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BEDDIS WATER SERVICE COMMISSION
Notice of Meeting on **Monday, October 31, 2022** at **12:30 PM**
Salt Spring Island Library Meeting Room, 129 McPhillips Avenue, Salt Spring Island, BC

Gary Holman | Michael McCormick | Chris Cheeseman | Chris Smid

Zoom: https://us06web.zoom.us/j/81659039842?pwd=ckZ2UGdGYVJEWHNsaHR3QmduMlpvUT09

AGENDA

1. **Territorial Acknowledgement / Call Meeting to Order**
2. **Approval of Agenda** 1-2
3. **Adoption of the Minutes of October 4, 2021** 3-6
4. **Chair and Director Reports**
5. **New Business**
   - **5.1 2023 Operating and Capital Budget** 7-23

     That the Beddis Water Service Commission:

     1. Approve the 2023 operating and capital budget as presented and that the 2022 actual operating surplus or deficit be balanced on the 2022 Reserve Funds transfer (CRF and/or ORF).

     2. Recommend that the Electoral Area Committee recommend that the CRD Board approve the 2023 Operating and Capital Budget and the five-year Financial Plan for the Beddis Water Service as presented.
6. **Outstanding Business**
   - **6.1 Water Residuals**
   - **6.2 Sky Valley Tank Replacement**
   - **6.3 Leak Detection**
   - **6.4 Electrical Backup Power**
   - **6.5 Island Health Water Treatment Plant Inspection**
   - **6.6 Emergency Response Plan** 24-47

7. **Next Meeting** – TBD

8. **Adjournment**

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Minutes of the Beddis Water Service Commission Budget Meeting
Held October 4, 2021 at the Salt Spring Island Library, 129 McPhillips Avenue, Salt Spring Island, BC

DRAFT

Present: **Director:** Gary Holman
Commission Members: Laurie Jacques and Michael McCormick
Staff: Karla Campbell, Senior Manager SSI Electoral Area; Lia Xu, Manager, Finance Services; Dan Robson, Manager, Saanich Peninsula and Gulf Islands Operations; Dean Olafson, Manager Engineering; Shayla Burnham, Recording Secretary
Tele Participants: Geoff Bartol

1. Territorial Acknowledgement / Call Meeting to Order

Territorial Acknowledgement was provided by Commissioner Jacques and the meeting was called to order at 9:03 am.

2. Limited Space Meeting Resolution

That this resolution applies to the Beddis Water Service Commission for the meeting being held on October 4, 2021, and that the attendance of the public at the place of the meeting will be limited in accordance with the applicable requirements or recommendations under the Public Health Act, despite the best efforts of the Commission because:

a. The available meeting facilities cannot accommodate more than (20) people in person, including members of the Commission and staff, and
b. There are no other facilities presently available that will allow physical attendance of the Commission and the public in sufficient numbers; and

That the Commission is ensuring openness, transparency, accessibility and accountability in respect of the open meeting by the following means:

a. By making the meeting agenda, as well as the other relevant documents, available on the CRD website, and directing interested persons to the website by means of the notices provided in respect of the meeting,

By making the minutes of the meeting available on the CRD website following the meeting.

MOVED by Commissioner Jacques, **SECONDED** by Commissioner McCormick, that the limited space meeting resolution be approved.

CARRIED

A hard copy of the 2022 Operating and Capital Budget was distributed to the Commission.

3. Approval of Agenda

MOVED by Commissioner McCormick, **SECONDED** by Commissioner Jacques, that the Beddis Water Service Commission agenda of October 4, 2021 be approved as amended by adding item 6.2 Distribution and Timing of Agenda and Minutes, item 6.3 Improved Methods of Advertising, item 6.4 Backup Generator 6.5 Allotment Tank Decommissioning Options and, item 6.6 Accountability and Spending.

CARRIED

4. Adoption of the Minutes of December 3, 2020

MOVED by Commissioner Jacques, **SECONDED** by Commissioner McCormick, that the Beddis Water Service Commission meeting minutes of December 3, 2020 be approved.

CARRIED

Commissioner Bartol joined the meeting via telephone at 9:05 am.

5. Chair and Director Reports

Director Holman briefly reported:

- Provisional Budget approval October 27, 2021 and Final Budget approval in March 2022.

6. New Business

6.1 2022 Operating and Capital Budget

- Refer to item 6.5 Lautman Tank Decommissioning Options for discussion captured.
- Fees and charges are adopted by the CRD Board in November 2021.
- Existing debt will be retired in 2023.
- New debt projected for 2024 which staff will seek community consent to borrow funds.
- Staff to forward design of the new intake screen at Beddis to the Commission.
- Refer to item 6.4 Backup Generator for discussion captured.
- Cost savings and possible future on-island sludge disposal options discussed.
- Commissioner McCormick to forward Bowen Island Disposal Study Report to staff.

MOVED by Commissioner Jacques, **SECONDED** by Commissioner McCormick, that the Beddis Water Service Commission reduce the 2022 transfer to capital reserve by $2,500 and balance on the user charge.

CARRIED

MOVED by Commissioner Jacques, **SECONDED** by Commissioner McCormick, that the Beddis Water Service Commission approve the 2022 operating and capital budget as amended, and that the 2021 actual operating deficit or surplus be balanced on the 2021 capital reserve fund transfer.

CARRIED

MOVED by Commissioner Jacques, **SECONDED** by Commissioner McCormick, that the Beddis Water Service Commission recommend that the Electoral Area Services Committee recommend that the CRD Board approve the 2022 Operating and Capital Budget and the five year Financial Plan for the Beddis Water Service as amended.

CARRIED

Commissioner Bartol left the meeting via telephone at 11:27 p.m.

6.2 Distribution and Timing of Agenda and Minutes

- Staffing capacity, bylaw requirements and report timeline updates provided to commission.

6.3 Improved Methods of Advertising

- Staff directed the commission to subscribe to the CRD website for automatic updates related to the Beddis Water Service Commission.
- Commission directed staff to contact Corporate Communications, to request subscription instructions for automatic service updates be added to the Beddis Water Service bills, for the convenience of its service members.

6.4 Backup Generator

- Beddis waterlines and water reductions noted as a risk for firefighting services.
- Climate change poses an impact to services.
- The possibility of a portable generator between both facilities was discussed with staff confirming that the generator needed for the main facility would differ as it provides power to both the main pump station and the treatment plant.

6.5 Lautman Tank Decommissioning Options

- 2022 project scheduled to dismantle and remove Lautman Reservior.
- Old tank decommissioned as a result of the new tank being installed.
- Staff to report back to the Commission regarding what determined the tanks end of service and the possibility of resale or future service options.

6.6 Accountability and Spending

- Commissioners encouraged to contact staff when seeking more detailed information.

7. **Outstanding Business** - None

8. **Adjournment**

MOVED by Commissioner Jacques, **SECONDED** by Commissioner McCormick, that the meeting be adjourned at 11:58 p.m.

CARRIED

_____
CHAIR

_____
SENIOR MANAGER

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REPORT TO BEDDIS WATER SERVICE COMMISSION
MONDAY, OCTOBER 31, 2022

SUBJECT **2023 Operating and Capital Budget**

ISSUE SUMMARY

To present the 2023 operating and capital budget. In accordance with Bylaw No 3247, "Beddis Water Service Commission Bylaw No. 1, 2004" the Commissions' approval of the annual budget is required.

BACKGROUND

The Capital Regional District (CRD) is required by legislation under the *Local Government Act* (LGA) to prepare an annual operating and capital budget and a 5-year financial plan including Operating Budgets and Capital Expenditure Plans annually. CRD staff have prepared the financial plan shown in Appendix A.

The Operating Budget includes the regular annual costs to operate the service. The Capital Expenditure Plan shows the anticipated expenditures for capital additions. These may include purchases of new assets or infrastructure, upgrades or improvements to existing assets or asset review and study work potentially leading to future capital improvements.

In preparing the Operating Budget, CRD staff considered:

1. Actual expenditures incurred between 2020 and 2022
2. Anticipated changes in level of service (if any)
3. Maximum allowable tax requisition
4. Annual cost per taxpayer and per SFE

Factors taken into consideration in the preparation of the Capital Expenditure Plan included:

1. Available funds on hand
2. Projects already in progress
3. Condition of existing assets and infrastructure
4. Regulatory, environmental, and health and safety factors.

Adjustments for surpluses or deficits from 2022 may be made in January 2023. The CRD Board will give final approval to the budget and financial plan in March 2023.

