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**LYALL HARBOUR BOOT COVE WATER LOCAL SERVICE COMMITTEE**  
Notice of Meeting on **Monday, November 20, 2023 at 9:30 a.m.**  
Goldstream Conference Room, 479 Island Highway, Victoria, BC

For members of the **public who wish to listen to the meeting** via telephone please call **1-833-353-8610** and enter the **Participant Code 1911461 followed by #**. You will not be heard in the meeting room but will be able to listen to the proceedings.

J. Crerar (Chair)  
A. Olsen

J. Money (Vice Chair)  
T. McLeod

P. Brent (EA Director)  
I. Rowe

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**AGENDA**

**1. APPROVAL OF AGENDA**

**2. ADOPTION OF MINUTES .....3**

*Recommendation: That the minutes of the June 15, 2023 meeting be adopted.*

**3. CHAIR’S REMARKS**

**4. PRESENTATIONS/DELEGATIONS**

*Delegations will have the option to participate electronically. Please complete the [online](#) application for “Addressing the Board” on our website and staff will respond with details.*

*Alternatively, you may email your comments on an agenda item to the Lyall Harbour Boot Cove Water Local Service Committee at [iwsadministration@crd.bc.ca](mailto:iwsadministration@crd.bc.ca).*

*Requests must be received no later than 4:30 p.m. two calendar days prior to the meeting.*

**5. SENIOR MANAGER’S REPORT**

- Private Property Winterizing
- Grant update
- Ground water well update
- Harris Road Culvert and Paving
- Turbidity Meter
- Email Addresses

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*To ensure quorum, advise [IWSadministration@crd.bc.ca](mailto:IWSadministration@crd.bc.ca) if you cannot attend.*

**6. COMMITTEE BUSINESS**

**6.1. 2024 Operating and Capital Budget Report .....6**

*Recommendation: That the Lyall Harbour Boot Cove Water Local Service Committee:*

*1. Approve the 2024 operating and capital budget as presented and that the 2023 actual operating deficit be balanced on the 2023 Reserve Funds transfer (Capital Reserve Fund and/or Operating Reserve Fund); and*

*2. Recommends that the Electoral Areas Committee recommends that the Capital Regional District Board approve the 2024 Operating and Capital Budget and the five-year Financial Plan for the Lyall Harbour/Boot Cove Water Service as presented.*

**6.2. Project and Operations Update .....25**

*There is no recommendation, this report is for information only.*

**7. CORRESPONDENCE**

**8. NEW BUSINESS**

**9. ADJOURNMENT**

**Next Meeting:** At the call of the Chair

**MINUTES OF A MEETING OF THE Lyall Harbour Boot Cove Water Local Service Committee, held Thursday, June 15, 2023 at 9:30 a.m., In the Goldstream Meeting Room, Victoria, BC**

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**PRESENT: Commissioners:** J. Crerar (Chair); J. Money (Vice Chair); P. Brent (EA Director) (EP); A. Olsen; T. McLeod (EP)

**Staff:** J. Marr, Acting Senior Manager, Infrastructure Engineering; G. Harris, Senior Manager, Environmental Protection (EP); J. Kelly, Manager, Capital Projects; M. Risvold (Recorder)

**REGRETS:** I. Rowe

EP = Electronic Participation

The meeting was called to order at 9:32.

**1. APPROVAL OF AGENDA**

**MOVED** by A. Olsen, **SECONDED** by J. Money,  
That the agenda be approved.

**CARRIED**

**2. ADOPTION OF MINUTES**

**MOVED** by J. Money, **SECONDED** by A. Olsen,  
That the minutes of the February 10, 2023 meeting be adopted.

**CARRIED**

**3. CHAIR'S REMARKS**

The Chair made no remarks.

**4. PRESENTATIONS/DELEGATIONS**

There were none.

**5. SENIOR MANAGER'S REPORT**

J. Marr advised the water conservation bylaw has been approved by the Board and is now in effect. Water conservation is now mandatory with the potential for enforcement. An insert will be included in the June water bills regarding water conservation.

Staff advised they applied for an internal grant opportunity for growing communities in the amount of \$562,000.

Staff provided updates on the following:

- Well update. Capital Regional District (CRD) has completed the paperwork for the well transfer and Right of Way modification. Staff are currently waiting for an update from Natures Trust.
- CRD is waiting for a response from the Ministry of Transportation and Infrastructure (MoTI) regarding paving the road around Money Lake.

- Staff are working with MoTI for a potential culvert upgrade project.
- Parcels that are not connected to the water system but are located within the service area. Staff advised there are approximately 30 parcels within the service area that are not currently connected.
- Ownership and responsibility of the land around Money Lake. CRD owns, and is responsible for, the property around Money Lake. There is a covenant on the property that states no building.
- Turbidity meter. Staff advised that funding has been secured and the equipment will be ordered soon.

Discussion ensued regarding signage around Money Lake.

## **6. COMMITTEE BUSINESS**

### **6.1. 2022 Annual Report**

J. Marr spoke to item 6.1.

Discussion ensued regarding:

- New turbidity meter
- Island Health recognizing readings from the new experimental turbidity meter
- Boil Water Advisories (BWA's)
- Seasonal lake turnover
- Dissolved organic matter
- Sampling for water taste and odour
- Unauthorized water use

Staff advised water taste and odour sampling will take place and the test results will be shared with the committee at the next meeting. Staff noted dissolved organic matter can interfere with the turbidity meter reading which can result in a false positive for turbidity. The experimental turbidity meter technology should cancel out interference of the dissolved organic matter in the turbidity reading.

