

UNION BAY IMPROVEMENT DISTRICT ANNUAL WATER SYSTEM REPORT

Reporting Period:	January 1 st to December 31 st , 2015
Operating Permit Number:	1441037
Drinking Water System Owner:	Union Bay Improvement District
Drinking Water System Contact:	
Contact 1:	<u>Dan McGill, Public Works Superintendent</u>
Contact 2:	<u>Kevin Douville, Administrator</u>
Phone No:	<u>(250) 335-2511</u>
Email 1:	<u>h2oguy@union-bay.ca</u>
Email 2:	<u>admin@union-bay.ca</u>

1 Microbiological testing completed during this reporting period:

- a. bacteriological results attached to this report.
- b. adverse bacteriological results:
 - None detected
 - Listed in table below:

Adverse Results:

Date	Total coliform	E. Coli	Reason	Corrective Action
Aug 11/15	12	L1	Bad Sample	Re-Test, Good Sample

2 Chemical results for this reporting period:

- a. most recent chemical analysis attached to this report.
- b. chemical parameters listed in *The Guidelines for Canadian Drinking Water Quality ("the Guidelines")* are:
 - all within GCDWQ, except as listed below:
 - above the GCDWQ and are listed below:

Parameters above the Guidelines:

Parameter	Result	Max. Acceptable Concentration	Aesthetic Objective	Treatment/Corrective Action

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3 Summarize additional testing and sampling carried out in accordance with the requirement of a Water Source approval, Written Order or as per the conditions of your *Operating Permit*.

- no additional testing
 additional testing listed below:

Additional testing:

Description of parameter & reason for sampling	Health parameter or non-health related parameter	Corrective action necessary (Y/N?)	Corrective action taken
Chlorine	Health	N	N
Turbidity	Health	N	N
Full Chemical Analysis	Health	N	N

4 Water Quality Complaints:

During the course of the year, the water system:

- did not receive water quality complaints (ie taste, odour, colour, etc)
 received water quality complaints and are listed below:

Water Quality Complaints:

Date	Water quality complaint	Corrective action taken

5 Adverse results: Total number of adverse results during this reporting period for insufficient water supply, malfunction of disinfection equipment or elevated turbidity:

- No adverse results
 Adverse results listed below:

Adverse Results:

Incident date	Corrective action	Corrected by
Mar 5/15	Higher Turbidity & Colour suspected within small portion of distribution system at and near Philroy Road.	Sampling, which proved negative, and monitoring
Dec 08/15	Higher Turbidity (1.9 NTU) recorded from McLeod Road Reservoir	Reported to Island Health and Monitored
Dec 15/15	Higher Turbidity (2.4 NTU) recorded from McLeod Road Reservoir	Reported to Island Health and Monitored

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6 Description of the system:

Sources of raw water:

- Groundwater
- Surface water
- Other (specify): _____

Does the drinking water system have disinfection? Yes No

Disinfection methods (check boxes that apply):

- Chlorination
- Ultraviolet light
- Ozonation
- Other (specify): _____

Does the drinking water system have treatment? Yes No

Treatment type (check boxes that apply):

- Particulate cartridge filters
- Membrane filtration
- Carbon filter
- Sand filtration
- Reverse osmosis
- Other (specify): _____

7 Major expenses incurred during the period covered by the report:

To purchase or install required equipment: _____

To repair equipment: _____

To replace equipment: Retirement of 2003 Chevrolet Silverado as primary Public Works Vehicle, replaced by 2015 Ford Super Duty F-350.

To complete annual maintenance of system: *(system flushing, replacement of carbon filters, etc)* _____

To complete specialist report (specify): Dissolved Air Flootation Pilot Plant Testing: November 2014 – January 2015

8 Further communication with users:

a. Indicate how you notified system users that your annual report is available, and is free of charge:

- hand delivered
- public access/ notice via web
- public access/notice via government office
- public access/notice via newspaper
- public access/notice via bill stuffer
- public access/ notice via other method (specify): _____

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b. Improvements or remedial actions required by the Drinking Water Officer:

- no action required
- Drinking Water Officer Inspection Report attached to report
- actions required by Drinking Water Officer listed below:

Improvements/Remedial Actions:

Required action	Completion date

c. Future water system improvements:

- no improvements planned
- improvements listed below:

Future Improvements:

Future plans	Planned completion date
Construction and Commissioning of Water Filtration / Treatment Plant	August 31 st , 2018
Construction and Commissioning of New Primary Drinking Water Storage Reservoir	Fall 2022

d. Emergency Response Plan can be accessed by:

- posting on web
- posting at nearest government office
- contacting water system owner
- Other (specify): _____

Water Sample Range Report

Island Health

Facility Name: UNION BAY IMPROVEMENT DISTRICT
Facility Type: DWT
Date Range: Jan 1 2015 to Dec 31 2015
Date Created: Apr 13 2016

