

CAPITAL REGIONAL DISTRICT

2021 BUDGET

JDF Water Distribution

COMMISSION REVIEW

SEPTEMBER 2020

Service: 2.680 JDF Water Distribution

Commission: Juan De Fuca Water Distribution

DEFINITION:

To finance the administration, development, maintenance, and operational expenses, of the Juan de Fuca Water Distribution local service in the Western Communities of the Capital Regional District, as per the Water Distribution Local Service Area Establishment Bylaw No. 2538.

The establishment and operation of a Juan de Fuca water Distribution Commission is done by Bylaw No. 2540.

SERVICE DESCRIPTION:

Juan de Fuca Water Distribution Service provides retail water distribution system to participants within the Western Communities. The service administration and operation is provided by the Integrated Water Services Department.

PARTICIPATION:

City of Colwood	District of Metchosin
City of Langford	District of Sooke
Town of View Royal	District of Highlands
Juan de Fuca Electoral Area	

MAXIMUM LEVY:

The maximum amount that may be requisitioned is NIL.

MAXIMUM CAPITAL DEBT:

Authorized:	\$19,000,000 Pre - (Consolidated MFA Loan Authorizations - Juan de Fuca Water Distribution Facilities)
Borrowed:	\$17,500,000 Pre - (Consolidated amounts borrowed - Juan de Fuca Water Distribution Facilities)
Expired:	\$1,500,000
Authorized:	\$14,800,000 2015 - (MFA Bylaw No. 3981 Juan de Fuca Water Distribution Facilities)
Borrowed:	\$10,100,000
Expired:	\$4,700,000
Authorized:	\$10,000,000 DCC - (MFA Bylaw No. 3164 Juan de Fuca Water Distribution Facilities Development-DCC)
Borrowed:	\$3,500,000 DCC - (MFA Bylaw No. 3164 Juan de Fuca Water Distribution Facilities Development-DCC)
Expired:	\$6,500,000

FUNDING:

Costs are recovered from Water Sales, and transfer from DCC reserves to service DCC debt.

Rate Base for 2021 Revenue Year

	<u>2019 Applic</u>	<u>2020 Applic</u>	<u>End of 2020 for '21 Applic.</u>	<u>Change</u>	
Retail System					
Physical Plant	\$ 160,579,824	\$ 166,168,703	\$ 174,624,245	\$ 8,455,543	Note 1
Construction Work In Progress	1,593,750	1,019,107	962,562	(56,545)	Note 1
Cash Working Capital	741,992	826,902	854,959	28,056	
Inventory	<u>525,000</u>	<u>525,000</u>	<u>525,000</u>	<u>-</u>	
Total Retail Rate Base	\$ 163,440,566	\$ 168,539,712	\$ 176,966,766	\$ 8,427,055	

Note 1: Refer to the Schedule of Change in Physical Plant & Work in Progress for details.

Schedule of Change in Physical Plant & Work In Progress

Retail

Projected Asset Additions	Projected Assets Capitalized
Pipes	\$ 8,780,093
Meters	900,000
Pump Stations	643,555
Reservoir rehabilitation and upgrades	312,834
Reservoir Demolition	209,608
Scada	195,955
Hydrants	175,000
Disaster Response Studies	150,000
Bulk Water Station	140,000
Building improvements	120,000
Building Modification	101,799
Update procedures & Eng Specifications	85,257
Computer upgrades	85,000
Small Diameter Program Update	83,323
Generator for Pump Station	75,000
Studies (Hydraulic model)	60,000
Other Projects (15 minor projects under \$50k)	217,352
Total projected assets capitalized	\$ 12,334,775
Less: current years depreciation	\$ (4,556,394)
Less: change in prior year forecast addition estimates, & disposals.	677,161
Change in Physical Plant	<u>\$ 8,455,543</u>

Projected Construction Work In Progress (CWIP)

Pump Stations	\$ 723,962
Reservoir rehabilitation and upgrades	60,262
Computer upgrades	51,750
Other Projects (8 minor projects under \$50k)	126,588
Projected CWIP	<u>\$ 962,562</u>
Less Prior years projected CWIP	(1,019,107)
Change in CWIP	<u>\$ (56,545)</u>

Revenue Requirements for 2021 Year

	2019 <u>Application</u>	2020 <u>Application</u>	2021 <u>Application</u>	<u>Change</u>	
Retail					
Operations & maintenance	\$ 6,018,379	\$ 6,707,098	\$ 6,934,667	\$ 227,569	
Depreciation	4,269,223	4,532,773	4,833,774	301,002	
Return on rate base	<u>2,473,800</u>	<u>2,682,900</u>	<u>2,814,700</u>	<u>131,800</u>	Note 1
Subtotal of above	\$ 12,761,402	\$ 13,922,771	\$ 14,583,141	\$ 660,371	
Non-rate revenue	(174,500)	(174,500)	(174,500)	-	
DCC Repayment	<u>(239,785)</u>	<u>(228,160)</u>	<u>(228,160)</u>	<u>-</u>	
Total retail	\$ 12,347,117	\$ 13,520,111	\$ 14,180,481	\$ 660,371	

Note 1: Return on rate base is calculated with reference to the long term Canada bond rate & the average debt rate.

Change in Budget 2020 to 2021

Service: 2.680 Juan de Fuca Water Distribution

Total Expenditure

Comments

2020 Budget

20,129,341

Change in Salaries:

Change in Labour

98,600

Labour charges (Salaries and overhead, including corporate allocations)

Total Change in Salaries

98,600

Other Changes:

Contract for Services

40,000

Water Rate Methodology and Options Study

Bulk Water Purchases

160,200

Transfers to Capital Funds

137,794

Principal & Interest Payments

138,468

Standard Overhead Allocation

111,201

Other Costs

(22,232)

Total Other Changes

565,431

2021 Budget

20,793,372

% expense increase from 2020:

3.3%

% Requisition increase from 2020 (if applicable):

n/a

Requisition funding is (x)% of service revenue

Overall 2020 Budget Performance

(expected variance to budget and surplus treatment)

Operating costs are \$67,500 (1.0%) over budget due to one time unplanned system maintenance work, partially offset by lower staffing costs due to vacant positions and lower contract for services. The overage is offset by increased revenue of \$85,000 (0.4%). The net surplus of \$17,500 will be transferred to the services' Water Capital Fund.

2021 Demand Estimate**Retail Demand**

<u>Years</u>	<u>Actual Demand cu.metre</u>	<u>Budgeted Demand cu.metre</u>
2016	8,622,990	7,710,000
2017	8,595,300	8,000,000
2018	8,853,800	8,200,000
2019	8,911,315	8,600,000
2020	8,900,000*	8,900,000

2021 Demand Estimate**8,900,000**** Projected consumption for 2020*

Summary of Retail Water Rates

	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>Change</u>
Retail (direct) water rate						
Unit cost per cu.m.	\$1.9129	\$2.0739	\$2.1132	\$2.2159	\$2.3081	\$0.0922

Retail Water Rate Increase Impact on Residential Water Bill

Average consumption per 2 month billing cycle: * 39.0 cubic meters (annual = 234.0 cu.m)

<u>Charge for Two Months Consumption</u>	<u>Year</u>	<u>Bi monthly Charge</u>	<u>Annual Charge</u>	<u>2020 Annual Change \$</u>
Average Consumption	2020	\$ 86.42	\$ 518.52	
	2021	\$ 90.02	\$ 540.10	\$ 21.57
Half Average Consumption	2020	\$ 43.21	\$ 259.26	
	2021	\$ 45.01	\$ 270.05	\$ 10.79
Twice Average Consumption	2020	\$ 172.84	\$ 1,037.04	
	2021	\$ 180.03	\$ 1,080.19	\$ 43.15