### **6.2. Project and Operations Update**

J. Kelly spoke to item 6.2.

Discussion ensued regarding:

- Filtration, toe-drain, and filter blanket
- Growing communities grant funds
- Community works funds
- Dam remediation
- Archaeological assessment

## **7. CORRESPONDENCE**

There was none.

**8. NEW BUSINESS**

**8.1. Grants Discussion**

Staff advised that any grants that come available will be applied for. The Electoral Area Director noted staff are always reviewing grant opportunities for all water services.

**9. ADJOURNMENT**

**MOVED** by A. Olsen, **SECONDED** by J. Money,  
That the June 15, 2023 meeting be adjourned at 10:39.

**CARRIED**

\_\_\_\_\_  
**CHAIR**

\_\_\_\_\_  
**SECRETARY**

DRAFT



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**REPORT TO LYALL HARBOUR/BOOT COVE WATER LOCAL SERVICE COMMITTEE  
MEETING OF MONDAY, NOVEMBER 20, 2023**

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**SUBJECT**    Lyall Harbour/Boot Cove Water Service 2024 Operating and Capital Budget

**ISSUE SUMMARY**

To present the 2024 Operating and Capital Budget for Committee approval, pursuant to Bylaw No. 1875, "Lyall Harbour/Boot Cove Water Local Services Committee Bylaw 1, 1990".

**BACKGROUND**

The Capital Regional District (CRD) is required by legislation under the *Local Government Act* (LGA) to prepare a five-year financial plan including Operating Budgets and Capital Expenditure Plans annually. CRD staff have prepared the financial plan shown in Appendix A for the Lyall Harbour/Boot Cove Water Local Service.

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 that could potentially lead to future capital improvements.

In preparing the Operating Budget, CRD staff considered:

- Actual expenditures incurred between 2021 and 2023
- Anticipated changes in level of service (if any)
- Maximum allowable tax requisition
- Annual cost per taxpayer and per single family equivalent (SFE)

Factors considered in the preparation of the Capital Expenditure Plan included:

- Available funds on hand
- Projects already in progress
- Condition of existing assets and infrastructure
- Regulatory, environmental, and health and safety factors

Adjustments for surpluses or deficits from 2023 will be made in January 2024. The CRD Board will give final approval to the budget and financial plan in March 2024.

The Financial Plan for 2025 to 2028 may be changed in future years.

**BUDGET OVERVIEW**

***Operating Budget***

It is projected that the 2023 operating expenses will be approximately \$34,351 over budget. Factors contributing to the operating overage include emergency response and corrective maintenance primarily due to the following events:

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**Lyall Harbour/Boot Cove Water Service 2024 Operating and Capital Budget**

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- Money Lake raw water service line connection repair at the toe of Money Lake Dam. This was a significant repair project due to location, depth of excavation and ground water ingress.
- Chlorine contact tank corrective maintenance. The chlorine contact tank was scheduled for inspection last year however this work was deferred due to two failed valves that isolate the contact tank from the system. This was a significant repair effort due to location, soil conditions and depth of excavation. The chlorine contact tank is scheduled for inspection in the fall.
- Corrective maintenance completed on the raw water standpipe located next to the water treatment building, due to a failed isolation valve. The work was significant due to location, depth of excavation and soil conditions.
- Unplanned labour performing leak detection efforts due to high daily water production. Increased water production was primarily the result of leaks identified on private property.
- Installation of internet services (ADSL) to replace the failed dial up modem for the service's SCADA system. Internet services provide an additional benefit for the operator with respect to the provision of WIFI for improved cell phone coverage capabilities and access to CRD intranet services through a virtual private network.

These events resulted in additional labour, material and supply costs that go beyond operating budget contingencies.

The debt servicing cost will be \$1,189 below the budget since the planned new borrowing of \$58,000 in 2023 is now deferred to 2024.

It is projected that the 2023 operating revenue will be over budget by approximately \$1,606 primarily due to additional user charge revenue as a result of three additional water service connections added to the service during 2023.

As a result, there is an overall estimated operating deficit of approximately \$31,556. To balance the operating budget, it is proposed that the planned 2023 transfer to Operating Reserve Fund (ORF) be reduced by \$5,000 and the planned 2023 transfer to Capital Reserve Fund (CRF) be reduced by \$26,556. Otherwise, the deficit must immediately be included as an expenditure to be recovered from revenue in 2024 financial plan as required by Local Government Act (LGA) Section 374(11).

Operating costs for 2024 (excluding one-time cyclical program funded by ORF in 2023 for chlorine contact tank/reservoir inspection in the amount of \$25,000 and 2024 for replacement of filtration media in the amount of \$20,000) has increased by \$12,372 (7.2%) compared to 2023. The increase is primarily to account for inflation and labour costs reflecting the renewed collective agreement since 2023.

***Municipal Finance Authority (MFA) Debt***

Loan Authorization Bylaw 3587 (LA3857) to borrow \$430,000 was approved and adopted in 2008 to construct a new treatment plant, storage tank and installation of meters.

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**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
LA3587-106	15	2009	2024	2019	4.13%	2.25%	\$250,000	\$12,485	\$5,625	\$18,110
LA3587-110	15	2010	2025	2020	4.50%	1.28%	\$180,000	\$9,663	\$2,304	\$11,967
<b>Total</b>							<b>\$430,000</b>	<b>\$22,148</b>	<b>\$7,929</b>	<b>\$30,077</b>

**Operating Reserve Fund**

The Operating Reserve Fund is evaluated as outlined in the CRD Operating Reserve Guidelines endorsed by the CRD Board in 2023 and is used to fund cyclical maintenance activities, equipment and supplies purchases that typically do not occur on an annual basis which creates swings in expenses. The ORF is the financial strategy to mitigate the corresponding fluctuation in revenue requirement on an annual basis. Typical maintenance activities include hydrant/standpipe maintenance, reservoir cleaning and water treatment filter media servicing. Additionally, the operating reserve is also used to respond to unforeseen events and operating emergencies.

