Lyall Harbour/Boot Cove Water Service

2020 Annual Report

CRD | Drinking Water

Introduction

This report provides a summary of the Lyall Harbour/Boot Cove Water Service for 2020 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 171 parcels (Figure 1) encompassing a total area of approximately 100 hectares. Of the 171 parcels, 152 properties (164 SFE's) are connected to the water system.

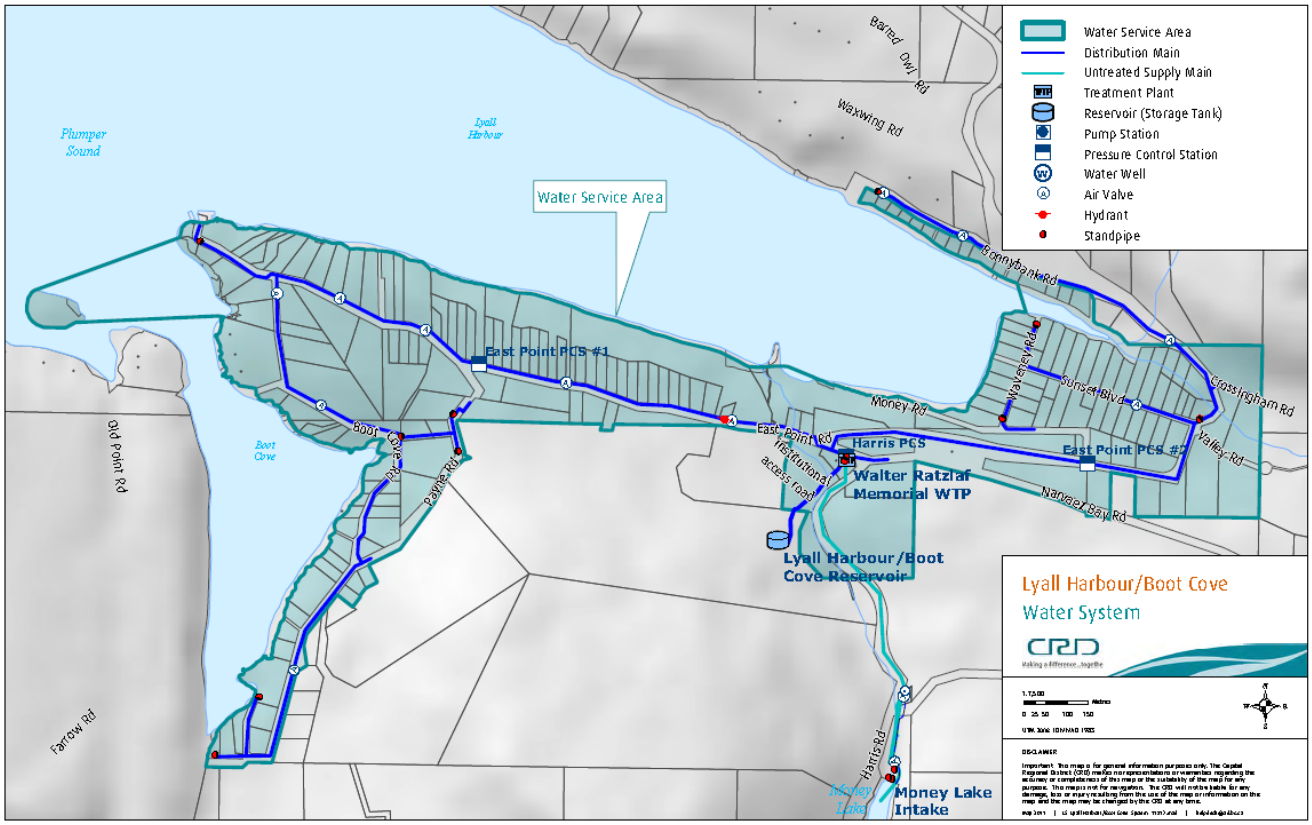

Figure 1: Map of Lyall Harbour/Boot Cove Water System

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 land.
  - 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 adsorption), ultraviolet light disinfection and chlorine disinfection.
- One steel storage tank (total volume 136 cubic metres or 36,000 USGAL).
- Supervisory Control and Data Acquisition (SCADA) system.
- Distribution system and supply pipe network (8,390 metres of water mains).
- Other water system assets: 152 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 2020. Water supply levels for the year are slightly lower than 2019 but greater than historical levels. 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 in order 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.

