

DRINKING WATER SYSTEM ANNUAL REPORT

Reporting Period:	January 1 st to December 31 st , 2016
Water System:	Coal Harbour Water System
Water System Owner	Regional District of Mount Waddington
Primary Contact Name:	Patrick Donaghy
Phone Number	250 956-3301
Email	pdonaghy@rdmw.bc.ca

Water Supply System Description

Source of Raw Water

- Deep Well
 Shallow Well
 Surface Water
 Other

Does Drinking Water System have Primary Disinfection? Yes No

- Chlorination
 Ultraviolet Light
 Ozone
 Other

Does the Drinking Water System have Secondary Disinfection? Yes No

- Chlorination
 Ultraviolet Light

Does the Drinking Water System have Filtration? Yes No

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

Public Reporting

Emergency Response & Contingency Plan (ERCP)

Is the ERCP up to date? Yes No

Means of informing the system users of the ERCP

- Hand Delivered
 Bulletin Board
 Newspaper
 Utility Bill Insert
 Website
 Other

Drinking Water System Annual Report

Drinking Water System Annual Report

Means of informing the system users of the Annual Report

- Hand Delivered
 Bulletin Board
 Newspaper
 Utility Bill Insert
 Website
 Other

Compliance with Operating Permit

Conditions of Operating Permit

In compliance with Operating Permit Yes No

Bacteriological Testing and Drinking Water Protection Regulation Water Quality Standards

Number of Bacteriological samples were collected during the reporting period: 89

Minimum required sampling frequency for the system:

Minimum required sampling achieved? Yes No

Comments:

Bacteriological summary attached to the report? Yes No

Water Quality Standards for Potable Water

Parameter	Standard	Meet Standard
Escherichia coli (for all samples)	No detectable Escherichia coli per 100 ml	<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 100 ml	<input 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 100 ml	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Recorded results where water system did not meet of the above Drinking Water Protection Regulation standards:

Chemical Sampling Completed During This Reporting Period

Was any chemical sampling conducted during the reporting period? Yes No

If Yes, attach list of chemical results to this report.

If no, when were the last chemical samples conducted for this system? Don't Know

If Yes, attach list of chemical results List Attached

Next scheduled full chemical test: 2017

Test results that did not meet Guidelines for Chemical Drinking Water Quality

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 results available on request? Yes No

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

Additional Test & 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.

Date	Type of Operational Problem	Corrective Action/Treatment

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	

Major Upgrades/Repairs & Expenses

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
Upgrade/Replacement of Process Logic Control (PLC) for Pump House, Water Treatment Plant and Reservoirs	March 31, 2018
Installation of PLC controlled valve downstream of reservoirs to limit risk of total supply loss if major distribution failure were to occur.	March 31, 2018

Date Completed:

March 30, 2017

Completed By:

Patrick Donaghy & Paul Getman

COAL HARBOUR WATER

Facility Location:

Coal Harbour Road
Coal Harbour

Facility Information:

Facility Type: DWC

Facility Sampling History:

