\$ -	\$ 10,000	\$ 90,000				\$ 100,000
25-05	New	Heli Fire Tank	A large water tank for helicopter bucketing to be deployed in Goldstream WSA.	\$ 20,000	E	WU	-	\$ -	\$ 20,000				\$ 20,000
22-13	New	Replace Storage Sheds with Containers	Covered sand storage between sea containers that have been procured.	\$ 50,00	0 S	WU	c	\$ 30,000					\$ 30,000
24-06	Ch. d.			·,	-	-	* .	\$ 55,000					\$ 55.000
24-00	Study	Post Wildfire Assessment Program	Acquiring access to existing software programs to model sediment and debris flows from burned areas.	\$ 55,00	L	WU		\$ 55,000					ə 55,000
24-07 Watershed Protection Sub-Tot	Replacement	Field Operations Centre - IT Infrastructure Upgrades	The firewall, switches and telephony system are end of life and require replacement. The equipment will be transferred to the new building.	\$ 40,00 \$ 27,807,00		wu	\$ 4,500,000	\$ 40,000 \$ 11,346,000	\$ 4,962,000	\$ 737.000	\$ 440,000	\$ 100.000	\$ 40,000 \$ 17,585,000
				27,007,00			4,300,000	+ 12,340,000	,502,000	/57,000	+ 440,000	100,000	\$ -
INFRASTRUCTURE ENGINEERIN	G AND OPERATIONS												\$ -
Planning													\$ -
16-10 17-13	New New	Post Disaster Emergency Water Supply Asset Management Plan	Identify and procure emergency systems for post disaster preparedness. Development of a plan to inform future areas of study and highlight critical infrastructure improvements.	\$ 2,250,00 \$ 400.00		WU	\$ 150,000 \$ 200.000	\$ 350,000 \$ 200,000	\$ 200,000 \$	200,000 \$	200,000	\$ 200,000	\$ 1,150,000 \$ 200.000
19-15	Now	Hydraulic Capacity Assessment and Transient Pressure	Determine the existing level-of-service for the RWSC transmission system and conduct a transient pressure analysis	\$ 250,00		WU	\$ 200,000	\$ 100,000					\$ 100,000
	inew	Analysis							. · S	- 1		, -	
20-08 20-10	Study	Regional Water DCC Program Condition & Vulnerability Assessment	Design of a Regional DCC Program Conduct a condition accomment of existing qually infractivative and accordite possibility of sick	\$ 450,00 \$ 200.00		WU WU	\$ 250,000 \$ 175,000			- 9		\$ -	\$ 250,000 \$ 175,000
			Conduct a condition assessment of critical supply infrastructure and assess its possibility of risk. From #19-15 & #20-11, develop level-of-service agreements for participating municipalities to address hydraulic									, .	
21-05	Study	Level of Service Agreement	capacity of infrastructure. A feasibility study for an intake from Sooke River to replace the Main No. 15 salmon fishery contribution, for a variety of	\$ 150,00		WU	\$ 140,000		> - S			> -	\$ 140,000
22-14	Study	Sooke River Intake Feasibility	reasons.	\$ 50,00	0 S	WU	\$ 40,000		s - s	- ;	-	\$ -	\$ 40,000
23-12	Study	Project Delivery Strategy	Develop a strategy to deliver the identified projects from the 2022 RWS Master Plan.	\$ 200,00		WU	\$ 100,000			- 5	-	\$ -	\$ 100,000
23-13	Study	Filtration Plant Planning & Design	Conduct a siting, conceptual design and detailed design for a filtration plant	\$ 16,300,00	-	WU	\$ 253,125	5 -	\$ 400,000 \$	500,000	5 5,400,000	\$ 10,000,000	\$ 16,300,000