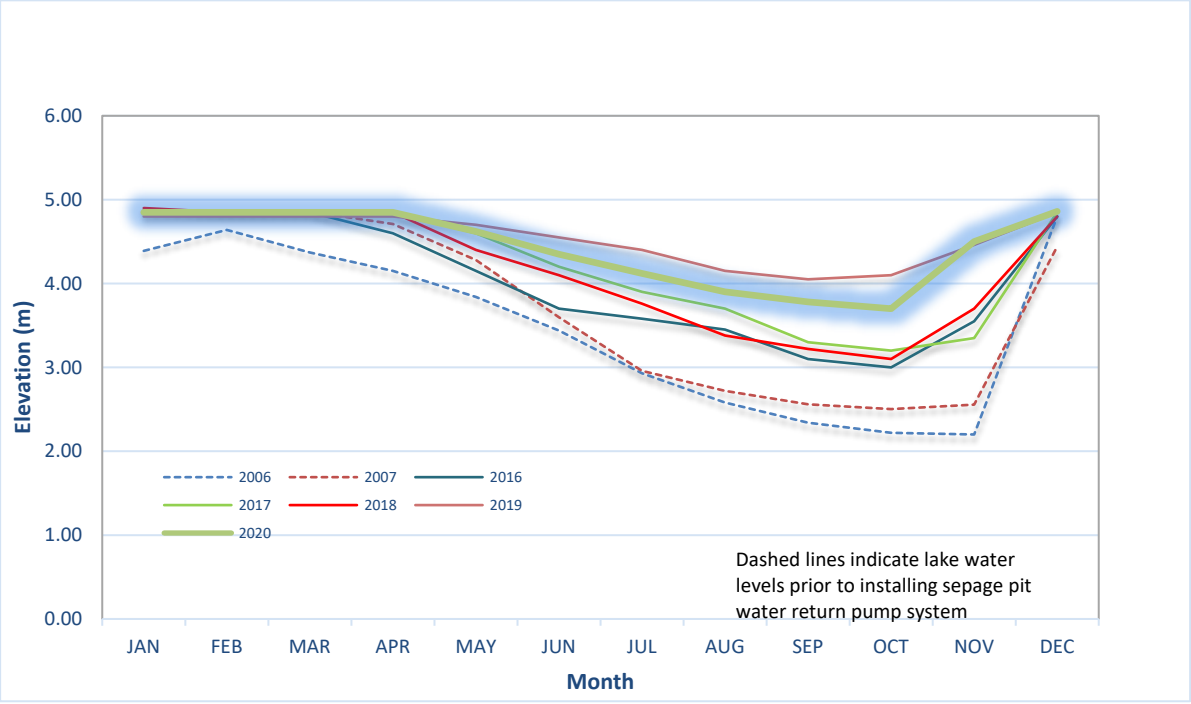

Figure 2: Money Lake Monthly Water Level

Water Production and Demand

Referring to Figure 3, 23,391 cubic meters of water was extracted (water production) from the seepage spring and Money Lake Reservoir in 2020; a 13% increase from the previous year and a 6% decrease from the five year average. Water demand (customer water billing) for the service totaled 19,313 cubic meters of water; a 10% increase from the previous year and an 11% increase from the five year average. The higher water production is partially the result of water system leak repairs.