Schedule A
Asset Useful Life Assignments - PSAB

<u>Classes:</u>	<u>Code</u>	<u>Asset Categories</u>	<u>Useful Life, Years</u>
Land	LAND	Land & Rights of Way * (Note 1)	N/A
Building	BLDG	Building, Permanent	50
	BLOT	Building, Temporary/ Portable	20
	BLFX	Building fixture (<i>sprinklers</i>)	20
Equipment	BOAT	Boats & Marine Equipment	10
	COMP	Computer Equipment (<i>includes software</i>)	5
	ELEC	Electronic Equipment(<i>hydromet, weather stn eqpt</i>)	5
	FIRE	Fire & Safety Equipment	10
	GENT	Generator	20
	HYDR	Hydrants and Standpipes	20
	HYDY	Hydrology	10
	MTRS	Meters	20
	OFFE	Office Equipment	5
	OFFF	Office Furniture	10
	SCDA	SCADA Equipment	10
	SCRN	Intake Screens/Membranes (<i>stop logs</i>)	20
	SHOP	Shop Equipment	10
	TELE	Telecommunication Eqpt (<i>radios, phone systems</i>)	10
	WEQP	Water Works Eqpt(<i>W. Quality lab, Wshed eqpt</i>)	10
	NEW GRP	Weather stn & communication tower	15
Vehicle	VEHC	Vehicles	8
Engineering	BRDG	Bridge	50
Structure	CANL	Canal	50
	DAMS	Dam Structures	100
	PIPE	Pipelines, includes Vaults, Kiosks, Valve chambers	75
	PIPF	Pipelines, fittings	20
	PLPV	Parking lot paved	40
	PSEQ	Pump Station Equipment	20
	PSHS	Pump Station Housing	50
	PRVS	Valves, Flushes & PRV's	20
	RDGR	Roads gravel	20
	RDPV	Roads paved	40
	RESS	Reservoirs (steel & concrete)	50
	REST	Reservoirs (tower/tank)	35
	TANK	Storage tank	40
	TELP	Telephone and Power Lines	50
	TUNN	Tunnel, Culvert and Diversions	50
	WATP	Water Treatment Plant	25
	WELL	Wet well/ Well	50
Other Assets	CSTU	Capital Management Studies	5
	FENC	Fences	15
	LIMP	Land & Yard Improvements	20

Note 1: Land is not depreciated so a useful life assignment is not applicable.

APPENDIX A

CAPITAL REGIONAL DISTRICT

Program Group: CRD-JDF Water Distribution SUMMARY OF PROGRAMS 1	2020 BOARD BUDGET 2	2020 ESTIMATED ACTUAL 3	2021 BUDGET REQUEST				FUTURE PROJECTIONS			
			2021 CORE BUDGET 4	2021 ONGOING 5	2021 ONE-TIME 6	TOTAL (COL 4, 5 & 6) 7	2022 8	2023 9	2024 10	2025 11
<u>OPERATING COSTS</u>										
ALLOCATION - OPERATIONS	4,298,560	4,586,339	4,539,881	-	-	4,539,881	4,617,043	4,713,263	4,802,799	4,895,671
OPERATING - OTHER COSTS	977,816	942,564	937,033	-	-	937,033	919,632	964,220	974,602	983,666
SALARIES AND WAGES	526,557	417,240	547,368	-	-	547,368	549,065	560,853	572,896	585,192
CONTRACT FOR SERVICES	540,916	465,208	395,935	-	40,000	435,935	423,452	430,411	437,611	444,219
ALLOCATION - STANDARD OVERHEAD	363,249	363,249	474,450	-	-	474,450	552,362	563,410	574,678	586,171
TOTAL OPERATING EXPENDITURES	6,707,098	6,774,600	6,894,667	-	40,000	6,934,667	7,061,554	7,232,157	7,362,586	7,494,919
Percentage increase over prior year's board budget			2.80%			3.39%	1.83%	2.42%	1.80%	1.80%
BULK WATER PURCHASE	6,201,520	6,201,520	6,361,720	-	-	6,361,720	6,564,600	6,895,980	7,181,520	7,529,280
BULK WATER EXPENDITURES	6,201,520	6,201,520	6,361,720	-	-	6,361,720	6,564,600	6,895,980	7,181,520	7,529,280
			2.58%			2.58%				
<u>CAPITAL EXPENDITURES & TRANSFERS</u>										
TRANSFER TO WATER CAPITAL FUND	5,200,860	5,218,737	5,278,916	-	-	5,278,916	5,500,000	6,000,000	6,500,000	7,000,000
TRANSFER TO DEBT RESERVE FUND	56,050	56,050	71,730	-	-	71,730	65,730	27,730	9,730	6,730
TRANSFER TO EQUIPMENT REPLACEMENT FUND	213,945	213,945	258,003	-	-	258,003	263,163	268,426	273,795	279,270
TOTAL CAPITAL EXPENDITURES & TRANSFERS	5,470,855	5,488,732	5,608,649	-	-	5,608,649	5,828,893	6,296,156	6,783,525	7,286,000
<u>DEBT SERVICING</u>										
DEBT - INTEREST & PRINCIPAL	1,749,868	1,749,868	1,888,336	-	-	1,888,336	2,370,709	2,721,305	2,851,316	2,869,346
TOTAL DEBT EXPENDITURES	1,749,868	1,749,868	1,888,336	-	-	1,888,336	2,370,709	2,721,305	2,851,316	2,869,346
TOTAL EXPENDITURES	20,129,341	20,214,720	20,753,372	-	40,000	20,793,372	21,825,756	23,145,598	24,178,947	25,179,545
<u>SOURCES OF FUNDING</u>										
REVENUE - SALES	(19,721,631)	(19,721,510)	(20,502,201)	-	(40,000)	(20,542,201)	(21,613,930)	(22,964,368)	(23,997,717)	(24,998,315)
REVENUE - OTHER	(179,550)	(265,050)	(181,230)	-	-	(181,230)	(181,230)	(181,230)	(181,230)	(181,230)
TOTAL SOURCE OF FUNDING FROM OPERATIONS	(19,901,181)	(19,986,560)	(20,683,431)	-	(40,000)	(20,723,431)	(21,795,160)	(23,145,598)	(24,178,947)	(25,179,545)
<u>SOURCES OF OTHER FUNDING</u>										
TRANSFER FROM DCC RESERVES TO FUND DCC DEBT	(228,160)	(228,160)	(69,941)	-	-	(69,941)	(30,596)	-	-	-
TRANSFER FROM PRIOR YEAR	-	-	-	-	-	-	-	-	-	-
TRANSFER TO FOLLOWING YEAR										
TOTAL SOURCES OF ALL FUNDING	(20,129,341)	(20,214,720)	(20,753,372)	-	(40,000)	(20,793,372)	(21,825,756)	(23,145,598)	(24,178,947)	(25,179,545)
Percentage increase over prior year's board budget			3.10%			3.30%	5.17%	6.05%	4.46%	4.14%

CAPITAL REGIONAL DISTRICT
FIVE YEAR CAPITAL EXPENDITURE PLAN SUMMARY - 2021 to 2025

Service No.	2.680	Carry						
	JDF Water Distribution	Forward from	2021	2022	2023	2024	2025	TOTAL
		2020						

EXPENDITURE

Buildings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Land	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Engineered Structures	\$4,400,000	\$24,565,000	\$15,565,000	\$7,910,000	\$6,660,000	\$6,555,000	\$61,255,000	
Vehicles	\$450,000	\$650,000	\$350,000	\$190,000	\$580,000	\$165,000	\$1,935,000	
	\$4,850,000	\$25,215,000	\$15,915,000	\$8,100,000	\$7,240,000	\$6,720,000	\$63,190,000	