Sampling Site	Date Collected	Total Coliform	E. Coli	Fecal Coliform
<u>McLeod Road, Union</u>				
<u>Bay, Source -</u>				
<u>Langley Lake,</u>				
<u>Source site, Monthly</u>				
	05-Jan-2015	EST 570	L1	
	02-Feb-2015	172.2	1.0	
	02-Mar-2015	39.9	L1	
	07-Apr-2015	13.5	L1	
	04-May-2015	52.0	L1	
	02-Jun-2015	8.4	L1	
	06-Jul-2015	13.4	L1	
	04-Aug-2015	59.1	L1	
	09-Sep-2015	G2419.2	L1	
	05-Oct-2015	G 2419.2	L1	
	04-Nov-2015	G2419.2	L1	
	01-Dec-2015	<u>770.1</u>	<u>L1</u>	
	Total Positive:	12	1	0

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

Interpreting Sample Reports

In VIHA, the results of drinking water sampling are reported using the following coding system:

- L1 Less than 1 (no detectable bacteria) - Meaning: No bacteria present
- OG Overgrown - Meaning: Too many background bacteria to give an accurate count
- EST Estimated Count
- and
- A Sample not tested; Too long in transit
- C Sample leaked/broken in transit
- D Sample not tested; No collection date given
- T Sample submitted unsatisfactory. Exceeded 30 hours holding time, please resample.
- NS No sample received with requisition

Samples that contain total coliform:	12	100.00% of total
Samples that contain e. coli:	1	8.33% of total
Samples that contain fecal coliform:	0	0.00% of total
Number of positive samples in last 30 days:	0/0	
Total number of samples:	12	

Comments:

Environmental Health Officer
Apr 13 2016

FOR FURTHER INFORMATION PLEASE CALL: Cherry, David (250) 331-8518 Comox Valley Office

Operator

Union Bay Improvement District
Box 70
Union Bay, BC
V0R 3B0

(250) 335-2511

Water Sample Range Report

Island Health

Facility Name: UNION BAY IMPROVEMENT DISTRICT
Facility Type: DWT
Date Range: Jan 1 2015 to Dec 31 2015
Date Created: Apr 13 2016

Sampling Site	Date Collected	Total Coliform	E. Coli	Fecal Coliform
<u>5701 Green, Union Bay, BC, Darling Residence, Dist. site, Monthly</u>				
	12-Jan-2015	L1	L1	
	10-Feb-2015	L1	L1	
	09-Mar-2015	L1	L1	
	14-Apr-2015	L1	L1	
	11-May-2015	L1	L1	
	10-Jun-2015	L1	L1	
	20-Jul-2015	L1	L1	
	19-Aug-2015	L1	L1	
	16-Sep-2015	L1	L1	
	13-Oct-2015	L1	L1	
	18-Nov-2015	L1	L1	
	02-Dec-2015	<u>L1</u>	<u>L1</u>	
	Total Positive:	0	0	0
<u>South Island Highway, Buckley Bay, Union Bay, B.C., Beachcomber, Dist. site, Monthly</u>				
	06-Jan-2015	L1	L1	
	27-Jan-2015	L1	L1	
	23-Feb-2015	L1	L1	
	31-Mar-2015	L1	L1	
	28-Apr-2015	L1	L1	
	04-May-2015	L1	L1	
	19-May-2015	L1	L1	
	17-Jun-2015	L1	L1	
	14-Jul-2015	L1	L1	
	24-Aug-2015	L1	L1	
	21-Sep-2015	L1	L1	
	19-Oct-2015	L1	L1	
	25-Nov-2015	L1	L1	
	07-Dec-2015	<u>L1</u>	<u>L1</u>	
	Total Positive:	0	0	0

Inverness, Dist. site,
Monthly

19-Jan-2015	L1	L1	
16-Feb-2015	L1	L1	
23-Mar-2015	L1	L1	
20-Apr-2015	L1	L1	
01-Jun-2015	L1	L1	
22-Jun-2015	L1	L1	
24-Jun-2015	L1	L1	
13-Jul-2015	L1	L1	
11-Aug-2015	12	L1	
28-Sep-2015	L1	L1	
26-Oct-2015	L1	L1	
23-Nov-2015	L1	L1	
21-Dec-2015	<u>L1</u>	<u>L1</u>	
Total Positive:	1	0	0

Buckley Bay
Connector Highway
Rest Stop, Buckley
Bay Rest Stop, Dist.
site, Quarterly

11-Feb-2015	L1	L1	
01-Jun-2015	L1	L1	
30-Sep-2015	L1	L1	
23-Dec-2015	<u>L1</u>	<u>L1</u>	
Total Positive:	0	0	0

McLeod Road,
McLeod Reservoir,
Dist. site, No
Regular Sampling

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

Interpreting Sample Reports

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OG Overgrown - Meaning: Too many background bacteria to give an accurate count

EST Estimated Count

and

A Sample not tested; Too long in transit

C Sample leaked/broken in transit

D Sample not tested; No collection date given

T Sample submitted unsatisfactory. Exceeded 30 hours holding time, please resample.

NS No sample received with requisition

Samples that contain total coliform:	1	2.33% of total
Samples that contain e. coli:	0	0.00% of total
Samples that contain fecal coliform:	0	0.00% of total
Number of positive samples in last 30 days:	0/0	
Total number of samples:	43	

Comments:

 Environmental Health Officer

Apr 13 2016

FOR FURTHER INFORMATION PLEASE CALL: Cherry, David (250) 331-8518 Comox Valley Office

Operator

Union Bay Improvement District
 Box 70
 Union Bay, BC
 V0R 3B0

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