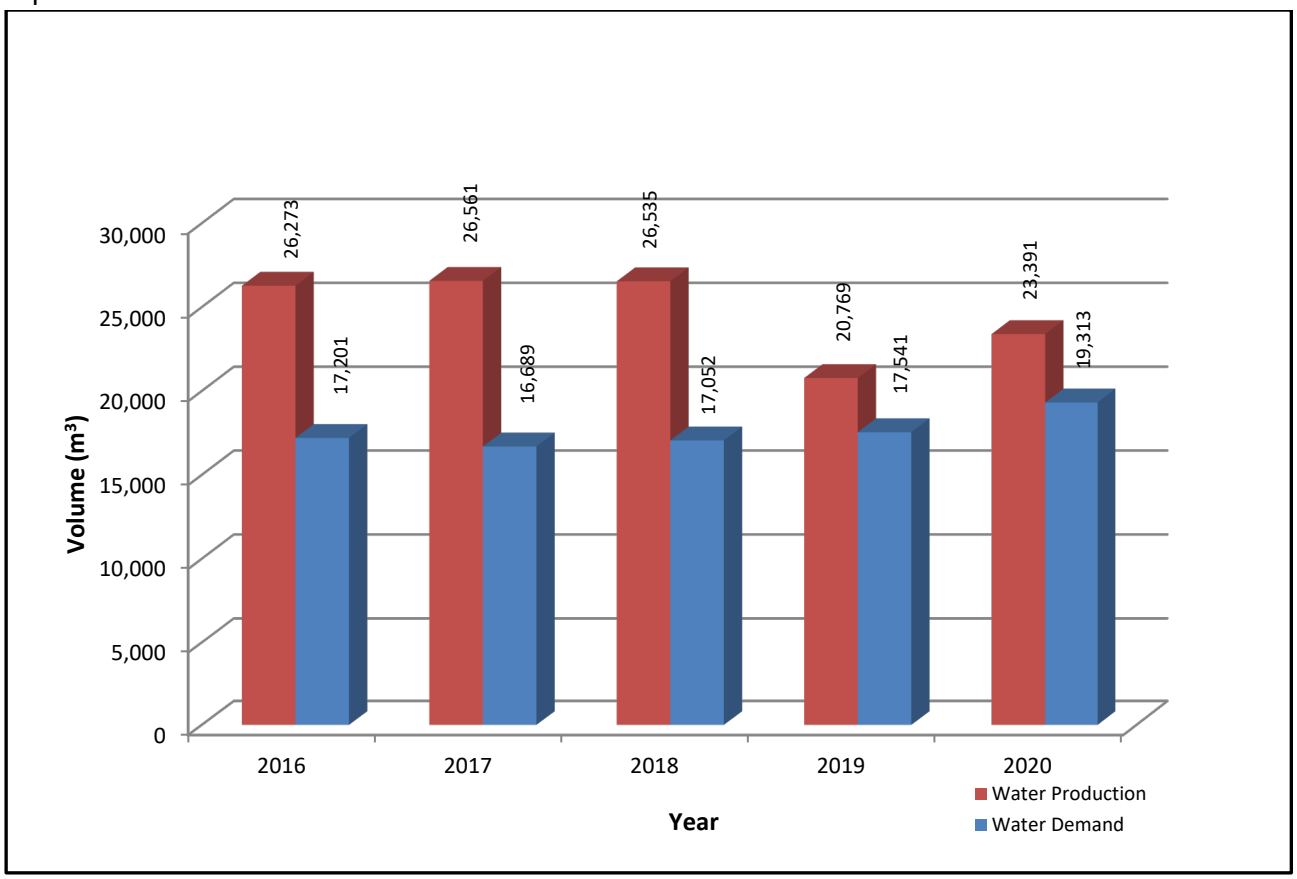

Figure 3: Lyall Harbour/Boot Cove Water System Annual Water Production and Demand.

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 2020 non-revenue water (4,078 cubic meters) represents about 17% of the total water production for the service area. However, almost 13% of the non-revenue water can be attributed to operational use which includes a 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 4% which is considered acceptable for small water systems.

Figure 4 illustrates the monthly water production for 2020 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.

