

## **Annual Report – Small Water System**

### **SILVERDALE ELEMENTARY**

As required under Section 15 of the Drinking Water Protection Act, water suppliers are to report the water quality monitoring results to the water system users on an annual basis.

**Report Date:** June 30, 2020

**Reporting Period:** January 1, 2019 to December 31, 2019

**Owner:** Board of School Trustees, School District No. 75 (Mission)

**Any questions concerning this report please contact:**

Dana MacLean, Director of Operations  
School District No. 75 (Mission)  
33940 Dlugosh Avenue  
Mission, BC V2V 6B2  
Phone: 604.826.7375  
Email: [ray.seifert@mpsd.ca](mailto:ray.seifert@mpsd.ca)

**Water System Classification:**

Classified as a Small Water System by Environmental Operators  
Certification Program

**Certified Operators for the Small Water System:**

School District No. 75 (Mission) has two (2) employees certified as  
Small Water System Operators

**Results of Coliform/E. coli monitoring as per Section 11 of the Act and Section 8 of the  
Regulations:**

Attached

**Results of chemical analysis conducted during the period covered by this report:**

Attached

**SCHOOL DISTRICT #75 (MISSION)  
EMERGENCY RESPONSE PLAN**

**SMALL WATER SYSTEMS**

**Part A: Well Water Quality**

1. The Facilities Department will conduct routine sampling of all well water in the district to be tested by a certified test lab.
2. In the event of adverse well water test results, the following procedures, in accordance with the Guidelines for Canadian Drinking Water Quality, will apply:
  - a. Contact Kevin Freer or alternate at Fraser Health Authority
  - b. An alternative source of water will be supplied and corrective action taken in consultation with the applicable governing agency if:
    - i. A sample contains more than ten (10) total coliforms per 100 ml.
    - ii. A sample contains any fecal coliform.
    - iii. Any consecutive samples from the same site show the presence of coliform.
    - iv. A sample shows an unsuitable compound of chemical.
  - c. If total coliform organisms are detected from a single sample, the site shall be re-sampled until three (3) consecutive samples comply with the regulations.
  - d. Alternative water supply will continue until three (3) consecutive samples comply with the Drinking Water Protection Act and Regulations.
  - e. All sources of drinking water on site will be tagged “Do Not Drink” and sealed from use where possible.

**Part B: Loss of Water Supply**

In the event of disruption in the water supply, immediately notify Brian Standing or alternate at Fraser Health Authority. District staff will be dispatched immediately to assess and correct the situation.

- a. Should it be determined that the disruption will exceed two (2) hours, alternate sources of water (dispensers) will be provided to the site.
- b. Should the disruption exceed one (1) day, either a delivery system will be installed at the site or students will be relocated to an unaffected site.

**Part C: Emergency Contacts**

In the event of any abnormal operating condition or emergency effecting or potentially affecting the water system, please contact one of the following managers from the Facilities Department at 604.826.7375 or directly at the numbers provided. They will then contact Fraser Health Authority immediately.

	<b>Cell Phone #</b>
Dana MacLean, Director of Operations	604.850.4193
Martin Funk, Engineering Foreman	604.302.4161

**Part D: Questions or Concerns**

If you have any questions or concerns regarding this Emergency Response Plan for Small Water Systems, please contact one of the Fraser Health Authority water inspectors at 604.870.7900 or at the numbers provided:

	<b>Work #</b>	<b>After Hour #s</b>
Medical Health Officer	604.587.3828 1.877.342.6467	604.527.4806
Barbara Haworth, Drinking Water Program	604.870.7920	604.615.1140


**Part E: Emergency Contact Numbers**

Dewdney Elementary School	604.826.7375
Ferndale Elementary School	604.826.7375
Silverdale Elementary School	604.826.7375
Stave Falls Elementary School	604.826.7375

# EMERGENCY RESPONSE & CONTINGENCY PLAN

**Water System Name:** Silverdale Elementary

Emergency Contacts	Name and Title	Phone	Fax	E-mail
<b>Water System - Primary Contact</b> (person responsible for receiving call from lab and/or FHA)	Martin Funk Foreman	604-826-7375 604-302-4161	604-826-9273	martin.funk@mpsd.ca
<b>Water System - Secondary Contact</b> (Should primary contact be ill or on vacation etc.)	Dana MacLean Director	604-826-7375 604-302-4607	604-826-9273	dana.maclean@mpsd.ca
<b>Water System Owner</b>	SD75 Mission	604-826-7375 Cell: n/a	604-826-9273	
<b>Water System – Community Hall</b>	Joan Crouch	604-826-2426		
<b>Fraser Health Authority Contacts</b>				
Environmental Health Officer	Barb Haworth	604-870-7900	604-870-7901	barb.haworth@fraserhealth.ca
Medical Health Officer		604-587-3828 1-877-342-6467	604-556-5077	
Fraser Health After Hours Contact (After 4:30 pm or on weekends)	Fraser Health On-Call Staff	604-527-4806		
<b>Emergency Contacts</b>				
Alternate Source of Water i.e. bottled water or bulk supply	Bottled water			
Plumbing Services	own			
Equipment Services i.e. Treatment/pumps	own			
Electrical Services	own			
B.C. Hydro				
Other				

