Capital Regional District

625 Fisgard St.,
Victoria, BC V8W 1R7

Notice of Meeting and Meeting Agenda
Lyall Harbour Boot Cove Water Local Service Committee

Tuesday, June 10, 2025 | **2:00 PM** | **Goldstream Conference Room, 479 Island Hwy, Victoria BC V9B 1H7**

Members of the public can view the live meeting via MS Teams link: **Click here**
Alternatively, to hear the meeting via telephone:
Call: 1-877-567-6843 and enter the Participant Code 577 043 719#

A. Olsen (Chair), J. Money (Vice Chair), P. Brent (EA Director), J. Crerar, T. McLeod

The Capital Regional District strives to be a place where inclusion is paramount and all people are treated with dignity. We pledge to make our meetings a place where all feel welcome and respected.

1. Territorial Acknowledgement

2. Approval of Agenda

3. Adoption of Minutes

3.1. 25-0661 Minutes of the Lyall Harbour/Boot Cove Water Local Service Committee of February 26, 2025

Recommendation: That the minutes of the Lyall Harbour/Boot Cove Water Local Service Committee meeting of February 26, 2025 be adopted as circulated.

Attachments: Minutes - February 26, 2025

4. Chair's Remarks

5. Presentations/Delegations

The public are welcome to attend CRD meetings in-person.

Delegations will have the option to participate electronically. Please complete the online application at www.crd.ca/address no later than 4:30 pm two days before the meeting and staff will respond with details.

Alternatively, you may email your comments on an agenda item to the Committee at legserv@crd.bc.ca.

6. Commission Business

6.1. 25-0650 Senior Manager's Verbal Update

Recommendation: There is no recommendation. This verbal update is for information only.

6.2. 25-0667 Capital Projects and Operational Update - June 2025

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

Attachments: Staff Report: Capital Projects and Operational Update - June 2025

6.3. 25-0643 2024 Annual Report

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

Attachments: Staff Report: 2024 Annual Report - Cover Report

Appendix A: 2024 Annual Report

Appendix B: Statement of Operations and Reserve Balances

6.4. 25-0677 Capital Projects Requiring Funding - Potential Funding Options and Cost Implications

Recommendation: 1. That the petition process be initiated to borrow up to $2,000,000 over 25 years debt term to complete the capital improvement projects.
2. If the petition process is successful, that a loan authorization bylaw be advanced to the Electoral Areas Committee and Capital Regional District Board for readings and adoption; and
3. That staff complete the remaining steps required to secure the funds and begin the projects.

Attachments: Staff Report: Capital Projects Funding Options and Cost Implications

Appendix A: Matrix of Elector Approval Processes

Appendix B: Draft Letter & Petition for the LH/BC Water System Borrowing

7. Notice(s) of Motion

8. New Business

9. Adjournment

The next meeting is Thursday, October 30, 2025 at 2:00 pm.

To ensure quorum, please advise Megan MacDonald (mmmacdonald@crd.bc.ca) if you or your alternate cannot attend.

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Capital Regional District

625 Fisgard St.,
Victoria, BC V8W 1R7

Meeting Minutes

Lyall Harbour Boot Cove Water Local Service Committee

Wednesday, February 26, 2025 **2:00 PM** **Goldstream Conference Room**
479 Island Hwy
Victoria BC V9B 1H7

PRESENT:
J. Crerar, T. McLeod (EP), J. Money, A. Olsen

Staff: J. Marr, Senior Manager, Infrastructure Engineering; J. Kelly, Manger, Capital Projects; C. Moch, Manager, Water Quality; D. Robson, Manager, Saanich Peninsula Gulf Island Operations; N. Tokgoz, Manager, Water Distribution Engineering and Planning; D. Dionne, Manager, Business Support Services, Infrastructure and Water Services; M. MacDonald, Legislative Services Coordinator (Recorder)

EP – Electronic Participation

Regrets: P. Brent (EA Director)

The meeting was called to order at 2:03 pm.

1. Territorial Acknowledgement

J. Marr provided a Territorial Acknowledgement.

2. Election of Chair

J. Marr called for nominations for the position of Chair of the Lyall Harbour/Boot Cove Water Local Service Committee for 2025.

J. Crerar nominated A. Olsen. A. Olsen accepted the nomination.

J. Marr called for nominations a second and third time.

Hearing no further nominations, J. Marr declared Allen Olsen the Chair of the Lyall Harbour/Boot Cove Water Local Service Committee for 2025 by acclamation.

3. Election of Vice Chair

Chair Olsen called for nominations for the position of VIce Chair of the Lyall Harbour/Boot Cove Water Local Service Committee for 2025.

J. Crerar nominated J. Money. J. Money accepted the nomination.

Chair Olsen called for nominations a second and third time.

Hearing no further nominations, Chair Olsen declared John Money the Vice Chair of the Lyall Harbour/Boot Cove Water Local Service Committee for 2025 by acclamation.

4. Approval of Agenda

MOVED by J. Crerar, SECONDED by T. McLeod,
That the agenda for the Lyall Harbour/Boot Cove Water Local Service Committee meeting of February 26, 2025 be approved.
CARRIED

5. Adoption of Minutes

5.1. 25-0192 Minutes of the Lyall Harbour/Boot Cove Water Local Service Committee of November 14, 2024

MOVED by J. Money, SECONDED by J. Crerar,
That the minutes of the Lyall Harbour/Boot Cove Water Local Service Committee meeting of November 14, 2024 be adopted as circulated.
CARRIED

6. Chair's Remarks

The Chair thanked staff for their diligence in maintaining the water quality over the winter.

7. Presentations/Delegations

There were no presentations or delegations.

8. Committee Business

8.1. 25-0204 Senior Manager's Verbal Update

J. Marr and D. Robson presented Item 8.1. for information, and provided the following updates:
- CRD Evolves and related staff support changes for the committee
- new stage four water restriction bylaw implementation
- water conservation signage will be installed later this year

Discussion ensued regarding:
- implications of the new water restrictions
- water conservation bylaw approval process
- proposed locations for water conservation signage

8.2. 25-0175 Capital Projects and Operational Update - February 2025

J. Kelly and D. Robson presented Item 8.2. for information.

Discussion ensued regarding:
- options to secure funding for necessary dam repairs and system upgrades
- breakdown and prioritization of the required projects
- community consultation options
- the improved quality of raw water
- communication failures with the pump station alert system

9. Notice(s) of Motion

There were no notice(s) of motion.

10. New Business

There was no new business.

11. Adjournment

MOVED by T. McLeod, SECONDED by J. Crerar,
That the Lyall Harbour/Boot Cove Water Local Service Committee meeting of February 26, 2025 be adjourned at 2:58 pm.
CARRIED

_____
CHAIR

_____
RECORDER

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REPORT TO LYALL HARBOUR/BOOT COVE WATER LOCAL SERVICE COMMITTEE MEETING OF TUESDAY, JUNE 10, 2025

SUBJECT **Capital Projects and Operational Update – June 2025**

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) Infrastructure and 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, Planning and Engineering and Infrastructure Water 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 division.

CAPITAL PROJECT UPDATE

19-04 | Alternative Approval / Petition Process

Project Description: Conduct public consultation and complete an Alternative Approval Process (AAP) or petition to assess public willingness to utilize debt to fund necessary capital upgrades for the water service.

Project Rationale: Multiple projects, including dam improvements and a future ground well suitability study is deemed necessary for the water service and Capital Reserves are insufficient to cover the capital costs.

With several unsuccessful grant funding attempts, an AAP or petition is proposed to obtain approval to take on debt to fund projects that are critical for the water service.

Project Update and Milestones:

- The AAP process has not progressed, however, following the November 20, 2023 budget meeting, it was agreed that staff would initiate the process once some certainty around obtaining use of a well on private land was clear so that this potential water source could be factored into the future planning.
- Progress was made in 2024 regarding access to the private well. CRD has re-engaged Thurber Engineering and a Civil Engineering sub-consultant to further progress updating the design, quantities, and cost estimate for the dam improvements project (22-02) before CRD proceeds to consolidate all the works expected to require debt funding into a single AAP or petition, which is still targeted to commence in 2025.

- Separate staff report proposed outlining staff recommendation for obtaining public approval to secure debt funding.

22-02 | Dam Improvements & Regulatory Requirements

Project Description: Seismic reinforcement of Money Lake Dam based upon the 2016 Dam Safety Review (DSR). 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.

Project Update and Milestones:

- Community Works Funds (CWF) were approved in 2021 for design work to start in 2022.
- Consultants engaged for DSR, 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 to summarize recommendations.
- Assessment of constructability of recommendations resulted in concerns over funding availability to perform 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). At its September 13, 2023 meeting the CRD Board determined this grant to be unsuccessful.
- 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.
- CRD's 2024 Action Planning memo was provided to commission for information.
- CRD working with Thurber in Q4 2024 into Q1 2025 to further develop the filter blanket design and pipe upgrades so that details are further advanced before proceeding to AAP or petition.

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 – Not Approved	September 13, 2023
Action Planning Memo to address DSR items presented to Commission	June 27, 2024
50% design submission for filter blanket & pipe upgrades submitted for review.	Q1 2025

OPERATIONAL UPDATE

This is an operational update reporting period from February through April 2025.

- Chlorine chemical metering feed pump troubleshooting and corrective maintenance completed.
- Emergency response to several power outages requiring the deployment of the backup generator at the water treatment plant.
- Water treatment plant pressure regulating and flow control valve troubleshooting and corrective maintenance.
- Removal of hazardous tree near the East Point Pressure Regulating Station to address risk to the water system.
- Continued response and effort during this reporting period related to leak detection due to high daily water production. Several properties were identified as having leaks. Water was turned off and residents were notified.
- Replacement of the water treatment plant filtration media was completed during this reporting period. continued. Filtration media sourcing challenges has resulted in procurement and expenses to be completed in the first quarter of 2025.

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 Planning and Engineering
Concurrence:	Jason Dales, B.Sc., WD IV., Senior Manager, Wastewater Infrastructure Operations
Concurrence:	Alicia Fraser, P.Eng., General Manager, Infrastructure and Water Services

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REPORT TO LYALL HARBOUR BOOT COVE WATER LOCAL SERVICE COMMITTEE MEETING OF TUESDAY, JUNE 10, 2025

SUBJECT **2024 Annual Report - Cover Report**

ISSUE SUMMARY

Per the *Drinking Water Protection Act*, a water supplier must prepare and make public, within 6 months of the end of the calendar year, an annual report. The Annual Report provides a summary of the Lyall Harbour/Boot Cove Water Service for 2024.

