

Township of
Langley



Est. 1873

2022 Annual Parks Water Quality Report



June 2023

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1.0 Executive Summary

The Township of Langley manages water systems in three parks, Williams Park, Brown Park, and Ponder Park. Each park is an isolated system and is not connected to the Township of Langley's municipal water system. The water from these wells is tested in compliance with the BC Drinking Water Protection Regulations (DWPR) and the Guidelines for Drinking Water Quality (GCDWQ) to ensure that clean and potable water is delivered to park visitors.

Wells at Williams and Brown parks supply caretakers' residences, public drinking fountains, and public washrooms. Source water quality from Williams and Brown Parks met regulatory requirements in 2022. Water from these wells is tested weekly for colour, conductivity, E. coli, heterotrophic plate count, total coliforms, turbidity, temperature, and pH. Williams and Brown Park wells are also tested on a semi-annual basis for arsenic and other metals.

The Township tests the Ponder Park private well on a quarterly basis. The well provides water to the park caretaker residence and to the Harry Irving picnic shelter for sanitation purposes. This well does not provide public drinking water and is classified as a private system for sanitation purposes only, by Fraser Health authority. Ponder Park met regulatory requirements in 2022 .

There were no confirmed positive E. coli or Total Coliform sample results from any of the three parks water systems.

The BC DWPR (Section 11) requires monitoring of water quality from all public drinking sources as well as an annual report on water quality that must be available to the public. Copies of this report are available at www.tol.ca as well as at the Township of Langley's Civic Facility located at 20338 - 65 Avenue, Langley, British Columbia.

2.0 Introduction

The BC Drinking Water Protection Regulation (DWPR) (Section 11) requires all water suppliers to produce and make public an annual water quality report. This report provides an overview of the water system in the three Township Parks and documents the test results of the well water quality monitoring program.

The Township of Langley has two (2) parks, Williams Park, and Brown Park, that are serviced by their own dedicated wells and public water distribution system. These wells are tested on a regular basis to ensure that clean and potable water is delivered to park visitors.

Ponder Park has a private well that is tested on a quarterly basis to ensure good water quality for the park caretaker. This well is not utilized as a public drinking source.

3.0 System Description

Williams Park, Brown Park, and Ponder Park each have water services provided by their own dedicated wells and water distribution systems. These parks function as their own water system with no interconnects to the Township municipal water distribution system.

Williams Park and Brown Park are in the center of the Township in the Salmon River Uplands. Williams Park is 36.5 acres bounded to the east by 238 Street and to the south by 64 Avenue. Brown Park is located off 240 Street, south of 51 Avenue and is 12.9 acres in size. Ponder Park is located at the west end of 76 Ave at 25199 76 Ave and is 80 acres in size. Park locations are shown in Figure 1.

Williams Park receives potable water from one well which supplies water to restrooms, drinking fountains, and a caretaker residence within the park. The treatment system for Williams Park includes a greensand filter, a filter to remove arsenic, a five-micron filter, and NSF UV Sterilization.

Brown Park has two wells: a shallow well in the northwest corner of the property (Well 1), and a deeper well in the southwest corner (Well 2). Well 1 is exclusively for irrigation purposes and has no treatment. Well 2 supplies drinking water to the park for restrooms, a concession, drinking fountains, and a caretaker residence. The treatment system for Brown Park (Well 2) includes a water softener, a sediment filter, and NSF UV Sterilization.

The Ponder Park well supplies water to the caretaker and to the Harry Irving Shelter picnic shelter only. The water in the shelter is for sanitation purposes only and signs posted at the park picnic tables indicate the water is for sanitation purposes only. Ponder Park well is not used by the public for potable water is therefore considered a private water system and not treated or filtered.

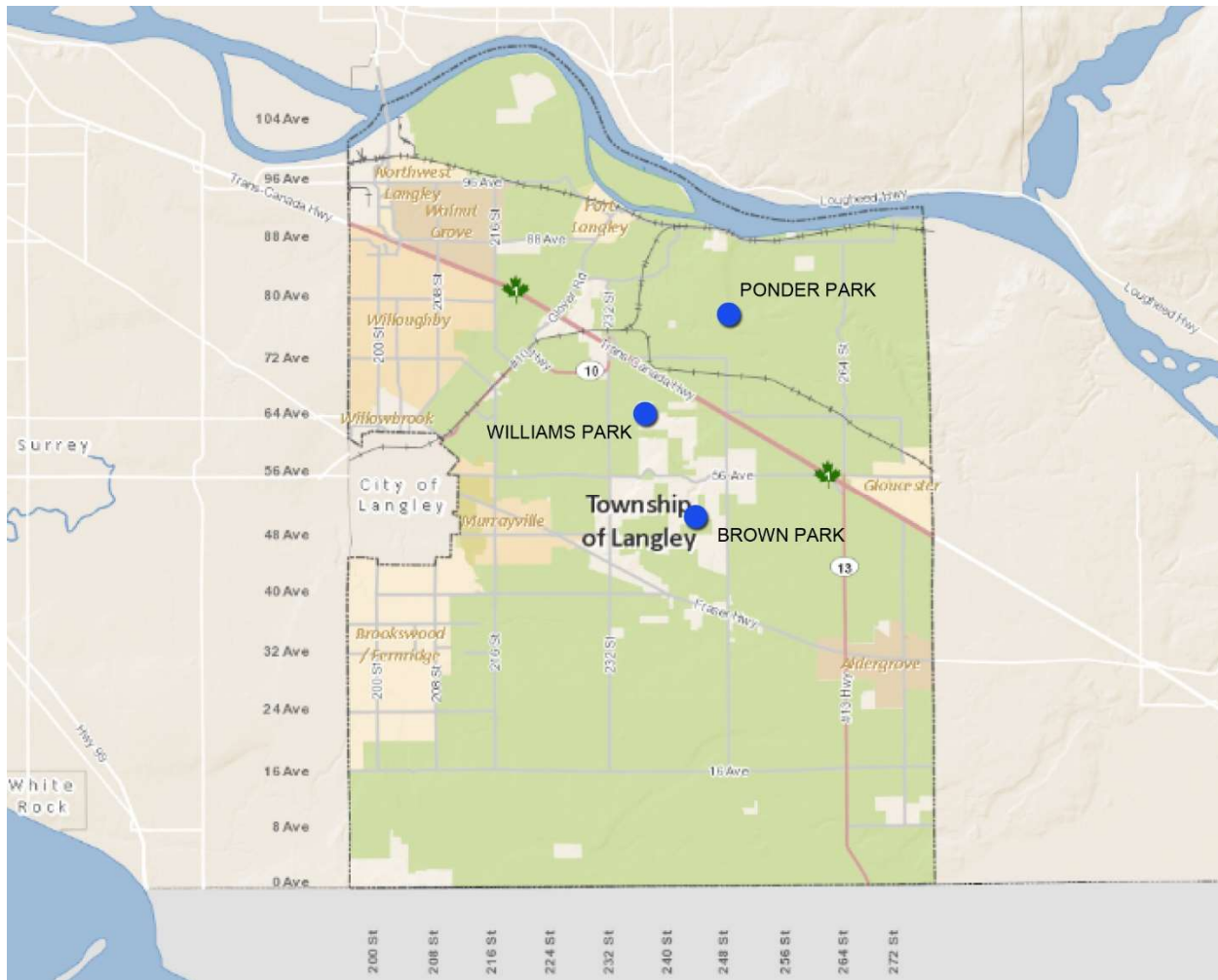


Figure 1: Location of Brown, Ponder and Williams Parks

Well depths and rated capacities are shown below in Table 1.

Table 1 Municipal Parks Well Data

Well Name	Well Tag Number	Year Drilled	Capacity (l/s)	Depth (m)
Williams Park Well	41893	1979	0.95	77
Brown Park Well 1	49289	1981	1.58	19
Brown Park Well 2	104834	2007	1.89	68
Ponder Park Well	50754	1982	0.63	67

(Source: [Groundwater Wells and Aquifers - Province of British Columbia \(gov.bc.ca\)](https://www.gov.bc.ca) Retrieved May 2023)

3.1 Staff Training and Operation Level

The Environmental Operators Certification Program (EOCP) has not yet rated the water systems in Williams and Brown Parks. Ponder Park is not classified as a public water system by the Fraser Health Authority and is also not rated by the EOCP.

Water quality sampling in Township Parks is undertaken by Utilities Operations staff, and the operation and maintenance is overseen by a Water Systems Operator IV.

3.2 System Inspection and Maintenance

The Township maintains the Williams and Brown Park water systems by servicing the treatment systems bi-annually, replacing the UV bulbs annually, and adding salt to the softener as necessary. Water samples from these parks are collected weekly.

The Ponder Park water system is for sanitation only and is sampled for bacteria on a quarterly basis.

All three water systems are inspected by the Fraser Health Authority on an annual basis.