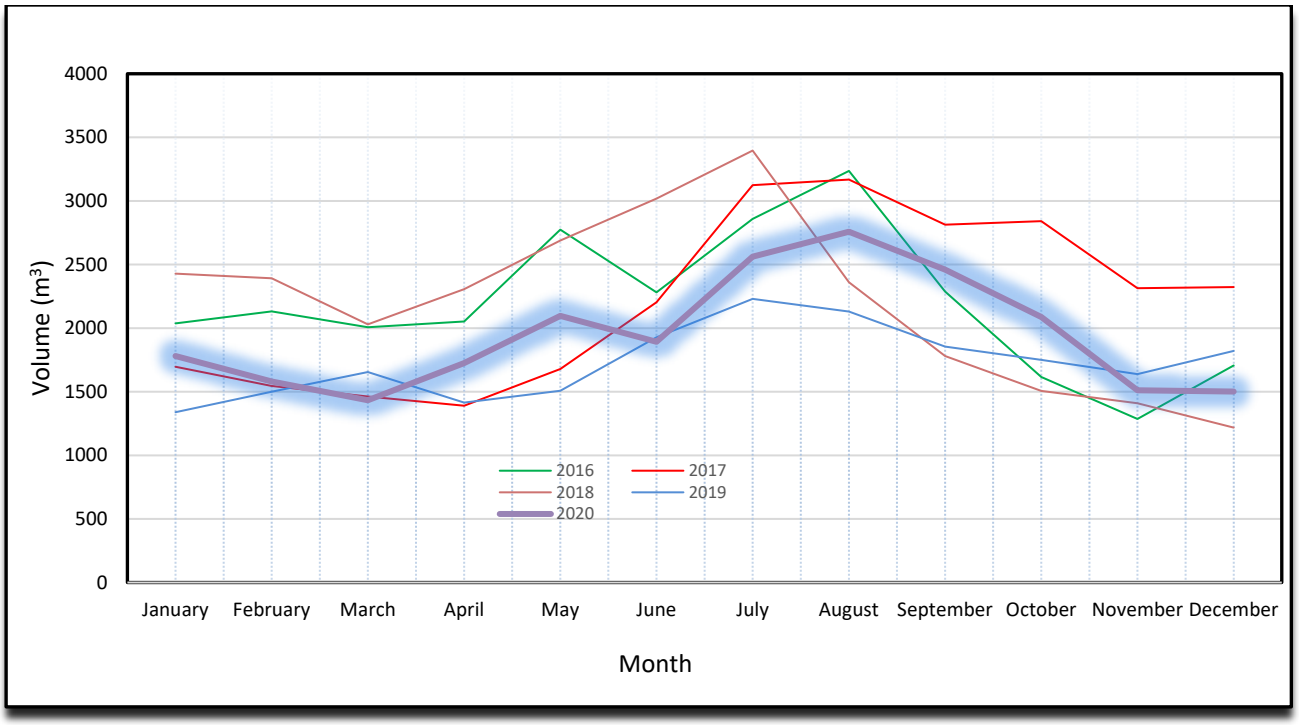

Figure 4: Lyall Harbour/Boot Cove Water Service Monthly Water Production.

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 from Money Lake. During late summer and early fall 2020, 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 had another challenging year in 2020. A high turbidity Boil Water Advisory (BWA) that was issued on February 5, 2020 lasted until March 27, 2020. A similar turbidity pattern occurred again in the fall of 2020 and necessitated another turbidity related BWA on November 13, 2020, which lasted until March 3, 2021. It appears that with the onset of seasonal rainfall in the fall, the raw water conditions in Money Lake and in particular in the seepage water change to include dissolved and/or suspended solids fractions that the existing treatment plant is unable to remove in order to maintain a post-filtration water turbidity of < 1 NTU. This adverse change in raw water conditions seems to subside regularly around February or March. More detailed investigations are required to identify the specific drivers of this issue and to design a mitigation strategy.

Between July 22 and September 15, 2020, Money Lake was subject to a cyanobacteria bloom, following a pattern seen in previous years. Multiple cyanotoxin tests did not detect microcystin toxins in the raw water during this bloom. This blooms did not pose a public health risk through the drinking water supplied.

In August 2020, both regulated disinfection by-products, total Trihalomethanes – TTHM and Haloacetic Acids – HAA, exceeded the maximum acceptable concentration (MAC – measured

against the annual average concentration) in the Guidelines for Canadian Drinking Water Quality (GCDWQ). In consultation with Island Health, CRD issued a public health advisory to all customers with instructions for avoiding exposure to high disinfection by-product concentrations in the drinking water. CRD also developed a disinfection by-product management plan with short, mid-term and long term action items. The short-term actions were implemented immediately and led to a successive reduction of the disinfection by-product concentrations. By November, the concentrations were consistently below the Health Canada MAC. The public health advisory for disinfection by-products was rescinded in February 2021. CRD remains committed to following through with mid and long term actions to address this reoccurring issue.

The data below provides a summary of the water quality characteristics in 2020:

Raw Water:

- The raw water exhibited overall low concentrations of total coliform bacteria, with higher concentrations during the summer and fall months when lake water was the primary water source and water temperatures were high. Consistently throughout the year, the raw water entering the treatment plant contained either none or only very low concentrations of *E. coli* bacteria.
- The raw water turbidity ranged from 0.95 to 12.0 NTU. The highest raw water turbidity period was late fall (Nov/Dec) with the onset of heavy rainfalls. The median annual raw water turbidity was higher than last year with 2.6 NTU, likely due to a significant increase in turbidity sampling and testing during the adverse event in November and December. During the spring and summer months the raw water turbidity was consistently low between 1 and 3 NTU.
- No *Giardia* cysts were detected in 2 samples in 2020. One of two samples for *Cryptosporidium* oocysts detected a small concentration (0.88 / 100L) of this parasite. The UV equipment at the treatment plant is designed to inactivate these parasite concentrations.
- The raw water had naturally high concentrations of iron and manganese especially during the spring and 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.
- The raw water was slightly hard (median hardness 44.1 mg/L $CaCO_3$).
- The natural total organic carbon in the source water was relatively high (median 4.9 mg/L).