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) is responsible for the operation and maintenance of the system and the overall quality of the drinking water provided to customers in the Lyall Harbour/Boot Cove Water System.

RECOMMENDATION

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

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:	Varinia Somosan, CPA, CGA, Senior Manager, Financial Services / Deputy CFO
Concurrence:	Glenn Harris, Ph.D., R.P.Bio., Acting General Manager, Parks, Recreation and Environmental Services
Concurrence:	Alicia Fraser, P. Eng., General Manager, Infrastructure and Water Services

ATTACHMENT(S)

Appendix A: 2024 Annual Report
Appendix B: 2024 Statement of Operations and Reserve Balances

Lyall Harbour/Boot Cove Water Service

2024 Annual Report

CRD | Drinking Water

Introduction

This report provides a summary of the Lyall Harbour/Boot Cove Water Service for 2024 and includes a description of the service, summary of the water supply, demand and production, drinking water quality, operations highlights, capital project updates and financial report.

Service Description

The community of Lyall Harbour/Boot Cove is primarily a rural residential development with community and commercial properties located on Saturna Island in the Southern Gulf Islands Electoral Area which was originally serviced by a private water utility and in 1978 the service converted to the Capital Regional District (CRD). The Lyall Harbour/Boot Cove water service is made up of 174 parcels (Figure 1) encompassing a total area of approximately 100 hectares. Of the 174 parcels, 158 properties (170 Single Family Equivalent's) are connected to the water system.

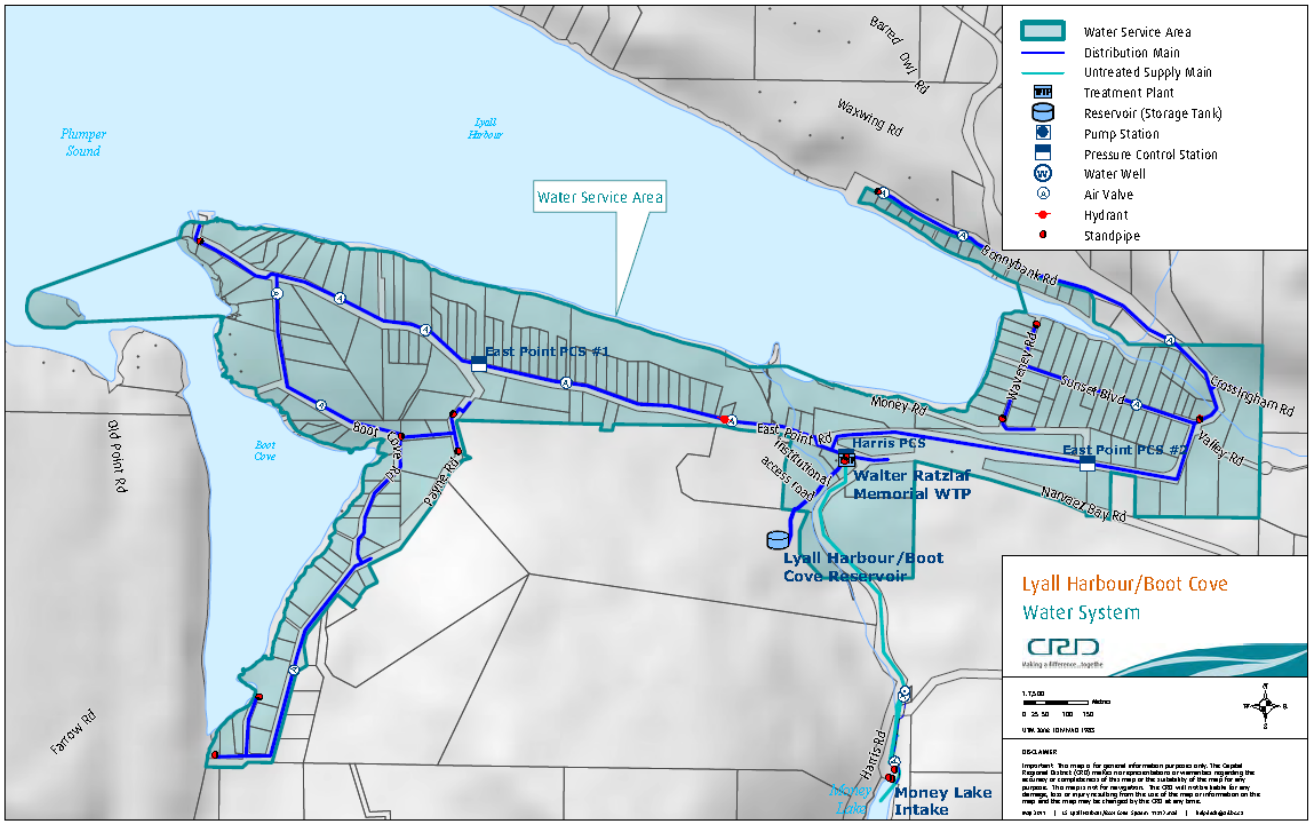


Figure 1: Map of Lyall Harbour/Boot Cove Water System

The Lyall Harbour/Boot Cove water system is primarily comprised of:

- Two raw water sources:
  - Money Lake, a small, impounded, surface water body that lies within a 94-hectare (230 acre) watershed on private and public lands.
  - Ground water spring (seepage pit) located near the base of Money Lake Dam.
- One earthen dam structure, Money Lake Dam No. 1.
- Treatment equipment including ozonation (currently offline), two stages of filtration (granular and absorption), ultraviolet light disinfection and chlorine disinfection.
- One steel storage tank (total volume 136 cubic meters or 36,000 US gallons).
- Supervisory Control and Data Acquisition (SCADA) system.
- Distribution system and supply pipe network (8,390 meters of water mains).
- Other water system assets: water service connections and meters, three pressure reducing valve stations, 50 gate valves, 12 standpipes and a small auxiliary generator.

Water Supply

Referring to Figure 2 below, Money Lake monthly water levels are highlighted for 2024. It is important to note that water supply levels in Money Lake, prior to 2008, were historically lower during the summer period. An upgrade to mitigate the low water levels involved the installation of a groundwater seepage spring recirculation pumping system. Excess water from the seepage spring is pumped back to Money Lake to keep the Lake as full as possible. The groundwater seepage spring water level is not monitored; however, the seepage spring weekly flow rate is monitored to confirm production rate. The seepage spring typically provides 100% of the winter water system demand for the community. Money Lake water is used periodically to supplement seepage spring flows, typically during the summer dry period.

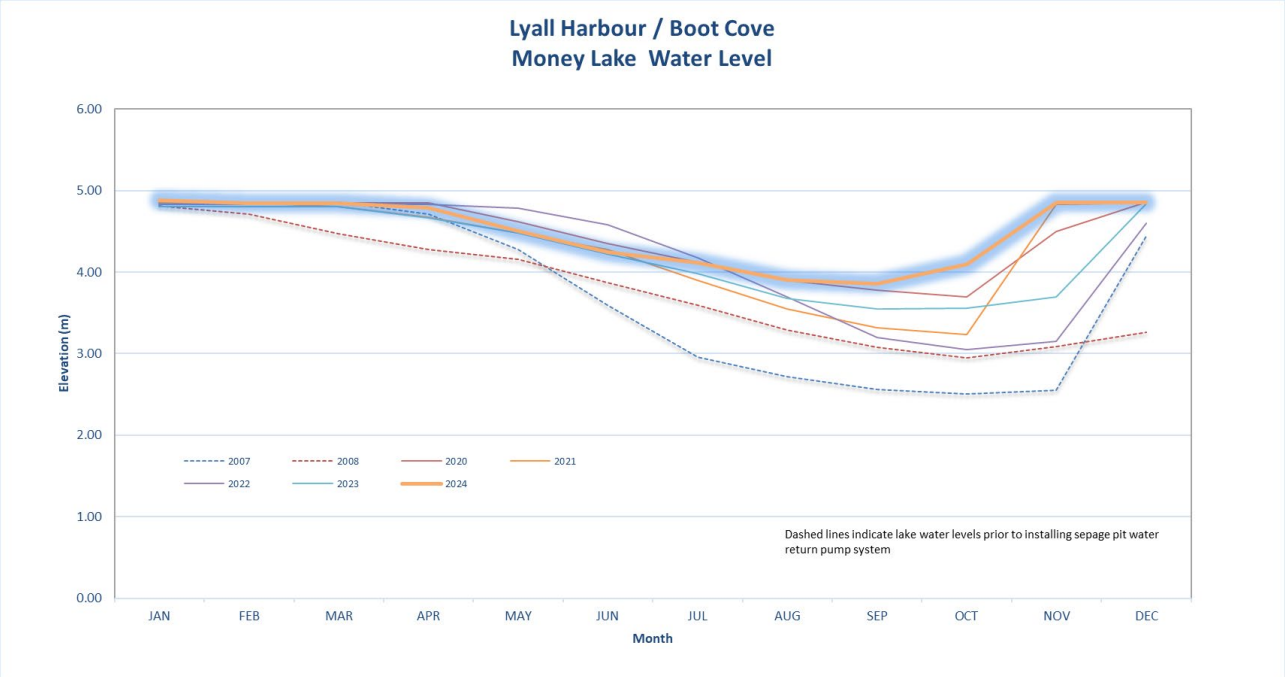


Figure 2: Money Lake Monthly Water Level

Water Production and Demand

Referring to Figure 3, 25,331 cubic meters of water was extracted (water production) from the seepage spring and Money Lake Reservoir in 2024; a 9% increase from the previous year and a 4% increase from the five-year average. Water demand (customer water billing) for the service totaled 17,833 cubic meters of water; 9% decrease from the previous year and an 10% decrease from the five-year average.