3.3 Emergency Response and Contingency Plan

In the event of a positive test for contaminated water, or in the case of field evidence indicating that the water quality from a park system may be compromised, the Township will stop usage of water from the contaminated source and advise Fraser Health Authority of the situation. “Non-potable” signage will be posted on all taps in the parks. All necessary steps are taken by staff to determine the cause and to rectify the problem. It is the responsibility of the Township to notify the public if an advisory is issued and the Medical Health Officer (MHO) determines when an advisory can be lifted.

4.0 Water Sampling and Testing Program

The Township utilizes a regular sampling and testing program to maintain delivery of safe, high quality drinking water to its park visitors. Weekly testing is performed at Williams and Brown Parks. The private well at Ponder Park is tested on a quarterly basis only. The sampling and well locations are shown as a blue dot in Figure 2, 3, and 4.

Water sampling and testing, as described in Table 2, meets regulatory requirements as set by the GCDWQ.

Table 2: Water Sampling and Testing Schedule

Parameter	Parks Tested	Frequency
E.coli	Ponder Park	Quarterly
	Williams and Brown Parks	Weekly
Total Coliforms	Ponder Park	Quarterly
	Williams and Brown Parks	Weekly
Heterotrophic Plate Count	Williams and Brown Parks	Weekly
Free Chlorine	Williams and Brown Parks	Weekly
Turbidity	Williams and Brown Parks	Weekly
pH	Williams and Brown Parks	Weekly
Colour	Williams and Brown Parks	Weekly
Temperature	Williams and Brown Parks	Weekly
Conductivity	Williams and Brown Parks	Weekly
Arsenic	Williams and Brown Parks	Semi-annually
Full Chemical Analysis	Williams and Brown Park	Semi-annually



Figure 2: Williams Park Water Well and Sampling Site Location

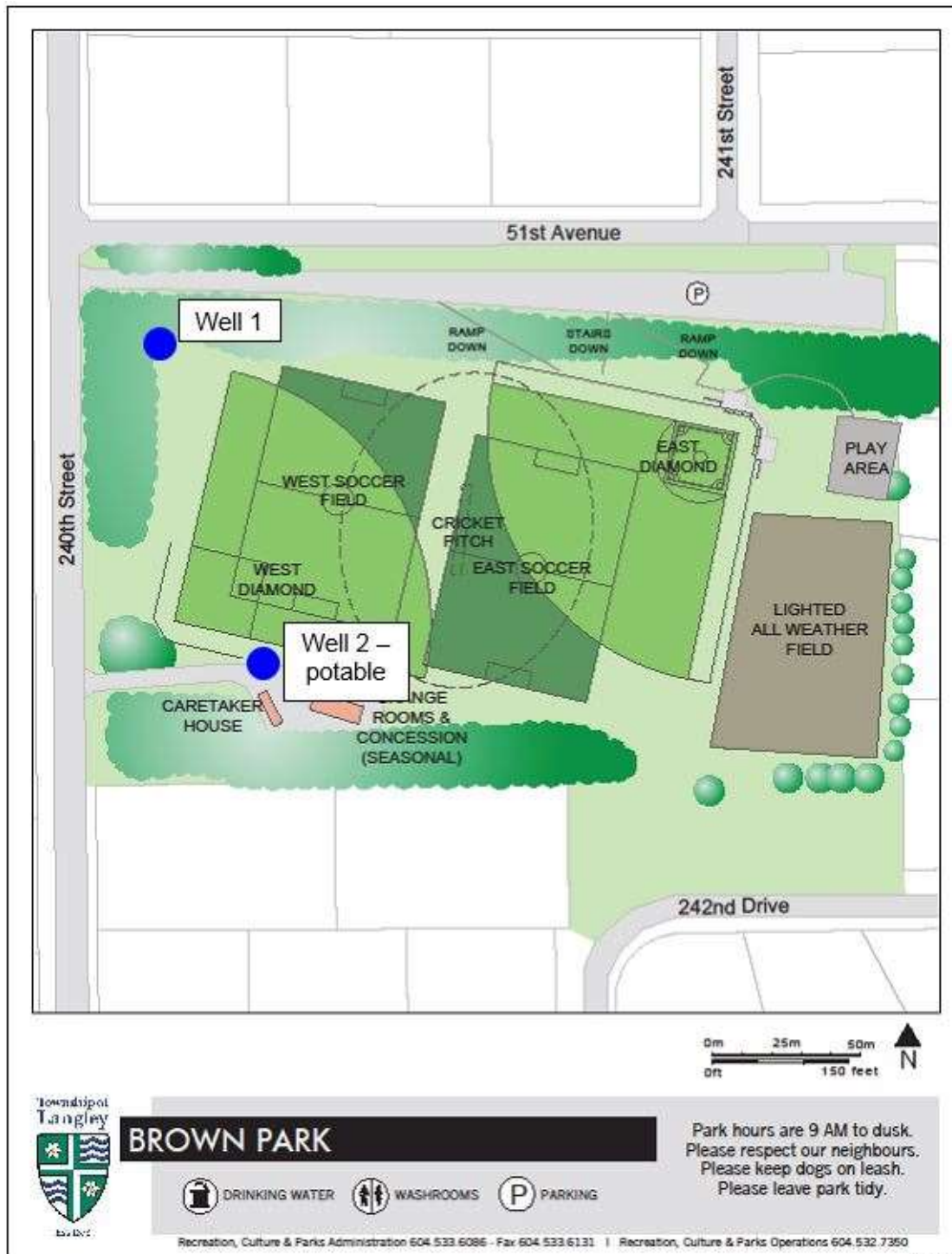


Figure 3: Brown Park Water Wells and Sampling Site Location

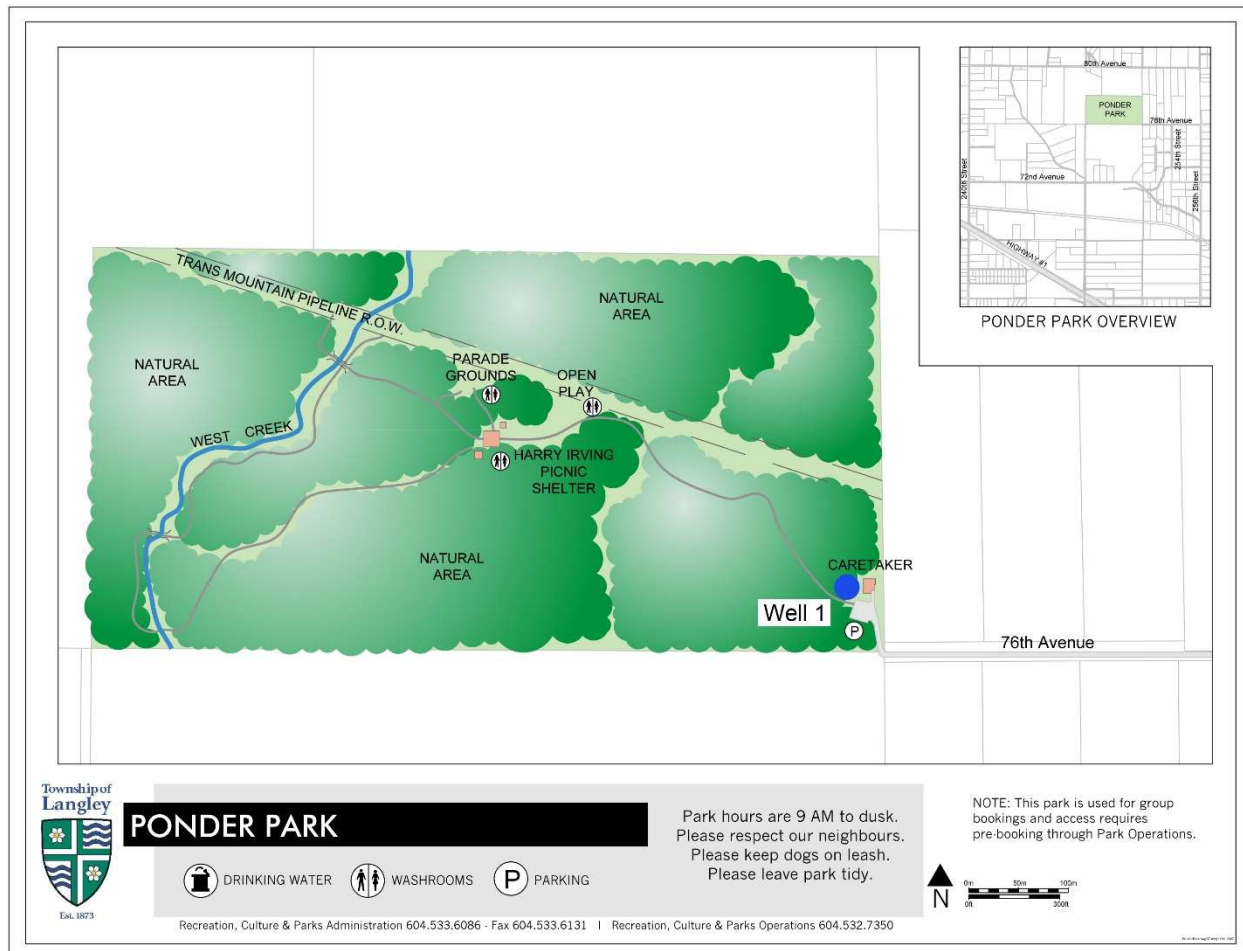


Figure 4: Ponder Park Well and Sampling Site Location

The wells in Brown Park and Williams Park supply water for a caretaker, drinking fountains in the picnic area, and for irrigation purposes. Water sampling and testing for E. coli and total coliform bacteria, as described in Table 3, meets regulatory requirements as set by the GCDWQ.