23-14	Study	Council Creek Crossing Hydrology Review	Conduct a hydrology review of the Council Creek crossing of water mains to ensure pipe resilience during high rainfall events.	\$100,00	0 S	WU	-	\$100,000	-	-			\$100,000
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Service #:	2.670
Service Name:	Regional Water Supply

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
23-24	New	East-West Connector (Filtration Plant to District of Sooke)	Planning and Conceptual Design of the East-West Supply Main from the proposed filtration plant to the District of Sooke (identified in the 2022 Master Plan)	\$ 400,00	10 S	wu	s -	s - s	-	ş -	\$ 200,000	\$ 200,000	\$ 400,000
23-25	New	Deep Northern Intake and Sooke Lake Pump Station	Planning and Design of the Deep Northern Intake and Sooke Lake Pump Station (identified in the 2022 Master Plan)	\$ 12,200,0	10 S	wu	\$ 506,250	s - s	600,000	\$ 3,600,000	\$ 4,000,000	\$ 4,000,000	\$ 12,200,000
23-26	New	Transmission Main - Sooke Lake Pump Station to Head	Planning and Design of the Transmission Main from the Sooke Lake Pump Station to Head Tank (identified in the 2022	\$ 3,400,0	10 S	wu	\$ 168,750	s - s	200,000	\$ 1,000,000	\$ 1,200,000	\$ 1,000,000	\$ 3,400,000
23-27	New	Tank Gravity Main - Sooke Lake to Head Tank	Master Plan) Planning and Design of a Gravity Transmission Main (redundancy) from Sooke Lake to Head Tank (identified in the 2022	\$ 1,400,00		WII	\$ 84 375		300,000	\$ 400,000	\$ 700,000	1,000,000	\$ 1,400,000
23-27	New	Goldstream Reservoir Connector	Master Plan) Planning and Design of the Goldstream Reservoir Connector transmission main	\$ 1,400,0	-	WII	\$ 84,375	, ,	400,000	\$ 2,000,000	\$ 2200,000		\$ 1,400,000
		Seismic and Flood Vulnerability Assessment of Supply	Planning and Design of the Goldstream Reservoir Connector transmission main Engineering Seismic Assessment of the spanned crossing of of Supply Main No 10 and 11 over the Sooke Lake	,,,,,,,			,		400,000	\$ 2,000,000	\$ 2,200,000	7	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
24-08 24-09	Study	Main 10 and 11 Spillway Crossing Aggricultural Water Rate Review	Spillway channel Phase 2	\$ 150,00 \$ 100.00		wu	s -	\$ 150,000 \$ \$ 100,000 \$	-	\$ -	\$ -	s -	\$ 150,000 \$ 100,000
Capital							*			•	, .	, .	\$ -
18-07	New	Replacement of UV System	Replacement of the UV system at the Goldstream Water Treatment Plant	\$ 11,500,0		WU	\$ 6,600,000	\$ 9,370,000 \$	-	\$ -	\$ -	\$ -	\$ 9,370,000
18-08	Replacement	Bulk Supply Meter Replacement Program	Planned replacement of aging bulk meter replacement based upon a condition assessment and water audit.	\$ 2,050,0	10 E	WU	\$ 950,000	\$ 950,000 \$	200,000	\$ 200,000	\$ 150,000	\$ -	\$ 1,500,000
18-15	Renewal	Corrosion Protection Program	Study deficiencies in the current material protection and implement recommendations.	\$ 1,150,00 \$ 15,600,00	0 S	WU	\$ 300,000	\$ 300,000 \$ \$ 1,010,000 \$	150,000 10,590,000	\$ 150,000 \$ 3,600,000	\$ -	\$ -	\$ 600,000 \$ 15,200,000
18-18	Renewal	Main No.3 Segment Replacement	Replacement of segments of Main No. 3 based upon previous studies. Repair items such as defects in the Kapoor tunnel, replacement of critical valves, intake exterior inspection and actuator	\$ 15,600,0	10 5	WU	\$ 105,000	\$ 1,010,000 \$	100,000	\$ 3,600,000	\$ -	\$ -	\$ 15,200,000