Based on the CRD Operating Reserve Guidelines the Operating Reserve is currently under funded, therefore 2024 operating maintenance reserve fund contributions are set at \$24,460. The Operating Reserve Fund balance at the end of 2023 is projected to be approximately \$1,291. There is \$20,000 of planned maintenance to be funded by the ORF over the next five years, the proposed 2024 transfer would ensure sufficient funding for those planned maintenance activities, as well as ensure available contingency for unplanned maintenance.

**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 budgeted transfer to the CRF be set at \$22,680 in 2024. 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.

The capital reserve balance at the end of 2023 is projected to be \$13,515.

**Capital Expenditure Plan**

The five-year plan includes \$981,000 of expenditures for the period 2024 to 2028 to be funded by a combination of the services' CRF, grant funding, and new debt (debt funded projects are not approved until after the Alternate Approvals Process is complete). The Pressure Release Valve (PRV) Bypass Assembly Replacement (19-02), for a total of \$8,000, will be continued to 2024.

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An Alternative Approval Process (AAP) (19-04) is to be funded through the CRF for a total of \$15,000 in 2024 and is required to obtain elector input into borrowing strategies for multiple projects. This AAP process may be deferred until more info is known regarding potential future use of a ground water well located on lands owned by Nature Trust of BC.

A Community Works Fund Grant for the Dam Improvements & Regulatory Requirements (22-02) was previously approved for \$390,000 and the Dam Safety Review (DSR) report was completed in early 2023. Dam filtration improvements (22-02) for the dam have been put on hold due to forecasted constraints with the remaining budget. CRD put forward a Growing Communities Fund (GCF) grant request in attempts to secure additional funding for these dam improvements, but this was confirmed to be unsuccessful following the September 13, 2023 Board Meeting. The CRD will continue to look for additional grant funding applications and will consider options to proceed with reduced scope, however in lieu of additional funding it is anticipated that the additional funding will require debt and will need to be part of the AAP process.

Table 2 below provides the future debt servicing cost simulation based on the Five-Year Capital Plan. This simulation is for analytical purposes only with the estimated indicative interest rate provided by MFA at the time of simulation. The AAP will be scheduled towards the end of the year and the actual borrowing requirement will be determined once the potential for well supplementation and possible treatment processes are reviewed.

**Table 2 – Future New Debt Simulation**

<i>Future Borrowing(s) Estimation</i>	<i>Term</i>	<i>Borrowing Year</i>	<i>Retirement Year</i>	<i>Estimated Interest Rate</i>	<i>Principal</i>	<i>Principal Payment</i>	<i>Interest Payment</i>	<i>Total Annual Debt Cost</i>
	15	2024	2039	4.20%	\$88,000	\$4,560	\$3,696	\$8,256
	15	2025	2040	4.10%	\$220,000	\$11,402	\$9,020	\$20,422
<b>Total</b>					<b>\$308,000</b>	<b>\$15,962</b>	<b>\$12,716</b>	<b>\$28,678</b>

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 the 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 \$28,678 equates to approximately \$165.77 cost per parcel.

**Capital Projects Fund**

As specific capital projects are approved, the funding revenues for them are transferred into the Capital Projects Fund from multiple funding sources if applicable, including the CRF, grant funding, external contributions, and debt. Any funds remaining upon completion of a project are transferred back to the CRF for use on future capital projects or its original funding source(s).

**User Charge and Parcel Tax**

The service is funded by fixed user charge and parcel tax. Properties connected to the water system pay the annual user charge and all properties within the local service area are responsible for the parcel tax. Table 3 below summarizes the 2024 over 2023 changes for parcel tax and user charge.

**Lyll Harbour/Boot Cove Water Local Service Committee – November 20, 2023**  
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**Table 3 – Parcel Tax and User Charge Summary**

<i>Budget Year</i>	<i>Parcel Tax</i>	<i>Taxable Folios Numbers</i>	<i>Parcel Tax per Folio*</i>	<i>User Charge</i>	<i>SFE Numbers</i>	<i>User Charge per SFE</i>	<i>Parcel Tax &amp; User Charge</i>
<b>2023</b>	\$133,030	173	\$809.33	\$119,864	164	\$730.88	<b>\$1,540.21</b>
<b>2024</b>	\$138,350	173	\$841.70	\$124,661	166	\$750.97	<b>\$1,592.67</b>
<b>Change (\$)</b>	\$5,320	0	\$32.37	\$4,797	2	\$20.09	<b>\$52.46</b>
<b>Change (%)</b>	4.00%	0.00%	4.00%	4.00%	1.22%	2.75%	<b>3.41%</b>

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

**RECOMMENDATIONS**

That the Lyll Harbour/Boot Cove Water Local Service Committee:

1. Approve the 2024 operating and capital budget as presented and that the 2023 actual operating deficit be balanced on the 2023 Reserve Funds transfer (Capital Reserve Fund and/or Operating Reserve Fund); and
2. Recommends that the Electoral Areas Committee recommends that the CRD Board approve the 2024 Operating and Capital Budget and the five-year Financial Plan for the Lyll Harbour/Boot Cove Water Service as presented.