SOURCE OF FUNDS

Capital Funds on Hand	\$2,100,000	\$11,275,000	\$4,990,000	\$5,790,000	\$6,340,000	\$6,535,000	\$34,930,000	
Debenture Debt (New Debt Only)	\$0	\$6,500,000	\$5,900,000	\$2,100,000	\$300,000	\$0	\$14,800,000	
Equipment Replacement Fund	\$250,000	\$450,000	\$350,000	\$190,000	\$580,000	\$165,000	\$1,735,000	
Grants (Federal, Provincial)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Donations / Third Party Funding	\$0	\$2,360,000	\$0	\$0	\$0	\$0	\$2,360,000	
Reserve Fund	\$2,500,000	\$4,630,000	\$4,675,000	\$20,000	\$20,000	\$20,000	\$9,365,000	
	\$4,850,000	\$25,215,000	\$15,915,000	\$8,100,000	\$7,240,000	\$6,720,000	\$63,190,000	

CAPITAL REGIONAL DISTRICT
FIVE YEAR CAPITAL EXPENDITURE PLAN SUMMARY - 2021 to 2025

Service No.	2.670/2.680							
	Regional Water Supply & JDF Water Distribution Combo	Carry Forward from 2020	2021	2022	2023	2024	2025	TOTAL

EXPENDITURE

Buildings	\$0	\$80,000	\$80,000	\$80,000	\$80,000	\$80,000	\$80,000	\$400,000
Equipment	\$500,000	\$1,490,000	\$980,000	\$330,000	\$330,000	\$330,000	\$330,000	\$3,460,000
Land	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Engineered Structures	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Vehicles	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

\$500,000	\$1,570,000	\$1,060,000	\$410,000	\$410,000	\$410,000	\$410,000	\$3,860,000
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SOURCE OF FUNDS

Capital Funds on Hand	\$500,000	\$1,570,000	\$1,060,000	\$410,000	\$410,000	\$410,000	\$410,000	\$3,860,000
Debenture Debt (New Debt Only)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Equipment Replacement Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Grants (Federal, Provincial)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Donations / Third Party Funding	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Reserve Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

\$500,000	\$1,570,000	\$1,060,000	\$410,000	\$410,000	\$410,000	\$410,000	\$3,860,000
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CAPITAL REGIONAL DISTRICT CAPITAL PLAN

CAPITAL BUDGET FORM
2021 & Forecast 2022 to 2025

Service #:
2.680

Service Name:
JDF Water Distribution

Proj. No.
The first two digits represent first year the project was in the capital plan.

Capital Exp. Type

Study - Expenditure for feasibility and business case report.
New - Expenditure for new asset only
Renewal - Expenditure upgrades an existing asset and extends the service ability or enhances technology in delivering that service
Replacement - Expenditure replaces an existing asset

Funding Source Codes
Debt = Debenture Debt (new debt only)
ERF = Equipment Replacement Fund
Grant = Grants (Federal, Provincial)
Cap = Capital Funds on Hand
Other = Donations / Third Party Funding

Funding Source Codes (con't)
Res = Reserve Fund
STLoan = Short Term Loans
WU - Water Utility

Asset Class
L - Land
S - Engineering Structure
B - Buildings
V - Vehicles
E - Equipment

Capital Project Title
Input Title of Project. For example "Asset Name - Roof Replacement", "Main Water Pipe Replacement".

Capital Project Description
Briefly describe project scope and service benefits.
For example: *"Full Roof Replacement of a 40 year old roof above the swimming pool area; The new roofing system is built current energy standards, designed to minimize maintenance and have an expected service life of 35 years".*

Total Project Budget
This column represents the total project budget not only within the 5-year window.

FIVE YEAR FINANCIAL PLAN													
Proj. No.	Capital Exp.Type	Capital Project Title	Capital Project Description	Total Proj Budget	Asset Class	Funding Source	C/F from 2020	2021	2022	2023	2024	2025	5 - Year Total
INFRASTRUCTURE ENGINEERING AND OPERATIONS													
Planning													
16-03	Renewal	Asset Management Plan	Combine past studies to plan out future capital expenditures.	\$150,000	S	WU	\$50,000	\$50,000	\$0	\$0	\$0	\$0	\$50,000
21-14	Renewal	Fire Storage Analysis	Assess and update the fire flow upgrade program to inform future capital works.	\$120,000	S	WU	\$0	\$120,000	\$0	\$0	\$0	\$0	\$120,000
Capital													
16-05	Renewal	Comprehensive Pump Station Upgrades (10 year Program)	Continue pump station condition assessments, plan and carry out upgrades.	\$5,000,000	S	WU	\$0	\$1,000,000	\$1,000,000	\$1,000,000	\$0	\$0	\$3,000,000
18-02	Renewal	JDF Reservoir Upgrades	Reservoir improvements are required at Walfred, Peacock, and Helgesen Reservoirs. In 2018 a review of all three reservoirs was conducted including implementing improvements to Walfred.	\$1,250,000	S	WU	\$480,000	\$480,000	\$450,000	\$0	\$0	\$0	\$930,000
18-03	Renewal	JDF Site Decommissioning Program	Decommissioning of facilities that are no longer in use based on preliminary work from Annual Provisional	\$1,050,000	S	WU	\$450,000	\$450,000	\$100,000	\$350,000	\$100,000	\$0	\$1,000,000
18-05	Replacement	Rocky Point Upgrades	Replacement of Rocky Point P.S., additional storage at Rocky Point Reservoir & water main upgrades. Partnered with DND.	\$3,550,000	S	WU	\$0	\$3,300,000	\$0	\$0	\$0	\$0	\$3,300,000
18-05	Replacement	Rocky Point Upgrades	Replacement of Rocky Point P.S., additional storage at Rocky Point Reservoir & water main upgrades. Partnered with DND.	\$2,060,000	S	Other	\$0	\$2,060,000	\$0	\$0	\$0	\$0	\$2,060,000
18-06	New	Disaster Response Plan for Water Supply and Distribution	Determine and supply response equipment for disaster response.	\$350,000	S	WU	\$0	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$250,000
19-06	Renewal	Corrosion Protection Program	Undertake a program to assess and prevent corrosion to existing steel pipe within the Juan du Fuca water system.	\$50,000	S	WU	\$0	\$5,000	\$5,000	\$5,000	\$5,000	\$0	\$20,000
19-09	New	Distribution System Seismic Resiliency Improvements	Determine and commence improvements to the distribution system to provide seismic resiliency.	\$1,750,000	S	WU	\$50,000	\$50,000	\$150,000	\$500,000	\$500,000	\$500,000	\$1,700,000
20-03	Replacement	AC Pipe Replacement Program	Replacement of aging asbestos cement pipe as highlighted in the 2019 update report	\$24,000,000	S	WU	\$0	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$15,000,000