**Signature:** 

**Title:** Foreman Engineering Dept.

**Name:** Martin Funk

**Date:** June 30, 2020

## DRINKING WATER SYSTEM ANNUAL REPORT

**Reporting Period:** January 1<sup>st</sup> to December 31<sup>st</sup>, 2019 (year)

**Water System** Silverdale Elementary

**Water System Owner** School District #75 (Mission)

**Primary Contact Name (Operator or Manager)** Martin Funk, Engineering Dept. Foreman

**Phone Number (Operator or Manager)** 604.302.4161

**E-mail (Operator or Manager)** martin.funk@mpsd.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)

**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):*

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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? 54

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

Additional sampling details:

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

(date)                       Don't Know                       Never                       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: 30-Jun-2020	COMPLETED BY: Martin Funk, Engineering Foreman
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## Sample Range Report

Fraser Health Authority

**Facility Name:** Silverdale Elementary School - Water System

**Date Range:** Jan 1 2019 to Dec 31 2019

**Operator**

Sampling Site	Date Collected	Total Coliform	E. Coli	Fecal Coliform
<u>AUDIT Silverdale</u>				
<u>School - Staff Room,</u>				
<u>29715 Donatelli</u>				
	1-23-2019	L1	L1	
	2-27-2019	L1	L1	
	4-3-2019	L1	L1	
	5-8-2019	L1	L1	
	6-25-2019	L1	L1	
	10-21-2019	<u>L1</u>	<u>L1</u>	
	<b>Total Positive:</b>	<b>0</b>	<b>0</b>	<b>0</b>
<u>Classroom 144 -</u>				
<u>Office Washroom,</u>				
<u>29715 Donatelli Ave</u>				
	1-8-2019	L1	L1	
	2-27-2019	L1	L1	
	4-2-2019	L1	L1	
	5-14-2019	L1	L1	
	6-11-2019	L1	L1	
	6-25-2019	L1	L1	
	8-20-2019	L1	L1	
	9-25-2019	L1	L1	
	10-1-2019	L1	L1	
	10-29-2019	L1	L1	
	11-26-2019	<u>L1</u>	<u>L1</u>	
	<b>Total Positive:</b>	<b>0</b>	<b>0</b>	<b>0</b>
<u>Classroom 111,</u>				
<u>29715 Donatelli Ave</u>				
	1-22-2019	L1	L1	
	3-5-2019	L1	L1	
	5-7-2019	L1	L1	
	5-22-2019	L1	L1	
	6-18-2019	L1	L1	
	7-2-2019	L1	L1	
	9-10-2019	L1	L1	
	10-23-2019	L1	L1	
	11-5-2019	L1	L1	
	11-19-2019	L1	L1	

12-10-2019                      L1                      L1  
**Total Positive:**                      0                      0                      0

Staff Room Kitchen  
Tap, 29715 Donatelli  
Ave

1-15-2019                      L1                      L1  
2-5-2019                      L1                      L1  
4-9-2019                      L1                      L1  
4-16-2019                      L1                      L1  
4-24-2019                      L1                      L1  
5-28-2019                      L1                      L1  
7-9-2019                      L1                      L1  
8-6-2019                      L1                      L1  
9-3-2019                      L1                      L1  
10-8-2019                      L1                      L1  
11-12-2019                      L1                      L1  
12-3-2019                      L1                      L1  
**Total Positive:**                      0                      0                      0

Classroom 150,  
29715 Donatelli Ave

1-29-2019                      L1                      L1  
2-20-2019                      L1                      L1  
3-12-2019                      L1                      L1  
4-30-2019                      L1                      L1  
6-5-2019                      L1                      L1  
7-23-2019                      L1                      L1  
8-27-2019                      L1                      L1  
9-17-2019                      L1                      L1  
10-15-2019                      L1                      L1  
12-18-2019                      L1                      L1  
**Total Positive:**                      0                      0                      0

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**Result Values:**                      **E - estimated**                      **L - less than**                      **G - greater than**