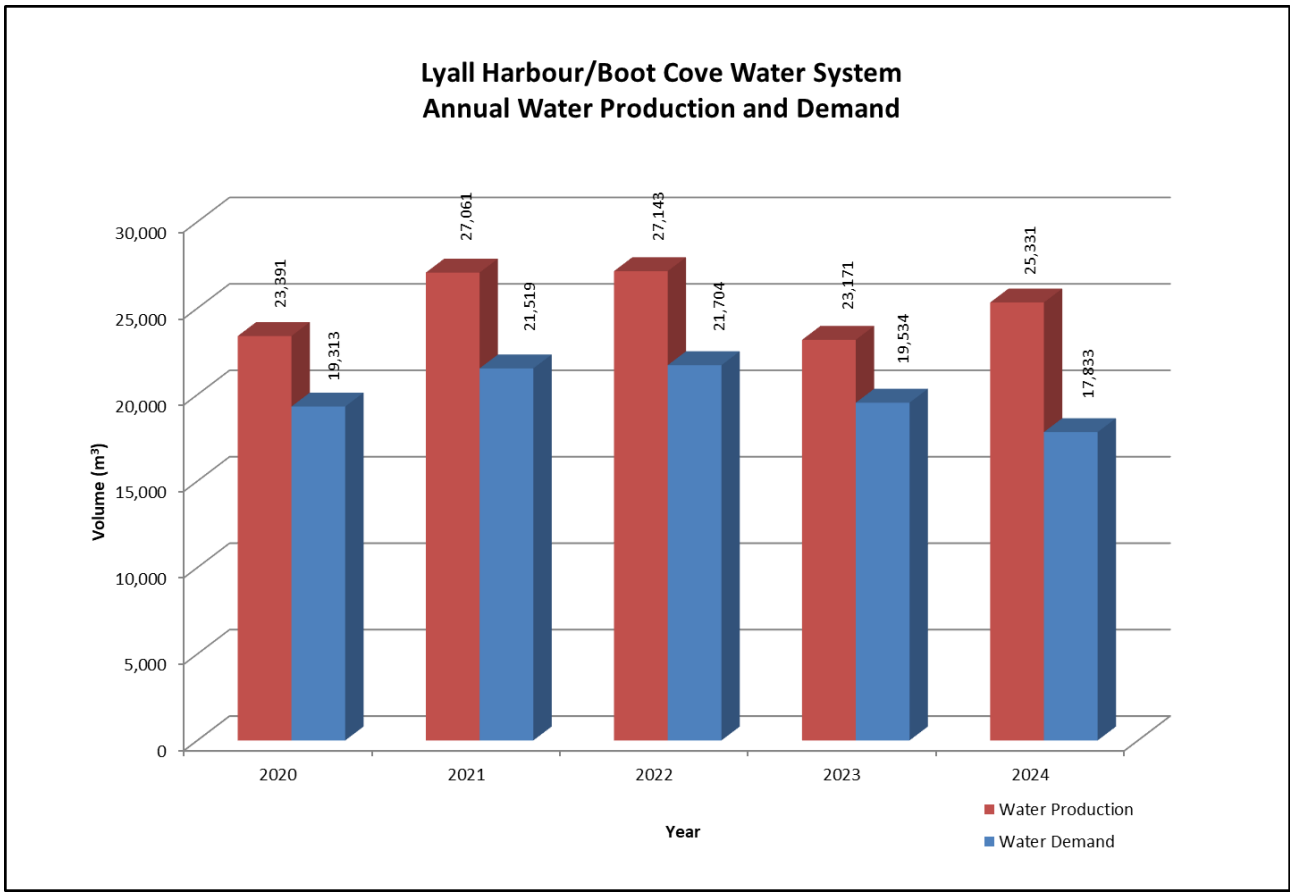


Figure 3: Lyall Harbour/Boot Cove Water System Annual Water Production and Demand

The difference between annual water production and annual customer demand is referred to as non-revenue water and can include water system leaks, water system maintenance and operational use (e.g. water main flushing, filter system backwashing), potential unauthorized use and fire-fighting use.

The 2024 non-revenue water (7,498 cubic meters) represents about 30% of the total water production for the service area. However, almost 13% of the total water can be attributed to operational use which includes water main flushing to keep chlorine residuals at acceptable levels at the extremities of the water system and water treatment filtration system backwashing activities. Therefore, the non-revenue water associated with system losses is approximately 17%. Although this is considered acceptable for small water systems, this is an increase from previous years and is likely the result of water system leaks that require further investigation.

Figure 4 illustrates the monthly water production for 2024 along with the historical water production information. The monthly water production trends are typical for small water systems such as the Lyall Harbour/Boot Cove water system.

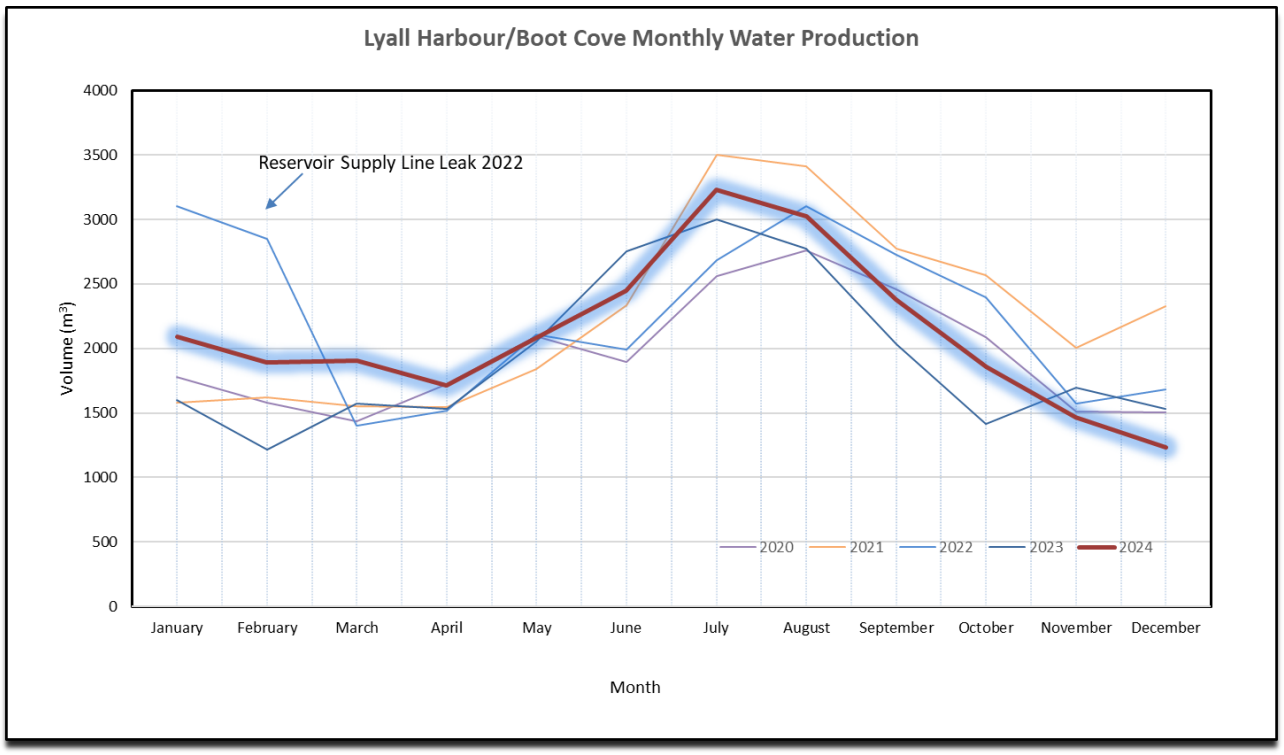


Figure 4: Lyall Harbour/Boot Cove Water Service Monthly Water Production

Drinking Water Quality

The Lyall Harbour/Boot Cove Water System uses predominantly seepage water collected from below the Money Lake dam as the primary raw water source. During the summer months this source is supplemented or completely replaced with flows directly from Money Lake. During summer and early fall 2024, all source water was supplied by Money Lake only, as the seepage water collection system ran dry. There is sufficient evidence to conclude that the seepage water is hydraulically connected to the lake source.

The Lyall Harbour/Boot Cove Water System experienced some of the usual water quality challenges at the beginning of 2024. Due to the typical winter season turbidity issues, the system was under a boil water advisory (BWA) until March 15, 2024. This BWA was a continuation since October 25, 2023, when an annual pattern reappeared which sees the treated water turbidity begin to exceed one Nephelometric Turbidity Unit (NTU) in late fall and remain above this threshold until the spring, typically until March. Interestingly, this typical annual pattern did not return in the fall of 2024 and the water system was, for the first time in years, not under a BWA during a winter season. The reasons for this positive change are still unknown.

Between late July and early November, Money Lake experienced a strong cyanobacteria bloom. The peak occurred in mid-September. Multiple cyanotoxin tests did not detect microcystin toxins in the raw water during this bloom.

This bloom did not pose a public health risk through the drinking water supplied. The annual average concentration for both regulated disinfection by-products, total Trihalomethanes (TTHM) and Haloacetic Acids (HAA), remained below the maximum acceptable concentration (MAC) in the Guidelines for Canadian Drinking Water Quality (GCDWQ).

The data below provides a summary of the water quality characteristics in 2024:

Raw Water:

- The raw water exhibited low concentrations of total coliform bacteria during the cool seasons but orders of magnitude higher concentrations during the summer and early fall months when lake water was the primary water source and water temperatures were high. Throughout most of the year, the raw water entering the treatment plant contained either none or only low concentrations of *E. coli* bacteria.
- The raw water turbidity ranged from 0.7 to 50.8 NTU. The highest raw water turbidity period was recorded during a strong cyanobacteria bloom from late July to November. The median annual raw water turbidity was 1.9 NTU.
- Low concentrations of both *Giardia* cysts and *Cryptosporidium* oocysts were detected in one of two sample sets in 2024 (in May 2024).
- The raw water had naturally high concentrations of iron and manganese especially during the fall season. Elevated iron and manganese concentrations are typically released during the fall turnover event in Money Lake and can be compounded by the ground passage of the seepage water. Typically, October and November see the highest iron and manganese concentrations.
- The raw water was slightly hard (median hardness 44.3 mg/L $CaCO_3$).
- The natural total organic carbon (TOC) in the source water was moderately high (median 5.2 mg/L).
- All year, the water had a high colour rating, above the aesthetic objective in the GCDWQ. The water was particularly coloured in the fall coinciding with the highest iron and manganese concentrations in the source water.

Treated Water:

- Outside the period with a BWA, the treated water was safe to drink. No treated water sample from the distribution system tested positive for E. coli bacteria. One distribution sample from August tested positive for total coliform bacteria. An immediate resample from the same location did not confirm an actual drinking water contamination.
- The treated water turbidity was regularly > 1 NTU from January to March and caused the BWA. For investigations into possible turbidity measurement inference by dissolved organic matter (coloured water), a secondary turbidity analyzer with less interference from colour was installed in November 2023. Unfortunately, the results were not conclusive to allow for a modified turbidity risk assessment in this water system. The industry typical threshold of 1 NTU for unfiltered surface water supplies remains the benchmark.
- The treated water TOC was regularly high within a range from 4.0 to 5.0 mg/L. The annual median was 4.4 mg/L. There is currently no guideline in the GCDWQ for TOC levels, however TOC levels > 2 mg/L indicate a potential for disinfection by-product exceedances. TOC levels > 4 mg/L are usually a precursor for high disinfection by-product concentrations.
- As a result of a chlorination optimization process, the disinfection by-product (DBP) concentrations remained below the GCDWQ health limits. One individual result on February 7 slightly exceeded the TTHM MAC of 100 µg/L (110 µg/L). But the annual average TTHM and HAA concentrations were 91.5 µg/L and 49.0 µg/L respectively and therefore below the MAC (100 µg/L and 80 µg/L respectively).