20-04	Replacement	William Head & VGH Meter Replacement	Replacement of the meter and chambers at William Head & VGH with the possibility of resilient connections.	\$700,000	S	WU	\$50,000	\$450,000	\$250,000	\$0	\$0	\$0	\$700,000
20-05	New	Electrical Isolation Audit	Inspection audit of facilities to ensure that there is sufficient electrical separation and isolation for safety.	\$50,000	S	WU	\$20,000	\$20,000	\$0	\$0	\$0	\$0	\$20,000
20-06	Replacement	Sun River Reservoir Replacement	Replace the existing concrete tank with a steel tank for increase capacity and resilience.	\$900,000	S	WU	\$800,000	\$800,000	\$0	\$0	\$0	\$0	\$800,000
20-07	Replacement	Goldstream AC Replacement	Replacement of aging asbestos cement pipe within Goldstream Rd, fromVMP to Spencer.	\$5,000,000	S	WU	\$0	\$4,800,000	\$0	\$0	\$0	\$0	\$4,800,000
21-02	Replacement	Sooke Rd - 2,200m of 600m Pipe - VMP to Jacklin	Replacement of aged, large diameter water main from Jacklin Rd to VMP	\$2,400,000	S	WU	\$0	\$0	\$2,400,000	\$0	\$0	\$0	\$2,400,000
21-11	Replacement	Marilyn Rd - 110m of 200mm Pipe	Replacement of 110m of watermain to ensure proper fire flows in the area.	\$150,000	S	WU	\$0	\$150,000	\$0	\$0	\$0	\$0	\$150,000
21-12	New	Ironmine Recirculation Line	Installation of a recirculation line to improve water quality at the Silverspray Reservoir	\$165,000	S	WU	\$0	\$165,000	\$0	\$0	\$0	\$0	\$165,000
21-13	Replacement	SCADA Master Plan Update & Upgrades	Update the SCADA Master Plan in conjunction with the RWS, Saanich Peninsula and Core Area infrastructure.	\$700,000	S	WU	\$0	\$200,000	\$500,000	\$0	\$0	\$0	\$700,000
21-15	New	Florence Lake Inclusion Upgrades	Upgrades are required to the Florence Lake water system prior to including it into the JDF Water System.	\$300,000	S	Other	\$0	\$300,000	\$0	\$0	\$0	\$0	\$300,000
Sub-Total System Infrastructure Engineering and Operations				\$49,695,000			\$1,900,000	\$17,450,000	\$7,905,000	\$4,905,000	\$3,655,000	\$3,550,000	\$37,465,000
CUSTOMER AND TECHNICAL SERVICES													
16-06	Replacement	Vehicle & equipment replacement (funding from replacement fund)	Vehicle and equipment replacement.	\$1,395,000	V	ERF	\$250,000	\$450,000	\$350,000	\$190,000	\$580,000	\$165,000	\$1,735,000

20-09	New	Vehicle for the Meter Replacement Program	A new Service Van to be used for the meter replacement program	\$200,000	V	WU	\$200,000	\$200,000	\$0	\$0	\$0	\$0	\$200,000
Sub-Total Customer and Technical Services				\$1,595,000			\$450,000	\$650,000	\$350,000	\$190,000	\$580,000	\$165,000	\$1,935,000
ANNUAL PROVISIONAL ITEMS													
17-07	New	Site Decommissioning - General	Planning for decommissioning of unused sites.	\$50,000	S	WU	\$0	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$50,000
17-09	Replacement	Emergency Main Replacement	Major main replacement under emergencies.	\$500,000	S	WU	\$0	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000
17-12	Replacement	Large Meters/Meter Vaults Components Replacement	Replacement or repairs to components in large meters/vaults as required.	\$1,250,000	S	WU	\$0	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$1,250,000
17-13	New	Site Security Upgrades	Upgrading and replacement of security systems for sites as required.	\$200,000	S	WU	\$0	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$200,000
17-15	Renewal	Distribution System Improvements	Unplanned distribution system improvements.	\$2,250,000	S	WU	\$0	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000	\$2,250,000
17-16	New	Hydraulic Model Yearly Update	Annual hydraulic model update.	\$300,000	S	WU	\$0	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$300,000
21-03	Replacement	Hydrant & Flush Replacement, Upgrades and Additions	Upgrade, replacement or installation of flushes and fire hydrants, and fire flow testing.	\$1,125,000	S	WU	\$0	\$225,000	\$225,000	\$225,000	\$225,000	\$225,000	\$1,125,000
21-04	Replacement	Residential Service & Meter Replacement	Replacement of residential water meters as highlighted by the 2017 KWL Water Audit report.	\$6,000,000	S	WU	\$0	\$800,000	\$1,300,000	\$1,300,000	\$1,300,000	\$1,300,000	\$6,000,000
21-05	Replacement	Pump Station Equipment Replacements	Unplanned pump station repairs and equipment replacement	\$750,000	S	WU	\$0	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$750,000
21-06	Replacement	SCADA Equipment Replacement	Unplanned replacement of SCADA and electrical equipment.	\$500,000	S	WU	\$0	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000
21-07	Renewal	Reservoir Equipment Replacement	Replacement or repairs to components at reservoir sites.	\$500,000	S	WU	\$0	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000
21-09	Replacement	Valve Replacement	Unplanned replacement and repair of isolation and line valves, and air valves.	\$1,000,000	S	WU	\$0	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$1,000,000
Sub-Total for Annual Provisional Items				\$14,425,000			\$0	\$2,485,000	\$2,985,000	\$2,985,000	\$2,985,000	\$2,985,000	\$14,425,000
DEVELOPMENT COST CHARGE (DCC)													
16-07	New	Update DCC Bylaw (Comprehensive Update in 2022)	Planned update of the DCC Bylaw.	\$255,000	S	Res	\$0	\$20,000	\$175,000	\$20,000	\$20,000	\$20,000	\$255,000
20-02	New	Bear Mountain Parkway Extension Supply Mains	Supply mains installed by the City of Langford.	\$2,000,000	S	Res	\$0	\$0	\$1,500,000	\$0	\$0	\$0	\$1,500,000
21-01	New	Sooke Henlyn Supply & Distribution Mains	Construction of water mains based upon development predictions from the Helgesen Pump Station westwards.	\$1,000,000	S	Res	\$0	\$0	\$1,000,000	\$0	\$0	\$0	\$1,000,000
23-01	New	Tank 4 and McCallum Pump Station (2020-2021) and Pump Station 7 and remaining Supply Main to Skirt Mtn Reservoir (2022)	Upgrades to complete the South Skirt Water System	\$7,110,000	S	Res	\$2,500,000	\$4,610,000	\$2,000,000	\$0	\$0	\$0	\$6,610,000
Sub-Total for Development Cost Charges (DCC)				\$10,365,000			\$2,500,000	\$4,630,000	\$4,675,000	\$20,000	\$20,000	\$20,000	\$9,365,000
GRAND TOTAL				\$76,080,000			\$4,850,000	\$25,215,000	\$15,915,000	\$8,100,000	\$7,240,000	\$6,720,000	\$63,190,000

CAPITAL REGIONAL DISTRICT CAPITAL PLAN

CAPITAL BUDGET FORM
2021 & Forecast 2022 to 2025

Service #:2.670/2.680

Service Name:Regional Water Supply & JDF Water Distribution Combo

Proj. No.

The first two digits represent first year the project was in the capital plan.

Capital Exp. Type

Study

- Expenditure for feasibility and business case report.

New

- Expenditure for new asset only

Renewal

- Expenditure upgrades an existing asset and extends the service ability or enhances technology in delivering that service

Replacement

- Expenditure replaces an existing asset

Funding Source Codes

Debt = Debenture Debt (new debt only)
ERF = Equipment Replacement Fund
Grant = Grants (Federal, Provincial)
Cap = Capital Funds on Hand
Other = Donations / Third Party Funding

Funding Source Codes (con't)

Res = Reserve Fund
STLoan = Short Term Loans
WU = Water Utility

Asset Class

L - Land
S - Engineering Structure
B - Buildings
V - Vehicles

Capital Project Title

Input Title of Project. For example "Asset Name - Roof Replacement", "Main Water Pipe Replacement".

Capital Project Description

Briefly describe project scope and service benefits.
For example: "Full Roof Replacement of a 40 year old roof above the swimming pool area; The new roofing system is built current energy standards, designed to minimize maintenance and have an expected service life of 35 years".

Total Project Budget

This column represents the total project budget not only within the 5-year window.