Submitted by	Jason Dales, B.Sc., WD IV, Senior Manager, Wastewater Infrastructure Operations
Submitted by	Joseph Marr, P.Eng., Senior Manager, Infrastructure Engineering
Submitted by	Rianna Lachance, B.Com., CPA, CA, Senior Manager, Financial Services
Concurrence	Alicia Fraser, P.Eng., General Manager, Integrated Water Services
Concurrence	Ted Robbins, B.Sc., C.Tech., Chief Administrative Officer

**ATTACHMENT:**

Appendix A: 2024 Lyll Harbour/Boot Cove Budget

# **CAPITAL REGIONAL DISTRICT**

## **2024 Budget**

### **Lyall Harbour Water**

#### **Commission Review**

NOVEMBER 2023

<b>Service:</b> <b>2.640 Lyall Harbour Boot Cove Water (Saturna)</b>	<b>Committee: Electoral Area</b>
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**DEFINITION:**

To provide and operate and maintain a domestic water supply and distribution system for the Saturna Island Water Supply and Distribution System Specified Area in the Lyall Harbour/Boot Cove district on Saturna Island. Bylaw No. 513 (November 22, 1978).

**PARTICIPATION:**

Specified Area #14 - G(764)

**MAXIMUM LEVY:**

Greater of \$150,000 or \$6.90 / \$1,000 on actual assessed value of land and improvements. To a maximum of \$666,452.

**MAXIMUM CAPITAL DEBT:**

AUTHORIZED:	LA Bylaw No. 3587 (Jan 14, 2009)	\$430,000
BORROWED:	SI Bylaw 3634 (Aug 12, 2009)	\$250,000
BORROWED:	SI Bylaw 3677 (Feb 10, 2010)	\$180,000
REMAINING:		\$0

**COMMITTEE:**

Lyall Harbour/Boot Cove Water Committee established by Resolution - September 29, 1982  
 Lyall Harbour/Boot Cove Water Local Services Committee established by Bylaw No. 1875 (December 12, 1990)

**FUNDING:**

<b>User Charge:</b>	Annual charge per single family equivalency unit connected to the system.
<b>Parcel Tax:</b>	Annual charge levied only on properties capable of being connected to the system.
<b>Connection Charges:</b>	Actual Cost + 15% Admin Fee (Minimum Connection \$400)

**RESERVE FUND:**

Bylaw No. 1785 (February 14, 1990)

2.640 - Lyall Harbour Water	2023		BUDGET REQUEST				FUTURE PROJECTIONS			
	BOARD BUDGET	ESTIMATED ACTUAL	CORE BUDGET	ONGOING	ONE-TIME	TOTAL	2025	2026	2027	2028
<u>OPERATING COSTS</u>										
Repairs & Maintenance	30,470	35,000	5,660	-	20,000	25,660	5,780	5,900	6,020	6,150
Allocations	12,969	12,969	14,360	-	-	14,360	14,644	14,940	15,241	15,546
Water Testing	8,619	8,980	11,300	-	-	11,300	8,988	9,168	9,351	9,538
Electricity	3,660	3,500	3,760	-	-	3,760	3,840	3,920	4,000	4,080
Supplies	5,970	5,660	6,180	-	-	6,180	6,300	6,420	6,550	6,680
Labour Charges	119,940	152,700	130,580	-	-	130,580	133,192	135,855	138,573	141,344
Other Operating Expenses	15,858	13,028	13,018	-	-	13,018	13,330	13,640	13,950	14,280
<b>TOTAL OPERATING COSTS</b>	<b>197,486</b>	<b>231,837</b>	<b>184,858</b>	<b>-</b>	<b>20,000</b>	<b>204,858</b>	<b>186,074</b>	<b>189,843</b>	<b>193,685</b>	<b>197,618</b>
*Percentage Increase over prior year			-6.4%		10.1%	3.7%	-9.2%	2.0%	2.0%	2.0%
<u>DEBT / RESERVES</u>										
Transfer to Operating Reserve Fund	20,000	15,000	24,460	-	-	24,460	20,000	20,000	20,000	20,000
Transfer to Capital Reserve Fund	30,000	3,444	22,680	-	-	22,680	39,570	36,030	37,675	39,345
MFA Debt Reserve Fund	680	100	1,020	-	-	1,020	2,340	140	-	-
MFA Debt Principal	22,148	22,148	22,148	-	-	22,148	14,223	15,962	15,962	15,962
MFA Debt Interest	8,538	7,929	8,853	-	-	8,853	7,103	12,716	12,716	12,716
<b>TOTAL DEBT / RESERVES</b>	<b>81,366</b>	<b>48,621</b>	<b>79,161</b>	<b>-</b>	<b>-</b>	<b>79,161</b>	<b>83,236</b>	<b>84,848</b>	<b>86,353</b>	<b>88,023</b>
<b>TOTAL COSTS</b>	<b>278,852</b>	<b>280,458</b>	<b>264,019</b>	<b>-</b>	<b>20,000</b>	<b>284,019</b>	<b>269,310</b>	<b>274,691</b>	<b>280,038</b>	<b>285,641</b>
<u>FUNDING SOURCES (REVENUE)</u>										
Transfer from Operating Reserve Fund	(25,000)	(25,000)	-	-	(20,000)	(20,000)	-	-	-	-
User Charges	(119,864)	(121,470)	(124,661)	-	-	(124,661)	(127,150)	(129,691)	(132,278)	(134,921)
Grants in Lieu of Taxes	(758)	(758)	(768)	-	-	(768)	(800)	(820)	(840)	(860)
Other Revenue	(200)	(200)	(240)	-	-	(240)	(240)	(240)	(100)	(100)
<b>TOTAL REVENUE</b>	<b>(145,822)</b>	<b>(147,428)</b>	<b>(125,669)</b>	<b>-</b>	<b>(20,000)</b>	<b>(145,669)</b>	<b>(128,190)</b>	<b>(130,751)</b>	<b>(133,218)</b>	<b>(135,881)</b>
<b>REQUISITION - PARCEL TAX</b>	<b>(133,030)</b>	<b>(133,030)</b>	<b>(138,350)</b>	<b>-</b>	<b>-</b>	<b>(138,350)</b>	<b>(141,120)</b>	<b>(143,940)</b>	<b>(146,820)</b>	<b>(149,760)</b>
*Percentage increase over prior year										
User Fees			4.0%			4.0%	2.0%	2.0%	2.0%	2.0%
Requisition			4.0%			4.0%	2.0%	2.0%	2.0%	2.0%
<b>Combined</b>			<b>4.0%</b>			<b>4.0%</b>	<b>2.0%</b>	<b>2.0%</b>	<b>2.0%</b>	<b>2.0%</b>