- Iron concentrations in exceedance of the aesthetic objective were found in distribution system samples from October and February. It is assumed that this exceedance typical lasts throughout the fall and winter season each year. These exceedances are a result of high iron concentrations in the raw water and the lack of adequate treatment for metals. Manganese concentrations, while elevated in the raw water, were consistently low in the treated water. Elevated iron concentrations are not a health concern but can lead to discolouration of the drinking water which can be a nuisance for the customers.
- The treated water had colour concentrations above the aesthetic objective throughout the fall and winter season.
- The annual median pH of the treated water was 6.3. This is well below the Health Canada recommended range of 7 - 10.5. Drinking water with low pH can cause corrosion issues on metallic pipes and fittings and potentially leach toxic metals such as lead into the drinking water. Lead in drinking water is typically not found in samples from distribution systems but in samples from building taps and faucets.

Table 1 and 2 below provide a summary of the 2024 raw and treated water test results.

Water quality data collected from this drinking water system can be also reviewed on the CRD website:

https://www.crd.bc.ca/about/data/drinking-water-quality-reports

Operational Highlights

The following is a summary of the major operational issues that were addressed by CRD Infrastructure and Water Services staff:

- Water Treatment Plant (WTP) plant occupational health and safety investigation and corrective actions. Corrective actions included replacement and rerouting of the sodium hypochlorite chemical feed lines. Operations office relocated from the WTP to remote site for operator to perform administrative duties. Implement chlorine gas monitoring procedure for operator. Other corrective actions are pending that include facility extraction fan improvement and implementation of additional emergency tempered shower system.
- Emergency response to water treatment plant SCADA communications failure event.
- Several emergency responses throughout the year related to leak detection due to high daily water production. Most leaks were identified on private property resulting in water being turned off and residents notified.
- Water main leak emergency response at 134 Payne Road. Standpipe flush connection was found to be corroded which resulted in the watermain failure.
- Water main leak 101 Payne Road. Standpipe flush connection was found to be corroded which resulted in the watermain failure.
- WTP emergency response to chlorine chemical feed pump process failure.
- Earthquake response on September 26 was initiated for Money Lake Dam. Given the magnitude and proximity of this quake, our Dam Emergency Plans were activated which requires a rapid inspection of the Money Lake Dam structure for any signs of disturbance. Inspection reports were submitted as part of the response. Nothing of concern was noted, however this is the first time a response has been initiated for this type of event.

- Planning and preparation for the replacement of the water treatment plant filtration media continued. Filtration media sourcing challenges has resulted in procurement and expenses to be completed in the first quarter of 2025.
- The bolted steel water storage tank is leaking. A low-cost repair process is planned for 2025 to determine if the leaking can be mitigated. If not, further assessment, repair details and repair work will be required.

Capital Project Updates

The Capital Projects that were in progress or completed in 2024 included:

1. Dam Improvements – CRD Action Plan document finalized in response to Thurber's Dam Safety Report (DSR). Action plan was presented to committee with intent to proceed to petition process or AAP in 2025.

Financial Report

Please refer to the attached 2024 Statement of Operations and Reserve Balances.

Revenue includes parcel taxes (Transfers from Government), fixed user fees (User Charges), interest on savings Interest earnings), transfer from Operating Reserve Fund and miscellaneous revenue such as late payment charges (Other revenue).

Expenses include all costs of providing the service. General Government Services include budget preparation, financial management, utility billing and risk management services. CRD Labour and Operating Costs include CRD staff time as well as the cost of equipment, tools, and vehicles. Debt servicing costs are interest and principal payments on long term debt. Other Expenses include all other costs to administer and operate the water system, including insurance, water testing and electricity.

The difference between Revenue and Expenses is reported as Net revenue (expenses). Any transfers to or from capital or reserve funds for the service (Transfers to own funds) are deducted from this amount and it is then added to any surplus or deficit carry forward from the prior year, yielding an Accumulated Surplus (or deficit). In alignment with Local Government Act Section 374 (11), any deficit must be carried forward and included in next year's financial plan.

For questions related to this Annual Report please email IWSAdministration@crd.bc.ca

Table 1

Table 1: 2024 Summary of Raw Water Test Results, Lyall Harbour / Boot Cove Water System										
PARAMETER		**2024 ANALYTICAL RESULTS**				**CANADIAN GUIDELINES**	**2014-2023 ANALYTICAL RESULTS**			
Parameter Name	Units of Measure	Annual Median	Samples Analyzed	Range Minimum	Range Maximum	≤ = Less than or equal to	Median	Samples Analyzed	Range Minimum	Range Maximum
ND means Not Detected by analytical method used										
Physical/Biological Parameters										
Carbon, Total Organic	mg/L as C	**5.2**	11	4.1	7.8		5.08	124	3.2	18
Colour, True	TCU	**21.5**	12	15	52		21	77	9	88
Hardness as $CaCO_3$	mg/L	**44.25**	4	40.7	45.5	No Guideline Required	43	73	35.2	50.2
pH	pH units	**6.55**	4	6.5	6.7	7.0 - 10.5 AO	6.8	27	5.7	7.4
Turbidity, Field Tests	NTU	**1.95**	101	0.8	50.8		2.99	420	0.67	36.1
Turbidity, Grab Samples	NTU	**1.9**	13	0.7	11		1.9	133	0.2	20.3
Water Temperature	Degrees C	**11.6**	124	4.2	23.3	15°C AO	11	573	-0.1	25.5
Metals										
Aluminum	ug/L as Al	**30.2**	4	19.1	85	2900 MAC / 100 OG	73.1	73	8.7	739
Antimony	ug/L as Sb	**< 0.5**	4	< 0.5	< 0.5	6 MAC	< 0.5	73	0.042	< 0.5
Arsenic	ug/L as As	**0.39**	4	0.27	0.5	10 MAC	0.4	73	0.22	1.06
Barium	ug/L as Ba	**2.8**	4	2.2	4.6	1000 MAC	3.2	73	1.47	40.4
Beryllium	ug/L as Be	**< 0.1**	4	< 0.1	< 0.1		< 0.1	73	< 0.01	< 3
Bismuth	ug/L as Bi	**< 1**	4	< 1	< 1		< 1	71	0.017	< 1
Boron	ug/L as B	**< 50**	4	< 50	< 50	5000 MAC	< 50	73	11	< 50
Cadmium	ug/L as Cd	**< 0.01**	4	< 0.01	< 0.01	7 MAC	< 0.01	73	< 0.01	< 0.1
Calcium	mg/L as Ca	**11.4**	4	10.3	11.7	No Guideline Required	10.7	73	9.17	13
Chromium	ug/L as Cr	**< 1**	4	< 1	< 1	50 MAC	< 1	73	0.15	< 10
Cobalt	ug/L as Co	**< 0.2**	4	< 0.2	< 0.2		< 0.2	73	0.022	< 20
Copper	ug/L as Cu	**2.885**	4	2.34	12.6	2000 MAC / ≤ 1000 AO	3.34	73	1.34	285
Iron	ug/L as Fe	**247**	4	83	750	≤ 100 AO	273	75	25.6	1960
Lead	ug/L as Pb	**0.305**	4	0.2	1.79	5 MAC	0.38	73	< 0.2	105
Lithium	ug/L as Li	**< 2**	4	< 2	< 2		< 2	43	< 2	20.1
Magnesium	mg/L as Mg	**3.84**	4	3.65	3.94	No Guideline Required	3.8	73	2.98	4.6
Manganese	ug/L as Mn	**55.75**	4	11.4	146	120 MAC / ≤ 20 AO	28.95	74	< 1	1370
Molybdenum	ug/L as Mo	**< 1**	4	< 1	< 1		< 1	73	0.065	< 20
Nickel	ug/L as Ni	**< 1**	4	< 1	< 1		< 1	73	0.353	< 50
Potassium	mg/L as K	**0.6865**	4	0.536	0.847		0.658	73	0.387	1.36
Selenium	ug/L as Se	**< 0.1**	4	< 0.1	< 0.1	50 MAC	< 0.1	73	< 0.04	< 0.5
Silicon	mg/L as Si	**7575**	4	4370	8970		7330	73	2750	10100
Silver	ug/L as Ag	**< 0.02**	4	< 0.02	< 0.02	No Guideline Required	< 0.02	73	< 0.005	< 40
Sodium	mg/L as Na	**8.83**	4	8.54	8.99	≤ 200 AO	9.09	73	7.03	13.2
Strontium	ug/L as Sr	**96.25**	4	91.7	102	7000 MAC	95.8	73	79.8	120
Sulfur	mg/L as S	**< 3**	4	< 3	< 3		< 3	71	< 3	6.1
Tin	ug/L as Sn	**< 5**	4	< 5	< 5		< 5	73	0.46	65
Titanium	ug/L as Ti	**< 5**	4	< 5	< 5		< 5	73	1.44	65
Thallium	ug/L as Tl	**< 0.01**	4	< 0.01	< 0.01		< 0.01	71	0.008	< 0.05
Uranium	ug/L as U	**< 0.1**	4	< 0.1	< 0.1	20 MAC	< 0.1	71	0.007	< 0.1
Vanadium	ug/L as V	**< 5**	4	< 5	< 5		< 5	73	0.5	< 10
Zinc	ug/L as Zn	**8.95**	4	5.6	14.4	≤ 5000 AO	8.7	73	< 1	258
Zirconium	ug/L as Zr	**0.145**	4	< 0.1	0.21		0.16	71	< 0.1	0.57
Microbial Parameters										
Indicator Bacteria										
Coliform, Total	CFU/100 mL	**15**	13	< 1	7800		108	125	1	9200
E. coli	CFU/100 mL	**< 1**	13	< 1	12		< 1	127	<1	29
Hetero. Plate Count, 35C (2 day)	CFU/1 mL	Not tested in 2024					2200	2	1100	3300
Parasites										
Cryptosporidium, Total oocysts	oocysts/100 L	**0.445**	2	0	0.89	Zero detection desirable	< 1	27	< 1	2.8
Giardia, Total cysts	cysts/100 L	**0.445**	2	0	0.89	Zero detection desirable	< 1	27	< 1	< 1
Algal Toxins										
Microcystin	ug/L	Not tested in 2024				1.5 ug/L MAC	<1	27	<1	<1