		Repairs - Kapoor Shutdown	replacement while the Kapoor tunnel is shutdown.	,			,	, ,	,	\$ -	\$ -	\$ -	,
19-23	New Replacement	Critical Spare Equipment Storage & Pipe Yard Cecelia Meter Replacement	Plan, design and construct a critical equipment storage building. Replacement of the Cecelia billing meter as well as its enclosure.	\$ 1,200,00 \$ 1,500,00		WU WU	\$ 250,000 \$ 450,000	\$ 250,000 \$ \$ 950,000 \$	950,000	\$ -	\$ -	\$ -	\$ 1,200,000
20-16	Replacement			\$ 1,500,0	3	wo	\$ 450,000	\$ 950,000 \$		· ·	\$ -	\$ -	* 333,533
20-17	Replacement	Decommission & Conceptual Design of the Smith Hill Site	Plan for decommission the conceptual design for the replacement of the Smith Hill reservoir site.	\$ 1,450,00	10 S	WU	\$ 253,125	\$ 450,000		\$ 1,000,000	\$ -	\$ -	\$ 1,450,000
21-06	Replacement	Sooke Lake Dam Spillway Hoist and Stop Log Replacement	Replacement of the sluice gate spillway hoist and stop logs at Sooke Lake Dam.	\$ 775,0	10 E	WU	\$ 470,000	\$ 470,000 \$	250,000	\$ -	\$ -	\$ -	\$ 720,000
21-09	New	Goldstream Water Chlorination Gas System Removal	Plan and construct provisions for removal of chlorination system	\$ 200,0	10 S	wu	\$ 170,000	\$ 170,000 \$		\$ -	\$ -	ş -	\$ 170,000
21-10	Replacement	SCADA Masterplan and System Upgrades	Update the SCADA Master Plan in conjunction with the Juan de Fuca Water Distribution, Saanich Peninsula Water and	\$ 2.150.0	10 E	wu	\$ 750.000	S 300.000 S	725.000	\$ 600,000	\$ 300,000	s -	\$ 1,925,000
21-10	Replacement	SOLDA Wasterplan and System Opgrades	Wastewater, and Core Area Wastewater Services.	3 2,130,0	. E	wo	3 730,000	3 300,000 3	723,000	3 000,000	3 300,000	, .	3 1,923,000
21-11	Replacement	RWS Supply Main No. 4 Upgrade	Upgrade vulnerable sections of the RWS Supply Main No. 4 and Main No. 1 to a resilient system to better able to withstand a servinic event. Vulnerable sections are Correcte Optimer per material which is susceptible to failure during a seismic event. This is part of project partnered with the Saanich Peninsula Water system.	\$ 33,900,00	10 S	wu	\$ 3,000,000	\$ 1,715,000 \$	1,885,000	\$ 20,000,000	\$ 10,000,000	ş -	\$ 33,600,000
21-11	Replacement		DMAF Grant portion, grant submitted November 2021 and resubmitted in July 2023.	\$ 14,800,0	10 S	Grant		s	1,200,000	\$ 2,000,000	\$ 3,600,000	\$ 6,000,000	\$ 12,800,000
22-15	New	Microwave Radio Upgrades	To provide a high bandwidth communications backbone to the RWS system, a microwave communications system will be installed.	\$ 1,100,0	10 S	WU	\$ 240,000	\$ 440,000 \$	200,000	\$ 200,000	\$ -	\$ -	\$ 840,000
22-16	Renewal	Goldstream WTP Drainage Improvements	De Installed. Construct drainage improvements for the Goldstream Water Treatment Plant and assess	\$ 200,0	10 S	wu	\$ 120,000	\$ 120,000 \$		ς .	٠ .	ς .	\$ 120,000
22-17	New	Goldstream WTP Safety Improvements	Construct employee and public safety improvements such as a trail notification system if there was an ammonia spill.	\$ 200,0		wu	\$ 150,000	\$ 150,000 \$		ş -	s -	s -	\$ 150,000