Samples that contain total coliform:	0		0.00% of total
Samples that contain e. coli:	0		0.00% of total
Samples that contain fecal coliform:	0		0.00% of total
Number of consecutive samples that contain total coliform:	0		
Number of samples that contain total coliform in last 30 days:	0/0		
Total number of samples:	50		

**Comments:**

\_\_\_\_\_  
Environmental Health Officer  
Feb 20 2020

FOR FURTHER INFORMATION PLEASE CALL: Barb Haworth



**Report Transmission Cover Page**

Bill To: School District #75 - Mission 33940 Dlugosh Avenue Mission, BC, Canada V2V 6B4	Project ID: Annual Project Name: Silverdale Elementary Project Location: Staff Room Tap LSD: P.O.:	Lot ID: <b>1338575</b> Control Number: Date Received: Mar 14, 2019 Date Reported: Mar 19, 2019 Report Number: 2387102
Attn: Accounts Payable	Proj. Acct. code:	
Sampled By: Company:		

Contact	Company	Address
Accounts Payable	School District #75 - Mission	33940 Dlugosh Avenue Mission, BC V2V 6B4 Phone: (604) 826-7375 Fax: (604) 820-0927 Email:

Delivery	Format	Deliverables
Automated Fax	PDF	Invoice

Barbara Haworth	Fraser Health Authority	207 - 2776 Bourquin Crescent Abbotsford, BC V2S 6A4 Phone: (604) 870-7911 Fax: (604) 870-7901 Email: barb.haworth@fraserhealth.ca
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Delivery	Format	Deliverables
Email - Single Report	PDF	Test Report

Bob Rudd	School District #75 - Mission	33919 Dewdney Trunk Road Mission, BC V2V 5X4 Phone: (604) 826-7375 Fax: (604) 820-0927 Email: bob.rudd@mpsd.ca
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Delivery	Format	Deliverables
Email - Multiple Reports By Agreement	PDF	COC / Test Report
Email - Single Report	PDF	COA
Email - Single Report	PDF	COR
Email - Single Report	PDF	Invoice

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**Analytical Report**

Bill To: School District #75 - Mission 33940 Dlugosh Avenue Mission, BC, Canada V2V 6B4	Project ID: Annual Project Name: Silverdale Elementary Project Location: Staff Room Tap LSD: P.O.:	Lot ID: <b>1338575</b> Control Number: Date Received: Mar 14, 2019 Date Reported: Mar 19, 2019 Report Number: 2387102
Attn: Accounts Payable	Proj. Acct. code:	
Sampled By: Company:		

<b>Reference Number</b>	1338575-1
<b>Sample Date</b>	March 14, 2019
<b>Sample Time</b>	08:40
<b>Sample Location</b>	
<b>Sample Description</b>	Silverdale Elementary-Staff Room Tap / 3.3 °C
<b>Sample Matrix</b>	Drinking Water

Analyte	Units	Result	Nominal Detection Limit	Guideline Limit	Guideline Comments
<b>Metals Extractable</b>					
Aluminum	Extractable mg/L	0.004	0.001	0.1	Below OG
Antimony	Extractable mg/L	<0.00002	0.00002	0.006	Below MAC
Arsenic	Extractable mg/L	0.0048	0.0001	0.010	Below MAC
Barium	Extractable mg/L	0.0017	0.0001	1	Below MAC
Boron	Extractable mg/L	0.009	0.002	5	Below MAC
Cadmium	Extractable mg/L	<0.00001	0.00001	0.005	Below MAC
Chromium	Extractable mg/L	<0.00005	0.00005	0.05	Below MAC
Copper	Extractable mg/L	<0.0005	0.0005	1.0	Below AO
Lead	Extractable mg/L	0.00002	0.00001	0.005	Below MAC
Selenium	Extractable mg/L	<0.0002	0.0002	0.05	Below MAC
Uranium	Extractable mg/L	<0.00001	0.00001	0.02	Below MAC
Vanadium	Extractable mg/L	0.00008	0.00005		
Zinc	Extractable mg/L	0.0050	0.0005	5.0	Below AO
<b>Physical and Aggregate Properties</b>					
Colour	True	Colour units	<5	5	
Turbidity		NTU	0.08	0.05	
<b>Routine Water</b>					
pH - Holding Time		Exceeded			
pH	at 25 °C	7.74	0.01	7.0-10.5	Within Range
Electrical Conductivity		µS/cm at 25 °C	149	1	
Calcium	Extractable mg/L	18	0.01		
Iron	Extractable mg/L	0.013	0.004	0.3	Below AO
Magnesium	Extractable mg/L	1.8	0.02		
Manganese	Extractable mg/L	0.003	0.001	0.05	Below AO
Potassium	Extractable mg/L	0.92	0.04		
Silicon	Extractable mg/L	6.9	0.005		
Sodium	Extractable mg/L	9.1	0.1	200	Below AO
T-Alkalinity	as CaCO3 mg/L	61	5		
Chloride	Dissolved mg/L	2.66	0.05	250	Below AO
Fluoride	Dissolved mg/L	0.06	0.01	1.5	Below MAC
Nitrate - N	Dissolved mg/L	<0.01	0.01	10	Below MAC
Nitrite - N	Dissolved mg/L	<0.01	0.01	1	Below MAC
Sulfate (SO4)	Dissolved mg/L	6.2	0.1	500	Below AO
Hardness	as CaCO3 (extractable) mg/L	53	1		
Total Dissolved Solids	Extractable mg/L	94	1		