Table 2

Table 2: 2024 Summary of Treated Water Test Results, Lyall Harbour / Boot Cove Water System										
PARAMETER		**2024 ANALYTICAL RESULTS**				**CANADIAN GUIDELINES**	**2014-2023 ANALYTICAL RESULTS**			
Parameter Name	Units of Measure	Annual Median	Samples Analyzed	Range Min.	Range Max.	≤ = Less than or equal to	Median	Samples Analyzed	Range Minimum	Range Maximum
ND means Not Detected by analytical method used										
Physical Parameters										
Carbon, Total Organic	mg/L as C	**4.40**	15	4	5		4.50	166	1.1	66.9
Colour, True	TCU	**8.50**	24	4	19		9.00	84	< 2	> 50
pH	No units	**6.30**	4	6.2	6.6	7.0 - 10.5 AO	6.76	22	5.9	8
Hardness	mg/L as CaCO3	**43.05**	8	37.5	46.8		43.00	71	37.2	50.1
Turbidity	NTU	**0.73**	28	0.15	1.2	1 MAC and ≤ 5 AO	0.95	216	0.18	5.3
Turbidity, Field Tests	NTU	**0.99**	92	0.06	1.8		0.81	379	0.09	4
Water Temperature	Degrees C	**9.70**	224	5.2	18.6	≤ 15 AO	11.00	1916	0	20.8
Microbial Parameters										
Indicator Bacteria										
Coliform, Total	CFU/100 mL	**< 1**	106	< 1	6	0 MAC	< 1	830	<1	460
E. coli	CFU/100 mL	**< 1**	106	< 1	< 1	0 MAC	< 1	832	<1	1
Hetero. Plate Count, 7 day	CFU/1 mL	**1635**	18	10	17,000	No Guideline Required	1000	159	< 10	33000
Algal Toxins										
Algal Toxins										
Microcystin	ug/L	Not tested in 2024				1.5 ug/L MAC	<1	3	<1	<1
Disinfectants										
Disinfectants										
Chlorine, Free Residual	mg/L as Cl2	**0.53**	203	0.04	7.20	No Guideline Required	0.34	1918	0.01	8.8
Chlorine, Total Residual	mg/L as Cl_2	Not tested in 2024				No Guideline Required	0.52	1318	0.01	8.8
Disinfection By-Products										
Haloacetic Acids										
HAA5	ug/L	**48.5**	4	26	73	80 MAC	56.00	32	< 0.1	160
Trihalomethanes (THMs)										
Bromodichloromethane	ug/L	**16.5**	4	13.0	18.0		15	44	0.643	400.6
Bromoform	ug/L	**< 1**	4	< 1	< 1		< 1	44	< 0.1	< 1
Chloroform	ug/L	**69.0**	4	65.0	94.0		80	44	7.26	250
Chlorodibromomethane	ug/L	**1.9**	4	1.5	2.1		1.6	44	<0.1	31
Total Trihalomethanes	ug/L	**88.0**	4	80.0	110.0	100 MAC	97	44	7.9	280
Metals										
Aluminum	ug/L as Al	**15**	8	4.2	54.3	2900 MAC / 100 OG	18.1	71	6.7	138
Antimony	ug/L as Sb	**< 0.5**	8	< 0.5	< 0.5	6 MAC	< 0.5	71	0.035	< 50
Arsenic	ug/L as As	**0.25**	8	0.24	0.36	10 MAC	0.35	71	0.2	0.8
Barium	ug/L as Ba	**2.75**	8	2.2	3.6	1000 MAC	2.6	71	1.5	16.1
Beryllium	ug/L as Be	**< 0.1**	8	< 0.1	< 0.1		< 0.1	71	< 0.01	< 0.1
Bismuth	ug/L as Bi	**< 1**	8	< 1	< 1		< 1	71	0.005	< 1
Boron	ug/L as B	**< 50**	8	< 50	53	5000 MAC	< 50	71	13	< 50
Cadmium	ug/L as Cd	**< 0.01**	8	< 0.01	< 0.01	7 MAC	< 0.01	71	< 0.005	0.087
Calcium	mg/L as Ca	**11.05**	8	9.48	12.1	No Guideline Required	10.8	71	9.44	13.2
Chromium	ug/L as Cr	**< 1**	8	< 1	< 1	50 MAC	< 1	71	< 0.1	< 10
Cobalt	ug/L as Co	**< 0.2**	8	< 0.2	< 0.2		< 0.2	71	0.01	< 0.5
Copper	ug/L as Cu	**33.65**	8	13	69.9	2000 MAC / ≤ 1000 AO	31.7	71	2.14	595
Iron	ug/L as Fe	**81.5**	8	37.5	318	≤ 100 AO	132	73	28.8	EXG 1670
Lead	ug/L as Pb	**0.965**	8	0.4	1.96	5 MAC	1.35	71	< 0.2	25.8
Lithium	ug/L as Li	**< 2**	8	< 2	< 2		< 2	42	1.74	< 5
Magnesium	mg/L as Mg	**3.765**	8	3.36	3.99	No Guideline Required	3.76	71	3.2	4.53
Manganese	ug/L as Mn	**1.6**	8	1.1	18.3	120 MAC / ≤ 20 AO	2.1	73	< 1	26.3
Molybdenum	ug/L as Mo	**< 1**	8	< 1	< 1		< 1	71	0.076	< 1
Nickel	ug/L as Ni	**< 1**	8	< 1	< 1		1.3	71	0.288	80.9
Potassium	mg/L as K	**0.6455**	8	0.562	0.888		0.677	71	0.479	0.956
Selenium	ug/L as Se	**< 0.1**	8	< 0.1	< 0.1	50 MAC	< 0.1	71	< 0.04	0.12
Silicon	mg/L as Si	**7400**	8	4150	9090		7220	71	2970	8850
Silver	ug/L as Ag	**< 0.02**	8	< 0.02	< 0.02	No Guideline Required	< 0.02	71	< 0.005	< 0.02
Sodium	mg/L as Na	**11.25**	8	10.4	12.2	≤ 200 AO	11.5	71	9.26	15.6
Strontium	ug/L as Sr	**96.7**	8	83	109	7000 MAC	96.2	71	80.5	121
Sulfur	mg/L as S	**< 3**	8	< 3	< 3		< 3	71	< 3	5.6
Tin	ug/L as Sn	**< 5**	8	< 5	< 5		< 5	71	< 0.2	47.8
Titanium	ug/L as Ti	**< 5**	8	< 5	< 5		< 5	71	0.79	9.3
Thallium	ug/L as Tl	**< 0.01**	8	< 0.01	< 0.01		< 0.01	71	< 0.002	< 0.05
Uranium	ug/L as U	**< 0.1**	8	< 0.1	< 0.1	20 MAC	< 0.1	71	0.008	< 0.1
Vanadium	ug/L as V	**< 5**	8	< 5	< 5		< 5	71	0.48	< 5
Zinc	ug/L as Zn	**30.1**	8	14.4	43.6	≤ 5000 AO	26.6	71	< 5	102
Zirconium	ug/L as Zr	**0.115**	8	< 0.1	0.25		0.12	71	< 0.1	0.66

CAPITAL REGIONAL DISTRICT

LYALL HARBOUR BOOT COVE WATER
Statement of Operations (Unaudited)
For the Year Ended December 31, 2024

	2024	2023
Revenue		
Transfers from government	140,696	133,030
User Charges	131,410	122,312
Other revenue from own sources:		
Interest earnings	-	147
Transfer from Operating Reserve	3,500	25,000
MFA Debt Reserve Earning	4,107	189
Other revenue	1,216	1,196
Total Revenue	280,929	281,874
Expenses		
General government services	9,908	8,676
CRD Labour and Operating costs	177,992	164,563
Contract for Services	-	9,421
Debt Servicing Costs	29,059	30,266
Supplies	6,382	7,010
Other expenses	37,325	33,068
Total Expenses	260,666	253,004
Net revenue (expenses)	20,263	28,870
Transfers to own funds:		
Capital Reserve Fund	8,097	8,870
Operating Reserve Fund	12,166	20,000
Annual surplus/(deficit)	-	-
Accumulated surplus/(deficit), beginning of year	-	-
Accumulated surplus/(deficit), end of year	$ -	-

CAPITAL REGIONAL DISTRICT

LYALL HARBOUR BOOT COVE WATER
Statement of Reserve Balances (Unaudited)
For the Year Ended December 31, 2024

	Capital Reserve 2024	2023
Beginning Balance	34,808	32,171
Transfer from Operating Budget	8,097	8,870
Transfer from Completed Capital Projects	-	-
Transfer to Capital Projects	-	(8,000)
Interest Income	1,740	1,767
Ending Balance	44,645	34,808

	Operating Reserve 2024	2023
Beginning Balance	6,497	10,931
Transfer from Operating Budget	12,166	20,000
Transfer to Operating Budget	(3,500)	(25,000)
Interest Income	413	566
Ending Balance	15,576	6,497

Making a difference...together

REPORT TO LYALL HARBOUR BOOT COVE WATER LOCAL SERVICE COMMITTEE MEETING OF TUESDAY, JUNE 10, 2025

SUBJECT **Capital Projects Requiring Funding – Potential Funding Options and Cost Implications**

ISSUE SUMMARY

The Lyall Harbour/Boot Cove (LH/BC) Water Local Service Committee has requested that staff prepare a staff report outlining the proposed path forward to carry out water system improvements in future years, the amount of borrowing required through a loan authorization bylaw and options for obtaining elector approval for the loan (petition or alternative approval process).

BACKGROUND

The LH/BC Water System is located on Saturna Island in the Southern Gulf Islands Electoral Area and provides drinking water to 155 properties. There are 174 parcels (taxable folios) within the LH/BC Water System. Capital Regional District (CRD) Infrastructure and Water Services is responsible for the system's overall operation, maintenance, design, and construction.

There are multiple capital improvements in the LH/BC Water System that will require funding in excess of the available reserve fund balance and will require debt funding to be able to carry out. While the early stages of project planning only allow for rough order of magnitude (ROM) pricing, Table 1 breaks out this preliminary estimation to help support the debt funding request.