FIVE YEAR FINANCIAL PLAN													
Proj. No.	Capital Exp.Type	Capital Project Title	Capital Project Description	Total Proj Budget	Asset Class	Funding Source	C/F from 2020	2021	2022	2023	2024	2025	5 - Year Total
SYSTEM REPLACEMENT AND UPGRADES THAT BENEFIT REGIONAL WATER SUPPLY AND JUAN DE FUCA DISTRIBUTION													\$0
16-01	Renewal	Upgrades to Buildings at 479 Island Highway	Maintenance and changes to buildings and office layouts.	\$400,000	B	WU	\$0	\$80,000	\$80,000	\$80,000	\$80,000	\$80,000	\$400,000
17-01	Renewal	Voice Radio Upgrade	Replacement of end of life voice radio system repeaters, office, vehicle and handheld radios.	\$1,560,000	E	WU	\$0	\$640,000	\$650,000	\$0	\$0	\$0	\$1,290,000
20-01	New	Portable Pump Station	Portable pump station to provide backup when a pump station is offline, in construction or to bypass a section of pipe.	\$500,000	E	WU	\$500,000	\$500,000	\$0	\$0	\$0	\$0	\$500,000
21-01	New	Storage Container for vehicle and equipment Tires	Tires removed from vehicles are stored on site outside of the Fleet office. They need to be stored in a more safe and secured area.	\$20,000	E	WU	\$0	\$20,000	\$0	\$0	\$0	\$0	\$20,000
Sub-Total System Replacement and Upgrades That Benefit Regional Water Supply and Juan de Fuca Distribution				\$2,480,000			\$500,000	\$1,240,000	\$730,000	\$80,000	\$80,000	\$80,000	\$2,210,000
ANNUAL PROVISIONAL CAPITAL ITEMS													
17-03	Replacement	Office Equipment, Upgrades and Replacements	Upgrade and replacement of office equipment as required.	\$225,000	E	WU	\$0	\$45,000	\$45,000	\$45,000	\$45,000	\$45,000	\$225,000
17-04	Replacement	Computer Upgrades	Annual upgrade and replacement program for computers, copiers, printers, network equipment as required.	\$850,000	E	WU	\$0	\$170,000	\$170,000	\$170,000	\$170,000	\$170,000	\$850,000
17-05	New	Development of the Maintenance Management Systems	Develop maintenance management system.	\$100,000	E	WU	\$0	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$100,000
17-06	Replacement	Small Equipment & Tool Replacement (Water Operations)	Replacement of tools and small equipment for Water Operations as required.	\$400,000	E	WU	\$0	\$80,000	\$80,000	\$80,000	\$80,000	\$80,000	\$400,000
17-07	Replacement	Small Equipment & Tool Replacement (Corporate Fleet)	Replacement of tools and small equipment for Fleet as required.	\$75,000	E	WU	\$0	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$75,000
Sub-Total for Annual Provisional Capital Items				\$1,650,000			\$-	\$330,000	\$330,000	\$330,000	\$330,000	\$330,000	\$1,650,000
GRAND TOTAL				\$4,130,000			\$500,000	\$1,570,000	\$1,060,000	\$410,000	\$410,000	\$410,000	\$3,860,000

<div> <div>Service: 2.680</div> <div>JDF Water Distribution</div> </div>			
<div> <div>Proj. No. 16-03</div> <div>Asset Class S</div> </div>	<div> <div>Capital Project Title Asset Management Plan</div> <div>Board Priority Area 0</div> </div>	<div> <div>Capital Project Description Combine past studies to plan out future capital expenditures.</div> <div>Corporate Priority Area 0</div> </div>	<div> <div>Project Rationale Several studies have been completed and are in progress to assess the JDF assets and programs and the proposed Strategic Asset Management Plan will consolidate the findings of the previous studies in a comprehensive approach to identify and prioritizes future capital expenditures and programs.</div> </div>
<div> <div>Proj. No. 21-14</div> <div>Asset Class S</div> </div>	<div> <div>Capital Project Title Fire Storage Analysis</div> <div>Board Priority Area 0</div> </div>	<div> <div>Capital Project Description Assess and update the fire flow upgrade program to inform future capital works.</div> <div>Corporate Priority Area 0</div> </div>	<div> <div>Project Rationale In order to meet Fire Underwriters Survey recommendations for fire protection, it is necessary to provide certain volumes of water storage. It is proposed to assess fire storage volume requirements for different parts of the system and determine any required upgrades. Funding is required to retain a consultant to complete the analysis.</div> </div>
<div> <div>Proj. No. 16-05</div> <div>Asset Class S</div> </div>	<div> <div>Capital Project Title Comprehensive Pump Station Upgrades (10 year Program)</div> <div>Board Priority Area 0</div> </div>	<div> <div>Capital Project Description Continue pump station condition assessments, plan and carry out upgrades.</div> <div>Corporate Priority Area 0</div> </div>	<div> <div>Project Rationale A previous capital project was completed by Delcan Corp. in 2012 which assessed each existing pump station and identified building deficiencies. This study concluded that on average approximately \$1.0M per year for the next ten years is needed to upgrade existing pump stations. A review of system hydraulics, electrical/mechanical issues and backup power is due to be completed in 2020. Funds in 2021 are for completion of design of and to start construction of the Coppermine PS.</div> </div>
<div> <div>Proj. No. 18-02</div> <div>Asset Class S</div> </div>	<div> <div>Capital Project Title JDF Reservoir Upgrades</div> <div>Board Priority Area 0</div> </div>	<div> <div>Capital Project Description Reservoir improvements are required at Walfred, Peacock, and Helgesen Reservoirs. In 2018 a review of all three reservoirs was conducted including implementing improvements to Walfred.</div> <div>Corporate Priority Area 0</div> </div>	

Service: 2.680 JDF Water Distribution			
Project Rationale Numerous deficiencies at the Walfred, Peacock and Helgesen reservoirs have been identified while operating the infrastructure. In 2020 planning and design of improvements at the Helgesen reservoir was undertaken. Improvements like valve reconfiguration, site drainage and controls will be undertaken in 2021 at the Peacock and Skirt reservoirs.			
Proj. No. 18-03	Capital Project Title JDF Site Decommissioning Program	Capital Project Description Decommissioning of facilities that are no longer in use based on preliminary work from Annual Provisional	
Asset Class S	Board Priority Area 0	Corporate Priority Area 0	
Project Rationale Numerous pump station and PRV facilities have been made redundant or have been decommissioned within the JDF system. Sites have been identified as part of the annual provisional project and funds are required to complete decomission of the sites and then demolish them. In 2021 the Townsview tank and pump station will be carried out.			
Proj. No. 18-05	Capital Project Title Rocky Point Upgrades	Capital Project Description Replacement of Rocky Point P.S., additional storage at Rocky Point Reservoir & water main upgrades. Partnered with DND.	
Asset Class S	Board Priority Area 0	Corporate Priority Area 0	
Project Rationale Proposed work includes the design and construction of upgrades to the existing Rocky Point Pump Station, storage tank and associated water main upgrades. This work will improve the level of service to both the existing Metchosin water users and the expected increase in flow associated with the Spirit Bay Development in Beecher Bay. Cost sharing with DND for design and construction is underway with construction completing in 2021.			

Service: 2.680 JDF Water Distribution			
Proj. No.	18-06	Capital Project Title	Disaster Response Plan for Water Supply and Distribution
Capital Project Description	Determine and supply response equipment for disaster response.		
Asset Class	S	Board Priority Area	0
Corporate Priority Area	0		
Project Rationale	Proposed work includes developing a response plan to disasters to the Juan de Fuca water supply or distribution system. Funds are required to procure equipment and carry out works developed the in 2018 plan in conjunction with the Regional Water Supply disaster response Plan.		
Proj. No.	19-06	Capital Project Title	Corrosion Protection Program
Capital Project Description	Undertake a program to assess and prevent corrosion to existing steel pipe within the Juan du Fuca water system.		
Asset Class	S	Board Priority Area	0
Corporate Priority Area	0		
Project Rationale	There are numerous steel pipes within the Juan du Fuca water distribution system. Some are located in corrosive conditions or connected to dissimilar metals. Funds are required to undertake a program to assess and prevent corrosion to existing pipes.		
Proj. No.	19-09	Capital Project Title	Distribution System Seismic Resiliency Improvements
Capital Project Description	Determine and commence improvements to the distribution system to provide seismic resiliency.		
Asset Class	S	Board Priority Area	0
Corporate Priority Area	0		
Project Rationale	Determine and commence improvements to the distribution system to provide resiliency. In 2021, sites will be prioritized with design commencing in 2022 and construction starting in 2023.		
Proj. No.	20-03	Capital Project Title	AC Pipe Replacement Program
Capital Project Description	Replacement of aging asbestos cement pipe as highlighted in the 2019 update report		
Asset Class	S	Board Priority Area	0
Corporate Priority Area	0		
Project Rationale	This item is the 2021 to 2025 program for replacement of the water mains identified in the Water Main Upgrading and Replacement Program Update in 2021. All mains were assessed for such criteria as age, pipe material, record of leaks and hydraulic adequacy, and a long-term replacement program was developed. Planned works for 2021 include 1.3km on Luxton Rd, funds for Walfred Rd Phase 2 were used in 2020.		