The Financial Plan for the years 2024 – 2027 may be changed in future years.

BUDGET OVERVIEW

Operating Budget

It is projected that the 2022 operating expenses will be approximately $3,377 under budget as a one-time variance mainly due to lower labour charges for cyclical non-critical deferred maintenance.

It is projected that the 2022 operating revenue will be on budget.

As a result, there is an overall operating surplus of approximately $3,377. To balance the 2022 operating budget, it is proposed that the 2022 transfer to Capital Reserve Fund be increased by the actual surplus amount to support the capital projects expenditure.

The 2023 over 2022 operating costs (excluding one-time cyclical program funded by ORF for 2022 hydrant maintenance and 2023 reservoir cleaning) has been increased by $5,184 (3%). The increase is primarily to account for core inflation and increased labour charges.

Increased labour charges are a result of the addition of a dedicated 'on-island' Manager of Operations that will be based on Salt Spring Island and have operational oversight of all CRD local services on Salt Spring Island and Southern Gulf Islands. The total labour cost for this position will be cost shared among 14 local utility services on SSI and SGI. The primary drivers for this role are to address regulatory requirements, workload management, capital project coordination and integration and to provide additional oversight and support to worker health and safety.

Additionally starting in 2023, operations and maintenance services currently contracted to North Salt Spring Waterworks District will cease and through the addition of new CRD operations staff, CRD will take over on the service delivery. This results in a reduction in contracted services and an increase in labour charges of equal costs, no net impact on 2023 operating costs.

Municipal Finance Authority (MFA) Debt

Loan Authorization Bylaw 3825 to borrow $400,000 was approved and adopted in 2012 for capital upgrades to the Beddis Water System. Table 1 below summarizes the detailed information for existing MFA debt issues related LA3825.

Table 1 – Existing Debt Summary

MFA Issues	Term	Borrowing Year	Retirement Year	Refinance Year	Original Interest Rate	Current Interest Rate	Principal	Principal Payment	Interest Payment	Total Annual Debt Cost
LA3825-124	10	2013	2023	NA	3.15%	3.15%	$300,000	$24,987	$9,450	$34,437
LA3825-126	10	2013	2023	NA	3.85%	3.85%	$70,000	$5,830	$2,695	$8,525
Total							**$370,000**	**$30,817**	**$12,145**	**$42,962**

Operating Reserve Fund

The Operating Reserve Fund is used to undertake maintenance activities that typically do not occur on an annual basis. Typical maintenance activities include hydrant/standpipe maintenance and reservoir cleaning and inspection. The operating reserve also funds the procurement of equipment and supplies that are not purchased on an annual basis. Additionally, the operating reserve could be used for emergency unplanned repairs if sufficient fund balance is available.

It is proposed that 2023 transfers to the operating reserve fund be set at $7,830 to ensure future maintenance activities are fully funded and an optimal reserve fund balance be maintained. There is $14,000 in planned maintenance to be funded by the Operating Reserve over the next five years.

The Operating Reserve Fund balance at the end of 2022 is projected to be approximately $16,862.

Capital Reserve Fund

The Capital Reserve Fund is to be used to pay for capital expenditures that are not funded by other sources such as grants, operating budget, or debt.

It is proposed that the 2023 transfer to Capital Reserve Fund (CRF) be set at $80,000 in 2023. The reserve fund transfer planning is influenced by the funding required to support the five-year capital expenditure plan, the emergency response to infrastructure failures and guided by *Capital Reserve Funding Guidelines* endorsed by the CRD Board in aiming to achieve the optimal reserve fund level to ensure long-term prudent and sustainable management of service delivery objectives through capital investments.

A total of $330,000 will be required from capital reserves over the next five years to support the capital expenditure plan.

The balance of the Capital Reserve Fund at the end of 2022 is projected to be $7,033.

Capital Expenditure Plan

The 5-year plan includes $7,404,000 of expenditures to be funded by a combination of grants, the service's Capital Reserve Fund, and new debt following a public engagement and referendum process planned in 2023. The new debt will fund the construction of the Sky Valley booster pump station and second reservoir at the Sky Valley project as well as the investigation, design, and installation for the replacement of the portion of the distribution system, which was constructed from asbestos cement piping, both contemplated in 2025, subject to electoral assent.

Seven (7) new projects were added to the 2023-2027 five-year Capital Plan as follows:

1. Abandoned Asbestos Cement Pipe Removal (50m) (23-01) - $17,000
2. Design and Install Lifting Apparatus WTP (23-02) - $55,000
3. Electrical Upgrades (23-03) - $39,000
4. Changes to DAF Control Panel (24-01) - $55,000
5. Asbestos Cement Water Main Assessment and Replacement Strategy (24-02) - $120,000
6. Asbestos Cement Water Main Replacement (25-03) - $6,422,000
7. Install Inline Strainers (26-01) - $11,000

Table 2 below provides the future debt servicing cost simulation for analytical purposes with the indicative interest rate provided by MFA at the time of simulation.

Table 2 – Future New Debt Simulation

Future Borrowing(s) Estimation	Term	Borrowing Year	Retirement Year	Estimated Interest Rate	Principal	Principal Payment	Interest Payment	Total Annual Debt Cost
	25	2025	2050	4.90%	$2,180,000	$63,822	$106,820	$170,642
	25	2026	2051	4.90%	$2,000,000	$58,552	$98,000	$156,552
	25	2027	2052	4.90%	$2,422,000	$70,906	$118,678	$189,584
Total					**$6,602,000**	**$193,280**	**$323,498**	**$516,778**

At the commencement of each loan, 1% of the gross amount borrowed is withheld and retained by MFA as Debt Reserve Fund (DRF). To provide the full amount to fund the capital project, this 1% DRF amount is budgeted in operating budget in the year of borrowing. However, there is no

principal payment required in the year of borrowing. The estimated debt servicing cost of $516,778 equates to approximately $37,713 cost per parcel.

Capital Projects Fund

As specific capital projects are approved, funding revenues are transferred into the Capital Project Fund from multiple funding sources, including the Capital Reserve Fund (CRF), grant funding, external contributions, and debt. Whenever possible, any funds remaining upon completion of a project will be transferred back to the reserve funding source(s) for use on future projects.

User Charge and Parcel Tax

The service is funded by parcel tax, fixed user charge and sale of water consumption. Properties connected to the water system pay the annual fixed user charge and all properties within the local service area are responsible for the parcel tax. The tiered water consumption rates are unchanged from 2022. The water consumption revenue is projected to be the same as 2022.

Table 3 below summarizes the 2023 over 2022 changes for parcel tax and user charge.

Table 3 – Parcel Tax and User Charge Summary

Budget Year	Parcel Tax*	Taxable Folios Numbers	Parcel Tax per Folio*	User Charge	SFE Numbers	User Charge per SFE	Parcel Tax & User Charge
2022	$74,960	137	$575.88	$115,259	128	$900.46	**$1,476.34**
2023	$90,318	137	$693.87	$140,690	128	$1,099.14	**$1,793.01**
Change ($)	$15,358	0	$117.99	$25,431	0	$198.68	**$316.67**
Change (%)	20.49%	0.00%	20.49%	22.06%	0.00%	22.06%	**21.45%**

* Includes the 5.25% admin fee charged by the Ministry of Finance (not CRD revenue)

RECOMMENDATION

That the Beddis Water Service Commission:

1. Approve the 2023 operating and capital budget as presented and that the 2022 actual operating surplus or deficit be balanced on the 2022 Reserve Funds transfer (CRF and/or ORF).

2. Recommend that the Electoral Area Committee recommend that the CRD Board approve the 2023 Operating and Capital Budget and the five-year Financial Plan for the Beddis Water Service as presented.

Submitted by	Karla Campbell, MBA, BPA, Senior Manager, Salt Spring Island Electoral Area
Submitted by	Jason Dales, B.Sc, WD IV, Senior Manager, Infrastructure Operations
Submitted by	Rianna Lachance, B. Comm., CPA, CA, Senior Manager Financial Services
Concurrence	Robert Lapham, MCIP, RPP, Chief Administrative Officer

JD/KC/RL/:sb

Appendix A: 2023 Budget Beddis Water Service Budget

CAPITAL REGIONAL DISTRICT

2023 Budget

Beddis Water

Commission Review

OCTOBER 2022

Service: 2.624 Beddis Water (SSI) **Committee:** Electoral Area

DEFINITION:

To provide and operate water supply and distribution facilities for the Salt Spring Island Beddis Water System Service Area. Bylaw No. 3188 (November 24, 2004).