Fewer than 5,000 people are served by the water supply in these parks yearly. Based on the population served as well as yearly volume the Township is required to submit no less than four (4) samples per month for each water system, pursuant to the BC DWPR Schedule B shown in Table 4. The Township does meet the guideline for sampling as samples are obtained and tested weekly from both Williams and Brown Parks.

The well at Ponder Park provides potable water to the park caretaker and also supplies water to the Harry Irving picnic shelter for sanitation purposes only. Ponder Park is not classified as a public water system by the Fraser Health authority and is therefore not required to meet BC DWPR Schedule B.

Table 3: Schedule A of the B.C. Drinking Water Protection Regulation

Schedule A	
Water Quality Standards for Potable Water	
Parameter:	Standard:
Fecal coliform bacteria	No detectable fecal coliform bacteria per 100 ml
Escherichia coli	No detectable Escherichia coli per 100 ml
Total coliform bacteria:	
(a) 1 sample in a 30-day period	No detectable total coliform bacteria per 100 ml
(b) more than 1 sample in a 30-day period	At least 90% of samples have no detectable total coliform bacteria per 100 ml and no sample has more than 10 total coliform bacteria per 100 ml

Table 4: Schedule B of the B.C. Drinking Water Protection Regulation

Schedule B	
Frequency of Monitoring Samples for Prescribed Water Supply Systems	
Population Served by the Prescribed Water Supply System:	Number of Samples Per Month:
less than 5,000	4
5,000 to 90,000	1 per 1,000 of population
more than 90,000	90 plus 1 per 10,000 of population in excess of 90,000

4.1 Microbial Results for 2022

The Maximum Allowable Concentration (MAC) for E. coli and Total Coliforms is zero detectable per 100ml sample taken. In 2022 there were no samples positive for E.coli or Total Coliforms. These results can be seen in Figure 5.

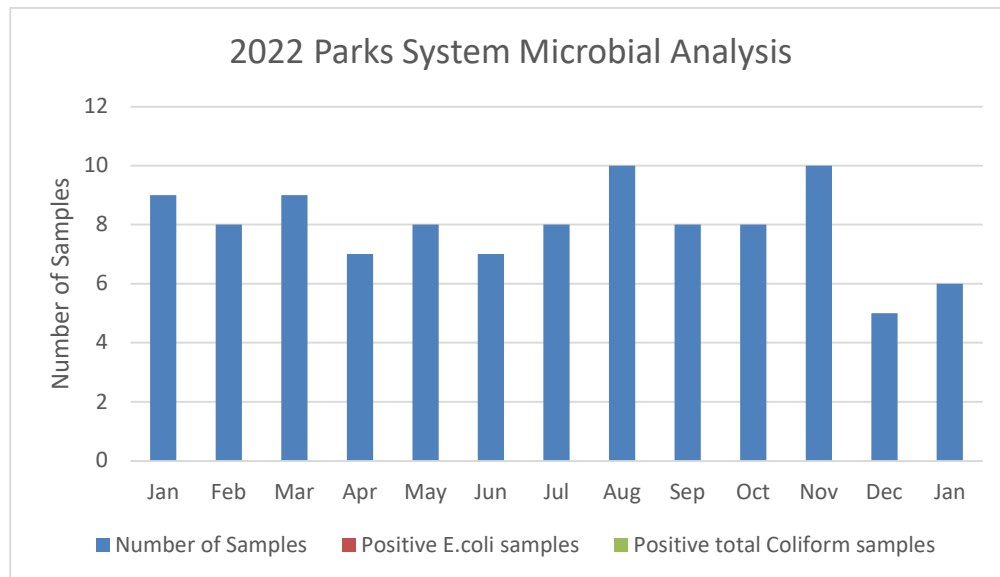


Figure 5: Number of Samples per Month for 2022 and Positive Total Coliform and E.coli Tests

Error! Reference source not found. presents results for the 2022 analysis of the source water. Brown Park experienced some high sample results in colour in January and August 2022 however, subsequent sampling showed normal results below the aesthetic objective. Slightly elevated readings of Arsenic were recorded in Williams Park in January 2022 though, subsequent samples showed results within the GCDWQ as well. There were no positive samples for Total Coliforms or E.coli at any of Williams, Brown or Ponder Park.

5.0 Conclusion

The 2022 water quality monitoring results indicate that the Township of Langley Parks water is potable and safe for consumption. Operators continue to seek improvements to the water supply and distribution at the Township of Langley Parks.

Appendix A – Source Water Test Results

Table A 1: Weekly Source Testing Results

Sampling Point	Collection Date	Arsenic (mg/L)	Colour (TCU)	Conductivity (µS/cm)	E. coli (CFU/100ml)	HPC (CFU/ml)	Nitrate (as N) (mg/L)	pH	Temperature (°C)	Total Coliforms (counts) (CFU/100ml)	Turbidity (NTU)
Brown Park	2022-01-04		32.4		0	< 1.0		8.23	11.3	0	0.60
Brown Park	2022-01-11		< 5.0	79.1	0	20		8.02**	15.0	0	0.66
Brown Park	2022-01-12	0.00179	< 5.0				< 0.020	8.14			1.3
Brown Park	2022-01-18		< 5.0	181	0	< 1.0		7.48**	14.5	0	0.37
Brown Park	2022-01-25		< 5.0		0	< 1.0		8.21		0	0.65
Brown Park	2022-02-01		< 5.0	164	0	< 1.0		8.12**	10.2	0	0.39
Brown Park	2022-02-08		< 5.0	164.7	0	< 1.0		8.13**	13.7	0	0.51
Brown Park	2022-02-15		9.0	167.3	0	< 1.0		8.08**	15.3	0	1.5
Brown Park	2022-02-22		2.5**	154.0**	0	0.5**		8.04**	10.4**	0	0.73**
Brown Park	2022-03-01		7.2	160	0	< 1.0		8.06**	15.7	0	0.58
Brown Park	2022-03-14		< 5.0	156.7	0	< 1.0		8.02**	11.9	0	< 0.10
Brown Park	2022-03-22		5.7	172	0	< 1.0		8.18**	14.2	0	0.35
Brown Park	2022-03-29		< 5.0	165	0	< 1.0		8.18**	14.0	0	0.35
Brown Park	2022-04-05		< 5.0	108	0	< 1.0		6.91**	16	0	0.64
Brown Park	2022-04-19		10.5	252	0	< 1.0		7.14**	12.5	0	0.21
Brown Park	2022-04-26		5.1	165	0	< 1.0		8.08**	14.0	0	0.38
Brown Park	2022-05-03		5.1	250	0	1.0		7.04**	12.9	0	0.23
Brown Park	2022-05-10		< 5.0	164.9	0	1.0		8.16**	13.6	0	0.21
Brown Park	2022-05-17		< 5.0	161.7	0	< 1.0		8.15**	15.6	0	0.17
Brown Park	2022-05-31		< 5.0	256	0	< 1.0		7.45**	18.2	0	0.51
Brown Park	2022-06-07		< 5.0	222	0	1.0		7.80**	13.6	0	0.29
Brown Park	2022-06-21		< 5.0	243	0	< 1.0		7.32**	15.9	0	0.27
Brown Park	2022-06-28		< 5.0	260	0	< 1.0		7.18**	16.3	0	0.27
Brown Park	2022-07-05		< 5.0	260	0	< 1.0		7.63**	17.8	0	0.34