23-16	Renewal	Humpback Channel Assessment and Upgrades	Hydraulically assess the Humpback Overflow channel and conduct a condition assessment of the culverts at the	\$ 200,0	10 S	WU	\$ 200,000	\$ 200,000 \$	_	٠ .	٠ .	s -	\$ 200,000
23-17	Replacement	Main No. 4 - Mt. Newton to Highway 17	Gatehouse. Replacement of a approximately 1.9km of the Main No. 4 concrete pipe from Mt Newton and Central Saanich Road	\$ 3,800.0		wu	\$ 2,600,000	\$ 2,600,000 \$	1.000.000				\$ 3,600,000
	****	The second of th	south to where it crosses Highway 17. A Strategic Priorities Fund grant has been applied to fund a portion of the works.				2,000,000	. ,,	1,000,000	Ť	,	~	,,
23-17 25-03	Replacement Renewal	Transmission Main Upgrade Program	Identify, conceptually design, detail design and construct transmission main upgrades.	\$ 6,000,00 \$ 40,000,00		Grant WU	\$ -	\$ 6,000,000 \$ \$ - \$	10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 6,000,000 \$ 40,000,000
23-29	Renewal	Mt. Tolmie Control Valve Replacement	Supply and installation of the Mt. Tolmie Reservoir Control Valve	\$ 800,0	10 E	WU	\$ 250,000	\$ 750,000 \$		s -	s -	s -	\$ 750,000
24-10	Replacement	Sooke River Road WTP UPS Replacement	UPS at Sooke River Road WTP is 21 years old and in need of replacement.	\$ 50,0	10 E	WU	s -	\$ 50,000 \$		\$ -	\$ -	\$ -	\$ 50,000
24-11	Replacement	IT Core Infrastructure Replacement	Replacement of Core IT infrastructure such as servers, network switches, UPS, etc for equipment end of life.	\$ 420,00	10 F	wu	s .	\$ 25,000 \$	15,000	s .	\$ 130,000	\$ 250,000	\$ 420,000
24-12	Renewal	Head Tank Valve Replacement	Includes IT equipment located at tower sites within the RWS system. Supply and installation of Head Tank valves and actuators.	\$ 450,0		wu	s .	\$ 450,000 \$		\$.	\$ -	\$.	\$ 450,000
24-19	Renewal	Mount Tolmie Tank Structural and Infiltration	initial Budget to address leakage and structural repairs discovered at Mount Tolmie Tank in Q4 2023. Further budget refinement is expected as engineering assessment is further developed.	\$ 850,00		wu	s -	\$ 850,000 S	-	s -	s -	s -	\$850,000
Infrastructure Engineering and	Constitute Cale Total			\$ 183,645.0			A 40 540 000	\$ 29,480,000 \$	20 255 000	A 45 450 000	ć 20.000.000	4 34 550 000	\$ - \$ 174,025,000
intrastructure Engineering and	Operations Sub-Total			\$ 183,645,0	10		\$ 19,610,000	\$ 29,480,000 \$	29,365,000	\$ 45,450,000	\$ 38,080,000	\$ 31,650,000	\$ 174,025,000
DAM SAFETY PROGRAM			Database)										\$ -
16-16	Renewal	Implications from Goldstream Dam Safety Review	Conduct dam improvements at the Goldstream dams that resulted for the Dam Safety Review and routine inspections (refer to the Dam Safety Database).	\$ 825,0	10 S	WU	\$ 418,000	\$ 493,000 \$		s -	s -	s -	\$ 493,000
17-25	Renewal	Implications from 2016 Sooke Lake Dam Safety Review	Conduct dam improvments at the Sookel Lake Dam that resulted from the 2016 Dam Safety Review and routine inspections (refer to the Dam Safety Database)	\$ 1,210,0	10 S	WU	\$ 637,000	\$ 637,000 \$		\$ -	\$ -	\$ -	\$ 637,000
18-19	New	Sooke Lake Dam - Instrumentation System Improvements	Complete dam performance instrumentation system/surveillance improvements for the Sooke Lake Dam.	\$ 2,200,0	10 S	wu	\$ 290,000	\$ 1,290,000 \$		\$ -	\$ -	ş -	\$ 1,290,000