PARTICIPATION:

Order in Council No 176, February 24, 2005.

MAXIMUM LEVY:

Greater of $133,000 or $2.71 / $1,000 of actual assessed value of land and improvements. To a maximum of $400,800.

MAXIMUM CAPITAL DEBT:

Beddis Waterworks 1994 previous debt paid out 2011		$95,909		
AUTHORIZED:	LA Bylaw No. 3193 (November 24, 2004)		$325,500	
BORROWED:	SI Bylaw No. 3291		($325,500)	1.80%
Remaining:			$0	
AUTHORIZED:	LA Bylaw No. 3825 (July 11, 2012)		$400,000	
BORROWED:	SI Bylaw No. 3882 (Jan 9, 2013) Matured 2023		($300,000)	3.15%
BORROWED:	SI Bylaw No. 3910 (July 2013)		($70,000)	3.85%
Remaining:			$30,000	

COMMISSION:

Beddis Water Service Commission established by Bylaw No. 3693 (April 14th, 2010)

FUNDING:

Any deficiencies after user charge and/or frontage tax or parcel tax to be levied on taxable school assessments, excluding property that is taxable for school purposes by Special Act.

User Charge: Fixed user charge + variable consumption charge to all metered properties.

Parcel Tax: Annual, only on properties capable of being connected to the system, starting 2006.

User Charge:
- Annual Fixed Fee per per single family dwelling unit or equivalent.
- The consumption charge for water will be the total volume of water metered to the water service connections, measured in cubic meters at the following rate:
  - First 38 cubic metres or portion - $3.10 / cubic metre
  - Next 68 cubic metres or portion - $6.30 / cubic metre
  - Greater than 106 cubic metres - $8.50 / cubic metre

Water Connection Charge: The connection charge for a service shall be the actual cost for the connection.

RESERVE FUND:

Fund 1069, established by Bylaw # 3274 (April 27, 2005)

2.624 - Beddis Water	2022 BOARD BUDGET	2022 ESTIMATED ACTUAL	BUDGET REQUEST 2023 CORE BUDGET	BUDGET REQUEST 2023 ONGOING	BUDGET REQUEST 2023 ONE-TIME	BUDGET REQUEST 2023 TOTAL	FUTURE PROJECTIONS 2024	2025	2026	2027
OPERATING COSTS										
Operations Contracts	55,390	51,139	55,390	(32,310)	-	23,080	-	-	-	-
Grit & Waste Sludge Disposal	12,390	12,390	12,760	-	-	12,760	13,010	13,270	13,540	13,810
Repairs & Maintenance	13,760	20,240	5,940	-	14,000	19,940	6,060	6,180	6,300	6,430
Allocations	12,201	12,201	12,520	-	-	12,520	12,776	13,036	13,301	13,570
Water Testing	10,040	8,600	10,241	-	-	10,241	10,445	10,654	10,867	11,085
Electricity	11,650	11,650	12,000	-	-	12,000	12,240	12,480	12,730	12,980
Supplies	10,760	8,680	11,080	-	-	11,080	11,300	11,530	11,760	11,990
Labour Charges	36,736	27,100	36,820	41,120	-	77,940	103,930	106,020	108,140	110,310
Other Operating Expenses	16,930	24,480	15,740	(4,260)	-	11,480	8,650	8,860	9,080	9,300
TOTAL OPERATING COSTS	**179,857**	**176,480**	**172,491**	**4,550**	**14,000**	**191,041**	**178,411**	**182,030**	**185,718**	**189,475**
*Percentage Increase over prior year			-4.1%	2.5%	7.8%	6.2%	-6.6%	2.0%	2.0%	2.0%
DEBT / RESERVES										
Transfer to Operating Reserve Fund	15,000	15,000	7,830	-	-	7,830	15,899	16,000	10,430	5,492
Transfer to Capital Reserve Fund	32,500	35,877	80,000	-	-	80,000	155,000	158,225	60,000	15,000
MFA Debt Reserve Fund	180	180	70	-	-	70	-	21,870	20,070	24,290
MFA Debt Principal	30,817	30,817	30,817	-	-	30,817	-	-	63,822	122,373
MFA Debt Interest	12,145	12,145	7,420	-	-	7,420	-	26,705	131,320	234,490
TOTAL DEBT / RESERVES	**90,642**	**94,019**	**126,137**	**-**	**-**	**126,137**	**170,899**	**222,800**	**285,642**	**401,645**
TOTAL COSTS	**270,499**	**270,499**	**298,628**	**4,550**	**14,000**	**317,178**	**349,310**	**404,830**	**471,360**	**591,120**
FUNDING SOURCES (REVENUE)										
Transfer from Operating Reserve Fund	(8,000)	(8,000)	-	-	(14,000)	(14,000)	-	-	-	-
Sales - Water	(72,000)	(72,000)	(72,000)	-	-	(72,000)	(72,000)	(72,000)	(72,000)	(72,000)
User Charges	(115,259)	(115,259)	(136,140)	(4,550)	-	(140,690)	(168,830)	(202,600)	(243,120)	(316,060)
Other Revenue	(280)	(280)	(170)	-	-	(170)	(100)	(170)	(170)	(170)
TOTAL REVENUE	**(195,539)**	**(195,539)**	**(208,310)**	**(4,550)**	**(14,000)**	**(226,860)**	**(240,930)**	**(274,770)**	**(315,290)**	**(388,230)**
REQUISITION - PARCEL TAX	**(74,960)**	**(74,960)**	**(90,318)**	**-**	**-**	**(90,318)**	**(108,380)**	**(130,060)**	**(156,070)**	**(202,890)**
*Percentage increase over prior year										
Sales			0.0%			0.0%	0.0%	0.0%	0.0%	0.0%
User Fee			18.1%	3.9%		22.1%	20.0%	20.0%	20.0%	30.0%
Requisition			20.5%			20.5%	20.0%	20.0%	20.0%	30.0%
Combined			**13.8%**	**1.7%**		**15.6%**	**15.2%**	**15.9%**	**16.4%**	**25.4%**

Beddis Water Reserves
Summary Schedule
2023 - 2027 Financial Plan

Reserve/Fund Summary

	Estimated	Budget				
	2022	2023	2024	2025	2026	2027
Operating Reserve Fund	16,862	10,692	26,591	42,591	53,021	58,513
Capital Reserve Fund	7,033	15,033	116,033	161,258	130,258	145,258
Total	**23,894**	**25,724**	**142,623**	**203,848**	**183,278**	**203,770**

Reserve Schedule

Reserve Fund: 2.624 Beddis Water - Operating Reserve Fund

Reserve fund used for unforeseen operational repairs and maintenance; infrequent maintenance activities such as reservoir cleaning and inspection, hydrant maintenance. Optimum minimum balance of $14,000 (approximately 10%) of the annual operating budget.

Reserve Cash Flow

Fund: 1500 **Fund Centre:** 105206	**Estimated**	**Budget**				
	2022	**2023**	**2024**	**2025**	**2026**	**2027**
Beginning Balance	9,752	16,862	10,692	26,591	42,591	53,021
Transfer from Ops Budget	15,000	7,830	15,899	16,000	10,430	5,492
Expenditures	(8,000)	(14,000)	-	-	-	-
Planned Maintenance Activity	Hydrant Maintenance	Reservoir cleaning and inspection				
Interest Income*	110					
Ending Balance $	**16,862**	**10,692**	**26,591**	**42,591**	**53,021**	**58,513**

Assumptions/Background:

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

Reserve Schedule

Reserve Fund: 2.624 Beddis Water - Capital Reserve Fund - Bylaw 3274

For capital repairs, additions and improvements to water system infrastructure

Reserve Cash Flow

Fund: 1069 Fund Centre: 101894	Estimated	Budget				
	2022	2023	2024	2025	2026	2027
Beginning Balance	23,782	7,033	15,033	116,033	161,258	130,258
Transfer from Ops Budget	35,877	80,000	155,000	158,225	60,000	15,000
Transfer from Cap Fund	10,099	-	-	-	-	-
Transfer to Cap Fund	(62,725)	(72,000)	(54,000)	(113,000)	(91,000)	-
Interest Income	-					
Ending Balance $	**7,033**	**15,033**	**116,033**	**161,258**	**130,258**	**145,258**