Service: 2.680 JDF Water Distribution			
Proj. No.	20-04	Capital Project Title	William Head & VGH Meter Replacement
Capital Project Description	Replacement of the meter and chambers at William Head & VGH with the possibility of resilient connections.		
Asset Class	S	Board Priority Area	0
Corporate Priority Area	0		
Project Rationale	Identified through Statement of Works, the William Head and Victoria General Hospital meters require replacement and redundancy to maintain service to the two facilities. In 2021 funds will be utilized to complete design of the two new meters that will allow for construction of the meters while maintaining service. Construction is to start in winter of 2021 and be completed in 2022.		
Proj. No.	20-05	Capital Project Title	Electrical Isolation Audit
Capital Project Description	Inspection audit of facilities to ensure that there is sufficient electrical separation and isolation for safety.		
Asset Class	S	Board Priority Area	0
Corporate Priority Area	0		
Project Rationale	Identified through Statement of Works, numerous aging facilities with electrical services may pose safety hazards due to inadequate electrical separation from mechanical equipment.		
Proj. No.	20-06	Capital Project Title	Sun River Reservoir Replacement
Capital Project Description	Replace the existing concrete tank with a steel tank for increase capacity and resilience.		
Asset Class	S	Board Priority Area	0
Corporate Priority Area	0		
Project Rationale	The Sun River reservoir is experiencing leakage through concrete form tie holes as a result of the original construction process. Funding is required to replace the existing concrete tank with a bolted steel tank.		
Proj. No.	20-07	Capital Project Title	Goldstream AC Replacement
Capital Project Description	Replacement of aging asbestos cement pipe within Goldstream Rd, from VMP to Spencer.		
Asset Class	S	Board Priority Area	0
Corporate Priority Area	0		
Project Rationale	The existing water main within Goldstream Rd, from VMP to Spencer Rd, is aging asbestos cement and identified as a risk for failure. Due to the numerous large connections to the RWS transmission main and complexity replacement of this water main cannot be carried out within the AC Replacement Program. Funds are required to completed design and construct replacement of the water main in 2021.		

Service: 2.680 JDF Water Distribution			
Proj. No.	21-02	Capital Project Title	Sooke Rd - 2,200m of 600m Pipe - VMP to Jacklin
Capital Project Description	Replacement of aged, large diameter water main from Jacklin Rd to VMP		
Asset Class	S	Board Priority Area	0
Corporate Priority Area	0		
Project Rationale	According to a corrosion assessment, a 2.2 kilometre section of an existing steel pipe along Sooke Road and Allendale Road (between Wishart to Jacklin) was unprotected and in need of replacement. In 2014, the design of both phases of the water main was completed by a consultant and construction of the main from Wishart to VMP was completed by CRD resources. The balance of the construction, from VMP to Jacklin Rd along Sooke Rd, is to occur in 2022.		
Proj. No.	21-11	Capital Project Title	Marilyn Rd - 110m of 200mm Pipe
Capital Project Description	Replacement of 110m of watermain to ensure proper fire flows in the area.		
Asset Class	S	Board Priority Area	0
Corporate Priority Area	0		
Project Rationale	Marilyn Road has an undersized pipe for fire flows and a hydrant, funds are required to replace 110 m of watermain to ensure proper fire flows in the area.		
Proj. No.	21-12	Capital Project Title	Ironmine Recirculation Line
Capital Project Description	Installation of a recirculation line to improve water quality at the Silverspray Reservoir		
Asset Class	S	Board Priority Area	0
Corporate Priority Area	0		
Project Rationale	The Silverspray Reservoir experiences seasonal low disinfection residuals, funds are required to design and construct a recirculation line to ensure adequate disinfection residuals during low demand periods.		
Proj. No.	21-13	Capital Project Title	SCADA Master Plan Update & Upgrades
Capital Project Description	Update the SCADA Master Plan in conjunction with the RWS, Saanich Peninsula and Core Area infrastructure.		
Asset Class	S	Board Priority Area	0
Corporate Priority Area	0		
Project Rationale	The 2015 SCADA Master Plan requires an update, additionally data radio and SCADA upgrades are required. Funds are required to update the joint SCADA Master Plan and conduct upgrades to pump stations, reservoirs and other communication sites.		

<div> <div>Service: 2.680</div> <div>JDF Water Distribution</div> </div>			
<div> <div>Proj. No. 21-15</div> <div>Asset Class S</div> </div>	<div> <div>Capital Project Title</div> <div>Florence Lake Inclusion Upgrades</div> </div>	<div> <div>Capital Project Description</div> <div>Upgrades are required to the Florence Lake water system prior to including it into the JDF Water Svstem.</div> </div>	
<div> <div>Board Priority Area 0</div> <div>Corporate Priority Area 0</div> </div>			
<div> <div>Project Rationale</div> <div>Upgrades to the Florence Lake water system are required be before the system can be connected and included in the JDF Water System. Funding provided by the Florence Lake water system will be utilized to complete these upgrades.</div> </div>			
<div> <div>Proj. No. 16-06</div> <div>Asset Class V</div> </div>	<div> <div>Capital Project Title</div> <div>Vehicle & equipment replacement (funding from replacement fund)</div> </div>	<div> <div>Capital Project Description</div> <div>Vehicle and equipment replacement.</div> </div>	
<div> <div>Board Priority Area 0</div> <div>Corporate Priority Area 0</div> </div>			
<div> <div>Project Rationale</div> <div>This is for the replacement of vehicles and equipment used by CRD Integrated Water Services for the day-to-day operation and maintenance of the Juan De Fuca distribution system. These replacements are funded from the Juan De Fuca Vehicle and Equipment Replacement Fund.</div> </div>			
<div> <div>Proj. No. 20-09</div> <div>Asset Class V</div> </div>	<div> <div>Capital Project Title</div> <div>Vehicle for the Meter Replacement Program</div> </div>	<div> <div>Capital Project Description</div> <div>A new Service Van to be used for the meter replacement program</div> </div>	
<div> <div>Board Priority Area 0</div> <div>Corporate Priority Area 0</div> </div>			
<div> <div>Project Rationale</div> <div>Funds are required for procurement of a new service van for the meter and service replacement.</div> </div>			
<div> <div>Proj. No. 17-07</div> <div>Asset Class S</div> </div>	<div> <div>Capital Project Title</div> <div>Site Decommissioning - General</div> </div>	<div> <div>Capital Project Description</div> <div>Planning for decommissioning of unused sites.</div> </div>	
<div> <div>Board Priority Area 0</div> <div>Corporate Priority Area 0</div> </div>			
<div> <div>Project Rationale</div> <div>This is a provisional item to allow engineering and planning reviews of old facilities with a view to possible future site uses.</div> </div>			
<div> <div>Proj. No. 17-09</div> <div>Asset Class S</div> </div>	<div> <div>Capital Project Title</div> <div>Emergency Main Replacement</div> </div>	<div> <div>Capital Project Description</div> <div>Major main replacement under emergencies.</div> </div>	
<div> <div>Board Priority Area 0</div> <div>Corporate Priority Area 0</div> </div>			
<div> <div>Project Rationale</div> <div>This item is to fund the costs of responding to emergency major main breaks and conducting replacements.</div> </div>			