Treated Water:

- Outside the periods with a Boil Water Advisory, the treated water was bacteriologically safe to drink. Throughout the year, four samples from the distribution system tested positive for total coliform bacteria. Subsequent resamples were negative and confirmed that no actual drinking water contamination occurred. No *E.coli* bacteria were detected in any treated water sample.
- From January to the end of March, the treated water turbidity was generally > 1 NTU and caused the Boil Water Advisory until March 27, 2020. The treated water turbidity was then consistently under the *GCDWQ* turbidity limit of 1.0 NTU from April until November. By November, the treated water turbidity increased and resulted in another Boil Water Advisory starting on November 13, 2020 and lasting through the end of the year into 2021.
- The treated water total organic carbon (TOC) was periodically very high within a range from 3.3 to 34 mg/L. The annual mean was 4.2 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.

- TTHM and HAA disinfection by-product concentrations until August 2020 were either very close or above the Health Canada maximum acceptable concentration for drinking water. In response, a public health advisory was issued to all customers on September 2, 2020. Upon implementing corrective actions, CRD staff was able to reduce the concentrations of both TTHM and HAA until the end of the year. The advisory, however, stayed in place through 2020 until February 2021.
- The pH of the treated water was consistently below the aesthetic objective range to 10.5 as per GCDWQ (annual median pH 6.9). This could be an indication of metal corrosion issues in the system.
- The treated water had iron and manganese concentrations in exceedance of the aesthetic objective in November 2020. No result exceeded the newly introduced health limit for manganese. The elevated iron and manganese originate in Money Lake during the fall turnover event and transfer also to the seepage water during that time of year. 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 newly established GCDWQ MAC for aluminum was at no time in 2020 exceeded.

Table 1 and 2 below provide a summary of the 2020 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 Integrated Water Services staff:

- Water system leak repair at 100 East Point Road
- Water system leak repair at 112 Payne Road
- Emergency response to high water turbidity levels and resulting boil water advisory for the service
- Several emergency responses to low reservoir water levels and resulting leak detection efforts
- SCADA communications corrective maintenance
- Water treatment plant backflow prevention equipment mechanical repairs

Capital Project Updates

The Capital Projects that were completed in 2020 included:

1. Dam Safety Improvements – Toe Berm: Remaining funds were utilized to retain a contractor to place thick polysheet and granular fill over the infiltrators to reduce the possible effects of surface runoff entering the water system. This work was carried out mid-December 2020.
2. Dam Safety Improvement – Seismic Design: Final reports were received from Thurber on the conceptual design and extents of liquefiable layer. Recommendations were used as a basis for the grant application.
3. A grant application for dam improvements, water system upgrades to improve the water quality and effectiveness of the water treatment system was submitted in October 2020. If successful, work can start as early as end of 2021.

Financial Report

Please refer to the attached 2020 Financial Summary Statement of Operations. Revenue includes parcel taxes (Transfers from Government), fixed user fees (User Charges), interest on savings Interest Earnings), and miscellaneous revenue such as late payment charges (Other Revenue).

Expenses includes all costs of providing the service. General Government Services includes budget preparation, financial management, utility billing and risk management services. CRD Labour and Operating Costs includes 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 includes all other costs to administer and operate the water system, including insurance, supplies, 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 are added to any surplus or deficit carry forward from the prior year, yielding an Accumulated Surplus (or deficit) that is carried forward to the following year.

As of December 31, 2020, the accumulated deficit was ($22,103). In alignment with Local Government Act Section 374 (11), if actual expenditures exceed actual revenues, any deficiency must be included in the next year's financial plan. The financial plan approved on March 24, 2021 incorporated this deficit.

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Attachment: 2020 Financial Summary Statement of Operations