Sampling Point	Collection Date	Arsenic (mg/L)	Colour (TCU)	Conductivity (µS/cm)	E. coli (CFU/100ml)	HPC (CFU/ml)	Nitrate (as N) (mg/L)	pH	Temperature (°C)	Total Coliforms (counts) (CFU/100ml)	Turbidity (NTU)
Brown Park	2022-07-12		< 5.0	264	0	2.0	7.72**	16.4		0	0.49
Brown Park	2022-07-19		< 5.0	163.0	0	< 1.0	8.16**	19.1		0	0.34
Brown Park	2022-07-26		5.3	166.7	0	3.0	8.05**	20.5		0	0.43
Brown Park	2022-08-02		< 5.0	13.12	0	< 1.0	7.51**	16.9		0	0.35
Brown Park	2022-08-09		5.2	97	0	3.0	8.06**	13.0		0	0.32
Brown Park	2022-08-16		28.1	201	0	< 1.0	6.64**	15.9		0	0.28
Brown Park	2022-08-23		< 5.0	167.2	0	< 1.0	8.14**	18.5		0	0.33
Brown Park	2022-08-30		5.0	51	0	< 1.0	7.82**	18		0	0.30
Brown Park	2022-09-06		< 5.0	260	0	< 1.0	7.78**	22.3		0	0.42
Brown Park	2022-09-13		< 5.0	165.8	0	6.0	7.89**	17.1		0	0.42
Brown Park	2022-09-14	0.00189	< 5.0				< 0.020	8.10			0.42
Brown Park	2022-09-20		< 5.0	146.0	0	< 1.0	7.67**	16.8		0	0.39
Brown Park	2022-09-27		5.3	165	0	1.0	7.81**	18.5		0	0.42
Brown Park	2022-10-04		< 5.0	144.5	0	1.0	7.54**	15.2		0	0.37
Brown Park	2022-10-11		< 5.0	165	0	5.0	7.98**	15.0		0	0.24
Brown Park	2022-10-18		< 5.0	232	0	< 1.0	7.47**	13.1		0	0.38
Brown Park	2022-10-25		< 5.0	166.9	0	< 1.0	8.16**	14.1		0	0.34
Brown Park	2022-11-01		< 5.0	123.1	0	< 1.0	8.02**	14.6		0	0.30
Brown Park	2022-11-08		< 5.0	524	0	< 1.0	7.64**	12.8		0	0.27
Brown Park	2022-11-15		< 5.0	283	0	< 1.0	7.42**	11.4		0	0.25
Brown Park	2022-11-22		< 5.0	647	0	< 1.0	7.45**	13		0	0.24
Brown Park	2022-11-29		< 5.0	165	0	< 1.0	7.96**	13		0	0.17
Brown Park	2022-12-06		< 5.0	167	0	< 1.0	8.10**	10		0	0.22
Brown Park	2022-12-13		< 5.0	160.0	0	1.0	7.60**	10.6		0	0.19
Brown Park	2022-12-20		< 5.0	220	0	< 1.0	7.90**	7.8		0	0.34
Brown Park	2023-01-03		< 5.0	159	0	< 1.0	7.99**	13.5		0	0.26
Brown Park	2023-01-10		< 5.0	166	0	< 1.0	7.99**	13		0	0.16

Sampling Point	Collection Date	Arsenic (mg/L)	Colour (TCU)	Conductivity (µS/cm)	E. coli (CFU/100ml)	HPC (CFU/ml)	Nitrate (as N) (mg/L)	pH	Temperature (°C)	Total Coliforms (counts) (CFU/100ml)	Turbidity (NTU)
Brown Park	2023-01-11	< 0.00010	< 5.0				< 0.020	6.36			< 0.10
Ponder Park	2022-01-12				0					0	
Ponder Park	2022-03-10				0					0	
Ponder Park	2022-06-16				0					0	
Ponder Park	2023-01-11				0					0	
Williams Park	2022-01-04		< 5.0		0	< 1.0		6.81	11.8	0	0.25
Williams Park	2022-01-11		< 5.0	127.2	0	8.0		6.42**	14.7	0	0.13
Williams Park	2022-01-12	0.0226	5.3				< 0.020	8.34			0.15
Williams Park	2022-01-18		< 5.0	166.7	0	< 1.0		7.50**	14.6	0	0.44
Williams Park	2022-01-19	0.00013									
Williams Park	2022-01-25		< 5.0		0	< 1.0		6.57		0	< 0.10
Williams Park	2022-02-01		< 5.0	258	0	< 1.0		6.75**	12.0	0	< 0.10
Williams Park	2022-02-08		< 5.0	256	0	< 1.0		6.90**	12.6	0	< 0.10
Williams Park	2022-02-15		< 5.0	254	0	< 1.0		6.62**	12.0	0	0.32
Williams Park	2022-02-22		2.5**	266	0	0.5**		6.58**	12.4**	0	0.15**
Williams Park	2022-03-01		< 5.0	250	0	< 1.0		6.42**	11.5	0	0.31
Williams Park	2022-03-14		< 5.0	257	0	1.0		6.36**	13.4	0	< 0.10
Williams Park	2022-03-22		< 5.0	275	0	< 1.0		6.50**	11.7	0	0.15
Williams Park	2022-03-29		< 5.0	261	0	< 1.0		6.47**	11.0	0	< 0.10
Williams Park	2022-04-05		< 5.0	60	0	< 1.0		7.02**	18	0	< 0.10
Williams Park	2022-04-12		< 5.0	231	0	< 1.0		6.38**	12.9	0	< 0.10

Sampling Point	Collection Date	Arsenic (mg/L)	Colour (TCU)	Conductivity (µS/cm)	E. coli (CFU/100ml)	HPC (CFU/ml)	Nitrate (as N) (mg/L)	pH	Temperature (°C)	Total Coliforms (counts) (CFU/100ml)	Turbidity (NTU)
Williams Park	2022-04-19		< 5.0	181	0	< 1.0	6.74**	14.0	0	< 0.10	
Williams Park	2022-04-26		< 5.0	255	0	< 1.0	6.48**	12.5	0	0.15	
Williams Park	2022-05-03		< 5.0	159	0	< 1.0	7.10**	15.2	0	< 0.10	
Williams Park	2022-05-10		< 5.0	250.0	0	1.0	6.70**	16.5	0	< 0.10	
Williams Park	2022-05-17		< 5.0	251	0	< 1.0	6.84**	15.5	0	0.11	
Williams Park	2022-05-31		< 5.0	118	0	< 1.0	7.52**	15.0	0	0.12	
Williams Park	2022-06-07		< 5.0	145.3	0	< 1.0	7.31**	15.8	0	0.10	
Williams Park	2022-06-21		< 5.0	162.4	0	< 1.0	7.41**	16.9	0	0.27	
Williams Park	2022-06-28		< 5.0	161.5	0	< 1.0	7.43**	17.7	0	< 0.10	
Williams Park	2022-07-05		< 5.0	165.5	0	< 1.0	7.44**	16.7	0	< 0.10	
Williams Park	2022-07-12		< 5.0	167.5	0	< 1.0	7.58**	18.1	0	0.25	
Williams Park	2022-07-19		< 5.0	264.0	0	15	6.92**	18.8	0	< 0.10	
Williams Park	2022-07-26		< 5.0	263	0	2.0	6.73**	20.4	0	0.15	
Williams Park	2022-08-02		5.6	165.0	0	< 1.0	7.38**	16.4	0	< 0.10	
Williams Park	2022-08-09		< 5.0	55	0	< 1.0	7.24**	16.0	0	< 0.10	
Williams Park	2022-08-16		< 5.0	165.6	0	< 1.0	7.06**	16.1	0	0.12	
Williams Park	2022-08-23		< 5.0	274	0	< 1.0	7.32**	19.3	0	0.24	
Williams Park	2022-08-30		< 5.0	119	0	< 1.0	6.84**	16	0	0.27	
Williams Park	2022-09-06		< 5.0	157.7	0	< 1.0	7.30**	15.2	0	0.10	
Williams Park	2022-09-13		10.2	265	0	< 1.0	6.94**	18.3	0	< 0.10	
Williams Park	2022-09-20		< 5.0	234.0	0	< 1.0	6.88**	14.9	0	0.17	

Sampling Point	Collection Date	Arsenic (mg/L)	Colour (TCU)	Conductivity (µS/cm)	E. coli (CFU/100ml)	HPC (CFU/ml)	Nitrate (as N) (mg/L)	pH	Temperature (°C)	Total Coliforms (counts) (CFU/100ml)	Turbidity (NTU)
Williams Park	2022-09-21	0.00011	< 5.0				< 0.020	6.75			0.18
Williams Park	2022-09-27		< 5.0	258	0	< 1.0		7.38**	14.8	0	0.14
Williams Park	2022-10-04		< 5.0	231	0	< 1.0		6.90**	13.8	0	0.11
Williams Park	2022-10-11		< 5.0	266	0	< 1.0		7.32**	14.2	0	0.13
Williams Park	2022-10-18		< 5.0	139.8	0	2.0		7.05**	14.3	0	< 0.10
Williams Park	2022-10-25		< 5.0	266	0	< 1.0		7.36**	15.9	0	< 0.10
Williams Park	2022-11-01		< 5.0	276	0	< 1.0		6.98**	12.9	0	0.28
Williams Park	2022-11-08		6.3	158	0	< 1.0		7.46**	12.0	0	0.13
Williams Park	2022-11-15		< 5.0	157.3	0	< 1.0		7.24**	13	0	0.11
Williams Park	2022-11-22		< 5.0	168	0	1.0		7.37**	14	0	0.21
Williams Park	2022-11-29		< 5.0	633	0	< 1.0		6.82**	12	0	0.11
Williams Park	2022-12-06		< 5.0	261	0	< 1.0		7.19**	9.8	0	0.19
Williams Park	2022-12-13		< 5.0	252	0	< 1.0		7.02**	8.4	0	< 0.10
Williams Park	2022-12-20		< 5.0	269	0	< 1.0		7.14**	7.9	0	< 0.10
Williams Park	2023-01-03		< 5.0	285	0	< 1.0		6.68**	13.5	0	< 0.10
Williams Park	2023-01-10		< 5.0	267	0	< 1.0		6.67**	15	0	< 0.10
Williams Park	2023-01-11	0.00179	< 5.0				< 0.020	7.95			0.26