Service: 2.680 JDF Water Distribution			
Proj. No.	17-12	Capital Project Title	Large Meters/Meter Vaults Components Replacement
Capital Project Description	Replacement or repairs to components in large meters/vaults as required.		
Asset Class	S	Board Priority Area	0
Corporate Priority Area	0		
Project Rationale	This is an annual provision for the replacement of obsolete and worn out large (greater than 2" diameter) meters, adding new meters and upgrading meter vaults.		
Proj. No.	17-13	Capital Project Title	Site Security Upgrades
Capital Project Description	Upgrading and replacement of security systems for sites as required.		
Asset Class	S	Board Priority Area	0
Corporate Priority Area	0		
Project Rationale	This is an annual allowance for upgrading and maintaining equipment, security and control systems at distribution facilities such as pump stations, PRV chambers and reservoirs. Items such as access hatches, fencing, etc., will be modified to provide a larger degree of security.		
Proj. No.	17-15	Capital Project Title	Distribution System Improvements
Capital Project Description	Unplanned distribution system improvements.		
Asset Class	S	Board Priority Area	0
Corporate Priority Area	0		
Project Rationale	Historically, opportunities to complete work arise during the year which were not specifically identified and budgeted. This item typically relates to coordinating work programs (i.e. JDF water main replacements and municipal paving programs) with the municipalities or development and taking advantage of opportunities during the year that were not specifically identified.		
Proj. No.	17-16	Capital Project Title	Hydraulic Model Yearly Update
Capital Project Description	Annual hydraulic model update.		
Asset Class	S	Board Priority Area	0
Corporate Priority Area	0		
Project Rationale	This item is required to input the pipes installed that year into the hydraulic computer model, followed by calibration and testing in order to keep the model up to date for design and planning purposes.		
Proj. No.	21-03	Capital Project Title	Hydrant & Flush Replacement, Upgrades and Additions
Capital Project Description	Upgrade, replacement or installation of flushes and fire hydrants, and fire flow testing.		
Asset Class	S	Board Priority Area	0
Corporate Priority Area	0		
Project Rationale	This is an annual provision for replacing old and outdated hydrants, flushes and associated works and access, as well as adding new hydrants to the system where requested by the municipalities or fire departments.		

Service: 2.680 JDF Water Distribution			
Proj. No.	21-04	Capital Project Title	Residential Service & Meter Replacement
Asset Class	S	Board Priority Area	0
Capital Project Description	Replacement of residential water meters as highlighted by the 2017 KWL Water Audit report.		
Corporate Priority Area	0		
Project Rationale	This is an annual provision for replacing failed residential services and meters, as well as proactively replacing services and meters in areas with historically large number of breaks.		
Proj. No.	21-05	Capital Project Title	Pump Station Equipment Replacements
Asset Class	S	Board Priority Area	0
Capital Project Description	Unplanned pump station repairs and equipment replacement		
Corporate Priority Area	0		
Project Rationale	This is an annual provision for unplanned pump station repairs and equipment replacement.		
Proj. No.	21-06	Capital Project Title	SCADA Equipment Replacement
Asset Class	S	Board Priority Area	0
Capital Project Description	Unplanned replacement of SCADA and electrical equipment.		
Corporate Priority Area	0		
Project Rationale	This is an annual provision for unplanned SCADA and electrical equipment replacement.		
Proj. No.	21-07	Capital Project Title	Reservoir Equipment Replacement
Asset Class	S	Board Priority Area	0
Capital Project Description	Replacement or repairs to components at reservoir sites.		
Corporate Priority Area	0		
Project Rationale	This is an annual provisional for unplanned replacement of equipment, such as safety devices and mechanical fittings, at reservoir sites.		
Proj. No.	21-09	Capital Project Title	Valve Replacement
Asset Class	S	Board Priority Area	0
Capital Project Description	Unplanned replacement and repair of isolation and line valves, and air valves.		
Corporate Priority Area	0		
Project Rationale	This is an annual provisional for unplanned replacement of valves, including air valves and check valves.		

Service: 2.680 JDF Water Distribution			
Proj. No.	16-07	Capital Project Title	Update DCC Bylaw (Comprehensive Update in 2022)
Capital Project Description	Planned update of the DCC Bylaw.		
Asset Class	S	Board Priority Area	0
Corporate Priority Area	0		
Project Rationale	This is a provisional item to cover questions that arise and referred to our consultants for advice. Every 5 years a comprehensive update is required and the previous DCC update was completed in 2017, with the next update scheduled for 2022 for \$175,000.		
Proj. No.	20-02	Capital Project Title	Bear Mountain Parkway Extension Supply Mains
Capital Project Description	Supply mains installed by the City of Langford.		
Asset Class	S	Board Priority Area	0
Corporate Priority Area	0		
Project Rationale	The City of Langford has installed DCC eligible supply water mains as part of their 2017 Bear Mountain Parkway extension road project to avoid future pavement restoration and traffic disruption. It is proposed to pay back the eligible costs in 2022.		
Proj. No.	21-01	Capital Project Title	Sooke Henlyn Supply & Distribution Mains
Capital Project Description	Construction of water mains based upon development predictions from the Helgesen Pump Station westwards.		
Asset Class	S	Board Priority Area	0
Corporate Priority Area	0		
Project Rationale	Proposed work includes the continued installation of the supply and distribution water mains connected to the Helgesen pump station which was previously constructed in 2011 as part of the DCC program. The supply and distribution water mains will continue west as development proceeds towards the proposed Henlyn Tank.		
Proj. No.	23-01	Capital Project Title	Tank 4 and McCallum Pump Station (2020-2021) and Pump Station 7 and remaining Supply Main to Skirt Mtn Reservoir (2022)
Capital Project Description	Upgrades to complete the South Skirt Water System		
Asset Class	S	Board Priority Area	0
Corporate Priority Area	0		
Project Rationale	Design and construct Tank 4, Pump Station 7, McCallum Pump Station and remaining supply main to the Skirt Mountain Reservoir based upon development and demand.		

Service: 2.670/2.680 Regional Water Supply & JDF Water Distribution Combo			
Proj. No.	16-01	Capital Project Title	Upgrades to Buildings at 479 Island Highway
Capital Project Description	Maintenance and changes to buildings and office layouts.		
Asset Class	B	Board Priority Area	0
Corporate Priority Area	0		
Project Rationale	<p>The budget includes the following funds to upgrade and renew the buildings at 479 Island Highway:</p> <ul style="list-style-type: none"> • Repairs, upgrades and changes to the buildings (provisional \$50,000) • Painting of the buildings. (provisional \$10,000 annually) • Repair and replacement of carpets, floors and walls. (provisional \$10,000 annually) • Repair, refurbishment and replacement of equipment and property. (provisional \$10,000 annually) 		
Proj. No.	17-01	Capital Project Title	Voice Radio Upgrade
Capital Project Description	Replacement of end of life voice radio system repeaters, office, vehicle and handheld radios.		
Asset Class	E	Board Priority Area	0
Corporate Priority Area	0		
Project Rationale	<p>Service Life and projected replacement:</p> <ul style="list-style-type: none"> • The service life of the mobile and portable units was forecast as 10 years at minimum, 15 years at maximum in 2005. • The present radio models used in the system have just been taken out of production by the manufacturer, there will be no new units available for purchase as of July 1, 2015. • Support for repairs and maintenance of the present radio will continue for the next 3 years at least. <p>There are no pressing issues with equipment maintenance or repairs, present repair rates suggest we can maintain the system for the next few years, and perhaps reach a 12-15 year lifespan on the present equipment.</p>		
Proj. No.	20-01	Capital Project Title	Portable Pump Station
Capital Project Description	Portable pump station to provide backup when a pump station is offline, in construction or to bypass a section of		
Asset Class	E	Board Priority Area	0
Corporate Priority Area	0		
Project Rationale	<p>The RWS and JdF operation numerous water mains and pump stations. There are situations, when a pump station fails, construction of a pump station or bypassing a section of pipe, where a portable pump station is required to maintain the level of service. Funds will be used in 2020 to design and in 2021 to procure a portable pump station.</p>		