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

Table 1

Table 1: 2020 Summary of Raw Water Test Results, Lyall Harbour / Boot Cove Water System									
PARAMETER		**2020 ANALYTICAL RESULTS**				**CANADIAN GUIDELINES**	**2010-2019 RESULTS**		
Parameter Name	Units of Measure	Annual Median	Samples Analyzed	Range Minimum	Range Maximum	≤ = Less than or equal to	Median	Samples Analyzed	Range Minimum-Maximum
ND means Not Detected by analytical method used									
Physical/Biological Parameters									
Carbon, Total Organic	mg/L as C	**4.90**	11	3.9	5.3		5.30	75	3.27 - 18.0
Colour, True	TCU	**20.0**	13	13.0	33.0		17.0	19	12.7 - 35.0
Hardness as $CaCO_3$	mg/L	**44.1**	4	40.0	46.5	No Guideline Required	43.0	63	34.7 -52.2
pH	pH units	**6.55**	2	6.40	6.70	7.0 - 10.5 AO	6.90	27	6.62 -7.75
Turbidity, Field Samples	NTU	**2.60**	43	0.95	12.0		1.31	29	0.70 - 6.38
Turbidity, Grab Samples	NTU	**2.10**	15	1.30	6.60		1.80	105	0.60 - 20.3
Water Temperature	Degrees C	**8.80**	60	5.5	22.0	15°C AO	11.0	178	4.0 - 25.0
Metals									
Aluminum	ug/L as Al	**98.7**	4	34.9	255.0	2900 MAC / 100 OG	73.1	63	ND - 739
Antimony	ug/L as Sb	**ND**	4	ND	0.0	6 MAC	ND	63	ND - 0.04
Arsenic	ug/L as As	**0.49**	4	0.29	0.70	10 MAC	0.32	63	ND - 7.49
Barium	ug/L as Ba	**2.35**	4	2.30	4.00	1000 MAC	3.80	63	ND - 40.4
Beryllium	ug/L as Be	**ND**	4	ND	0.0		ND	63	ND - 0.00
Bismuth	ug/L as Bi	**ND**	4	ND	0.0		ND	53	ND - 0.02
Boron	ug/L as B	**ND**	4	ND	0.0	5000 MAC	ND	37	ND - 11.0
Cadmium	ug/L as Cd	**ND**	4	ND	0.0	5 MAC	ND	37	ND - 0.09
Calcium	mg/L as Ca	**11.1**	4	10.1	11.8	No Guideline Required	10.9	63	8.10 - 13.2
Chromium	ug/L as Cr	**ND**	4	ND	0.0	50 MAC	ND	63	ND - 0.15
Cobalt	ug/L as Co	**ND**	4	ND	0.20		ND	63	ND - 1.38
Copper	ug/L as Cu	**3.09**	4	2.70	5.05	2000 MAC / ≤ 1000 AO	4.05	63	ND - 285.0
Iron	ug/L as Fe	**208.0**	4	172.0	1150.0	≤ 300 AO	292.5	63	25.6 - 1960.0
Lead	ug/L as Pb	**0.43**	4	0.26	1.30	5 MAC	0.40	63	ND - 105.0
Lithium	ug/L as Li	**ND**	2	ND	0.0		ND	27	ND - 20.1
Magnesium	mg/L as Mg	**3.99**	4	3.57	4.13	No Guideline Required	3.82	63	3.18 - 4.67
Manganese	ug/L as Mn	**19.35**	4	9.8	105.0	120 MAC / ≤ 20 AO	33.35	64	ND - 1370
Molybdenum	ug/L as Mo	**ND**	4	ND	0.0		ND	63	ND - 0.07
Nickel	ug/L as Ni	**ND**	4	ND	0.0		ND	63	ND - 4.70
Potassium	mg/L as K	**0.69**	4	0.55	0.72		0.66	63	0.31 - 1.36
Selenium	ug/L as Se	**ND**	4	ND	0.0	50 MAC	ND	63	ND - 0.11
Silicon	mg/L as Si	**6.77**	4	5.96	7.44		7.29	63	1.17 - 19.8
Silver	ug/L as Ag	**ND**	4	ND	0.0	No Guideline Required	ND	63	ND - 0.03
Sodium	mg/L as Na	**8.99**	4	8.82	9.22	≤ 200 AO	9.20	63	6.44 - 13.2
Strontium	ug/L as Sr	**97.85**	4	85.4	112.0	7000 MAC	96.8	63	70.0 - 120
Sulfur	mg/L as S	**ND**	4	ND	0.0		ND	53	ND - 6.10
Tin	ug/L as Sn	**ND**	4	ND	0.0		ND	63	ND - 65.0
Titanium	ug/L as Ti	**4.75**	4	ND	11.3		ND	63	ND - 65.0
Thallium	ug/L as Tl	**ND**	4	ND	0.0		ND	53	ND - 0.03
Uranium	ug/L as U	**ND**	4	ND	0.0	20 MAC	ND	53	ND - 0.01
Vanadium	ug/L as V	**ND**	4	ND	0.0		ND	63	ND - 0.50
Zinc	ug/L as Zn	**5.85**	4	5.10	17.0	≤ 5000 AO	9.00	63	ND - 258.0
Zirconium	ug/L as Zr	**0.18**	4	0.11	0.31		ND	53	ND - 0.56
Microbial Parameters									
Indicator Bacteria									
Coliform, Total	CFU/100 mL	**270**	13	11.0	1600		81.5	104	0 - 9200
E. coli	CFU/100 mL	**ND**	13	ND	10		0.50	105	0 - 10
Hetero. Plate Count, 35C (2 day)	CFU/1 mL	Last analyzed in 2012					624	31	0 - 2960
Parasites									
Cryptosporidium, Total oocysts	oocysts/100 L	**ND**	2	ND	0.88	Zero detection desirable	0.30	19	ND - 2.80
Giardia, Total cysts	cysts/100 L	**ND**	2	ND	0.0	Zero detection desirable	0	19	ND
Algal Toxins									
Cyanotoxin	ug/L	ND	1	ND	ND	1.5 ug/L MAC	ND	21	ND