18-20	Naw	Sooke Lake Dam - Breach Risk Reduction Measures	Implement measures to reduce Sooke Lake Dam breach implications in the unlikely event of dam failure (refer to the	\$ 600.0	10 S	WII	\$ 513,000	\$ 513,000 \$	_	٠.	٠.	٠.	\$ 513,000
	ivew		NHC Consulting study). Integrate the dam safety instrumentation/surveillance (i.e. piezometers and weirs) and HydroMet stations to report to				,		-				,
19-07	New	Integrate Dam Performance and Hydromet to SCADA	WIO through the existing SCADA system.	\$ 1,300,0		WU	\$ 600,000	\$ 600,000 \$	200,000	\$ 200,000	\$ 200,000	\$ -	\$ 1,200,000
19-09	New	Cabin Pond Dams Decommissioning (PES)	The Cabin Pond Dams (x2) have been retired from drinking water service, plan to decommission.	\$ 600,0	1	WU	\$ 600,000	\$ 600,000 \$	-	\$ -	\$ -	\$ -	\$ 600,000
19-12	New	Goldstream Dams Instrumentation Improvements	Conduct dam safety instrumentation/surveillance improvements (refer to report from Thurber Engineering).	\$ 700,0	10 S	wu	\$ 665,000	\$ 665,000 \$	-	\$ -	\$ -	\$ -	\$ 665,000
19-13	New	Dam Safety Instrumentation	The existing dam safety instrumentation/surveillance equipment is getting older and will need to be replaced/rehabilitated (does not include pending SCADA effort).	\$ 300,0	10 E	WU	\$ 200,000	\$ 250,000 \$	-	ş -	\$ -	\$ -	\$ 250,000
20-19	Replacement	Goldstream System High Level Outlet Valve Replacements		\$ 300,00	10 S	wu	\$ 250,000	\$ 250,000 \$	-	\$ -	\$ -	ş -	\$ 250,000
		Deception Dam - Dam Safety Review 2021 &	Conduct a Dam Safety Review and improvements for the Decention Dam. Improvements to include										
21-03	New	Improvements	Conduct a Dam Safety Review and improvements for the Deception Dam. Improvements to include receommendations from the DSR as well as Low Level Overflow Vent Pipe and Hydraulic Gate Improvements.	\$ 2,000,00	10 S	wu	\$ 350,000	\$ 600,000 \$	400,000	\$ 500,000	\$ 500,000	\$ -	\$ 2,000,000
21-04	New	Saddle Dam - Dam Safety Review 2021 & Improvements	Conduct a Dam Safety Review and improvements for the Saddle Dam.	\$ 800,0	10 S	wu	\$ 165,000	\$ 450,000 \$	200,000	\$ 75,000	\$ 75,000	ş -	\$ 800,000
21-21	Replacement	Goldstream Dams - 4 Low Level Gate Improvements	Several of the water control gates related to the Goldstream dams are in need of repair and possibly replacement.	\$ 150.0	10 5	wu	\$ 150.000	\$ 150.000 \$		¢	•	c	\$ 150,000
£1-£1	nepidcement	Gorusa earn Dams - 4 Low Level Gate Improvements	peverar or one water control gates related to the Goldstream dams are in need of repair and possibly replacement.	ر 150,00	5	WU	, 150,000	3 150,000 \$	-	÷ -	,	÷ -	ə 150,000

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22-08	New	Deception Dam Surveillance Improvements	Replace and supplement the Dam Safety Instrumentation at Deception Dam.	\$ 450,00	s s	wu	\$ 150,000	\$ 300,000	\$ 150,000	\$ -	ş -	ş -	\$ 450,000
23-07	Study		Detailed design for seismic retrofits for the existing structures initially focusing on the spillway and gates structures. Construction to be budgetted subsequently.	\$ 450,00	s s	wu	\$ 150,000	\$ 450,000	\$ -	ş -	ş -	ş -	\$ 450,000