Service: 2.670/2.680 Regional Water Supply & JDF Water Distribution Combo				
Proj. No.	21-01	Capital Project Title	Storage Container for vehicle and equipment Tires	Capital Project Description Tires removed from vehicles are stored on site outside of the Fleet office. They need to be stored in a more safe and secured area.
Asset Class	E	Board Priority Area	0	Corporate Priority Area 0
Project Rationale <i>The tires that are purchased for replacing and winter rotating are stored outside the fleet office on the mezzanine. These tires which include large truck and equipment tires are bulky and heavy. Lifting these tires onto the mezzanine has been identified as a safety hazzard and requires more than one person. A solution to this is to purchase a storage container that can be placed and locked in the yard at 479 for the storage of the tires. The container will be at ground level which means that the onsite forklift can be used to move the tires around.</i>				
Proj. No.	17-03	Capital Project Title	Office Equipment, Upgrades and Replacements	Capital Project Description Upgrade and replacement of office equipment as required.
Asset Class	E	Board Priority Area	0	Corporate Priority Area 0
Project Rationale <i>Funds will be used for the replacement and upgrading of office equipment and furniture, as required.</i>				
Proj. No.	17-04	Capital Project Title	Computer Upgrades	Capital Project Description Annual upgrade and replacement program for computers, copiers, printers, network equipment as required.
Asset Class	E	Board Priority Area	0	Corporate Priority Area 0
Project Rationale <i>This is an annual upgrading and replacement program of computers, photocopiers, network, monitoring and associated equipment, as required. This item has been increased from \$160,000 to \$175,000 annually to reflect actual costs.</i>				
<i>Capital Budget</i> <i>Network Switch Maintenance \$10,000</i> <i>Additional Wireless Access Points and Maintenance \$15,000</i> <i>Photocopier Replacement \$20,000</i> <i>Additional Data Storage \$15,000</i> <i>Replacement Computers \$75,000</i> <i>Equipment Maintenance (contingency) \$23,000</i> <i>Replace Access Control System - Gates/ Video Cameras \$12,000</i> <i>Total Capital \$170,000</i>				

Service: 2.670/2.680		Regional Water Supply & JDF Water Distribution Combo			
Proj. No.	17-05	Capital Project Title	Development of the Maintenance Management Systems	Capital Project Description	Develop maintenance management system.
Asset Class	E	Board Priority Area	0	Corporate Priority Area	0
Project Rationale		The maintenance management system needs further development to meet user needs and to facilitate reporting. It is proposed that funds be approved for the following IT related projects:- <ul style="list-style-type: none">• Develop a dashboard to display information.• Investigate standardization of SAP mobile platform.			

Proj. No.	17-06	Capital Project Title	Small Equipment & Tool Replacement (Water Operations)	Capital Project Description	Replacement of tools and small equipment for Water Operations as required.
Asset Class	E	Board Priority Area	0	Corporate Priority Area	0
Project Rationale		Funds will be used for replacement of a variety of Operations and Welding equipment such as cutting saws, portable generators, gas detectors, Hilti drills,plasma cutter, wire welder, etc.			

Proj. No.	17-07	Capital Project Title	Small Equipment & Tool Replacement (Corporate Fleet)	Capital Project Description	Replacement of tools and small equipment for Fleet as required.
Asset Class	E	Board Priority Area	0	Corporate Priority Area	0
Project Rationale		Funds will be used for replacement of a variety of Fleet small equipment and tools as required. This includes provision to replace the Vehicle OBD reader for reading engine codes and the shop air compressor.			

2.680 Juan de Fuca Water Distribution
Summary Schedule
2021 - 2025 Financial Plan

Asset Profile

Juan de Fuca Water Distribution

Juan de Fuca assets include lands, office buildings, pump stations, pipe lines, meters, equipment, vehicles and other infrastructure.

Reserve/Fund Summary

	Actual	Estimate	Budget				
	2019	2020	2021	2022	2023	2024	2025
DCC Reserve Account	7,436,981	6,458,821	6,458,880	3,953,284	6,133,284	8,313,284	10,493,284
Equipment Replacement Fund	343,314	196,009	284,012	249,675	356,601	137,396	276,416
Total	7,857,899	6,732,436	6,820,500	4,280,569	6,567,497	8,528,294	10,847,316

2.680 Juan de Fuca Water Distribution
Development Cost Charges
2021 - 2025 Financial Plan

Development Cost Charges Reserve Schedule

Reserve Fund: Development Cost Charges for Juan de Fuca Water Distribution (Bylaw # 2758)

Fund: 1055 Fund Center: 101532	Actual	Estimate	Budget				
	2019	2020	2021	2022	2023	2024	2025
Beginning Balance	7,376,711	7,436,981	6,458,821	6,458,880	3,953,284	6,133,284	8,313,284
Transfer to Cap Fund to fund DCC projects	(814,305)	(3,020,000)	(2,130,000)	(4,675,000)	(20,000)	(20,000)	(20,000)
Payment of P&I on LA 3164	(239,785)	(228,160)	(69,941)	(30,596)	-	-	-
Payment of DCC liability	(3,148,875)						
DCC's received From Member Municipalities	4,192,290	2,200,000	2,200,000	2,200,000	2,200,000	2,200,000	2,200,000
Interest Income*	70,945	70,000					
Ending Balance \$	7,436,981	6,458,821	6,458,880	3,953,284	6,133,284	8,313,284	10,493,284

General Comments:

Development Cost Charges Reserve Funds for Juan de Fuca Water Distribution was adopted in year 2000 for the purpose of providing funds for the capital costs of water facilities in the service areas.

These Reserve funds are received from Member Municipalities as Development Cost Charges (DCC's) to provide for the capital costs attributable to water sytem capacity improvements projects specified in the DCC capital expenditure program. Municipalities collect these DCC charges through building permits that are issued to developers for subdivision development.

Future years DCC's received from member municipalities are difficult to predict, due to unknown development activity in the Municipalities, influenced by market conditions. Estimates based on recent annual collections of DCCs, and the cyclical nature of property development.

* Interest should be included in determining the estimated ending balance for the current year. Interest in planning years nets against inflation which is not included.

2.680 Juan de Fuca Water Distribution
Equipment Replacement Reserve
2021 - 2025 Financial Plan

Equipment Replacement Reserve Schedule

Reserve Fund: Juan de Fuca Distribution Equipment Replacement Reserve (covered by CRD-ERF Bylaw)

Fund: 1022 Fund Center: 101630	Actual	Estimated	Budget				
	2019	2020	2021	2022	2023	2024	2025
Beginning Balance	530,455	343,314	196,009	284,012	249,675	356,601	137,396
Equipment purchases (Based on Capital Plan)	(525,407)	(425,000)	(200,000)	(350,000)	(190,000)	(580,000)	(165,000)
Transfer from Operating Budget	251,115	213,945	258,003	263,163	268,426	273,795	279,270
Proceeds on disposals	80,949	63,750	30,000	52,500	28,500	87,000	24,750
Interest Income*	6,203						
Ending Balance \$	343,314	196,009	284,012	249,675	356,601	137,396	276,416

General Comments:

Reserve Fund is used for the purpose of replacing fleet vehicles including heavy equipment and associated mobile components, as outlined in the capital plan. Proceeds from disposals are estimated at 15% of replacement equipment purchases. Note not all vehicles are sold within the year in which they are replaced.

* Interest should be included in determining the estimated ending balance for the current year. Interest in planning years nets against inflation which is not included.