<u>Location</u>	<u>Date</u>	<u>Total Coliform</u>	<u>E. Coli</u>
Quatsino Band Office, Quatsino Reserve, Coal Harbour Road, Coal Harbour, B.C.	13-Dec-2016	L1	L1
Sewage Plant, Coal Harbour, BC	13-Dec-2016	L1	L1
Wharf, Coal Harbour Govt Wharf, Coal Harbour	13-Dec-2016	L1	L1
Quatsino Band Office, Quatsino Reserve, Coal Harbour Road, Coal Harbour, B.C.	29-Nov-2016	L1	L1
Sewage Plant, Coal Harbour, BC	29-Nov-2016	L1	L1
Quatsino Band Office, Quatsino Reserve, Coal Harbour Road, Coal Harbour, B.C.	22-Nov-2016	L1	L1
Sewage Plant, Coal Harbour, BC	22-Nov-2016	L1	L1
Quatsino Band Office, Quatsino Reserve, Coal Harbour Road, Coal Harbour, B.C.	15-Nov-2016	L1	L1
Sewage Plant, Coal Harbour, BC	15-Nov-2016	L1	L1
Wharf, Coal Harbour Govt Wharf, Coal Harbour	15-Nov-2016	L1	L1
Quatsino Band Office, Quatsino Reserve, Coal Harbour Road, Coal Harbour, B.C.	1-Nov-2016	L1	L1
Sewage Plant, Coal Harbour, BC	1-Nov-2016	L1	L1
Quatsino Band Office, Quatsino Reserve, Coal Harbour Road, Coal Harbour, B.C.	3-Oct-2016	L1	L1
Sewage Plant, Coal Harbour, BC	3-Oct-2016	L1	L1
Quatsino Band Office, Quatsino Reserve, Coal Harbour Road, Coal Harbour, B.C.	28-Sep-2016	NS	
Quatsino Band Office, Quatsino Reserve, Coal Harbour Road, Coal Harbour, B.C.	28-Sep-2016	NS	
Sewage Plant, Coal Harbour, BC	28-Sep-2016	NS	
Quatsino Band Office, Quatsino Reserve, Coal Harbour Road, Coal Harbour, B.C.	26-Sep-2016	L1	L1
Sewage Plant, Coal Harbour, BC	26-Sep-2016	L1	L1
Wharf, Coal Harbour Govt Wharf, Coal Harbour	26-Sep-2016	L1	L1
Quatsino Band Office, Quatsino Reserve, Coal Harbour Road, Coal Harbour, B.C.	12-Sep-2016	L1	L1
Sewage Plant, Coal Harbour, BC	12-Sep-2016	L1	L1
Quatsino Band Office, Quatsino Reserve, Coal Harbour Road, Coal Harbour, B.C.	30-Aug-2016	L1	L1
Sewage Plant, Coal Harbour, BC	30-Aug-2016	L1	L1
Wharf, Coal Harbour Govt Wharf, Coal Harbour	30-Aug-2016	L1	L1

<u>Location</u>	<u>Date</u>	<u>Total Coliform</u>	<u>E. Coli</u>
Quatsino Band Office, Quatsino Reserve, Coal Harbour Road, Coal Harbour, B.C.	17-Aug-2016	L1	L1
Sewage Plant, Coal Harbour, BC	17-Aug-2016	L1	L1
Quatsino Band Office, Quatsino Reserve, Coal Harbour Road, Coal Harbour, B.C.	9-Aug-2016	L1	L1
Sewage Plant, Coal Harbour, BC	9-Aug-2016	L1	L1
Quatsino Band Office, Quatsino Reserve, Coal Harbour Road, Coal Harbour, B.C.	3-Aug-2016	L1	L1
Sewage Plant, Coal Harbour, BC	3-Aug-2016	L1	L1
Quatsino Band Office, Quatsino Reserve, Coal Harbour Road, Coal Harbour, B.C.	26-Jul-2016	L1	L1
Sewage Plant, Coal Harbour, BC	26-Jul-2016	L1	L1
Quatsino Band Office, Quatsino Reserve, Coal Harbour Road, Coal Harbour, B.C.	19-Jul-2016	L1	L1
Sewage Plant, Coal Harbour, BC	19-Jul-2016	L1	L1
Wharf, Coal Harbour Govt Wharf, Coal Harbour	19-Jul-2016	L1	L1
Quatsino Band Office, Quatsino Reserve, Coal Harbour Road, Coal Harbour, B.C.	4-Jul-2016	L1	L1
Sewage Plant, Coal Harbour, BC	4-Jul-2016	L1	L1
Quatsino Band Office, Quatsino Reserve, Coal Harbour Road, Coal Harbour, B.C.	27-Jun-2016	L1	L1
Sewage Plant, Coal Harbour, BC	27-Jun-2016	L1	L1
Quatsino Band Office, Quatsino Reserve, Coal Harbour Road, Coal Harbour, B.C.	21-Jun-2016	L1	L1
Sewage Plant, Coal Harbour, BC	21-Jun-2016	L1	L1
Quatsino Band Office, Quatsino Reserve, Coal Harbour Road, Coal Harbour, B.C.	15-Jun-2016	L1	L1
Sewage Plant, Coal Harbour, BC	15-Jun-2016	L1	L1
Quatsino Band Office, Quatsino Reserve, Coal Harbour Road, Coal Harbour, B.C.	8-Jun-2016	L1	L1
Sewage Plant, Coal Harbour, BC	8-Jun-2016	L1	L1
Wharf, Coal Harbour Govt Wharf, Coal Harbour	8-Jun-2016	L1	L1
Quatsino Band Office, Quatsino Reserve, Coal Harbour Road, Coal Harbour, B.C.	30-May-2016	L1	L1
Sewage Plant, Coal Harbour, BC	30-May-2016	L1	L1
Quatsino Band Office, Quatsino Reserve, Coal Harbour Road, Coal Harbour, B.C.	24-May-2016	L1	L1
Sewage Plant, Coal Harbour, BC	24-May-2016	L1	L1
Quatsino Band Office, Quatsino Reserve, Coal Harbour Road, Coal Harbour, B.C.	9-May-2016	L1	L1
Sewage Plant, Coal Harbour, BC	9-May-2016	L1	L1
Wharf, Coal Harbour Govt Wharf, Coal Harbour	9-May-2016	L1	L1
Quatsino Band Office, Quatsino Reserve, Coal Harbour Road, Coal Harbour, B.C.	4-May-2016	L1	L1
Sewage Plant, Coal Harbour, BC	4-May-2016	L1	L1
Quatsino Band Office, Quatsino Reserve, Coal Harbour Road, Coal Harbour, B.C.	26-Apr-2016	L1	L1
Sewage Plant, Coal Harbour, BC	26-Apr-2016	L1	L1
Quatsino Band Office, Quatsino Reserve, Coal Harbour Road, Coal Harbour, B.C.	20-Apr-2016	L1	L1
Sewage Plant, Coal Harbour, BC	20-Apr-2016	L1	L1