**Lyall Harbour Water  
Reserve Summary Schedule  
2024 - 2028 Financial Plan**

**Reserve/Fund Summary**

	<b>Estimated</b>	<b>Budget</b>				
	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>
Operating Reserve Fund	1,291	5,751	25,751	45,751	65,751	85,751
Capital Reserve Fund	13,515	21,195	60,765	96,795	134,470	173,815
<b>Total</b>	<b>14,806</b>	<b>26,946</b>	<b>86,516</b>	<b>142,546</b>	<b>200,221</b>	<b>259,566</b>

<b>Reserve Schedule</b>
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<b>Reserve Fund: 2.640 Lyall Harbour Water System - Operating Reserve Fund - Bylaw 4144</b>
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Reserve fund used for: unforeseen operational repairs and maintenance; infrequent maintenance activities such as reservoir cleaning and inspection, filter media replacement etc.
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<b>Reserve Cash Flow</b>
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Fund:	1500	Estimated	Budget				
Fund Centre:	105213	2023	2024	2025	2026	2027	2028
<b>Beginning Balance</b>		10,931	1,291	5,751	25,751	45,751	65,751
<b>Transfer from Ops Budget</b>		15,000	24,460	20,000	20,000	20,000	20,000
<b>Transfer to Ops Budget</b>		(25,000)	(20,000)	-	-	-	-
Planned Maintenance Activity		Reservoir Cleaning & inspection and Chlorine Contact Tank and Inspection	Replace filtration Media				
<b>Interest Income*</b>		360					
<b>Ending Balance \$</b>		<b>1,291</b>	<b>5,751</b>	<b>25,751</b>	<b>45,751</b>	<b>65,751</b>	<b>85,751</b>

<b><u>Assumptions/Background:</u></b>
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Set level of transfers in order to avoid spikes in requisition resulting from unforeseen breakdowns in water infrastructure
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* Interest is included in determining the estimated ending balance for the current year. Interest in planning years nets against inflation which is not included.
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<b>Reserve Schedule</b>
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<b>Reserve Fund: 2.640 Lyall Harbour Water System - Capital Reserve Fund - Bylaw 1785</b>
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Surplus money from the operation of the water system may be paid from time to time into the reserve fund.
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<b>Reserve Cash Flow</b>
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Fund:	1025	Estimated	Budget				
Fund Centre:	101369	2023	2024	2025	2026	2027	2028
<b>Beginning Balance</b>		32,171	13,515	21,195	60,765	96,795	134,470
<b>Transfer from Ops Budget</b>		3,444	22,680	39,570	36,030	37,675	39,345
<b>Transfer from Cap Fund</b>		-					
<b>Transfer to Cap Fund</b>		(23,000)	(15,000)	-	-	-	-
<b>Interest Income*</b>		900					
<b>Ending Balance \$</b>		<b>13,515</b>	<b>21,195</b>	<b>60,765</b>	<b>96,795</b>	<b>134,470</b>	<b>173,815</b>

<b><u>Assumptions/Background:</u></b>
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To fully fund capital expenditure plan
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* Interest is included in determining the estimated ending balance for the current year. Interest in planning years nets against inflation which is not included.
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**CAPITAL REGIONAL DISTRICT  
FIVE YEAR CAPITAL EXPENDITURE PLAN SUMMARY - 2024 to 2028**

<b>Service No.</b>	<b>2.640</b>	<b>Carry Forward from 2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>TOTAL</b>
	<b>Lyall Harbour Boot Cove Water (Sal</b>							

**EXPENDITURE**

Buildings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Equipment	\$66,000	\$66,000	\$0	\$0	\$0	\$0	\$0	\$66,000
Land	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Engineered Structures	\$275,000	\$695,000	\$220,000	\$0	\$0	\$0	\$0	\$915,000
Vehicles	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	<b>\$341,000</b>	<b>\$761,000</b>	<b>\$220,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$981,000</b>

**SOURCE OF FUNDS**

Capital Funds on Hand	\$268,000	\$268,000	\$0	\$0	\$0	\$0	\$0	\$268,000
Debenture Debt (New Debt Only)	\$58,000	\$88,000	\$220,000	\$0	\$0	\$0	\$0	\$308,000
Equipment Replacement Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Grants (Federal, Provincial)	\$0	\$390,000	\$0	\$0	\$0	\$0	\$0	\$390,000
Donations / Third Party Funding	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Reserve Fund	\$15,000	\$15,000	\$0	\$0	\$0	\$0	\$0	\$15,000
	<b>\$341,000</b>	<b>\$761,000</b>	<b>\$220,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$981,000</b>



**Service:** 2.640 Lyall Harbour Boot Cove Water (Saturna)

**Project Number** 19-01 **Capital Project Title** Air Valve Replacement - Ph 2 **Capital Project Description** Replace aging air valves that are a safety concern.