Table 1: Capital Projects requiring Debt Funding

Project #	Capital Project Title	Budget	Scope
19-01	Air Valve Replacement Ph 2	$25,000	Replace aging air valves that are a safety concern.
19-03	Standpipe and Valve Replacement	$15,000	Replace the standpipe valves at 119 and 155 East Point Road that are seized and inoperable.
19-05	Autoflush Installation	$25,000	Install 3 autoflushes within the water distribution system to maintain distribution quality.
20-02	Raw Water Turbidity Meter	$20,000	Supply and install a new turbidity meter in the raw water line to aid in operation of the WTP.
22-01	Install Larger Supply Line to Tank	$350,000	Construct a larger supply line to the tank to improve system reliability and operation.
22-02	Dam Improvements and Regulatory Requirements	$575,000	Dam Safety Review (DSR) update and Money Lake Dam safety improvements based on the results of the DSR report.
25-01	New Ground Water Well Assessment	$100,000	Groundwater quantity and quality testing for feasibility to incorporate into the water system.
26-01	Storage Tank condition assessment and repair details	$100,000	Assess leaks in storage tank and develop a repair detail.
N/A	Dam Break Analysis	$60,000	Conduct a dam break analysis per recommendations of the 2022 Dam Safety Review.

N/A	DEP and Other Small Scale Dam Improvements	$30,000	Dam Emergency Plan updates and minor improvements recommended in the 2022 Dam Safety Plan.
N/A	Placeholder – well tie-in, etc.	$100,000	Placeholder budget to potentially action tie-in details to bring new well online.
Subtotal =		$1,400,000	
Project Management (10%) =		$140,000	
Escalation (10%) =		$154,000	
Contingency (20%) =		$338,800	
Total =		**$2.0M**	

These capital improvement projects are required to support future years of water service. The budget requested to complete these projects is $2,000,000. In the absence of grant funding, debt funding (borrowing) will be required in order to proceed with the capital improvements. It would be expected that authorization would be for total debt funding and specific budget allocation on a project specific basis would be adjustable through the annual capital planning process.

A loan authorization bylaw is required to borrow funds to complete the works. Under the *Local Government Act*, participating area approval is required prior to adopting a loan authorization. Approval may be obtained for a service in an electoral area in one of three methods: by petition, by alternative approval process (AAP), or assent voting (referendum). A matrix outlining these three unique processes and the benefits and challenges of each is attached as Appendix A.

ALTERNATIVES

Alternative 1

1. That the petition process be initiated to borrow up to $2,000,000 over 25 years debt term to complete the capital improvement projects.
2. If the petition process is successful, that a loan authorization bylaw be advanced to the Electoral Areas Committee and Capital Regional District Board for readings and adoption; and
3. That staff complete the remaining steps required to secure the funds and begin the projects.

Alternative 2

1. That the alternative approval process (AAP) be selected as the method for obtaining participating area approval to borrow up to $2,000,000 over 25 years debt term to complete the capital improvement projects.
2. That a loan authorization bylaw be advanced to the Electoral Areas Committee and Capital Regional District Board for up to three readings and be referred to the Inspector of Municipalities for approval prior to conducting an AAP process.
3. If the AAP process is successful, that staff complete the remaining steps required to secure the funds and begin the projects.

Alternative 3

1. Defer the capital improvement projects and continue to operate the system as is; and
2. Keep the capital improvement projects within the 5-year capital plan and apply for eligible grants to fund the replacements.

Alternative 4
That this report be referred back to staff for additional information.

IMPLICATIONS

Elector Approval of Loan Authorization Bylaw

Elector approval may be secured through a petition if the owners representing at least 50% of the parcels in the service area, that in total must represent at least 50% of the assessed value of land and improvements, submit signed forms supporting the proposal to borrow funds. The petition process is the least costly and most efficient approval process and typically takes up to 4 months; however, if less than 50% support it, assent voting (referendum) will be required prior to borrowing the funds.

Elector approval is obtained from an alternative approval process (AAP) when less than 10% of estimated eligible electors in the participating area oppose the proposed borrowing unless an assent voting (referendum) is held. The estimate of eligible electors will include the count of non-resident property owners and tenants residing in the service area as provided from Elections BC voters list. If less than 10% respond in opposition, then no further assent is required. If 10% or more oppose then an assent vote or referendum is required, which can cost upwards of $70,000 and must be held within 80 days of the AAP deadline date.

Staff recommend proceeding with a petition process to obtain elector approval for borrowing in local water service areas due to following reasons:

1. **Efficiency**: The petition process can be quicker and more straightforward, often taking up to 4 months, compared to the AAP, which can take up to 7 months.
2. **Cost-Effective**: The petition process generally involves fewer administrative costs. It doesn't require public notices or advertising, which can save money.
3. **Clear Support**: The petition process directly measures support from property owners, who are often the most affected by the proposed changes. This can provide a clearer indication of genuine support.
4. **Less Risk of Failure**: The petition process requires a majority of property owners to show support, which can be easier to achieve than avoiding a 10% opposition threshold in the AAP.
5. **Simplicity**: The petition process is simpler, with one vote per property, making it easier to manage and understand.
6. **Direct Engagement**: It allows for direct engagement with property owners, potentially leading to more informed and committed support. As part of this process, the CRD recommends a public open house to educate the property owners about the projects and garner support.

Implementation of Petition Process

The steps required to obtain elector approval via the petition are outlined below:

- Confirm Committee approval for a petition process to obtain elector approval.
- Complete and send petition letter addressed to each owner(s) of the parcel/folio within the participating area (draft petition attached as Appendix B)

- Advertise the petition within the LH/BC Water System (direct mail, local newspapers, notice boards and website).
- Host a public open house to share information and gather signatures. (not required but recommended)
- Determine results of the petition following the deadline of August 29, 2025 (the petition is at least a 30-day period from date petition letters are sent to each owner).
- If a 50% approval threshold is exceeded, present the loan authorization bylaw to the Electoral Areas Committee and CRD Board with a recommendation to introduce and provide up to three readings.
- Send the loan authorization bylaw to the BC Inspector of Municipalities.
- Following approval by the Inspector, return the loan authorization bylaw to the CRD Board for final approval.
- Following the one-month bylaw challenging period, complete process to draw upon loan and begin projects.

Financial Implications

Long-term debt must be arranged through the Municipal Finance Authority (MFA) which offers a maximum lending term of 30 years. MFA will set a fixed interest rate for an initial term, generally 10 years, and subsequently refinance the loan, typically in five-year increments. The loan amortization bylaw will define the maximum debt term; however, the length of the initial fixed term and the subsequent refinancing terms are at the sole discretion of the MFA.

For analytical purposes only, four different amortization term scenarios are simulated in Table 2. The cost of borrowing is the total of the estimated principal and interest payments over the borrowing term. The information in Table 2 is a high-level estimation only based on the indicative interest rates published by MFA at the time of this staff report. The actual cost of borrowing will be dependent on the loan amount, actual interest rates at the time of borrowing and refinancing, and the amortization term selected.

Table 2: Lyall Harbour/Boot Cove Water System Debt Servicing Costs - Simulation

Borrowing Amount	**$ 2,000,000**			
Borrowing term (years)	15	20	25	30
Indicative Interest Rate*	4.48%	4.74%	4.74%	4.74%
Cost of Borrowing $	$2,910,262	$3,303,191	$3,645,187	$3,996,748
Annual Debt Payment $	$194,017	$165,160	$145,807	$133,225
Annual Parcel Tax per taxable folio $ **	$1,115	$949	$838	$766

**MFA Indicative Market Rates used for analysis, taken from MFA Website, May 28, 2025.*
*** Calculated parcel tax assuming no change in total folios, set at 2025 level of 174 folios.*

CRD staff consider multiple guidelines with respect to amortization term, including estimated useful life of the infrastructure, the impact of the annual debt payment requirement, the total cost of borrowing over debt term, and the interest rate risk.

A longer amortization term will minimize the annual debt payments, but it results in higher total cost of borrowing and higher interest rate risk exposure. Although a debt term of 15 years has the lowest total borrowing costs, a 25-year term is recommended in balancing the annual debt payments requirement for ratepayers, the interest rate risk and the useful life of the capital assets.

Staff will continue pursing grant opportunities if any become available. Approved loan authorization bylaw will increase the grant success as often the grant programs require cost sharing by demonstrating the local share is committed and secured. The required actual borrowing amount will be reduced if a future grant is awarded.

Service Delivery Implications

Completing the approval process and borrowing funds sooner will minimize service disruptions caused by water quality issues, continued leakage and other issues related to aging infrastructure. The likelihood of disruptions will continue to increase until a solution is implemented.

The sooner the projects are complete, the lower the risk of emergency repairs and additional leakage. Higher operational costs to maintain the existing infrastructure requiring upgrades will be incurred until funding is attained to complete the projects or failure occurs. If the infrastructure is left to fail, emergency replacement costs will likely be significantly higher than any planned replacement costs.

CONCLUSION

Multiple capital improvements are needed to upgrade the Lyall Harbour/Boot Cove Water System. With insufficient reserve funds, debt funding and a loan authorization bylaw are required to borrow the necessary estimated $2,000,000. Under the *Local Government Act*, participating area approval is required for the loan authorization. A petition process is recommended over an AAP to seek approval, as it is more efficient, cost-effective, and better represents parcel owners' feedback.

RECOMMENDATION

1. That the petition process be initiated to borrow up to $2,000,000 over 25 years debt term to complete the capital improvement projects.
2. If the petition process is successful, that a loan authorization bylaw be advanced to the Electoral Areas Committee and Capital Regional District Board for readings and adoption; and
3. That staff complete the remaining steps required to secure the funds and begin the projects.