23-08	Study	Regional Watershed Dams – Flood Forecasting System	Update the existing flood forecasting system (WD4Cast) to a modern version including Standard Operating Procedures and training for staff.	\$ 300,00	s s	wu	\$ 100,000	\$ 200,000	\$ 50,000	\$ -	\$ -	\$ -	\$ 250,000
23-09	Study	Sooke Lake Dam - Dam Safety Review 2023	Conduct a Dam Safety Review to meet regulatory requirement.	\$ 200,00	s s	WU	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
23-18	Renewal	Sooke Lake Dam Spillway Channel Improvements	Construct bank protection for the Sooke Spillway Channel and clear the seepage weir blockage.	\$ 700,00	s s	WU	\$ 200,000	\$ 400,000	\$ 300,000	ş -	\$ -	s -	\$ 700,000
23-19	Renewal	Charters Dam - Implications from Dam Safety Review	Carry out recommendations from the 2022 Dam Safety Review for Charters Dam	\$ 200,00	s s	wu	\$ 20,000	\$ 120,000	\$ -	ş -	s -	s -	\$ 120,000
25-01		Goldstream Dam - Dam Safety Review 2025 & Addressing Implications	Conduct a Dam Safety Review to meet regulatory requirement.	\$ 200,00	s s	wu	s -	s -	\$ 200,000	\$ 75,000	\$ 75,000	\$ 75,000	\$ 425,000

Service #:	2.670
Service Name:	Regional Water Supply

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
25-02	Study	Probable Maximum Flood and Inflow Design Flood Updates	Update the previous edition from 2015 (recommended 10 year review cycle).	\$ 150,000	S	WU	s -	\$ -	\$ 150,000 \$	- \$	-	s -	\$ 150,000
25-06	Replacement	Goldstream Dam Spillway Replacement	Replacement of Goldstream Dam Spillway due to deteriorated condition.	\$ 500,000	s	WU	\$ -	\$ -	\$ 100,000 \$	400,000 \$		\$ -	\$ 500,000
24-13	Replacement	Reservoir Log Boom Upgrade Program	Review, analysis and upgrades to log booms, prioritizing Sooke Lake Reservoir.	\$ 500,000	s	wu	s -	\$ 200,000	\$ 300,000				\$ 500,000
													\$ -
Dam Safety Program Sub-Total				\$ 14,635,000			\$ 5,508,000	\$ 8,168,000	\$ 2,050,000	1,250,000 \$	850,000	\$ 75,000	\$ 12,393,000
WATER QUALITY													\$ -
20-04	New	Sooke Lake HyDy Model Development	Critical data collection, model building+calibration, model utilization for 3 different scenarios	\$ 520,000	E	WU	\$ 100,000	\$ 120,000	s - s	- \$		\$ -	\$ 120,000
22-06	Study	Sooke Lake Food Web Study	Assess the aquatic food web structure and create an inventory of fish and invertebrate species and distribution in Sooke Lake Reservoir - to be used as indicators of stream health	\$ 100,000	S	wu	\$ 20,000	\$ -	s - s	· - \$	-	\$ -	\$ -
23-06	Study	GVDWS Nitrification Study	Investigate nitrification occurrence and potential impacts on drinking water quality	\$ 50,000	S	wu	\$ 50,000	s -	s - s	- s	-	ş -	\$ -
24-02	Replacement	Boat Motor Replacement with Electric Outboards (Sooke and Goldstream Boats)	from Torquedo for instance	\$ 60,000	E	wu	\$ 60,000	\$ -	s - s	- s	-	\$ -	\$ -
24-04	Study	Sooke Lake Drawdown Study	Investigate drawdown effects on Sooke Lake water quality and ecosystem impacts with max drawdown and determine a safe max drawdown level for SOL.	\$ 100,000	s s	wu	ş -	\$ 100,000	s - s	- s	-	\$ -	\$ 100,000