Assumptions/Background:

CAPITAL REGIONAL DISTRICT

FIVE YEAR CAPITAL EXPENDITURE PLAN SUMMARY - 2023 to 2027

Service No. 2.624 Beddis Water (SSI)	Carry Forward from 2022	2023	2024	2025	2026	2027	TOTAL
EXPENDITURE							
Buildings	$0	$0	$0	$0	$0	$0	$0
Equipment	$160,000	$39,000	$231,000	$0	$11,000	$0	$281,000
Land	$0	$0	$0	$0	$0	$0	$0
Engineered Structures	$443,000	$135,000	$33,000	$2,443,000	$2,090,000	$2,422,000	$7,123,000
Vehicles	$0	$0	$0	$0	$0	$0	$0
	$603,000	**$174,000**	**$264,000**	**$2,443,000**	**$2,101,000**	**$2,422,000**	**$7,404,000**
SOURCE OF FUNDS							
Capital Funds on Hand	$0	$0	$0	$0	$0	$0	$0
Debenture Debt (New Debt Only)	$180,000	$0	$0	$2,180,000	$2,000,000	$2,422,000	$6,602,000
Equipment Replacement Fund	$0	$0	$0	$0	$0	$0	$0
Grants (Federal, Provincial)	$310,000	$102,000	$210,000	$150,000	$10,000	$0	$472,000
Donations / Third Party Funding	$0	$0	$0	$0	$0	$0	$0
Reserve Fund	$113,000	$72,000	$54,000	$113,000	$91,000	$0	$330,000
	$603,000	**$174,000**	**$264,000**	**$2,443,000**	**$2,101,000**	**$2,422,000**	**$7,404,000**

CAPITAL REGIONAL DISTRICT
5 YEAR CAPITAL PLAN
2023 - 2027

Project Number
Project number format is "yy-##"
"yy" is the last two digits of the year the project is planned to start.
"##" is a numberical value. For example, 23-01 is a project planned to start in 2023.

For projects in previous capital plans, use the same project numbers previously assigned.

Capital Expenditure 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

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
Provide the total project budget, even if it extends beyond the 5 years of this capital plan.

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

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
Res = Reserve Fund
STLoan = Short Term Loans
WU - Water Utility
If there is more than one funding source, use additional rows for the project.

Carryforward from 2022
Input the carryforward amount from the 2022 capital plan that is remaining to be spent Forecast this spending in 2023 to 2027.

Project Drivers
Maintain Level of Service = Project maintains existing or improved level of service.
Advance Board or Corporate Priority = Project is a Board or Corporate priority.
Emergency = Project is required for health or safety reasons.
Cost Benefit = Economic benefit to the organization.
Other = Project is not driven by one of the other options provided.

Long-term Planning
Master Plan / Servicing Plan = Plan that identifies new assets required to meet future needs.
Asset Management Plan / Sustainable Service Delivery Plan = Integrated plan that identifies asset replacements based on level of service, criticality, condition, risk, replacement costs as well as external impacts.
Replacement Plan = Plan that identifies asset replacements based primarily on asset age or asset material/type.
Condition Assessment = Assessment that identifies asset replacements based on asset condition.

Cost Estimate Class
Class A (±10-15%) = Estimate based on final drawings and specifications; used to evaluate tenders.
Class B (±15-25%) = Estimate based on investigations, studies or prelimminary design; used for budget planning.
Class C (±25-40%) = Estimate based on limited site information; used for program planning.
Class D (±50%) = Estimate based on little/no site information; used for long-term planning.

Service #: 2.624
Service Name: Beddis Water (SSI)

Project List and Budget

Project Number	Capital Expenditure Type	Capital Project Title	Capital Project Description	Total Project Budget	Asset Class	Funding Source	Carryforward from 2022	2023	2024	2025	2026	2027	5 - Year Total
20-02	Study	Referendum or Alternative Approval Process - Funding for Future Projects	Seek service area electors approval to fund projects	$20,000	S	Res	$20,000	$20,000	$0	$0	$0	$0	$20,000
21-03	Study	Public Engagement for Future Projects	Undertake a referendum or AAP to borrow funds	$10,000	S	Res	$10,000	$10,000	$0	$0	$0	$0	$10,000
21-01	New	Power generation equipment	Back up power design and construction.	$176,000	E	Grant	$160,000	$0	$160,000	$0	$0	$0	$160,000
21-01	New				E	Res	$0	$0	$16,000	$0	$0	$0	$16,000
21-04	New	Preliminary design of booster pump and second reservoir at Sky Valley lower reservoir and decommission of upper reservoir.	Preliminary and detailed design of booster pump and second reservoir at Sky Valley lower reservoir	$99,000	S	Res	$33,000	$33,000	$33,000	$33,000	$0	$0	$99,000
23-01	Decommission	AC Pipe Removal	Remove approximately 50m of abandoned AC water pipe	$17,000	S	Grant	$0	$17,000	$0	$0	$0	$0	$17,000
23-02	New	Design and install support for lifting apparatus WTP	Support for a lifting apparatus is required at ceiling level to lift the 80lb lid for the Saturator and for a confined space entry apparatus over the DAF system.	$50,000	S	Grant	$0	$50,000	$0	$0	$0	$0	$50,000
23-02	New		Support for a lifting apparatus is required at ceiling level to lift the 80lb lid for the Saturator and for a confined space entry apparatus over the DAF system. CRD PM	$5,000	S	Res	$0	$5,000	$0	$0	$0	$0	$5,000
23-03	New	Electrical Upgrades	Replacement of Variable Frequency Drives.	$35,000	E	Grant	$0	$35,000	$0	$0	$0	$0	$35,000
23-03	New		Replacement of Variable Frequency Drives. CRD PM	$4,000	E	Res	$0	$4,000	$0	$0	$0	$0	$4,000
24-01	New	Changes to DAF control panel	Motor overload resets to be external to the controller. Provide support for ultra-sonic probe.	$50,000	E	Grant	$0	$0	$50,000	$0	$0	$0	$50,000
24-01	New		Motor overload resets to be external to the controller. Provide support for ultra-sonic probe. CRD PM	$5,000	E	Res	$0	$0	$5,000	$0	$0	$0	$5,000
24-02	Study	AC Water main Assessment and Replacement Strategy	Develop a strategy and phased program for AC pipeline replacement and first stage design	$120,000	S	Res	$0	$0	$0	$80,000	$40,000	$0	$120,000
25-01	Decommission	Decommission of Sky Valley Upper Reservoir	Decommission and removal of Sky Valley Upper Reservoir	$50,000	S	Res	$50,000	$0	$0	$0	$50,000	$0	$50,000
25-02	New	Construction of booster pump and second reservoir at Sky Valley lower reservoir	Construction of booster pump and second reservoir at Sky Valley lower reservoir	$180,000	S	Debt	$180,000	$0	$0	$180,000	$0	$0	$180,000
25-02	New			$150,000	S	Grant	$150,000	$0	$0	$150,000	$0	$0	$150,000
25-03	Replacement	AC Water mains Replacement	Replace AC water mains Design for following stage (6500m at 338m/yr.)	$6,422,000	S	Debt	$0	$0	$0	$2,000,000	$2,000,000	$2,422,000	$6,422,000
26-01	New	Install Inline Strainers	Install inline strainer Stewart Rd PRS and Creekside Road PRS.	$10,000	E	Grant	$0	$0	$0	$0	$10,000	$0	$10,000
26-01	New			$1,000	E	Res	$0	$0	$0	$0	$1,000	$0	$1,000
			GRAND TOTAL	**$7,404,000**			**$603,000**	**$174,000**	**$264,000**	**$2,443,000**	**$2,101,000**	**$2,422,000**	**$7,404,000**

Service:	2.624	Beddis Water (SSI)

Project Number	20-02	**Capital Project Title**	Referendum or Alternative Approval Process - Funding for Future Projects	**Capital Project Description**	Seek service area electors approval to fund projects
Project Rationale	Need to obtain approval from the area electors for future projects.				

Project Number	21-03	**Capital Project Title**	Public Engagement for Future Projects	**Capital Project Description**	Undertake a referendum or AAP to borrow funds
Project Rationale	As per Commission request (Dec. 15/2015), capital construction projects greater than $50,000 are to be funded thru debt, in which case a referendum may be required.				

Project Number	21-01	**Capital Project Title**	Power generation equipment	**Capital Project Description**	Back up power design and construction.
Project Rationale	In order to maintain potable water service in the event of an extended power outage, back up power is required.				