<u>Location</u>	<u>Date</u>	<u>Total Coliform</u>	<u>E. Coli</u>
Wharf, Coal Harbour Govt Wharf, Coal Harbour	20-Apr-2016	L1	L1
Quatsino Band Office, Quatsino Reserve, Coal Harbour Road, Coal Harbour, B.C.	5-Apr-2016	L1	L1
Sewage Plant, Coal Harbour, BC	5-Apr-2016	L1	L1
Wharf, Coal Harbour Govt Wharf, Coal Harbour	5-Apr-2016	L1	L1
Quatsino Band Office, Quatsino Reserve, Coal Harbour Road, Coal Harbour, B.C.	21-Mar-2016	L1	L1
Sewage Plant, Coal Harbour, BC	21-Mar-2016	L1	L1
Quatsino Band Office, Quatsino Reserve, Coal Harbour Road, Coal Harbour, B.C.	16-Mar-2016	L1	L1
Sewage Plant, Coal Harbour, BC	16-Mar-2016	L1	L1
Quatsino Band Office, Quatsino Reserve, Coal Harbour Road, Coal Harbour, B.C.	9-Mar-2016	L1	L1
Sewage Plant, Coal Harbour, BC	9-Mar-2016	L1	L1
Quatsino Band Office, Quatsino Reserve, Coal Harbour Road, Coal Harbour, B.C.	29-Feb-2016	L1	L1
Sewage Plant, Coal Harbour, BC	29-Feb-2016	L1	L1
Quatsino Band Office, Quatsino Reserve, Coal Harbour Road, Coal Harbour, B.C.	22-Feb-2016	L1	L1
Sewage Plant, Coal Harbour, BC	22-Feb-2016	L1	L1
Wharf, Coal Harbour Govt Wharf, Coal Harbour	22-Feb-2016	L1	L1
Quatsino Band Office, Quatsino Reserve, Coal Harbour Road, Coal Harbour, B.C.	16-Feb-2016	L1	L1
Sewage Plant, Coal Harbour, BC	16-Feb-2016	L1	L1
Quatsino Band Office, Quatsino Reserve, Coal Harbour Road, Coal Harbour, B.C.	9-Feb-2016	L1	L1
Sewage Plant, Coal Harbour, BC	9-Feb-2016	L1	L1
Quatsino Band Office, Quatsino Reserve, Coal Harbour Road, Coal Harbour, B.C.	1-Feb-2016	L1	L1
Sewage Plant, Coal Harbour, BC	1-Feb-2016	L1	L1
Quatsino Band Office, Quatsino Reserve, Coal Harbour Road, Coal Harbour, B.C.	27-Jan-2016	L1	L1
Sewage Plant, Coal Harbour, BC	27-Jan-2016	L1	L1
Wharf, Coal Harbour Govt Wharf, Coal Harbour	27-Jan-2016	L1	L1
Quatsino Band Office, Quatsino Reserve, Coal Harbour Road, Coal Harbour, B.C.	20-Jan-2016	L1	L1
Sewage Plant, Coal Harbour, BC	20-Jan-2016	L1	L1
Quatsino Band Office, Quatsino Reserve, Coal Harbour Road, Coal Harbour, B.C.	13-Jan-2016	L1	L1
Sewage Plant, Coal Harbour, BC	13-Jan-2016	L1	L1
Quatsino Band Office, Quatsino Reserve, Coal Harbour Road, Coal Harbour, B.C.	6-Jan-2016	L1	L1
Sewage Plant, Coal Harbour, BC	6-Jan-2016	L1	L1