25-04	Replacement	4 x multi-parameter field analyzers (SL1000)	Replace 4 multi-parameter (total/free/mono/ammonia) field analyzers	\$ 20,000	E	WU	s -	\$ -	\$ 20,000	- \$		\$ -	\$ 20,000
26-01	New	2 x Floating Water Quality Sensor Platforms	To support and confirm water quality data in SOL for Deep Norther Intake, install 2 floating sensor platforms	\$ 200,000	E	WU	\$ -	\$ -	s - s	200,000 \$	-	\$ -	\$ 200,000
27-01	Study	Drinking Water Safety Plan Update	Review and update existing DWSP spreadsheet and risk registry. Consider planned system expansions/upgrades.	\$ 80,000	S	WU	s -	\$ -	s - s	- s	80,000	\$ -	\$ 80,000
	Replacement	Laboratory Equipment Replacements	Replacement of critical laboratory equipment.	\$ 75,00		WU	\$ -	\$ 75,000		- \$	-	\$ -	\$ 75,000
		Laboratory Renovations WQ Field Office IT Upgrades	Renovation for main lab cabinetry, floor, aquatic ecology lab and prep room. The firewall, switches and telephony system are end of life and require replacement.	\$ 200,000 \$ 10,000		WU	s -					\$ -	\$ 200,000 \$ 10,000
24-10	Reputement	ing rich office it opprises	The memory awareness and telephony aparent are that of the and require replacement	7 10,000	-		,	3 10,000	,	,		7	\$ -
Water Quality Sub-Total				\$ 1,415,000)		\$ 230,000	\$ 505,000	\$ 20,000 \$	200,000 \$	80,000	\$ -	\$ 805,000
ANNUAL PROVISIONAL													\$ -
	Replacement	Watershed Bridge and Culvert Replacement	Replacement of small culverts and bridges throughout the GVWSA.	\$ 1,000,000	S	WU	\$ -	\$ 200,000	\$ 200,000 \$	200,000 \$	200,000	\$ 200,000	\$ 1,000,000
17-28	Replacement	Watershed Security Infrastructure Upgrade and Replacement	New, upgrade and replacement of security infrastructure in the GVWSA.	\$ 600,000	E	WU	s -	\$ 200,000	\$ 100,000 \$	100,000 \$	100,000	\$ 100,000	\$ 600,000
17-29	Replacement	Water Supply Area Equipment Replacement	Hydrometeorological, fireweather and wildfire suppression equipment replacement.	\$ 640,000	E	WU	\$ -	\$ 140,000	\$ 125,000 \$	125,000 \$	125,000	\$ 125,000	\$ 640,000
17-30	Replacement	Transmission Main Repairs	Emergency repairs to the transmission mains.	\$ 1,000,000	S	wu	\$ -	\$ 200,000	\$ 200,000 \$	200,000 \$	200,000	\$ 200,000	\$ 1,000,000
17-31	Replacement	Transmission System Components Replacement	Replacement and repair of transmission components.	\$ 400,000	s s	wu	\$ -	\$ 80,000	\$ 80,000 \$	80,000 \$	80,000	\$ 80,000	\$ 400,000
17-33	Replacement	Disinfection Equipment Parts Replacement	Replacement of incidental equipment and parts associated with the disinfection system.	\$ 1,000,000	E .	WU	s -	\$ 200,000	\$ 200,000 \$	200,000 \$	200,000	\$ 200,000	\$ 1,000,000
17-34	Renewal	Supply System Computer Model Update	Annual update of the regional hydraulic model.	\$ 100,000	s s	WU	s -	\$ 20,000	\$ 20,000 \$	20,000 \$	20,000	\$ 20,000	\$ 100,000
19-16	Replacement	Dam Improvements	Items not covered by Dam Safety Reviews, but brought up in Dam Safety Inspections and Dam Safety Reviews and address itesm in the dam safety database/risk registry	\$ 1,675,000	S S	WU	s -	\$ 475,000	\$ 300,000 \$	300,000 \$	300,000	\$ 300,000	\$ 1,675,000