Project Number	21-04	**Capital Project Title**	Preliminary design of booster pump and second reservoir at Sky Valley lower reservoir and decommission of upper reservoir.	**Capital Project Description**	Preliminary and detailed design of booster pump and second reservoir at Sky Valley lower reservoir
Project Rationale	Need to replace an existing reservoir with a new one and this will require a booster pump to operate it. This project os for the preliminary design.				

Project Number	23-01	**Capital Project Title**	AC Pipe Removal	**Capital Project Description**	Remove approximately 50m of abandoned AC water pipe
Project Rationale	This is for a short section of surficial abandoned asbestos pipe which needs to be removed and disposed of before it deteriorates further and enters the environment.				

Project Number	23-02	**Capital Project Title**	Design and install support for lifting apparatus WTP	**Capital Project Description**	Support for a lifting apparatus is required at ceiling level to lift the 80lb lid for the Saturator and for a confined space entry apparatus over the DAF system.
Project Rationale	Operations has identified an H & S issue for the maintenance of this equipment and require lifting apparatus at height in order to make the maintenance tasks for the DAF unit safe.				

Project Number	23-03	**Capital Project Title**	Electrical Upgrades	**Capital Project Description**	Replacement of Variable Frequency Drives.
Project Rationale	Existing VFDs are approaching the end of their planned service life and need to be replaced.				

Project Number	24-01	**Capital Project Title**	Changes to DAF control panel	**Capital Project Description**	Motor overload resets to be external to the controller. Provide support for ultra-sonic probe.
Project Rationale	Various changes, modifications and upgrades required for the control panel for the DAF unit.				

Project Number	24-02	**Capital Project Title**	AC Water main Assessment and Replacement Strategy	**Capital Project Description**	Develop a strategy and phased program for AC pipeline replacement and first stage design
Project Rationale	Similar to all water distribution systems on SSI, the Beddis system was constructed using asbestos cement pipe which is at the end of its useful life span and requires replacement. Failures cause water leaks and this will occur on a more frequent basis in the future. This project is for the investigation, design and an replacement strategy.				

Project Number	25-01	**Capital Project Title**	Decommission of Sky Valley Upper Reservoir	**Capital Project Description**	Decommission and removal of Sky Valley Upper Reservoir
Project Rationale	The Sky Valley Upper Reservoir is no longer in use and needs to be decommissioned and disposed of. It will be replaced by a second reservoir at the Lower location.				

Project Number	25-02	**Capital Project Title**	Construction of booster pump and second reservoir at Sky Valley lower reservoir	**Capital Project Description**	Construction of booster pump and second reservoir at Sky Valley lower reservoir
Project Rationale	When the Sky Valley Upper Reservoir is decommissioned it will be replaced by a booster pump and second reservoir at the lower Sky Valley location.				

Project Number	25-03	**Capital Project Title**	AC Water mains Replacement	**Capital Project Description**	Replace AC water mains Design for following stage (6500m at 338m/yr.)
Project Rationale	Similar to all water distribution systems on SSI, the Beddis system was constructed using asbestos cement pipe which is at the end of its useful life span and requires replacement. Failures cause water leaks and this will occur on a more frequent basis in the future. This project is for the construction phase of the project.				

Project Number	26-01	**Capital Project Title**	Install Inline Strainers	**Capital Project Description**	Install inline strainer Stewart Rd PRS and Creekside Road PRS.
Project Rationale	Operations has identified that in-line strainers are required at the Stewart Road and Creekside Road locations in order to ensure consistent service and water quality.				

2.624 - Beddis Water

Capital Projects

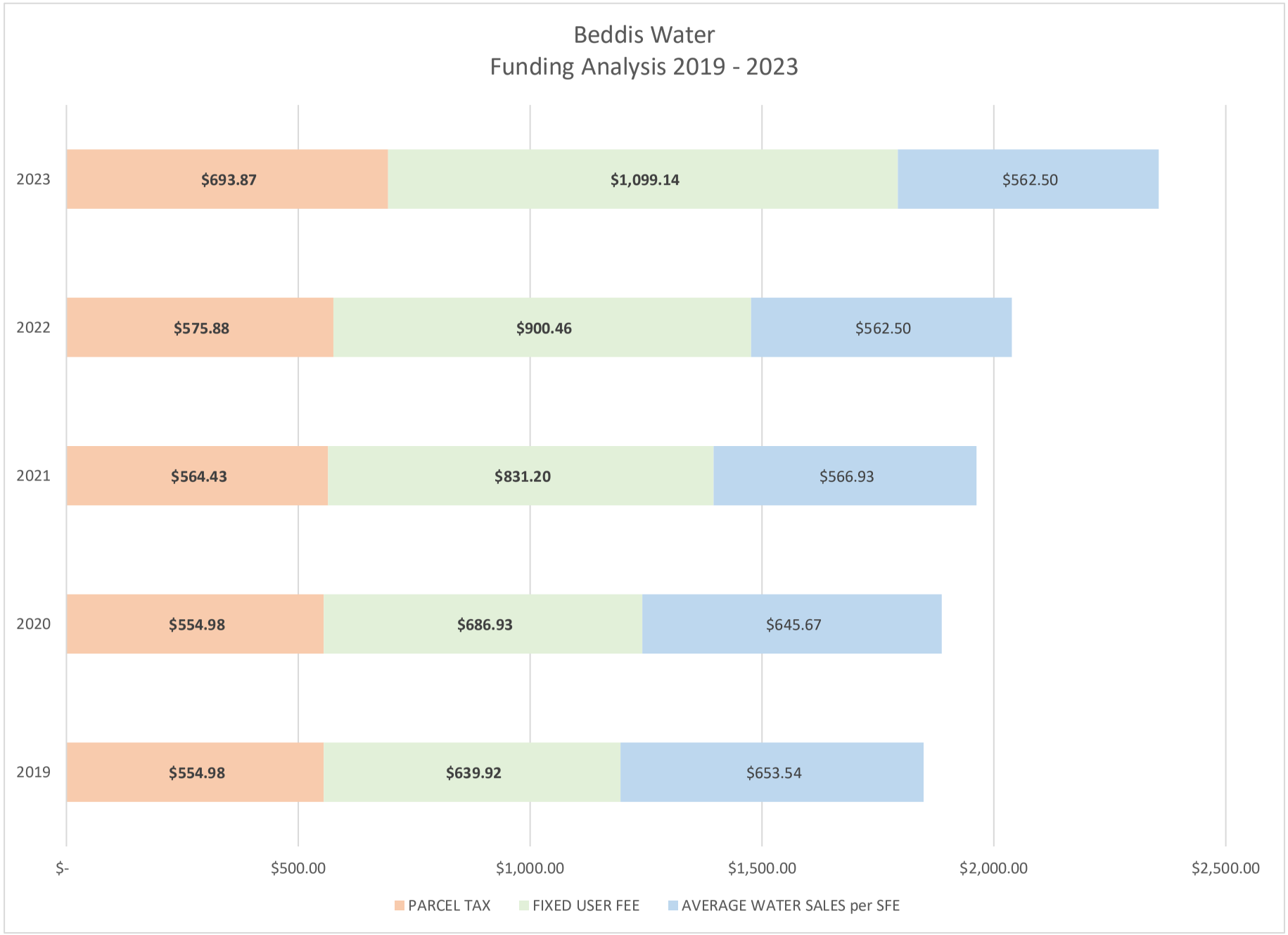
Updated @ Aug 29, 2022

Year	Project#	Status	Capital Project Description	Total Project Budget	Spending		Total Funding in Place	Return Project Surplus After Completion
					Expenditure Actuals	Remaining Spending		CRF
2017	CE.581	Closed	Decommission Lautman Reservoir	30,000	19,901	10,099	30,000	10,099
2019	CE.676.7501	Open	Beddis Water Intake and Screen	172,725	23,961	148,764	172,725	-
2019	CE.699.4503	Open	Safe Work Procedures	12,000	3,130	8,870	12,000	-
2020	CE.735.4502	Open	Power generation equipment-Study	10,000	49	9,952	10,000	-
			Totals	**224,725**	**47,041**	**177,685**	**224,725**	**10,099**