Table A 2: Semi-Annual Source Testing Results

Sampling Point		Brown Park Summer Source Samples	Brown Park Winter Source Samples	Williams Park Summer Source Samples	Williams Park Winter Source Samples
Collection Date		2022-09-14	2023-01-11	2022-09-21	2023-01-11
1,1,1 -Trichloroethane	mg/L			< 0.00050	< 0.00050
1,1,1,2-Tetrachloroethane	ug/L	< 0.50	< 0.50	< 0.50	< 0.50
1,1,1-Trichloroethane	mg/L	< 0.00050	< 0.00050		
1,1,2 -Trichloroethane	mg/L			< 0.00050	< 0.00050
1,1,2,2-Tetrachloroethane	mg/L	< 0.00050	< 0.00050	< 0.00050	< 0.00050
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
1,1,2-Trichloroethane	mg/L	< 0.00050	< 0.00050		
1,1-Dichloroethane	mg/L	< 0.00050	< 0.00050	< 0.00050	< 0.00050
1,1-Dichloroethylene	mg/L	< 0.00050	< 0.00050	< 0.00050	< 0.00050
1,2,3-Trichlorobenzene	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
1,2,4-Trichlorobenzene	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
1,2-Dichlorobenzene	mg/L	< 0.00050	< 0.00050	< 0.00050	< 0.00050
1,2-Dichloroethane	mg/L	< 0.00050	< 0.00050	< 0.00050	< 0.00050
1,2-Dichloropropane	mg/L	< 0.00050	< 0.00050	< 0.00050	< 0.00050
1,3,5-Trimethylbenzene	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
1,3-Butadiene	ug/L	< 0.50	< 0.50	< 0.50	< 0.50
1,3-Dichlorobenzene	mg/L	< 0.00050	< 0.00050	< 0.00050	< 0.00050
1,3-Dichloropropane	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	mg/L	< 0.00050	< 0.00050	< 0.00050	< 0.00050
1-Methylnaphthalene	mg/L	< 0.000050	< 0.000050	< 0.000050	< 0.000050
2,3,4,5-Tetrachlorophenol	ug/L	< 0.10	< 0.10	< 0.10	< 0.10
2,3,4,6-Tetrachlorophenol	ug/L	< 0.10	< 0.10	< 0.10	< 0.10
2,3,4-Trichlorophenol	ug/L	< 0.10	< 0.10	< 0.10	< 0.10
2,3,5,6-Tetrachlorophenol	ug/L	< 0.10	< 0.10	< 0.10	< 0.10
2,3,5-Trichlorophenol	ug/L	< 0.10	< 0.10	< 0.10	< 0.10
2,3,6-Trichlorophenol	ug/L	< 0.10	< 0.10	< 0.10	< 0.10
2,3-Dichlorophenol	ug/L	< 0.10	< 0.10	< 0.10	< 0.10

Sampling Point		Brown Park Summer Source Samples	Brown Park Winter Source Samples	Williams Park Summer Source Samples	Williams Park Winter Source Samples
2,4 + 2,5-Dichlorophenol	ug/L	< 0.10	< 0.10	< 0.10	< 0.10
2,4'-DDD (o,p-DDD)	ug/L	< 0.010		< 0.010	
2,4'-DDE (o,p-DDE)	ug/L	< 0.010		< 0.010	
2,4,5-Trichlorophenol	ug/L	< 0.10	< 0.10	< 0.10	< 0.10
2,4,6-Trichlorophenol	ug/L	< 0.10	< 0.10	< 0.10	< 0.10
2,4-Dimethylphenol	ug/L	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dinitrophenol	ug/L	< 0.50	< 0.50	< 0.50	< 0.50
2,6-Dichlorophenol	ug/L	< 0.10	< 0.10	< 0.10	< 0.10
2,6-Dimethylphenol	ug/L	< 0.50	< 0.50	< 0.50	< 0.50
2-Chlorophenol	ug/L	< 0.050	< 0.080	< 0.050	< 0.080
2-hydroxyphenol (Catechol)	ug/L	< 20	< 10	< 20	< 10
2-methyl-4-chlorophenoxyacetic acid / MCPA	ug/L	< 0.020	< 0.020	< 0.020	< 0.020
2-Methylnaphthalene	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010
2-Methylphenol	ug/L	< 0.50	< 0.50	< 0.50	< 0.50
2-Nitrophenol	ug/L	< 0.50	< 0.50	< 0.50	< 0.50
3 and 4-Chlorophenol	ug/L	< 0.075	< 0.080	< 0.075	< 0.080
3,4,5-Trichlorophenol	ug/L	< 0.10	< 0.10	< 0.10	< 0.10
3,4-Dichlorophenol	ug/L	< 0.10	< 0.10	< 0.10	< 0.10
3,4-Dimethylphenol	ug/L	< 0.50	< 0.50	< 0.50	< 0.50
3,4-Methylphenol	ug/L	< 0.50	< 0.50	< 0.50	< 0.50
3,5-Dichlorophenol	ug/L	< 0.10	< 0.10	< 0.10	< 0.10
4,4'-DDE (pp-DDE)	ug/L	< 0.010		< 0.010	
4,4'-DDT (pp-DDT)	ug/L	< 0.010		< 0.010	
4,6-Dinitro-o-cresol	ug/L	< 0.50	< 0.50	< 0.50	< 0.50
4-Chloro-3-methylphenol (Parachlorometa cresol)	ug/L	< 0.10	< 1.0	< 0.10	< 1.0
4-Nitrophenol	ug/L	< 0.50	< 0.50	< 0.50	< 0.50
a-Chlordane	ug/L	< 0.050		< 0.050	
Acenaphthene	mg/L	< 0.000050	< 0.000050	< 0.000050	< 0.000050

Sampling Point		Brown Park Summer Source Samples	Brown Park Winter Source Samples	Williams Park Summer Source Samples	Williams Park Winter Source Samples
Acenaphthylene	mg/L	< 0.000050	< 0.000050	< 0.000050	< 0.000050
Acridine	mg/L	< 0.000050	< 0.000050	< 0.000050	< 0.000050
Alachlor	ug/L	< 0.050		< 0.050	
Aldrin	ug/L	< 0.020		< 0.020	
Alkalinity (phenolphthalein, as CaCO3)	mg/L	< 1.0	< 1.0	< 1.0	< 1.0
Alkalinity (total, as CaCO3)	mg/L	79	6.4	6.4	83
alpha-BHC	ug/L	< 0.050		< 0.050	
Aluminum (dissolved)	mg/L	< 0.0030	< 0.0030	< 0.0030	< 0.0030
Aluminum (total)	mg/L	< 0.0030	< 0.0030	< 0.0030	< 0.0030
Ammonia (total, as N)	mg/L	< 0.015	< 0.015	< 0.015	< 0.015
Anthracene	mg/L	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Antimony (dissolved)	mg/L	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Antimony (total)	mg/L	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Aspon	ug/L	< 0.050		< 0.050	
Atrazine	ug/L	< 0.050		< 0.050	
Azinphos-ethyl	ug/L	< 0.20		< 0.20	
Barium (dissolved)	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Barium (total)	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Benfluralin	ug/L	< 0.050		< 0.050	
Benzene	mg/L	< 0.00040	< 0.00040	< 0.00040	< 0.00040
Benzo(a)anthracene	mg/L	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Benzo(a)pyrene	mg/L	< 0.0000050	< 0.0000050	< 0.0000050	< 0.0000050
Benzo(b,j)fluoranthene	mg/L	< 0.000030	< 0.000030	< 0.000030	< 0.000030
Benzo(g,h,i)perylene	mg/L	< 0.000050	< 0.000050	< 0.000050	< 0.000050
Benzo(k)fluoranthene	mg/L	< 0.000050	< 0.000050	< 0.000050	< 0.000050
Beryllium (dissolved)	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Beryllium (total)	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010
beta-BHC	ug/L	< 0.050		< 0.050	
Bicarbonate (as HCO3)	mg/L	97	7.8	7.8	100

Sampling Point		Brown Park Summer Source Samples	Brown Park Winter Source Samples	Williams Park Summer Source Samples	Williams Park Winter Source Samples
Bismuth (dissolved)	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Bismuth (total)	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Boron (dissolved)	mg/L	< 0.05	0.083	0.087	< 0.05
Boron (total)	mg/L	< 0.05	0.083	0.083	< 0.05
Bromacil	ug/L	< 0.050		< 0.050	
Bromobenzene	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Bromodichloromethane	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Bromoform	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Bromophos	ug/L	< 0.050		< 0.050	
Bromophos-ethyl	ug/L	< 0.050		< 0.050	
Butylate	ug/L	< 0.050		< 0.050	
Cadmium (dissolved)	mg/L	< 0.000010	< 0.000010	0.000021	< 0.000010
Cadmium (total)	mg/L	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Calcium (dissolved)	mg/L	< 0.050	< 0.050	< 0.050	< 0.050
Calcium (total)	mg/L	< 0.050	< 0.050	< 0.050	< 0.050
Captan	ug/L	< 0.10		< 0.10	
Carbon tetrachloride	mg/L	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Carbonate (as CO3)	mg/L	< 1.0	< 1.0	< 1.0	< 1.0
Carbophenothion - solids (dry weight)	ug/L	< 0.30		< 0.30	
Chlorate	mg/L	< 0.10	< 0.10	< 0.10	< 0.10
Chlorbenseide	ug/L	< 0.050		< 0.050	
Chlorfenson	ug/L	< 0.050		< 0.050	
Chlorfenvinphos	ug/L	< 0.050		< 0.050	
Chloride	mg/L	3.5	72	74	2.8
Chlorite	mg/L	< 0.10	< 0.10	< 0.10	< 0.10
Chlormephos	ug/L	< 0.050		< 0.050	
Chlorobenzene	mg/L	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Chloroethane	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Chloroform	mg/L	< 0.0010	0.0013	0.0018	< 0.0010