Table 2

Table 2: 2020 Summary of Treated Water Test Results, Lyall Harbour / Boot Cove Water System									
PARAMETER		**2020 ANALYTICAL RESULTS**				**CANADIAN GUIDELINES**	**2010-2019 ANALYTICAL RESULTS**		
Parameter Name	Units of Measure	Annual Median	Samples Analyzed	Range Min.	Range Max.	≤ = Less than or equal to	Median	Samples Analyzed	Range Min.-Max.
ND means Not Detected by analytical method used									
Physical Parameters									
Carbon, Total Organic	mg/L as C	**4.20**	17	3.30	34.0		4.40	112	1.10 - 66.9
Colour, True	TCU	**6.00**	10	3.0	14.0		6.10	14	2.0 - 14.0
pH	No units	**6.90**	3	6.30	8.00	7.0 - 10.5 AO	6.79	15	6.56 - 7.03
Hardness	mg/L as CaCO3	**45.85**	8	40.8	47.7		43.20	39	37.2 - 50.1
Turbidity	NTU	**0.80**	22	0.25	1.50	1 MAC and ≤ 5 AO	1.00	158	0.18 - 9.80
Turbidity, Field Samples	NTU	**1.01**	23	0.50	2.05		0.72	77	0.17 - 2.76
Water Temperature	Degrees C	**9.7**	120	6.0	19.0	≤ 15 AO	12.0	1643	0.0 - 20.5
Microbial Parameters									
Indicator Bacteria									
Coliform, Total	CFU/100 mL	**ND**	107	ND	460	0 MAC	0	653	0 - 206
E. coli	CFU/100 mL	**ND**	107	ND	0	0 MAC	0	653	0 - 0.30
Hetero. Plate Count, 7 day	CFU/1 mL	**1150**	16	20	5700	No Guideline Required	10	46	0 - 20000
Algal Toxins									
Algal Toxins									
Cyanotoxin	ug/L	Not tested in 2020				1.5 ug/L MAC	ND	3	ND
Disinfectants									
Disinfectants									
Chlorine, Free Residual	mg/L as Cl2	**0.51**	121	0.03	4.70	No Guideline Required	0.33	1995	0.00 - 8.50
Chlorine, Total Residual	mg/L as Cl_2	**0.75**	42	0.10	4.80	No Guideline Required	0.48	1988	0.01 - 8.60
Disinfection By-Products									
Haloacetic Acids									
HAA5	ug/L	**82**	5	40	130	80 MAC	36.20	16	ND - 160
Trihalomethanes (THMs)									
Bromodichloromethane	ug/L	**15.5**	10	13.0	22.0		17.7	38	0.64 - 40.6
Bromoform	ug/L	**ND**	10	ND	0.0		ND	38	ND - 0.28
Chloroform	ug/L	**80.5**	10	62.0	98.0		79.1	38	7.26 - 250.0
Chlorodibromomethane	ug/L	**1.80**	10	1.2	1.70		2.11	38	ND - 31.0
Total Trihalomethanes	ug/L	**98.0**	10	76.0	120.0	100 MAC	99.5	38	7.90 - 280
Metals									
Aluminum	ug/L as Al	**21.15**	8	9.10	90.1	2900 MAC / 100 OG	18.5	39	7.30 - 100.0
Antimony	ug/L as Sb	**ND**	9	ND	0.0	6 MAC	ND	39	ND - 0.50
Arsenic	ug/L as As	**0.34**	8	0.27	0.52	10 MAC	0.33	39	0.20 - 0.80
Barium	ug/L as Ba	**3.35**	8	2.70	4.80	1000 MAC	1.90	39	1.50 - 16.1
Beryllium	ug/L as Be	**ND**	8	ND	0.0		ND	39	ND - 0.0
Bismuth	ug/L as Bi	**ND**	8	ND	0.0		ND	39	ND - 0.01
Boron	ug/L as B	**ND**	8	ND	0.0	5000 MAC	ND	39	ND - 13.0
Cadmium	ug/L as Cd	**ND**	8	ND	0.0	5 MAC	ND	39	ND - 0.09
Calcium	mg/L as Ca	**11.3**	8	10.3	12.3	No Guideline Required	11.1	39	9.55 - 13.2
Chromium	ug/L as Cr	**ND**	8	ND	0.0	50 MAC	ND	39	ND - 0.0
Cobalt	ug/L as Co	**ND**	8	ND	0.0		ND	39	ND - 0.02
Copper	ug/L as Cu	**22.4**	8	2.14	54.5	2000 MAC / ≤ 1000 AO	32.9	39	12.2 - 595.0
Iron	ug/L as Fe	**97.75**	8	51.5	538.0	≤ 300 AO	123.5	40	28.8 - 1670.0
Lead	ug/L as Pb	**0.94**	8	ND	3.37	5 MAC	1.59	39	0.52 - 25.8
Lithium	ug/L as Li	**ND**	4	ND	0.0		ND	14	ND - 1.89
Magnesium	mg/L as Mg	**4.03**	8	3.64	4.18	No Guideline Required	3.82	39	3.20 - 4.53
Manganese	ug/L as Mn	**1.45**	8	1.20	26.3	120 MAC / ≤ 20 AO	1.65	40	ND - 25.0
Molybdenum	ug/L as Mo	**ND**	8	ND	0.0		ND	39	ND - 0.10
Nickel	ug/L as Ni	**ND**	8	ND	2.10		2.90	39	ND - 80.9
Potassium	mg/L as K	**0.67**	8	0.55	0.74		0.68	39	0.48 - 0.96
Selenium	ug/L as Se	**ND**	8	ND	0.0	50 MAC	ND	39	ND - 0.12
Silicon	mg/L as Si	**6.50**	8	5.82	7.58		7.25	39	2.97 - 8.85
Silver	ug/L as Ag	**ND**	8	ND	0.0	No Guideline Required	ND	39	ND - 0.0
Sodium	mg/L as Na	**11.35**	8	10.9	12.6	≤ 200 AO	12.1	39	9.26 - 15.6
Strontium	ug/L as Sr	**97.5**	8	86.4	112.0	7000 MAC	97.3	39	81.5 - 121.0
Sulfur	mg/L as S	**ND**	8	ND	3.40		ND	39	ND - 5.60
Tin	ug/L as Sn	**ND**	8	ND	0.0		ND	39	ND - 47.8
Titanium	ug/L as Ti	**ND**	8	ND	5.20		ND	39	ND - 5.30
Thallium	ug/L as Tl	**ND**	8	ND	0.0		ND	39	ND - 0.0
Uranium	ug/L as U	**ND**	8	ND	0.0	20 MAC	ND	39	ND - 0.01
Vanadium	ug/L as V	**ND**	8	ND	0.0		ND	39	ND - 0.56
Zinc	ug/L as Zn	**30.55**	8	ND	59.9	≤ 5000 AO	26.6	39	ND - 102.0
Zirconium	ug/L as Zr	**0.13**	8	ND	0.28		ND	39	ND - 0.66