Service:	2.624 Beddis Water	Committee: Electoral Area

Year	Taxable Folios	Parcel Tax per Folio	SFE's	User Charge* per SFE	Total Tax & Charges	Avg. Water Sales per SFE	Bylaw	Actual Assessments $(000's)
2010	138	$449.63	127	$313.00	**$762.63**	$534.88	3688	81,730.44
2011	138	$449.63	127	$313.00	**$762.63**	$534.88	3777	80,256.84
2012	138	$449.63	126	$324.56	**$774.19**	$534.88	3822	79,241.53
2013	137	$500.00	126	$324.56	**$824.56**	$539.13	3822	77,081.58
2014	137	$550.00	126	$324.56	**$874.56**	$531.59	3925	74,106.66
2015	137	$550.00	127	$453.00	**$1,003.00**	$664.41	3993	72,592.90
2016	137	$549.99	127	$561.10	**$1,111.09**	$661.42	4073	72,668.60
2017	137	$549.99	127	$561.10	**$1,111.09**	$661.42	4171	80,096.00
2018	137	$554.98	127	$595.04	**$1,150.02**	$654.76	4236	90,992.78
2019	137	$554.98	127	$639.92	**$1,194.90**	$653.54	4311	99,150.28
2020	137	$554.98	127	$686.93	**$1,241.91**	$645.67	4339	105,556.25
2021	137	$564.43	127	$831.20	**$1,395.63**	$566.93	4395	116,434.53
2022	137	$575.88	128	$900.46	**$1,476.34**	$562.50	4470	147,896.70
2023	137	$693.87	128	$1,099.14	**$1,793.01**	$562.50		
Change from 2022 to 2023								
		$117.99		*$198.68*	*$316.67*			
		20.49%		*22.06%*	*21.45%*			

** A variable consumption charge is paid in addition to the fixed user charge and parcel tax.*


Beddis Water
Funding Analysis 2019 - 2023
2023
$693.87
$1,099.14
$562.50
2022
$575.88
$900.46
$562.50
2021
$564.43
$831.20
$566.93
2020
$554.98
$686.93
$645.67
2019
$554.98
$639.92
$653.54
$-
$500.00
$1,000.00
$1,500.00
$2,000.00
$2,500.00
PARCEL TAX
FIXED USER FEE
AVERAGE WATER SALES per SFE

BEDDIS WATER SYSTEM
SALT SPRING ISLAND

INITIAL EMERGENCY RESPONSE PLAN

Prepared: July 2006
Revised: November 2016, February 2022
Document ID:

The information and instructions contained within the Emergency Response Plan for the Beddis Water System on Salt Spring Island are valid and current at the date of signing. The Initial Emergency Response Plan will be re-certified annually for validity and currency.

Manager, Infrastructure Operations, Saanich Peninsula & Southern Gulf Islands

_____ Date _____

_____ Date _____

_____ Date _____

Senior Manager, Infrastructure Operations

_____ Date _____

_____ Date _____

_____ Date _____

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PURPOSE

Section 10 of the *Drinking Water Protection Act* requires that all prescribed water supply systems to have an **emergency response and contingency plan (ERCP)**. It should be available in case an emergency threatens the safety of the system's drinking water and puts consumers at risk of waterborne diseases and other drinking-water-related hazards.

This ERP lists actions to be implemented immediately on a local level, by the system operator or designate, to respond effectively to specific emergency situations. Longer term solutions or activities to correct situations will be developed by supervisory staff as needed, after these initial activities, dependent on the specifics of the emergency situation.

STAFF DUTIES AND RESPONSIBILITIES

IWS Infrastructure Operations
Saanich Peninsula and Southern Gulf Islands (SGI) Water / Wastewater Operations

1. System Operator / Standby Duty Personnel
   The operator or staff member who is first made aware of an emergency or potential emergency situation affecting this water system must
   a. Initiate actions as per this emergency plan or shall contact local staff to initiate the actions
   b. Contact supervisory staff in ascending order until successful and relieved of this responsibility
   c. Act as expeditiously as safely possible
   d. Carry out operations as instructed and provide information as requested by supervisory and senior staff
   e. Inform standby duty personnel of situation.

2. Supervisor
   Once informed of the emergency or potential emergency, the Supervisor must work with and
   a. Provide direction and support to resolve the emergency
   b. Ascertain the best solution and action plan for longer term emergencies
   c. Provide information to Saanich Peninsula & SGI Manager and others, as necessary.

3. Operations Manager
   Once informed of the emergency or potential emergency, the Operations Manager must work with and
   a. Provide direction and support as needed to the supervisor and operators
   b. Provide information to Infrastructure Operations Senior Manager as needed
   c. Provide information to Communications staff as needed for media inquiries and releases
   d. Provide information to, and liaise with, other government agencies, as required.

4. Senior Manager, IWS, Infrastructure Operations

Once informed of the emergency or potential emergency, the Senior Manager, must work with and

a. Provide direction and support as needed to the Operations Manager and Water/Wastewater Supervisor
b. Provide information to Integrated Water Services General Manager, as needed
c. Provide information to communications staff as needed for media inquiries and releases
d. Provide information to, and liaise with, other government agencies, as required.

5. Safety

a. Operators and staff responding to the requirements of the Emergency Response Plan must ensure the safety of themselves and others by following pre-established safety work procedures and routines, including but not limited to
b. Working alone
c. Confined space entry
d. Potentially hazardous work locations or activities
e. Personal protective equipment
f. Lockout
g. Traffic control
h. Excavations

SYSTEM DESCRIPTION

The Beddis Water System serves a community of approximately 126 building lots on east Salt Spring Island. The system abstracts water from Cusheon Lake, a surface water impoundment lake with an uncontrolled watershed.

Cusheon Lake is used for recreational purposes. Only electric boat motors are allowed for power boats. The lakeshore has been somewhat developed with residences, none of which are serviced by the water system. Cusheon Lake is subject to seasonal water quality changes and is affected by periodic algae blooms.

Treatment is done at the Beddis Water Treatment Plant located on the lake foreshore off Cusheon Lake Road. The treatment process is a completely automatic gravity flow operation. It consists of one DAF (Dissolved Air Flotation) process train with two filtration compartments. The train is rated to treat 4.5 L/sec and the system comprises of the following components:

- Rapid mixing
- Chemical flocculation
- Dissolved air flotation (clarification)
- Dual media gravity sand filters
- UV disinfection
- Chlorination

Treated water is pumped from the pump station to a storage reservoir located on Lautman Road. Water is pumped from the Lautman Road reservoir to another storage reservoir at a higher elevation located on Sky Valley Road. Both reservoirs provide storage to service different areas of the system, dependent on elevation. The Lautman Road reservoir has a much larger service area than the Sky Valley reservoir. Both reservoirs are above ground steel tanks.

Distribution to customers is done from both reservoirs by a network of 100 mm and 150 mm water mains. Service connections are 20 mm copper or polyethylene terminated at the property line with curb stops and individual household meters. Service from the property line to the dwelling is the homeowners' responsibility. The distribution system contains standpipes and fire hydrants. Two pressure reducing station provides service to the eastern extremity of the system.

LIST OF POTENTIAL EMERGENCY SITUATIONS AND RESPONSES

Contamination of source (leakage of gas, sewage or other hazardous material into aquifer from spills, vehicle accident, landslide)
Loss of source (well failure or collapse, pump failure)
Backflow conditions (introduction of contaminant into distribution system)
Flooding (danger to well, higher turbidity, higher bacteria)
Broken water main
Power failure longer than 4 hours including generator failure
Chemical spills
Fire (contaminated source water)
Earthquakes
Spills of disinfected water into fish-bearing streams
Disinfection / chlorinator failure

Contamination of source (leakage of gas, sewage or other hazardous material into aquifer from spills, vehicle accident, landslide)

ACTIONS		
1	Shut off water supply prior to treatment works	
2	Notify CRD Infrastructure Operations, Saanich Peninsula & Salt Spring Island Supervisor	[redacted]
3	Alternate CRD Infrastructure Operations, Saanich Peninsula & Salt Spring Island Team Lead	[redacted]
4	Notify North Salt Spring Waterworks District Emergency toll free Pager	[redacted]
5	Isolate contaminated water, if possible	
6	Notify CRD Manager, Infrastructure Operations, Saanich Peninsula & Southern Gulf Islands	[redacted]
7	Notify CRD standby duty personnel	[redacted]
8	Remove / contain contaminant from system, if possible	