Sampling Point		Brown Park Summer Source Samples	Brown Park Winter Source Samples	Williams Park Summer Source Samples	Williams Park Winter Source Samples
Chloromethane	mg/L			< 0.0010	< 0.0010
Chlorophenols (total)	ug/L	< 0.41	< 0.10	< 0.41	< 0.10
Chloropropham	ug/L	< 0.050		< 0.050	
Chlorothalonil	ug/L	< 0.050		< 0.050	
Chlorpyrifos	ug/L	< 0.010		< 0.010	
Chlorthiophos	ug/L	< 0.050		< 0.050	
Chromium (dissolved)	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Chromium (total)	mg/L	< 0.0010	0.0011	< 0.0010	< 0.0010
Chrysene	mg/L	< 0.000020	< 0.000020	< 0.000020	< 0.000020
cis-1,2-Dichloroethylene	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
cis-1,3-Dichloropropene	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Cobalt (dissolved)	mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Cobalt (total)	mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Copper (dissolved)	mg/L	< 0.00020	0.00525	0.00117	< 0.00020
Copper (total)	mg/L	0.00500	0.00359	0.00156	< 0.00050
Cyanazine	ug/L	< 0.050		< 0.050	
Cyanide (total)	mg/L	0.00050	< 0.00050	0.00565	< 0.00050
Cyanophos	ug/L	< 0.050		< 0.050	
DCPA	ug/L	< 0.050		< 0.050	
delta-BHC	ug/L	< 0.050		< 0.050	
Dibenz(a,h)anthracene	mg/L	< 0.0000030	< 0.0000030		
Dibenzo(a,h)anthracene	mg/L			< 0.0000030	< 0.0000030
Dibromochloromethane	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Dichlorodifluoromethane / Freon 12	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Dichloromethane	mg/L	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Dichlorophenols (total)	ug/L	< 0.22	< 0.10	< 0.22	< 0.10
Dissolved Organic Carbon	mg/L	< 0.50	< 0.50	< 0.50	< 0.50
Ethylbenzene	mg/L	< 0.00040	< 0.00040	< 0.00040	< 0.00040
Ethylene dibromide / EDB	ug/L	< 0.20	< 0.20	< 0.20	< 0.20

Sampling Point		Brown Park Summer Source Samples	Brown Park Winter Source Samples	Williams Park Summer Source Samples	Williams Park Winter Source Samples
Fluoranthene	mg/L	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Fluorene	mg/L	< 0.000050	< 0.000050	< 0.000050	< 0.000050
Fluoride	mg/L	0.12	< 0.050	< 0.050	0.12
g-Chlordane	ug/L	< 0.050		< 0.050	
Hardness (dissolved, as CaCO3)	mg/L	< 0.50	< 0.50	< 0.50	< 0.50
Hardness (total, as CaCO3)	mg/L	< 0.50	< 0.50	< 0.50	< 0.50
Hexachlorobutadiene	ug/L	< 0.50	< 0.50	< 0.50	< 0.50
Hydroquinone	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Hydroxide (as OH)	mg/L	< 1.0	< 1.0	< 1.0	< 1.0
Indeno(1,2,3-c,d)pyrene	mg/L	< 0.000050	< 0.000050	< 0.000050	< 0.000050
Iron (dissolved)	mg/L	0.0148	< 0.0050	< 0.0050	0.0175
Iron (total)	mg/L	0.048	< 0.01	< 0.01	0.024
Isopropylbenzene	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
Lead (dissolved)	mg/L	< 0.00020	0.00169	0.00111	< 0.00020
Lead (total)	mg/L	0.00026	0.00130	0.00128	< 0.00020
Lithium (dissolved)	mg/L	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Lithium (total)	mg/L	< 0.0020	< 0.0020	< 0.0020	< 0.0020
m- + p- Xylene	mg/L	< 0.0015	< 0.00040	< 0.00040	< 0.00040
Magnesium (dissolved)	mg/L	< 0.050	< 0.050	< 0.050	< 0.050
Magnesium (total)	mg/L	< 0.050	< 0.050	< 0.050	< 0.050
Manganese (dissolved)	mg/L	< 0.0010	0.0022	0.0018	< 0.0010
Manganese (total)	mg/L	< 0.0010	0.0021	0.0026	< 0.0010
Mercury (dissolved)	mg/L	< 0.0000019	< 0.0000019	< 0.0000019	< 0.0000019
Mercury (total)	mg/L	< 0.0000019	< 0.0000019	< 0.0000019	< 0.0000019
Methyl bromide (Bromomethane)	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Methyl chloride	mg/L	< 0.0010	< 0.0010		
Methyl tert-butyl ether / MTBE	mg/L	< 0.0040	< 0.0040	< 0.0040	< 0.0040
Molybdenum (dissolved)	mg/L	0.0018	< 0.0010	< 0.0010	0.0019

Sampling Point		Brown Park Summer Source Samples	Brown Park Winter Source Samples	Williams Park Summer Source Samples	Williams Park Winter Source Samples
Molybdenum (total)	mg/L	0.0017	0.0011	< 0.0010	0.0019
Monochlorophenols (total)	ug/L	< 0.090	< 0.080	< 0.090	< 0.080
Naphthalene	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Nickel (dissolved)	mg/L	< 0.0010	0.0015	< 0.0010	< 0.0010
Nickel (total)	mg/L	< 0.0010	0.0055	< 0.0010	< 0.0010
Nitrate + Nitrite (as N)	mg/L	< 0.020	< 0.020	< 0.020	< 0.020
Nitrioltriacetic acid / NTA	mg/L	< 0.050	< 0.050	< 0.050	< 0.050
Nitrite (as N)	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Non-chlorinated Phenols	ug/L	< 1.6	< 10	< 1.6	< 10
o-Xylene	mg/L	< 0.0011	< 0.00040	< 0.00040	< 0.00040
Pentachlorophenol / PCP	ug/L	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	mg/L	< 0.000050	< 0.000050	< 0.000050	< 0.000050
Phenol	ug/L	< 0.50	< 0.50	< 0.50	< 0.50
Phosphorus (total)	mg/L	0.13	< 0.0030	< 0.0030	0.13
Potassium (dissolved)	mg/L	0.181	1.73	1.94	0.136
Potassium (total)	mg/L	0.166	1.74	1.80	0.136
Pyrene	mg/L	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Quinoline	mg/L	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Resorcinol	ug/L	< 10	< 10	< 10	< 10
Selenium (dissolved)	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Selenium (total)	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Silicon (dissolved, as Si)	mg/L	14.5	6.75	6.27	14.4
Silicon (total, as Si)	mg/L	14.3	6.66	6.96	14.2
Silver (dissolved)	mg/L	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Silver (total)	mg/L	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Sodium (dissolved)	mg/L	38.8	45.8	47.7	39.1
Sodium (total)	mg/L	38.9	45.2	46.4	40.0
Strontium (dissolved)	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Strontium (total)	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Styrene	mg/L	< 0.00050	0.0020	< 0.00050	< 0.00050

Sampling Point		Brown Park Summer Source Samples	Brown Park Winter Source Samples	Williams Park Summer Source Samples	Williams Park Winter Source Samples
Sulfur (dissolved)	mg/L	< 3.0	< 3.0	< 3.0	< 3.0
Sulfur (total)	mg/L	< 3.0	< 3.0	< 3.0	< 3.0
Sulphate	mg/L	3.7	< 1.0	< 1.0	2.9
Sulphide (total, as H ₂ S)	mg/L	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Sulphide (total, as S)	mg/L	< 0.0018	< 0.0018	< 0.0018	< 0.0018
Tetrachloroethylene / PCE	mg/L	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Thallium (dissolved)	mg/L	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Thallium (total)	mg/L	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Tin (dissolved)	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Tin (total)	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium (dissolved)	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium (total)	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Toluene	mg/L	< 0.00040	< 0.00040	< 0.00040	< 0.00040
Total Dissolved Solids / TDS	mg/L	110	150	150	120
Total HMW PAH	ug/L	< 0.050	< 0.050	< 0.050	< 0.050
Total LMW PAH	ug/L	< 0.10	< 0.10	< 0.10	< 0.10
Total Organic Carbon / TOC	mg/L	< 0.50	< 0.50	< 0.50	< 0.50
Total PAH	ug/L	< 0.10	< 0.10	< 0.10	< 0.10
Total Tetrachlorophenols	ug/L	< 0.17	< 0.10	< 0.17	< 0.10
Total Trichlorophenols	ug/L	< 0.24	< 0.10	< 0.24	< 0.10
trans-1,2-Dichloroethylene	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
trans-1,3-Dichloropropene	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethylene / TCE	mg/L	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Trichlorofluoromethane	mg/L	< 0.0040	< 0.0040	< 0.0040	< 0.0040
Uranium (dissolved)	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Uranium (total)	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Vanadium (dissolved)	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Vanadium (total)	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Vinyl chloride	mg/L	< 0.00050	< 0.00050	< 0.00050	< 0.00050