CAPITAL REGIONAL DISTRICT

LYALL HARBOUR BOOT COVE WATER
Statement of Operations (Unaudited)
For the Year Ended December 31, 2020

		2020	2019
Revenue			
Transfers from government		131,030	119,180
User Charges		104,757	102,193
Other revenue from own sources:			
Interest earnings		5	-
Provincial Grant		-	30,000
Other revenue		1,158	1,111
Total Revenue		236,950	252,484
Expenses			
General government services		7,672	7,687
CRD Labour and Operating costs		135,139	156,133
Capital Purchases		-	27,847
Debt Servicing Costs		31,086	39,013
Other expenses		34,083	32,306
Total Expenses		207,980	262,986
Net revenue (expenses)		28,970	(10,503)
Transfers to own funds:			
Capital Reserve Fund		10,000	-
Operating Reserve Fund		7,500	-
Annual surplus/(deficit)		11,470	(10,503)
Accumulated surplus/(deficit), beginning of year		(33,573)	(23,071)
Accumulated surplus/(deficit), end of year	$	(22,103)	(33,573)

CAPITAL REGIONAL DISTRICT

LYALL HARBOUR BOOT COVE WATER
Statement of Reserve Balances (Unaudited)
For the Year Ended December 31, 2020

	Capital Reserve	
	2020	**2019**
Beginning Balance	6,193	6,024
Transfer from Operating Budget	10,000	-
Transfers from Completed Capital Projects	7,072	-
Transfer to Capital Projects	-	-
Interest Income	224	170
Ending Balance	23,490	6,193

	Operating Reserve	
	2020	**2019**
Beginning Balance	12	1
Transfer from Operating Budget	7,500	-
Interest Income	80	11
Ending Balance	7,592	12