19-22	Replacement	SCADA Repairs & Equipment Replacement	Items not covered by the SCADA Replacement and SCADA Master Plan, but integral in maintaining the SCADA System and revenue meter system.	\$ 750,000	E .	WU	\$ -	\$ 150,000	\$ 150,000 \$	150,000 \$	150,000	\$ 150,000	\$ 750,000
21-15	Replacement	Corrosion Protection	Replace corrosion protection assets, such as coatings, for the transmission system when identified.	\$ 250,000		WU	s -	\$ 50,000	\$ 50,000 \$	50,000 \$	50,000		
		Valve Chamber Upgrades Water Quality Equipment Replacement	Replace failing valves and appurtenances along the RWS supply system. Replacement of water quality equipment for the water quality lab and water quality operations	\$ 1,500,000 \$ 250,000		WU WU	\$ - \$ -			300,000 \$ 50.000 \$	300,000 50.000		
		LIMS support	Support for LIMS database	\$ 125,000		WU	\$ -			25,000 \$	25,000		
23-20	Study	Land Exchange/Acquisition	Land surveys, appraisals to support decisions regarding land exchange to increase catchment area, buffer water supply areas and other possible land exchange and acquisition within the RWS system.	\$ 400,000	L	WU	\$ -	\$ 80,000	\$ 80,000 \$	80,000 \$	80,000	\$ 80,000	\$ 400,000
Annual Provisional Sub-Total				\$ 9,690,000)		\$ -	\$ 2,170,000	\$ 1,880,000 :	1,880,000 \$	1,880,000	\$ 1,880,000	\$ 9,690,000
CUSTOMER AND TECHNICAL SE	Diffee												\$ -
17-35	Replacement	Vehicle & Equipment Replacement (Funding from	This is for replacement of vehicles and equipment used by CRD Water Services for the day-to-day operation and	\$ 2.873.00	v	FRF	ς .	\$ 1.191.000	\$ 685,250 \$	773,000 \$	855.000	\$ 495,000	\$ 3,999,250
	New	Replacement Fund) Vehicle for the Dam Safety Program	maintenance of the supply system. New Transit Van	\$ 100.00		WU	\$ 100,000		\$.		-	\$ -	\$ 120,000
20-23	New	Vehicle for the CSE Support Program	New Transit Van	\$ 100,000	v	WU	\$ 100,000	\$ 120,000	\$ - 5	- \$	-	\$ -	\$ 120,000
	New New	Vehicle for Warehouse Operations EV Charging Stations Electrical Infrastructure	New pick up Electrical System upgrades at 479 Island Hwy to power up 44 charging stations	\$ 90,000 \$ 855,000		WU WU	\$ 90,000 \$ 650,000		s - s	- \$ 400.000 \$	-	•	\$ 90,000 \$ 1,255,000
	New	EV Charging Stations Electrical Infrastructure Fuel Truck	Electrical System upgrades at 479 Island Hwy to power up 44 charging stations Fuel tender truck	\$ 200,000		WU	\$ 650,000		\$ - 5	400,000 \$	-	\$ -	\$ 1,255,000
23-30	New	Fleet Shop Hoist	Heavy Capacity Hoist for fleet maintenance	\$ 35,000		WU	\$ 35,000	\$ 70,000				\$ -	\$ 70,000
		Purchase of land		\$ 1,500,000		WU	\$ 1,500,000		\$ - \$	- \$	-	\$ -	\$ 1,500,000
24-17 24-18	New New	Pool Vehicles Vehicle for Watershed Hydrology Program	2 new EV Pickups New pickup truck for watershed hydrology program	\$ 180,000 \$ 100,000		WU WU	\$ -	+,				•	\$ 180,000 \$ 90,000
2-7-20	new .	venue to watershed nydrology riogram	The stand area to the standard that and standard	J 100,000	1 *	wo	· .	2 30,000	, ,			•	\$ -
Customer and Technical Service	es Sub-Total			\$ 6,033,000			\$ 2,675,000						
×	I		GRAND TOTAL	\$ 243,225,000	P. Company	1	\$ 32,523,000	\$ 56,210,000	\$ 38,962,250	50,690,000 \$	42,185,000	\$ 34,200,000	\$ 222,247,250