COAL HARBOUR WATER

Facility Location:

Coal Harbour Road
Coal Harbour

Facility Information:

Facility Type: DWC
Current Hazard Rating: ◆ **Low**

Facility Inspection History:

Click on an inspection link below to see additional details

<u>Document Type</u>	<u>Dates & Details</u>
▪ - Sample Range Report	1-Jan-2016 to 31-Dec-2016
▪ - Sample Range Report	1-Jan-2016 to 31-Dec-2016
▪ Routine Inspection	9-Dec-2016 ◆ Low
▪ - Sample Range Report	1-Jan-2015 to 31-Dec-2015
▪ - Sample Range Report	1-Jan-2015 to 31-Dec-2015
▪ Routine Inspection	16-Oct-2015 ◆ Low
▪ Source - Sample Range Report	1-Jan-2014 to 31-Dec-2014
▪ Distribution - Sample Range Report	1-Jan-2014 to 31-Dec-2014
▪ Routine Inspection	3-Jul-2014 ◆ Low
▪ Distribution - Sample Range Report	1-Jan-2013 to 31-Dec-2013
▪ Source - Sample Range Report	1-Jan-2013 to 31-Dec-2013
▪ Routine Inspection	23-May-2013 ◆ Low
▪ Source - Sample Range Report	1-Jan-2012 to 31-Dec-2012
▪ Distribution - Sample Range Report	1-Jan-2012 to 31-Dec-2012
▪ Routine Inspection	5-Apr-2012 ◆ Low
▪ Routine Inspection	21-Jul-2011 ◆ Low
▪ Routine Inspection	18-Mar-2010 ◆ Low
▪ Routine Inspection	26-Feb-2009 ◆ Low
▪ Routine Inspection	19-Mar-2003 ◆ Low
▪ Routine Inspection	18-Jun-2001 ◆ Low
▪ Routine Inspection	24-Jan-2000 ◆ Low
▪ Routine Inspection	23-Feb-1998 ◆ Moderate

COAL HARBOUR WATER - Inspection Report

Inspection Information:

Facility Type: DWC
Inspection type: Routine
Inspection date: December 09, 2016
Follow-up Required: No

This facility was given a **low** hazard rating.

■ [More information on hazard ratings.](#)

Violations:

A summary of the violations found during the inspection are listed below.

Code Description / Observation / Corrective Action

323 Other (Specify)
Corrective Action: *Develop, implement and maintain a cross connection control program.*

Comments: New general chemical and physical analysis required by June 2017. See assessment checklist for additional comments and observations.

Water Taken From Distribution System

COAL HARBOUR WATER - Water Sample Range Report

Range Report Information:

Date range: Jan 1 2016 to Dec 31 2016
Total number of samples: 90

Water Sample Details:

Samples that contain coliform:	0 (0% of total)
Samples that contain fecal coliform:	0 (0% of total)
Samples that contain e. coli	0 (0% of total)
Number of consecutive samples that contain total coliform:	0 (0% of total)
Number of samples that contain total coliform in last 30 days:	0 (0% of total)

For more information regarding bacteriological quality guidelines please refer to the [Guidelines for Canadian Drinking Water Quality](#).

Raw Water at Pump House Intake

COAL HARBOUR WATER - Water Sample Range Report

Range Report Information:

Date range: Jan 1 2016 to Dec 31 2016
Total number of samples: 11

Water Sample Details:

Samples that contain coliform:	11 (100% of total)
Samples that contain fecal coliform:	0 (0% of total)
Samples that contain e. coli	5 (45% of total)
Number of consecutive samples that contain total coliform:	10 (91% of total)
Number of samples that contain total coliform in last 30 days:	0 (0% of total)

For more information regarding bacteriological quality guidelines please refer to the [Guidelines for Canadian Drinking Water Quality](#).