Sampling Point		Brown Park Summer Source Samples	Brown Park Winter Source Samples	Williams Park Summer Source Samples	Williams Park Winter Source Samples
Volatile Hydrocarbons water C6-C10 (VHw)	ug/L	< 300	< 300	< 300	< 300
Volatile Petroleum Hydrocarbons C06-C10 (less BTEX)	ug/L	< 300	< 300	< 300	< 300
Xylenes (total)	mg/L	< 0.0015	< 0.00040	< 0.00040	< 0.00040
Zinc (dissolved)	mg/L	< 0.0050	0.0177	0.0060	< 0.0050
Zinc (total)	mg/L	< 0.0050	0.0136	< 0.0050	< 0.0050
Zirconium (dissolved)	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Zirconium (total)	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010

Appendix B – Emergency Response and Contingency Plans

EMERGENCY RESPONSE & CONTINGENCY PLAN - CONTACT SHEET

Water System Name: Ponder Park

Date Prepared: May 15, 2023

Emergency Contacts	Name	Phone	E-mail
Primary Contact (Operator/Person in Charge)	Rick Campagna	604-340-5088	rcampagna@tol.ca
Secondary Contact (Back-up operator)	Brian Jones	604-340-5335	bjones@tol.ca
Water System Owner	Township of Langley	604-532-7300	
Fraser Health Contacts			
Environmental Health Officer	EHO: Barbara Haworth	604-870-7920	barb.haworth@fraserhealth.ca
	Admin. Support	604-870-7903	Hpland@fraserhealth.ca
Medical Health Officer	MHO line	604-587-3828 or 1-877-342-6647	
Fraser Health After Hours Contact (>4:30 pm & weekends)	Fraser Health On-Call Staff	604-527-4806	
Emergency Contacts			
Alternative Water Supply i.e. bottled water or bulk water hauler	Bottled water for caretaker		
Plumber	Township of Langley Facilities	604-532-7300	
Excavator	Township of Langley Construction/Utilities	604-532-7300	
Electrician	Township of Langley Facilities	604-532-7300	
Well Driller/ Pump Installer	Precision service and pumps	604-850-7010	
Utilities i.e. B.C. Hydro	BC Hydro	1-800-224-9376	

EMERGENCY RESPONSE & CONTINGENCY PLAN - CONTACT SHEET

Water System Name: Brown Park

Date Prepared: May 15, 2023

Emergency Contacts	Name	Phone	E-mail
Primary Contact (Operator/Person in Charge)	Rick Campagna	604-340-5088	rcampagna@tol.ca
Secondary Contact (Back-up operator)	Brian Jones	604-340-5335	bjones@tol.ca
Water System Owner	Township of Langley	604-532-7300	
Fraser Health Contacts			
Environmental Health Officer	EHO: Barbara Haworth	604-870-7920	barb.haworth@fraserhealth.ca
	Admin. Support	604-870-7903	Hpland@fraserhealth.ca
Medical Health Officer	MHO line	604-587-3828 or 1-877-342-6647	
Fraser Health After Hours Contact (>4:30 pm & weekends)	Fraser Health On-Call Staff	604-527-4806	
Emergency Contacts			
Alternative Water Supply i.e. bottled water or bulk water hauler	Bottled water for caretaker		
Plumber	Township of Langley Facilities	604-532-7300	
Excavator	Township of Langley Construction/Utilities	604-532-7300	
Electrician	Township of Langley Facilities	604-532-7300	
Well Driller/ Pump Installer	Precision service and pumps	604-850-7010	
Utilities i.e. B.C. Hydro	BC Hydro	1-800-224-9376	

EMERGENCY RESPONSE & CONTINGENCY PLAN - CONTACT SHEET

Water System Name: Williams Park

Date Prepared: May 15, 2023

Emergency Contacts	Name	Phone	E-mail
Primary Contact (Operator/Person in Charge)	Rick Campagna	604-340-5088	rcampagna@tol.ca
Secondary Contact (Back-up operator)	Brian Jones	604-340-5335	bjones@tol.ca
Water System Owner	Township of Langley	604-532-7300	
Fraser Health Contacts			
Environmental Health Officer	EHO: Barbara Haworth	604-870-7920	barb.haworth@fraserhealth.ca
	Admin. Support	604-870-7903	Hpland@fraserhealth.ca
Medical Health Officer	MHO line	604-587-3828 or 1-877-342-6647	
Fraser Health After Hours Contact (>4:30 pm & weekends)	Fraser Health On-Call Staff	604-527-4806	
Emergency Contacts			
Alternative Water Supply i.e. bottled water or bulk water hauler	Bottled water for caretaker		
Plumber	Township of Langley Facilities	604-532-7300	
Excavator	Township of Langley Construction/Utilities	604-532-7300	
Electrician	Township of Langley Facilities	604-532-7300	
Well Driller/ Pump Installer	Precision service and pumps	604-850-7010	
Utilities i.e. B.C. Hydro	BC Hydro	1-800-224-9376	

Appendix C – Drinking Water System Annual Reports

DRINKING WATER SYSTEM ANNUAL REPORT

Reporting Period: January 1st to December 31st, 2022 (year)

Water System Ponder Park

Water System Owner Township of Langley

Primary Contact Name (Operator or Manager) Rick Campagna

Phone Number (Operator or Manager) 604-532-7322

E-mail (Operator or Manager) rcampagna@tol.ca

DESCRIBE YOUR WATER SUPPLY SYSTEM

What is the Source(s) of Raw Water?

Deep Well Shallow Well Surface Water Other

If other, specify details:

Does the Drinking Water System have Primary Disinfection? Yes No

Chlorination Ultraviolet Light Ozone Other

If other, specify details:

Does the Drinking Water System have Secondary Disinfection? Yes No

Chlorination Other

If other, specify details:

Does the Drinking Water System have Filtration? Yes No

Check all boxes that apply

Cartridge Filter(s) Carbon Filter Sand Filtration Reverse Osmosis Other

If other, specify details:

PUBLIC REPORTING

Emergency Response & Contingency Plan (ERCP)

Is your ERCP up to Date? Yes No

How do you Inform the System Users of the ERCP?

Hand Delivered Bulletin Board Newspaper Utility Bill Insert Website

Other (specify details)

Drinking Water System Annual Report**How do you Inform the System Users of the Annual Report?**

Hand Delivered Bulletin Board Newspaper Utility Bill Insert Website

Other (specify details)

CHEMICAL SAMPLING COMPLETED DURING THIS REPORTING PERIOD

Was any chemical sampling conducted during reporting period? Yes No

If no, when were the last chemical samples conducted for this system?

(date) Don't Know Never

If yes, did all water samples meet the Guidelines for Canadian Drinking Water Quality?

Yes No

If any water samples did not meet the Guidelines for Canadian Drinking Water Quality, record the results in the table below; attach additional sheets if necessary.

Parameter	Result	Corrective Action / Treatment / Comments

ADDITIONAL TESTING

Does the system have analyzers for continuous monitoring? Yes No

If yes, check all boxes that apply:

Chlorine Turbidity Other (details)

Are the results available on request?

If any additional testing or sampling was conducted, record results in the table below; attach additional sheets if necessary.

Additional Testing & Reason for Sampling	Corrective Action Taken

WATER QUALITY COMPLAINTS

Were there any water quality complaints in this reporting period? (e.g. taste, odour, colour etc.) Yes No

If yes, complete the table below; attach additional sheets if necessary.

Date	Water Quality Complaint	Corrective Action / Treatment

OPERATIONAL PROBLEMS

Were there any operational problems during this reporting period? (e.g. insufficient water supply, malfunction of disinfection equipment, line breaks, elevated turbidity etc.). Yes No

If yes, complete the table below; attach additional sheets if necessary.

Incident Date	Type of Operational Problem	Corrective Action Taken
28-Feb-2022	Water leak at picnic shelter	Replace failed valves

MAJOR UPGRADES/REPAIRS & EXPENSES

Were there any major upgrades/repairs or any major costs incurred during this reporting period? Yes No

If yes, complete the table below; attach additional sheets if necessary.