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W: [www.exova.com](http://www.exova.com)



## Analytical Report

Bill To: School District #75 - Mission	Project ID: Annual	Lot ID: <b>1338575</b>
33940 Dlugosh Avenue	Project Name: Silverdale Elementary	Control Number:
Mission, BC, Canada	Project Location: Staff Room Tap	Date Received: Mar 14, 2019
V2V 6B4	LSD:	Date Reported: Mar 19, 2019
Attn: Accounts Payable	P.O.:	Report Number: 2387102
Sampled By:	Proj. Acct. code:	
Company:		

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Approved by:

Carol Nam, Dipl. T.  
Quality Officer

Data have been validated by Analytical Quality Control and Exova's Integrated Data Validation System (IDVS).  
Generation and distribution of the report, and approval by the digitized signature above, are performed through a secure and controlled automatic process.



## Methodology and Notes

Bill To: School District #75 - Mission 33940 Dlugosh Avenue Mission, BC, Canada V2V 6B4	Project ID: Annual Project Name: Silverdale Elementary Project Location: Staff Room Tap LSD: P.O.:	Lot ID: <b>1338575</b> Control Number: Date Received: Mar 14, 2019 Date Reported: Mar 19, 2019 Report Number: 2387102
Attn: Accounts Payable	Proj. Acct. code:	
Sampled By:		
Company:		

## Method of Analysis

Method Name	Reference	Method	Date Analysis Started	Location
Alk, pH, EC, Turb in water (BC)	APHA	* Alkalinity - Titration Method, 2320 B	Mar 15, 2019	Exova Surrey
Alk, pH, EC, Turb in water (BC)	APHA	* Conductivity, 2510 B	Mar 15, 2019	Exova Surrey
Alk, pH, EC, Turb in water (BC)	APHA	* pH - Electrometric Method, 4500-H+ B	Mar 15, 2019	Exova Surrey
Anions by IEC in water (Surrey)	APHA	* Ion Chromatography with Chemical Suppression of Eluent Cond., 4110 B	Mar 15, 2019	Exova Surrey
Metals SemiTrace (Extractable) in water (Surrey)	US EPA	* Metals & Trace Elements by ICP-AES, 6010C	Mar 15, 2019	Exova Surrey
Trace Metals (extractable) in Water (Surrey)	US EPA	* Determination of Trace Elements in Waters and Wastes by ICP-MS, 200.8	Mar 15, 2019	Exova Surrey
True Color in water (Surrey)	APHA	* Spectrophotometric - Single Wavelength Method, 2120 C	Mar 16, 2019	Exova Surrey
Turbidity - Water (Surrey)	APHA	* Turbidity - Nephelometric Method, 2130 B	Mar 15, 2019	Exova Surrey

\* Reference Method Modified

## References

APHA Standard Methods for the Examination of Water and Wastewater  
 US EPA US Environmental Protection Agency Test Methods

## Guidelines

Guideline Description Health Canada GCDWQ  
 Guideline Source Guidelines for Canadian Drinking Water Quality, Health Canada, February 2017  
 Guideline Comments MAC = Maximum Acceptable Concentration  
 AO = Aesthetic Objective  
 OG = Operational Guideline for Water Treatment Plants  
 (does not apply to private groundwater wells).  
 Refer to Health Canada for complete guidelines at [www.hc-sc.gc.ca](http://www.hc-sc.gc.ca)

The comparison of test results to guideline limits is provided for information purposes only. This is not to be taken as a statement of conformance / nonconformance to any guideline, regulation or limit. The data user is responsible for all conclusions drawn with respect to the data and is advised to consult official regulatory references when evaluating compliance.

Please direct any inquiries regarding this report to our Client Services Group or to the Operations Manager at the coordinates indicated at the top left of this page.

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