**Project Rationale** The air valves are 35 years old and are corroded, giving rise to safety concerns.

**Project Number** 19-02 **Capital Project Title** PRV Bypass Assembly Replacement **Capital Project Description** Construct bypasses on the East Point, Narvaez and Boot Cove PRV stations to maintain system operation while the PRV's undergo maintenance.

**Project Rationale** The inlet and outlet piping at the East Point, Narvaez and Boot Cove PRV stations are very corroded and there is no way to isolate the stations to replace or maintain the pressure reducing valves. It is proposed that new inlet and outlet piping be installed with 100mm gate valves and bypass piping so that customers are not without water when PRV's are being serviced.

**Project Number** 19-03 **Capital Project Title** Standpipe and Valve Replacement **Capital Project Description** Replace the standpipe valves at 119 and 155 East Point Road that are seized and inoperable

**Project Rationale** The standpipe valves at 119 and 155 East Point Road are seized and inoperable. Therefore, the operators cannot use them for flushing or draining of the mains. It is proposed the valves and corroded 50mm supply line to the standpipe be replaced. The scope of work and material pricing was re-evaluated in 2016. It was determined that the budget needed to be increased from \$5,000 to \$8,000 to accommodate the required works.

**Project Number** 19-04 **Capital Project Title** Alternative Approval Process **Capital Project Description** Conduct public consultation to inform strategies for a referendum (AAP) to borrow necessary future capital funds. If the grant is not successful.

**Project Rationale** Future required projects to maintain public safety and level of service require funding in excess of current projected reserve balance. Future funding will be for improvements the Water Treatment Plant to increase reliability and optimize for improved operations, conducting a regulatory requirement for a dam safety review and construct a larger supply line to the storage tank. Funding is required to undertake public consultation to inform borrow strategies and conduct a referendum.

**Service:** 2.640 Lyall Harbour Boot Cove Water (Saturna)

**Project Number** 19-05 **Capital Project Title** Autoflush Installation **Capital Project Description** Install 3 autoflushes within the water distribution system to maintain distribution water quality.

**Project Rationale** Three water mains require frequent flushing to maintain disinfectant residuals and water quality. Flushing requires operator time which can be utilized conducting other maintenance tasks. Funds are required to construct 3 autoflushes.

**Project Number** 20-02 **Capital Project Title** Raw Water Turbidity Meter **Capital Project Description** Supply and install a new turbidity meter in the raw water line to aid in operation of the WTP.

**Project Rationale** Install a new turbidity meter in the raw water line to aid in operation of the WTP.

**Project Number** 21-01 **Capital Project Title** Source Water Viability Study **Capital Project Description** Study to determine vulnerability of the source water and its viability and assess recently acquired well.

**Project Rationale** Study to determine the medium to long term vulnerability of the source water (Money Lake) and its viability as a water source (quantity and quality) for the LHBC system in light of pressures such as projected de

**Project Number** 22-01 **Capital Project Title** Install Larger Supply Line to Tank **Capital Project Description** Construct a larger supply line to the tank to improve system reliability and operation.

**Project Rationale** The supply line to the tank is undersized, installation of a larger supply line will improve operation. Funding is required to construct a larger supply line to the tank.

<b>Service:</b>	<b>2.640</b>	<b>Lyall Harbour Boot Cove Water (Saturna)</b>
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<b>Project Number</b>	22-02	<b>Capital Project Title</b>	Dam Improvement and Regulatory Requirements	<b>Capital Project Description</b>	Seismic reinforcement of Money Lake Dam based upon the 2016 Dam Safety Review. Includes seepage pit construction and Dam Safety Review.
<b>Project Rationale</b>	Conduct Dam Safety Review (DSR) report to meet regulatory requirements. Build upon previous 2016 DSR to assess seismic performance and requirements for buttressing and drainage improvements. Once geot				

<b>Project Number</b>	24-01	<b>Capital Project Title</b>	Culvert Replacement for the Water Service	<b>Capital Project Description</b>	Saturna Island - Harris Road - Culvert Replacement for the Water Service
<b>Project Rationale</b>					