ACTIONS Coordinated by CRD Operations Manager		
A	Notify CRD Water Quality Manager for water sampling as directed	[redacted]
B	Arrange bulk water hauler: CRD Waterworks Alternate water supplier: Salt Spring Water Co.	[redacted]
C	Notify CRD SSI Senior Manager	[redacted]
D	Notify CRD Marine Programs Supervisor	[redacted]
E	Notify affected system users / advise store water	

Loss of source (well failure or collapse, pump failure)

ACTIONS		
1	Notify CRD Infrastructure Operations, Saanich Peninsula & Salt Spring Island Supervisor	[redacted]
2	Alternate CRD Infrastructure Operations, Saanich Peninsula & Salt Spring Island Team Lead	[redacted]
3	Notify North Salt Spring Waterworks District Emergency toll free Pager	[redacted]
4	Notify CRD Manager, Infrastructure Operations, Saanich Peninsula & Southern Gulf Islands	[redacted]
5	Notify CRD standby duty personnel	[redacted]

ACTIONS Coordinated by CRD Operations Manager		
A	Notify CRD Water Quality Manager for water sampling as directed	[redacted]
B	Arrange bulk water hauler: CRD Waterworks Alternate water supplier: Salt Spring Water Co.	[redacted]
C	Notify CRD SSI Senior Manager	[redacted]
D	Notify affected system users / advise store water	

Backflow conditions (introduction of contaminant into distribution system)

ACTIONS		
1	Shut off water supply to distribution	
2	Notify CRD Infrastructure Operations, Saanich Peninsula & Salt Spring Island Supervisor	[redacted]
3	Alternate CRD Infrastructure Operations, Saanich Peninsula & Salt Spring Island Team Lead	[redacted]
4	Notify North Salt Spring Waterworks District Emergency toll free Pager	[redacted]
5	Notify CRD Manager, Infrastructure Operations, Saanich Peninsula & Southern Gulf Islands	[redacted]
6	Remove backflow causing condition	
7	Isolate contaminated water, if possible	
8	Purge / disinfect mains as directed	
9	Notify CRD standby duty personnel	[redacted]

ACTIONS Coordinated by CRD Operations Manager		
A	Notify CRD Water Quality Manager for water sampling as directed	[redacted]
B	Arrange bulk water hauler: CRD Waterworks Alternate water supplier: Salt Spring Water Co.	[redacted]
C	Notify CRD SSI Senior Manager	[redacted]
D	Notify CRD Marine Programs Supervisor	[redacted]
E	Notify affected system users / advise store water	

Flooding (danger to well, higher turbidity, higher bacteria)

ACTIONS		
1	Notify CRD Infrastructure Operations, Saanich Peninsula & Salt Spring Island Supervisor	[redacted]
2	Alternate CRD Infrastructure Operations, Saanich Peninsula & Salt Spring Island Team Lead	[redacted]
3	Notify North Salt Spring Waterworks District Emergency toll free Pager	[redacted]
4	Notify CRD Manager, Infrastructure Operations, Saanich Peninsula & Southern Gulf Islands	[redacted]
5	Notify CRD standby duty personnel	[redacted]

ACTIONS Coordinated by CRD Operations Manager		
A	Notify CRD Water Quality Manager for water sampling as directed	[redacted]
B	Dechlorinate spilled water	
C	Complete CRD Spill Report to notify Emergency Management BC	[redacted]
D	Arrange bulk water hauler: CRD Waterworks Alternate water supplier: Salt Spring Water Co.	[redacted]
E	Notify CRD SSI Senior Manager	[redacted]
F	Notify affected system users / advise store water	
G	Notify excavation services if necessary: Ken Byron	[redacted]
H	Notify road services if necessary: Emcon Services Inc	[redacted]
I	Notify equipment rentals if necessary: Rental Stop Ltd	[redacted]

Broken water main

ACTIONS		
1	Notify CRD Infrastructure Operations, Saanich Peninsula & Salt Spring Island Supervisor	[redacted]
2	Alternate CRD Infrastructure Operations, Saanich Peninsula & Salt Spring Island Team Lead	[redacted]
3	Notify North Salt Spring Waterworks District Emergency toll free Pager	[redacted]
4	Reduce pressure / flow to minimize flow but keep water main under enough pressure to prevent backflow	
5	Dechlorinate spilled water	
6	Complete CRD Spill Report to notify Emergency Management BC	[redacted]
7	Notify CRD Manager, Infrastructure Operations, Saanich Peninsula & Southern Gulf Islands	[redacted]
8	Notify CRD standby duty personnel	[redacted]

ACTIONS Coordinated by CRD Operations Manager		
A	Notify CRD Water Quality Manager for water sampling as directed	[redacted]
B	Arrange bulk water hauler: CRD Waterworks Alternate water supplier: Salt Spring Water Co.	[redacted]
C	Notify CRD SSI Senior Manager	[redacted]
D	Notify CRD Marine Programs Supervisor	[redacted]
E	Notify affected system users / advise store water	
F	Notify excavation services if necessary: Ken Byron	[redacted]
G	Notify road services if necessary: Emcon Services Inc	[redacted]
H	Notify equipment rentals if necessary: Rental Stop Ltd	[redacted]

Power failure longer than 4 hours including generator failure

ACTIONS		
1	Report to BC Hydro: 24 hour Trouble Centre 24 hour Real Time Operations	[redacted]
2	Notify CRD Infrastructure Operations, Saanich Peninsula & Salt Spring Island Supervisor	[redacted]
3	Alternate CRD Infrastructure Operations, Saanich Peninsula & Salt Spring Island Team Lead	[redacted]
4	Notify North Salt Spring Waterworks District Emergency toll free Pager	[redacted]
5	Arrange electrician to connect extra generating equipment: CRD Technical Support	[redacted]
6	Notify CRD standby duty personnel	[redacted]
7	Notify CRD Manager, Infrastructure Operations, Saanich Peninsula & Southern Gulf Islands	[redacted]

ACTIONS Coordinated by CRD Operations Manager		
A	Notify CRD SSI Senior Manager	[redacted]
B	Notify affected system users / advise store water	

Chemical spills

ACTIONS		
1	Stop source of spill	
2	Contain spill	
3	Notify CRD Infrastructure Operations, Saanich Peninsula & Salt Spring Island Supervisor	[redacted]
4	Alternate CRD Infrastructure Operations, Saanich Peninsula & Salt Spring Island Team Lead	[redacted]
5	Notify North Salt Spring Waterworks District Emergency toll free Pager	[redacted]
6	Clean spill as per Safety Data Sheet (SDS)	
7	Notify CRD Manager, Infrastructure Operations, Saanich Peninsula & Southern Gulf Islands	[redacted]
8	Notify CRD standby duty personnel	[redacted]

NOTE: Re-dechlorination using sodium thiosulphate:

- Never dechlorinate hypochlorite solutions directly.
- Flush with water to prevent the rapid release of chlorine gas.

ACTIONS Coordinated by CRD Operations Manager		
A	Notify Hazmat contractor: Hazco Environmental Services	[redacted]
B	Complete CRD Spill Report to notify Emergency Management BC	[redacted]
C	Notify CRD SSI Senior Manager	[redacted]
D	Notify CRD Marine Programs Supervisor	[redacted]
E	Notify affected system users / advise store water	

Fire (contaminated source water from forest fire or other fires affecting watershed)

ACTIONS		
1	Call 911 to report fire	[redacted]
2	Notify CRD Infrastructure Operations, Saanich Peninsula & Salt Spring Island Supervisor	[redacted]
3	Alternate CRD Infrastructure Operations, Saanich Peninsula & Salt Spring Island Team Lead	[redacted]
4	Notify North Salt Spring Waterworks District Emergency toll free Pager	[redacted]
5	Notify CRD Manager, Infrastructure Operations, Saanich Peninsula & Southern Gulf Islands	[redacted]

ACTIONS Coordinated by CRD Operations Manager		
A	Notify CRD Water Quality Manager for water sampling as directed	[redacted]
B	Arrange bulk water hauler: CRD Waterworks Alternate water supplier: Salt Spring Water Co.	[redacted]
C	Notify CRD SSI Senior Manager	[redacted]
D	Notify CRD Marine Programs Supervisor	[redacted]
E	Notify affected system users / advise store water	

Earthquakes

ACTIONS		
1	Notify CRD Infrastructure Operations, Saanich Peninsula & Salt Spring Island Supervisor	[redacted]
2	Alternate CRD Infrastructure Operations, Saanich Peninsula & Salt Spring Island Team Lead	[redacted]
3	Notify North Salt Spring Waterworks District Emergency toll free Pager	[redacted]
4	Rapid review of facilities	
5	Rapid assessment of visible damage to buildings	
6	Notify CRD Manager, Infrastructure Operations, Saanich Peninsula & Southern Gulf Islands	[redacted]
7	Notify CRD standby duty personnel	[redacted]