Submitted by:	Joseph Marr, P.Eng., Senior Manager, Infrastructure Planning and Engineering
Concurrence:	Alicia Fraser, P.Eng., General Manager, Infrastructure and Water Services
Concurrence:	Kristen Morley, JD, General Manager, Corporate Services
Concurrence:	Varinia Somosan, CPA, CGA, Deputy CFO and Senior Manager of Financial Services

ATTACHMENT(S)

Appendix A: Matrix of Elector Approval Processes
Appendix B: Draft Letter & Petition for the Lyall Harbour/Boot Cove Water System Borrowing

Matrix of Elector Approval Processes

CRITERIA	PETITION	ALTERNATIVE APPROVAL PROCESS (AAP)	ASSENT VOTING (REFERENDUM)
Legislation	LGA s. 337 – EA services LGA ss. 347, 407, 408 CC s. 212 (4) to (6)	LGA s. 345	LGA Part 4
Length to complete[1]	Up to 4 months	Up to 7 months	Up to one (1) year
Approx. Cost of Elector Approval Method	$500 - $3,000 *for the mailing and delivery of petition letter/form*	$1,500 - $10,000 *for paid advertising*	$70,000 + *for paid advertising and 3 days of voting*
Format	Signed Petition per property	Signed Elector Response form	Secret Ballot
Success is…	Petition must be signed by the **owners of at least 50% of the parcels** that would be subject to the local service tax, and the persons signing must be the **owners of parcels that in total represent at least 50% of the assessed value of land and improvements** that would be subject to the local service tax	When the number of elector response forms submitted by the AAP deadline **is less than the 10% threshold**	When a **majority** of the votes cast are in favour *Majority = 50% plus 1*
Failure is….	Receiving an insufficient value (less than 50% parcels and 50% of assessed values) of signed petitions by the requested response deadline	When the number of verified elector response forms submitted by the AAP deadline reaches or exceeds the 10% threshold	Less than a majority of the votes cast are in favour

[1] Calculation is based on a START date of either 1) date petition letter is distributed or 2) date that CRD Board gives 3rd reading of Bylaw

Matrix - Participating Area Approval Processes

CRITERIA	PETITION	ALTERNATIVE APPROVAL PROCESS (AAP)	ASSENT VOTING (REFERENDUM)
Administrative Pros	Can be administered before a Bylaw is drafted Only one petition response per property	Requires less resources than assent voting With 2/3 Board approval, AAP is to be conducted for the ENTIRE PROPOSED SERVICE AREA to increase the 10% threshold	Cost-efficient to run assent voting at same time as General Local Elections (next in 2026)
Administrative Cons	Most time intensive approval process for **program area staff** to administer and communicate with participants in the service May require an open house or "petition signing" event	Must wait for Inspector Approval before proceeding with AAP In smaller service areas, a 10% threshold may be too small for an AAP to be successful (i.e. 100 estimated voters results in a threshold of 10 received responses) If unsuccessful, bylaw must be abandoned, or ASSENT VOTING must be held within 80 days of AAP response deadline	Would have a major impact on operations and may require additional resources to conduct (i.e. contracted staff and auxiliary) Very expensive to publish all statutory notices as it will include call for scrutineers for and against the question
Voter Pros	All property owners are directly notified of petition Property owners are given a number of weeks to consider proposal and respond by the requested response date	Voters have at least 30 days to participate by submitting a signed Elector Response Form May submit form electronically by email	Most democratic with majority of voters deciding outcome (voters = property owners and tenants)
Voter Cons	Only one petition response per property When more than one owner on title, signatures from the majority of owners on title is required	Notification of AAP is indirect with one statutory in newspapers and one posted on CRD Public Notices webpage Additional communication methods may be considered	Limited to advance and general voting opportunities (i.e. 3 opportunities within a 10-day period) or must apply to vote by mail ballot Considered unfair by landlord property owners as tenants may vote on matters impacting tax requisition

June XX, 2025

File:

Dear Property Owner(s) in the Lyall Harbour/Boot Cove Water Local Service,

RE: LOAN AUTHORIZATION PETITION FOR LYALL HARBOUR/BOOT COVE WATER LOCAL SERVICE

The Lyall Harbour/Boot Cove water system is in need of upgrades and current capital reserves are insufficient to cover the projected capital costs of $2,000,000. Multiple projects, including dam improvements, storage tank repairs and a future ground well suitability study is deemed necessary to continue providing safe drinking water in the service area.

If property owners in the Lyall Harbour/Boot Cove Water Local Service would like the CRD to finance the costs of the works on their behalf, and undertake the capital works necessary to upgrade the water system, a form of public petition is enclosed for property owners to complete.

If a property is owned by more than one person, the *Local Government Act* requires that a majority of the owners must sign the petition and return it to the CRD in order for it to be counted in the affirmative. For the petition to be successful, the owners of at least 50% of the properties must consent and those properties must represent at least 50% of the net taxable value in the service area. Petitions that are not returned will be counted in the negative. It is important to note that the borrowing and taxation will apply to all properties in the service area (not just the property owners who voted yes).

Before completing and returning the petition, property owners are encouraged to review relevant background information provided at www.crd.ca/lyallboot-ws

Should you have question or concerns please contact Jared Kelly, Manager of Infrastructure and Water Services, Capital Projects by email at jkelly@crd.bc.ca.

Please return the enclosed petition, in the envelope provided, to the CRD no later than August 29, 2025.

Sincerely,

Alicia Fraser
General Manager
Infrastructure and Water Services

DRAFT

Attachments: 3

Lyall Harbour Boot Cove Local Service Area Petition
Bylaw No. 2920, “Lyall Harbour/Boot Cove Water Service Establishment Bylaw No. 1, 2001”
FAQ

cc: Ted Robbins, Chief Administrative Officer
Kristen Morley, General Manager, Corporate Services

AF:mm

PETITION

TO AUTHORIZE THE PROPOSED BORROWING OF TWO MILLION DOLLARS ($2,000,000) FOR INFRASTRUCTURE UPGRADES IN THE LYALL HARBOUR/BOOT COVE WATER LOCAL SERVICE

Petition deadline: August 29, 2025

I/We do hereby petition the Capital Regional District (CRD) to borrow monies for capital project works in the **Lyall Harbour/Boot Cove Water Local Service** (map of area enclosed) on Saturna Island within the Southern Gulf Islands Electoral Area.

I/We understand and agree that:

1. The proposed borrowing is in relation to the service established under the Capital Regional District Bylaw No. 2920, "Lyall Harbour/Boot Cove Water Service Establishment Bylaw No. 1, 2001", as amended;
2. The estimated total amount of the proposed borrowing is up to $2,000,000;
3. The purpose of this proposed borrowing is to complete the required capital works, facilities and equipment necessary to upgrade the water system;
4. The maximum term for which debentures for the proposed borrowing will be issued is 25 years; and
5. The annual costs of the debt related to proposed borrowing will be recovered through annual tax requisition from all the taxable folios (currently there are 174 folios).

Legal Description of property:

[Insert Legal Description]

Mailing Address:

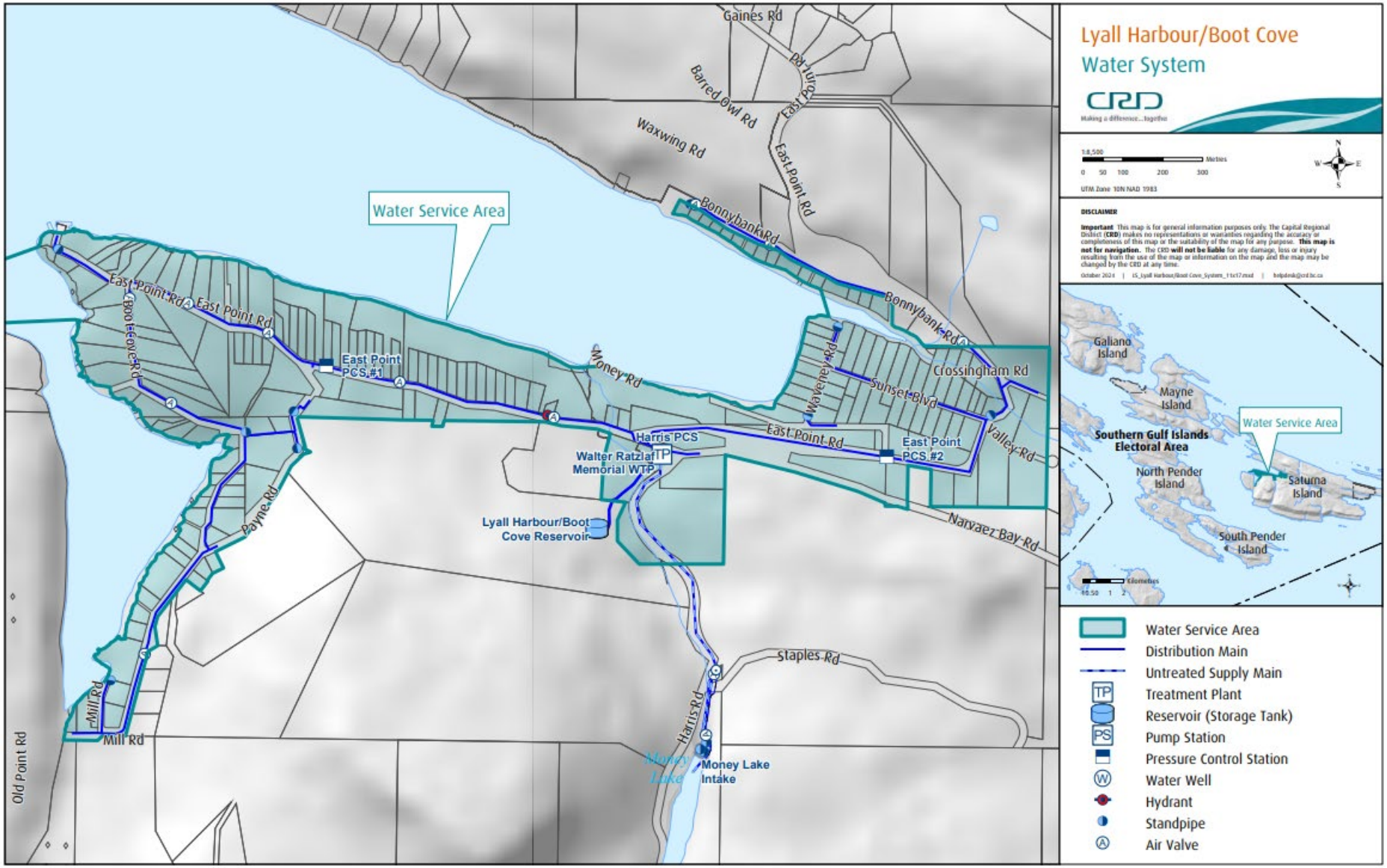
I/We am/are the Registered Owner(s) of the above noted property:

[Insert Owner's Name]		
Full Name - Owner on Title	Signature	Date
[Insert Owner's Name]		
Full Name - Owner on Title	Signature	Date
[Insert Owner's Name]		
Full Name - Owner on Title	Signature	Date

Please note: Where more than one person is the registered owner of a lot, the signatures of a MAJORITY of the owners are required.
If the owner is an incorporated body (society, incorporated business, etc.) document(s) verifying signing authority for the corporation are required.

A map identifying the Lyall Harbour/Boot Cove Water Local Service is on the back page of this petition.