## 2.640 - Lyall Harbour

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### Capital Projects

Updated @ Oct 05, 2023

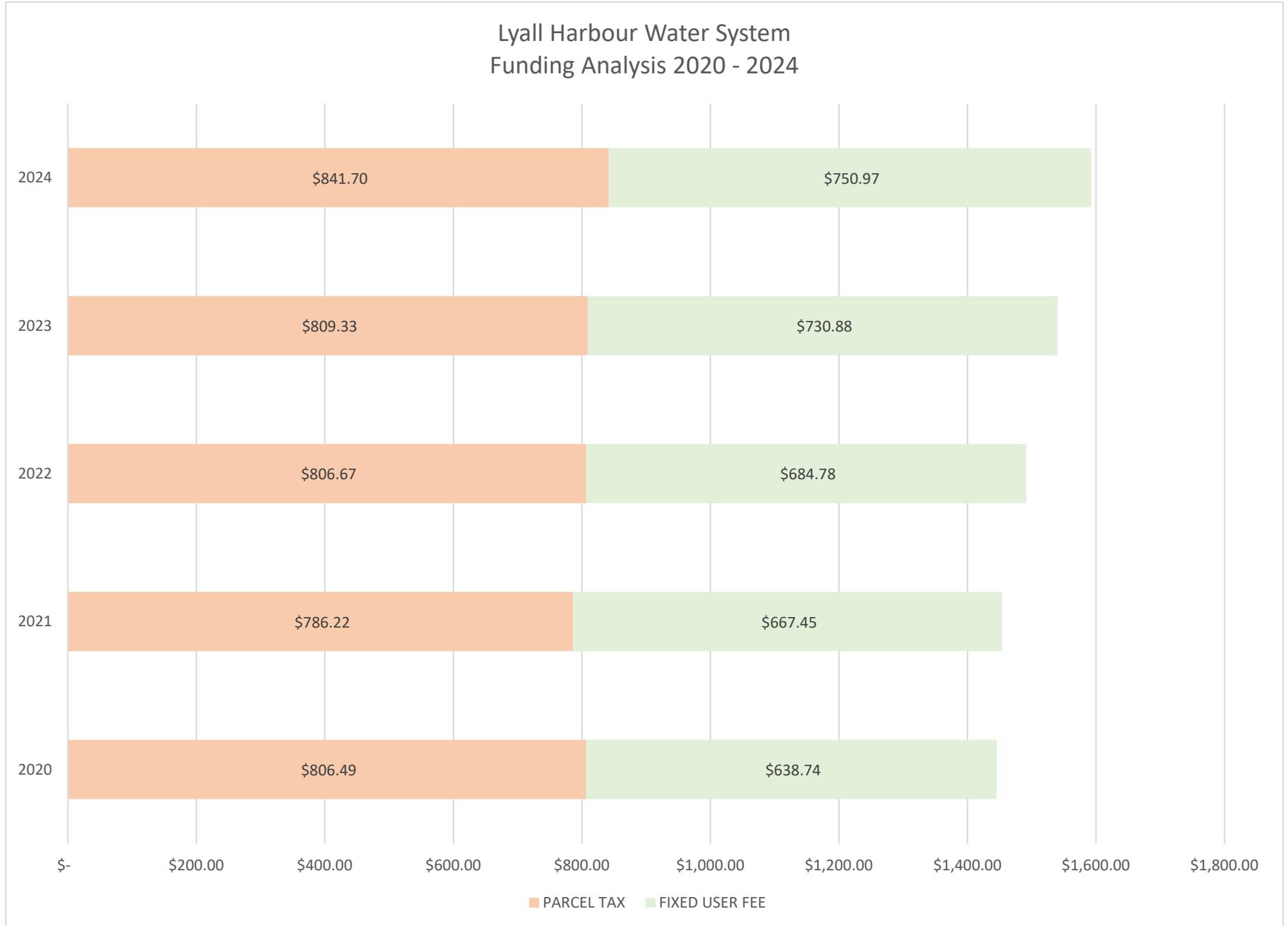
Year	Project#	Capital Plan#	Status	Capital Project Description	Total Project Budget	Spending		Total Funding in Place
						Expenditure Actuals	Remaining Spending	
2022	CE.781.5501	22-02	Open	Money Lake Dam Improvements & Regulatory Requirements	390,000	111,472	278,528	390,000
2023	CE.781.4801	19-02	Open	PRV Bypass Assembly Replacement	8,000	76	7,924	8,000
				<b>Totals</b>	<b>398,000</b>	<b>111,548</b>	<b>286,452</b>	<b>398,000</b>

<b>Service:</b>	<b>2.640 Lyall Harbour Water</b>	<b>Committee: Electoral Area</b>
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<u>Year</u>	<u>Taxable Folios</u>	<u>Parcel tax per Folio</u>	<u>Number SFE's</u>	<u>User Charge per SFE</u>	<u>Total Tax &amp; Charges</u>	<u>Bylaw</u>	<u>Actual Assessments \$(000's)</u>
2012	171	\$560.00	159	\$375.00	\$935.00	3847	\$56,058.96
2013	171	\$560.00	159	\$390.31	\$950.31	3892	\$55,689.76
2014	171	\$600.00	159	\$461.14	\$1,061.14	3924	\$50,581.58
2015	171	\$611.11	159	\$472.48	\$1,083.59	3987	\$48,842.00
2016	174	\$654.18	159	\$528.24	\$1,182.42	4074	\$48,842.00
2017	174	\$667.25	160	\$535.34	\$1,202.59	4170	\$53,211.48
2018	174	\$667.25	160	\$585.06	\$1,252.31	4233	\$56,853.16
2019	174	\$720.90	161	\$624.84	\$1,345.74	4274	\$58,914.38
2020	171	\$806.49	164	\$638.74	\$1,445.23	4337	\$63,381.81
2021	171	\$786.22	164	\$667.45	\$1,453.67	4389	\$65,218.26
2022	171	\$806.67	164	\$684.78	\$1,491.45	4471	\$87,744.55
2023	173	\$809.33	164	\$730.88	\$1,540.21	4524	\$96,587.30
2024	173	\$841.70	166	\$750.97	\$1,592.67		

*Change from 2023 to 2024*

\$32.37	\$20.09	\$52.46
4.00%	2.75%	3.41%



**REPORT TO LYALL HARBOUR/BOOT COVE WATER LOCAL SERVICE COMMITTEE  
MEETING OF MONDAY, NOVEMBER 20, 2023**

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**SUBJECT     Capital Project Status Reports and Operational Updates**

**ISSUE SUMMARY**

To provide the Lyall Harbour/Boot Cove Water Local Service Committee with capital project status reports and operational updates.