ACTIONS Coordinated by CRD Operations Manager		
A	Notify engineer to conduct rapid assessment of buildings and post buildings as “inspected”, “restricted use” or “unsafe”	
B	Notify CRD Water Quality Manager for water sampling as directed	[redacted]
C	Arrange bulk water hauler: CRD Waterworks Alternate water supplier: Salt Spring Water Co.	[redacted]
D	Notify CRD SSI Senior Manager	[redacted]
E	Notify CRD Marine Programs Supervisor	[redacted]
F	Notify affected system users / advise store water	
G	CRD Dam Inspection Checklist	
H	CRD Screening Works Inspections Checklist	
I	CRD Pipeline Inspections	
J	CRD Reservoir Inspections	
K	CRD Pump Station Inspections	

Spills of disinfected water into fish-bearing streams

ACTIONS		
1	Stop source of spill	
2	Contain spill	
3	Notify CRD Infrastructure Operations, Saanich Peninsula & Salt Spring Island Supervisor	[redacted]
4	Alternate CRD Infrastructure Operations, Saanich Peninsula & Salt Spring Island Team Lead	[redacted]
5	Notify North Salt Spring Waterworks District Emergency toll free Pager	[redacted]
6	Clean spill as per Safety Data Sheet (SDS)	
7	Notify CRD Manager, Infrastructure Operations, Saanich Peninsula & Southern Gulf Islands	[redacted]
8	Notify CRD standby duty personnel	[redacted]

ACTIONS Coordinated by CRD Operations Manager		
A	Notify Hazmat contractor: Hazco Environmental Services	[redacted]
B	Complete CRD Spill Report to notify Emergency Management BC	[redacted]
C	Notify CRD SSI Senior Manager	[redacted]
D	Notify CRD Marine Programs Supervisor	[redacted]
E	Notify affected system users / advise store water	

Disinfection / chlorinator failure

ACTIONS		
1	Notify CRD Infrastructure Operations, Saanich Peninsula & Salt Spring Island Supervisor	[redacted]
2	Alternate CRD Infrastructure Operations, Saanich Peninsula & Salt Spring Island Team Lead	[redacted]
3	Notify North Salt Spring Waterworks District Emergency toll free Pager	[redacted]
4	Notify CRD Manager, Infrastructure Operations, Saanich Peninsula & Southern Gulf Islands	[redacted]
5	Notify CRD standby duty personnel	[redacted]
6	Restore disinfection	
7	Remove non-disinfected water from the system	
8	Restore an effective chlorine residual to all extremities of the system	

ACTIONS Coordinated by CRD Operations Manager		
A	Notify CRD Water Quality Manager for water sampling as directed	[redacted]
B	Notify CRD SSI Senior Manager	[redacted]
C	Notify affected system users / advise store water	

External Contact List

Governments, Schools, Contractors, Emergency Services Coordinator

BC Aquifer	[redacted]
BC Hydro BC Hydro Emergency	[redacted]
BC Ministry of Community	[redacted]
BC Ministry of Transportation SSI hazard: EMCON Services Ltd	[redacted]
BC One Call	[redacted]
Bottled Water Supplier: Salt Spring Water Co.	[redacted]
Bulk Water Hauler: CRD Waterworks Bulk Water	[redacted]
Diving: Advanced Subsea Services	[redacted]
Drilling: Drillwell	[redacted]
Electoral Area Director (SSI):	[redacted]
Emergency Coordinator (SSI):	[redacted]
Emergency Management BC Emergency Management after hours	[redacted]
Equipment Rental: Richlock Rentals Rental Shop Ltd.	[redacted]
Excavation: Ken Byron Excavating	[redacted]
Federal Fisheries Federal Fisheries after hours	[redacted]
Fire Department Chief: Tom Bremner	[redacted]
Float Plane: Pat Bay Air Harbour Air Salt Spring Air	[redacted]
Gas: Fortis BC	[redacted]
Hazmat/Spill Cleanup: Hazco Environmental	[redacted]
Helicopter: Vancouver Island Helicopters	[redacted]
Island Health Island Heath after hours	[redacted]
Local Services Commission Chair: Ron Bain	[redacted]
Local Services Toll Free Emergency (CRD) Water / Sewer Emergencies	[redacted]
Newspaper: Gulf Islands Driftwood	[redacted]
Plumbing: Polaris Plumbing & Pipefitting	[redacted]
Police – RCMP Emergency	[redacted]

Police – RCMP Non Emergency	[redacted]
Radio Stations: CBC CFAX Newsroom	[redacted]
School District No. 64	[redacted]
SSI Emergency Operations Centre	[redacted]
Tigertel	[redacted]
TV Stations: CBC CHEK Gulf Islands Cablevision	[redacted]
Water Taxi: Gulf Islands Island Camping	[redacted]

Staff Contact List

Integrated Water Services supervisory staff in ascending order

Saanich Peninsula & Southern Gulf Islands Standby Duty Operator

- Rotation

Local Utility Operator, Salt Spring Island

- North Salt Spring Waterworks District

Team Lead, Saanich Peninsula Wastewater & Salt Spring Island

Supervisor, Saanich Peninsula Wastewater & Salt Spring Island

Manager, Saanich Peninsula & Southern Gulf Islands Operations

Senior Manager, Infrastructure Operations

General Manager, Integrated Water Services

Integrated Water Services (IWS) emergency contact list

Name	Home Phone	Cell Phone	Office Phone
Saanich Peninsula & Southern Gulf Islands Operations			
Saanich Peninsula Standby Cell Phone		[redacted]	
Dan Robson, Manager	[redacted]	[redacted]	[redacted]
Saanich Peninsula Wastewater Plant			
Adam Hliva, Supervisor	[redacted]	[redacted]	[redacted]
Curtis Menzies	[redacted]	[redacted]	[redacted]
James Kroening, Team Lead	[redacted]	[redacted]	[redacted]
Jarrod Hogarth	[redacted]	[redacted]	[redacted]
Molly Gillett	[redacted]	[redacted]	[redacted]
Salt Spring Island Operations			
Chloe Beech	[redacted]	[redacted]	[redacted]
Luke Sturdy, Lead	[redacted]	[redacted]	[redacted]
Jeff Barclay	[redacted]	[redacted]	[redacted]
Rick Burr	[redacted]	[redacted]	[redacted]

Name	Home Phone	Cell Phone	Office Phone
Integrated Water Services, 479 Island Highway			
Jan Van Niekerk, Senior Manager	[redacted]	[redacted]	[redacted]
Tracy Urquhart, IWS Comm. Coordinator		[redacted]	[redacted]
Janice Williams, Safety Manager		[redacted]	[redacted]
Environmental Protection Division			
Glenn Harris, Senior Manager	[redacted]	[redacted]	[redacted]
Christoph Moch, WQ Operations Manager	[redacted]	[redacted]	[redacted]
Infrastructure Engineering			
Scott Mason, Water Eng. & Planning	[redacted]	[redacted]	[redacted]
Senior Managers			
Ted Robbins, General Manager	[redacted]	[redacted]	[redacted]
Matt McCrank, Senior Manager, Infrastructure Operations	[redacted]	[redacted]	[redacted]
Ian Jesney, Senior Manager, Infrastructure Engineering		[redacted]	[redacted]

Name	Home Phone	Cell Phone	Office Phone
North Salt Spring Waterworks District, 761 Upper Ganges Road, SSI			
Manager		[redacted]	[redacted]
Operator		[redacted]	[redacted]

User List and Phone Numbers

1. User List – High Risk

   NOTE: Not applicable for this area.

2. User List – General

   NOTE: Users to be contacted through Risk and Insurance Manager 250.360.3015

3. Repair Materials / Tools Inventory

Location	Repair Materials / Tools
Well site and pump house	First aid kit / eyewash
	Sodium hypochlorite storage
	Sodium thiosulphate for dechlorination
	Water main repair materials
	Water service repair materials
	Portable chlorine residual test kit
Wastewater Treatment Plant	Telephone / fax
	First aid kit / eyewash
	Hand tools
	Repair clamps, couplings, pipe
Vehicle	Valve keys, isolation tools
	First aid kit
	Hand tools