DRAFT


Lyall Harbour/Boot Cove
Water System
CRD
Making a difference...together
1:8,500
Metres
0 50 100 200 300
UTM Zone 10N NAD 1983
DISCLAIMER
Important. This map is for general information purposes only. The Capital Regional District (CRD) makes no representations or warranties regarding the accuracy or completeness of this map or the suitability of the map for any purpose. This map is not for navigation. The CRD will not be liable for any damage, loss or injury resulting from the use of the map or information on the map and the map may be changed by the CRD at any time.
October 2024 | LS_Lyall Harbour/Boot Cove_System_11x17.mxd | helpdesk@crd.bc.ca
Water Service Area
Gaines Rd
Barred Owl Rd
Waxwing Rd
East Point Rd
Bonnybank Rd
Crossingham Rd
Sunset Blvd
Valley Rd
Waveney Rd
Money Rd
East Point PCS #1
East Point PCS #2
Harris PCS
Walter Ratzlaff Memorial WTP
Lyall Harbour/Boot Cove Reservoir
Boot Cove Rd
Payne Rd
Narvaez Bay Rd
Staples Rd
Harris Rd
Mill Rd
Old Point Rd
Money Lake
Money Lake Intake
Galiano Island
Mayne Island
Southern Gulf Islands Electoral Area
North Pender Island
Saturna Island
South Pender Island
Kilometres
Water Service Area
Distribution Main
Untreated Supply Main
Treatment Plant
Reservoir (Storage Tank)
Pump Station
Pressure Control Station
Water Well
Hydrant
Standpipe
Air Valve

Making a difference...together

BYLAW NO. 2920

LYALL HARBOUR/BOOT COVE WATER SERVICE ESTABLISHMENT BYLAW NO. 1, 2001

Consolidated for Public Convenience
(This bylaw is for reference purposes only)

ORIGINALLY ADOPTED JANUARY 9, 2002
(Consolidated with Amending Bylaws 3306)

For reference to original bylaws or further details, please contact the Capital Regional District,
Legislative Services Department, 625 Fisgard St., PO Box 1000, Victoria BC V8W 2S6
T: (250) 360-3127, F: (250) 360-3130, Email: legserv@crd.bc.ca, Web: www.crd.bc.ca

CAPITAL REGIONAL DISTRICT

BYLAW NO. 2920

****

A BYLAW TO CONVERT SATURNA ISLAND WATER SUPPLY AND DISTRIBUTION SYSTEM SPECIFIED AREA TO A SERVICE AND TO AMEND THE POWER AS SET OUT IN SATURNA WATER SUPPLY AND DISTRIBUTION SYSTEM SPECIFIED AREA ESTABLISHMENT AND LOAN AUTHORIZATION BYLAW NO. 1, 1978

****

WHEREAS:

A. The Regional Board of the Capital Regional District may, by bylaw, under Section 774.2(3) of the *Local Government Act* in accordance with subsection (5) convert a service provided by the Regional District under a specified area to a Service and by the same bylaw amend the power to the extent that is could if the power were in fact exercised under the authority of a bylaw establishing the service, provided that the bylaw meets the requirements of Section 800.1 and is adopted in accordance with Section 802 of the *Local Government Act*;

B. The Regional Board did establish by Bylaw No. 513 cited as "Saturna Island Water Supply and Distribution System Specified Area Establishment and Loan Authorization Bylaw No. 1, 1978", a specified area for the provision of a water supply and distribution system for the specified area described in the bylaw within a portion of the Electoral Area of Southern Gulf Islands.

C. The Regional Board wishes to convert the said water supply and distribution system specified area to a Service;

D. The Regional Board wishes to amend the specified area at the same time as converting the same to a Service by adding to the area the properties more specifically described in Schedule "B" hereto.

E. The approval of the Inspector of Municipalities is required under Section 801(1)(a) and 802 of the *Local Government Act*;

NOW THEREFORE the Regional Board of the Capital Regional District in open meeting assembled enacts as follows:

1. The water supply and distribution system established by Saturna Island Water Supply and Distribution System Specified Area Establishment and Loan Authorization Bylaw No. 1, 1978 is hereby converted to and established as a Service within the service area defined in Section 1 for the operation of a service for the supply, treatment, conveyance, storage and distribution of water.

2. The boundaries of the Service Area established in Section 1 are shown in heavy outline on Schedule "A" hereto.

3. Only the Electoral Area of Southern Gulf Islands is a participating area for this service.

4. The annual costs for the Service, net of grants and other revenue, shall be recovered:

    (a) by the imposition of fees and charges, to be fixed by a separate bylaw;

    (b) by a parcel tax to be imposed in the manner provided by Division 4.3 of Part 24 of the *Local Government Act*; and

(c) any deficiency arising from a shortage of revenue generated by (a) and (b) by the requisition of money under Section 806 to be collected by a property value tax to be levied and collected under Section 806 of the *Local Government Act*.

5. The maximum amount that may be requisitioned under Section 806(1) for the Service will be the greater of:

   (a) one hundred and fifty thousand ($150,000) dollars; or

   (b) an amount equal to the amount that could be raised by a property value tax rate of six dollars and ninety ($6.90) cents per one thousand ($1,000) dollars which, when applied to the net taxable value of land and improvements within the service area, will yield the maximum amount that may be requisitioned for the Service

6. The Board of the Capital Regional District may establish a Lyall Harbour/Boot Cover Water Committee consisting of the Director representing the Southern Gulf Islands Electoral Area, plus such other persons as may be designated in the bylaw and in such bylaw may delegate to the Committee any or all of the administrative powers of the Regional Board in relation to the operation of the Service provided under this bylaw.

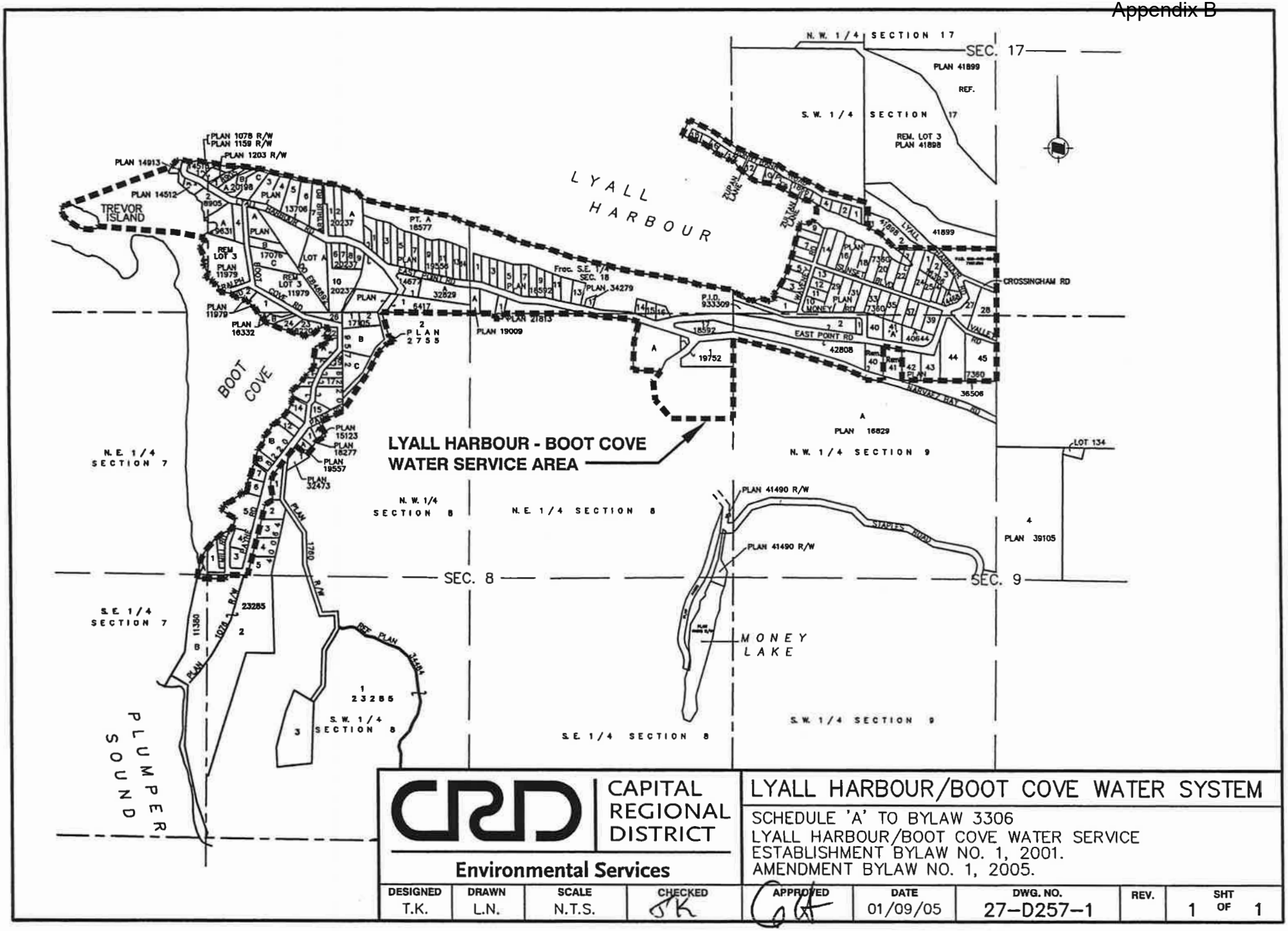
7. This Bylaw may be cited as the “Lyall Harbour/Boot Cove Water Service Establishment Bylaw No. 1, 2001”.

READ A FIRST TIME THIS	28th	day of	November	2001
READ A SECOND TIME THIS	28th	day of	November	2001
READ A THIRD TIME THIS	28th	day of	November	2001
APPROVED BY THE INSPECTOR OF MUNICIPALITIES THIS	24th	day of	December	2001
ADOPTED THIS	9th	day of	January	2002

_____ _____

CHAIR SECRETARY

FILED WITH THE INSPECTOR OF MUNICIPALITIES THIS	14th	day of	January	2002



CRD CAPITAL REGIONAL DISTRICT — Environmental Services								
LYALL HARBOUR/BOOT COVE WATER SYSTEM SCHEDULE 'A' TO BYLAW 3306 LYALL HARBOUR/BOOT COVE WATER SERVICE ESTABLISHMENT BYLAW NO. 1, 2001. AMENDMENT BYLAW NO. 1, 2005.								
DESIGNED	DRAWN	SCALE	CHECKED	APPROVED	DATE	DWG. NO.	REV.	SHT
T.K.	L.N.	N.T.S.			01/09/05	27-D257-1		1 OF 1

SCHEDULE “B”

Addition of:	Lot 42, Plan 7360, Section 9, Cowichan Land District, and;
	Lot A, Plan 67333, Section 8 Cowichan Land District