**BACKGROUND**

The Lyall Harbour/Boot Cove Water System is located on the west side of Saturna Island in the Southern Gulf Islands Electoral Area and provides drinking water to approximately 166 single family equivalents. Capital Regional District (CRD) Integrated Water Services is responsible for the overall operation of the water system with day-to-day operation, maintenance, design, and construction of water system facilities provided by the CRD Infrastructure Engineering and Operations Divisions. The quality of drinking water provided to customers in the Lyall Harbour/Boot Cove Water System is overseen by the CRD Water Quality Section.

**CAPITAL PROJECT UPDATE**

**19-02 | Pressure Release Valve (PRV) Bypass Assembly Replacement**

**Project Description:** Construct bypasses on the East Point, Narvaez, and Boot Cove PRV stations to maintain system operation while the PRV's undergo maintenance.

**Project Rationale:** The inlet and outlet piping at the East Point, Narvaez, and Boot Cove Pressure Reducing Valve (PRV) stations are very corroded and there is no way to isolate the stations to replace or maintain the PRVs. It is proposed that new inlet and outlet piping be installed with 100-millimeter gate valves and bypass piping so that customers are not without water when PRV's are being serviced.

**Project Update and Milestones:**

- Operations to undertake the works.
- Construction commenced in May with Narvaez PRV bypass work 50% completed.
- Scheduling of the remaining work and completion will be in the fall during lower water demands on the system.

**22-02 | Dam Improvements & Regulatory Requirements**

**Project Description:** Seismic reinforcement of Money Lake Dam based upon the 2016 Dam Safety Review. Includes seepage pit construction and Dam Safety Review.

**Project Rationale:** This is a continuation of project 18-03, where seismic reinforcement of the Money Lake Dam will commence. Funds are required to retain a contractor to undertake the works and retain a consultant to conduct the dam safety review.

**Lyall Harbour Boot Cove Water Local Service Committee – November 20, 2023**  
**Capital Project Status Reports and Operational Updates**

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Project Update and Milestones:

- The Community Works Funds (CWF) were approved in 2021 for design work to start in 2022.
- Staff are currently engaging consultants to provide quotes for design and construction services.
- Geotechnical Engineer (Thurber) has conducted more detailed 3D analysis of the dam to better assess seismic risks and are reviewing the results and recommendations with CRD.
- Geotechnical Engineer (Thurber) has drafted a downstream toe filter design memo and are reviewing the results and recommendations with CRD.
- Assessment of constructability of recommendations resulted in concerns over funding availability to carry out the complete works. CRD submitted an internal Growing Communities Fund (GCF) grant application for additional funding (in combination with works to develop a future well) but this was determined to be unsuccessful at the September 13, 2023 CRD Board Meeting.
- CRD will continue to pursue other grant opportunities but in the absence of grant funding, debt will need to be secured to carry out this work, as well as future additional work identified within the DSR.

Milestone	Completion Date
CWF Approval	October 10, 2021
Consultant Contract Award	July 27, 2022
Consultant field investigation	August 31, 2022
Draft Dam Safety Review submission and CRD review meeting	Jan 27, 2023
Dam Safety Review Report - Final	March 15, 2023
Toe Filter Design Memo	March 27, 2023
Seismic Stability Assessment	April 21, 2023
Growing Communities Fund Grant Application – Rejected	September 13, 2023

## **OPERATIONAL UPDATE**

This is an operational update reporting period from June 2023 through September 2023.

- Completed preventative maintenance at all three pressure regulating stations. The work requires entry into identified confined spaces which requires additional resources to support entry activities in accordance with WorkSafe BC regulatory requirements.
- Installation of internet services (ADSL) to replace failed dial up modem for the services SCADA system. Internet services provides an additional benefit for the operator with respect to the provision of WIFI for improved cell phone coverage capabilities and access to CRD intranet services through a virtual private network.
- Preparations started for the cleaning and inspection of the water tank and inspection of the buried chlorine contact chamber which is scheduled in late October.
- Completed standpipe annual inspections and follow-up on any identified corrective maintenance.
- Completed the annual formal Money Lake Dam inspection and reporting activity in collaboration with Infrastructure Engineering staff.
- Several hours performing leak detection efforts due to high daily water production during the reporting period. Increased water demand was primarily the result of leaks identified on private property. Water was shut off to these properties and the residents notified.

**Lyall Harbour Boot Cove Water Local Service Committee – November 20, 2023  
Capital Project Status Reports and Operational Updates**

3

- Stage 2 water conservation measures enacted in accordance with the Electoral Areas Water Conservation Bylaw 4492 on July 17. Public communications included issuing a Public Service Announcement (PSA), updating water conservation signage within the community and notification to the Committee.
- Installation of a water service connection for a property within the service area during this reporting period. All costs for the installation are paid by the property owner.

**RECOMMENDATION**

There is no recommendation. This report is for information only.

Submitted by:	Jared Kelly, P.Eng., Manager, Capital Projects
Submitted by:	Dan Robson, A.Sc.T., Manager, Saanich Peninsula and Gulf Islands Operations
Concurrence:	Joseph Marr, P.Eng., Senior Manager, Infrastructure Engineering
Concurrence:	Jason Dales, B.Sc., WD IV., Senior Manager, Wastewater Infrastructure Operations
Concurrence:	Alicia Fraser, P.Eng., General Manager, Integrated Water Services