Major Upgrades/Expenses	Details
Improvements required by DWO	
Additions/changes to system	
Purchase or install new equipment	
Equipment repair or replacement	
Annual maintenance of system	
Specialist report	
Other	

FUTURE IMPROVEMENTS

Are there any plans for future improvements? Yes No

If yes, complete the table below; attach additional sheets if necessary.

Future Upgrades or Improvements	Estimated Date of Completion

DATE COMPLETED: 12-May-2023	COMPLETED BY: Jessica Horne
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DRINKING WATER SYSTEM ANNUAL REPORT

Reporting Period: January 1st to December 31st, 2021⁺ (year)

Water System Brown Park

Water System Owner Township of Langley

Primary Contact Name (Operator or Manager) Rick Campagna

Phone Number (Operator or Manager) 604-532-7322

E-mail (Operator or Manager) rcampagna@tol.ca

DESCRIBE YOUR WATER SUPPLY SYSTEM

What is the Source(s) of Raw Water?

Deep Well Shallow Well Surface Water Other

If other, specify details: 2 wells- Deep well is for drinking water, shallow well is for irrigation only

Does the Drinking Water System have Primary Disinfection? Yes No

Chlorination Ultraviolet Light Ozone Other

If other, specify details: NSF UV Sterilization

Does the Drinking Water System have Secondary Disinfection? Yes No

Chlorination Other

If other, specify details:

Does the Drinking Water System have Filtration? Yes No

Check all boxes that apply

Cartridge Filter(s) Carbon Filter Sand Filtration Reverse Osmosis Other

If other, specify details: Water Softener, and Cartridge Filter

PUBLIC REPORTING

Emergency Response & Contingency Plan (ERCP)

Is your ERCP up to Date? Yes No

How do you Inform the System Users of the ERCP?

Hand Delivered Bulletin Board Newspaper Utility Bill Insert Website

Other (specify details)

Drinking Water System Annual Report**How do you Inform the System Users of the Annual Report?**

Hand Delivered Bulletin Board Newspaper Utility Bill Insert Website

Other (specify details)

COMPLIANCE WITH OPERATING PERMIT

List the conditions that have been placed on your Operating Permit (if you have conditions, these will be stated on your permit):

Nitrate-Nitrogen water sampling to be analyzed every 6 months for raw well water and treated water (drinking fountain).

Are you in compliance with the conditions listed on your Operating Permit? Yes No N/A

BACTERIOLOGICAL TESTING AND DRINKING WATER PROTECTION REGULATION WATER QUALITY STANDARDS

How many bacteriological samples were collected during this reporting period? 49

What is the minimum required sampling frequency for this system? (#samples/month) 4 Samples/month

Additional sampling details: System is sampled weekly.

Was the minimum required sampling frequency achieved? Yes No

Comments:

Bacteriological summary attached to this report? Yes No

If no, how do the users of the system view the results?

WATER QUALITY STANDARDS FOR POTABLE WATER

Parameter:	Standard:	Did this system meet standard?	
Escherichia coli (for all samples)	No detectable <i>Escherichia coli</i> per 100ml	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Total Coliform Bacteria (if only 1 sample collected in a 30 day period)	No detectable total coliform bacteria per 100ml	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Total Coliform Bacteria (if more than 1 sample collected in a 30 day period)	No more than 10% of samples contain total coliform bacteria, and No sample has more than 10 total coliform bacteria per 100ml	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

If the system did not meet any of above Drinking Water Protection Regulation standards, record the results in the table below; attach additional sheets if necessary.

Date	TC/100ml	E.coli/100ml	Reason	Corrective Action

CHEMICAL SAMPLING COMPLETED DURING THIS REPORTING PERIOD

Was any chemical sampling conducted during reporting period? Yes No

If no, when were the last chemical samples conducted for this system?

(date) Don't Know Never

If yes, did all water samples meet the Guidelines for Canadian Drinking Water Quality?

Yes No

If any water samples did not meet the Guidelines for Canadian Drinking Water Quality, record the results in the table below; attach additional sheets if necessary.

Parameter	Result	Corrective Action / Treatment / Comments

ADDITIONAL TESTING

Does the system have analyzers for continuous monitoring? Yes No

If yes, check all boxes that apply:

Chlorine Turbidity Other (details)

Are the results available on request?

If any additional testing or sampling was conducted, record results in the table below; attach additional sheets if necessary.

Additional Testing & Reason for Sampling	Corrective Action Taken

WATER QUALITY COMPLAINTS

Were there any water quality complaints in this reporting period? (e.g. taste, odour, colour etc.) Yes No

If yes, complete the table below; attach additional sheets if necessary.

Date	Water Quality Complaint	Corrective Action / Treatment

OPERATIONAL PROBLEMS

Were there any operational problems during this reporting period? (e.g. insufficient water supply, malfunction of disinfection equipment, line breaks, elevated turbidity etc.). Yes No

If yes, complete the table below; attach additional sheets if necessary.

Incident Date	Type of Operational Problem	Corrective Action Taken

MAJOR UPGRADES/REPAIRS & EXPENSES

Were there any major upgrades/repairs or any major costs incurred during this reporting period? Yes No

If yes, complete the table below; attach additional sheets if necessary.

Major Upgrades/Expenses	Details
Improvements required by DWO	
Additions/changes to system	
Purchase or install new equipment	
Equipment repair or replacement	
Annual maintenance of system	
Specialist report	
Other	

FUTURE IMPROVEMENTS

Are there any plans for future improvements? Yes No

If yes, complete the table below; attach additional sheets if necessary.

Future Upgrades or Improvements	Estimated Date of Completion

DATE COMPLETED: 12-May-2023	COMPLETED BY: Jessica Horne
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DRINKING WATER SYSTEM ANNUAL REPORT

Reporting Period: January 1st to December 31st, 2022 (year)

Water System Williams Park

Water System Owner Township of Langley

Primary Contact Name (Operator or Manager) Rick Campagna

Phone Number (Operator or Manager) 604-532-7322

E-mail (Operator or Manager) rcampagna@tol.ca

DESCRIBE YOUR WATER SUPPLY SYSTEM

What is the Source(s) of Raw Water?

Deep Well Shallow Well Surface Water Other

If other, specify details:

Does the Drinking Water System have Primary Disinfection? Yes No

Chlorination Ultraviolet Light Ozone Other

If other, specify details:

Does the Drinking Water System have Secondary Disinfection? Yes No

Chlorination Other

If other, specify details:

Does the Drinking Water System have Filtration? Yes No

Check all boxes that apply

Cartridge Filter(s) Carbon Filter Sand Filtration Reverse Osmosis Other

If other, specify details: Arsenic Removal Filter, Cartridge Filter, Green Sand Filter

PUBLIC REPORTING

Emergency Response & Contingency Plan (ERCP)

Is your ERCP up to Date? Yes No

How do you Inform the System Users of the ERCP?

Hand Delivered Bulletin Board Newspaper Utility Bill Insert Website

Other (specify details)

Drinking Water System Annual Report**How do you Inform the System Users of the Annual Report?**

Hand Delivered Bulletin Board Newspaper Utility Bill Insert Website

Other (specify details)

CHEMICAL SAMPLING COMPLETED DURING THIS REPORTING PERIOD

Was any chemical sampling conducted during reporting period? Yes No

If no, when were the last chemical samples conducted for this system?

(date) Don't Know Never

If yes, did all water samples meet the Guidelines for Canadian Drinking Water Quality?

Yes No

If any water samples did not meet the Guidelines for Canadian Drinking Water Quality, record the results in the table below; attach additional sheets if necessary.

Parameter	Result	Corrective Action / Treatment / Comments

ADDITIONAL TESTING

Does the system have analyzers for continuous monitoring? Yes No

If yes, check all boxes that apply:

Chlorine Turbidity Other (details)

Are the results available on request?

If any additional testing or sampling was conducted, record results in the table below; attach additional sheets if necessary.

Additional Testing & Reason for Sampling	Corrective Action Taken

WATER QUALITY COMPLAINTS

Were there any water quality complaints in this reporting period? (e.g. taste, odour, colour etc.) Yes No

If yes, complete the table below; attach additional sheets if necessary.

Date	Water Quality Complaint	Corrective Action / Treatment

OPERATIONAL PROBLEMS

Were there any operational problems during this reporting period? (e.g. insufficient water supply, malfunction of disinfection equipment, line breaks, elevated turbidity etc.). Yes No

If yes, complete the table below; attach additional sheets if necessary.

Incident Date	Type of Operational Problem	Corrective Action Taken

MAJOR UPGRADES/REPAIRS & EXPENSES

Were there any major upgrades/repairs or any major costs incurred during this reporting period? Yes No

If yes, complete the table below; attach additional sheets if necessary.

Major Upgrades/Expenses	Details
Improvements required by DWO	
Additions/changes to system	
Purchase or install new equipment	
Equipment repair or replacement	
Annual maintenance of system	
Specialist report	
Other	

FUTURE IMPROVEMENTS

Are there any plans for future improvements? Yes No

If yes, complete the table below; attach additional sheets if necessary.

Future Upgrades or Improvements	Estimated Date of Completion

DATE COMPLETED: 28-Jun-2022	COMPLETED BY: Jatinder Brar
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