REGIONAL DISTRICT OF NANAIMO

DRIFTWOOD

Water Local Service Area

Annual Report

2008

water SMART zero waste

Table of Contents

1. Introduction

The following annual report describes the Driftwood Water Local Service Area and summarizes the water quality and production data from 2008. This report also includes a summary of inquiries and complaints, completed and proposed maintenance activities, the Emergency Response Plan, and the Cross Connection Control Program.

This report is to be submitted to the Vancouver Island Health Authority by the Spring of 2009.

2. Driftwood Water System

The Driftwood Water Service Area was established in 2001 and comprises an area on Higginson Road and Delanice Way on the Nanoose Peninsula. The water source for the Driftwood Water Service Area comes from a series of groundwater wells located nearby. A map of the Driftwood Water System is provided in Appendix A for reference.

The Driftwood Water System was incorporated into the boundaries of the Nanoose Bay Peninsula Water Service Area in 2005, along with six other small water systems that the RDN operates in Nanoose Bay. The RDN is currently working with the local Vancouver Island Health Authority (VIHA) to combine these seven RDN water systems under one VIHA Operating Permit, to be known as the Nanoose Bay Peninsula Water Service Area (NBPWSA).

2.1 Groundwater Wells

There are no groundwater production wells in the Driftwood Water System.

2.2 Reservoirs

No reservoirs are present in the Driftwood Water System. Drinking water is supplied from both the Beachcomber and Eagle Heights reservoirs in the Nanoose Bay Water System.

2.3 Distribution System

The water distribution system in Driftwood is comprised of 150mm and 200mm PVC watermains. Fire hydrants are located throughout the system.

3. Water Sampling and Testing Program

Water sampling and testing is carried out weekly in the Nanoose Bay water distribution system, which is considered to be representative of the drinking water in the Driftwood water system (through shared reservoirs). The following table includes a summary of all testing in the Nanoose Bay water system.

Timing	Location	Tests
Weekly	RDN (in-house) Laboratory	Total coliforms, E.Coli, Temperature, pH, Conductivity, Chlorine residual, Salinity Total Dissolved Solids, Iron, Manganese
Weekly (Health Dept. Requirement)	North Island Labs	Total, Fecal coliforms
Annual Source Water Testing	North Island Labs	Complete potability testing of each well
Annual System Water Testing	North Island Labs	Complete potability testing of distribution system

4. Water Quality - Source Water and Distribution System

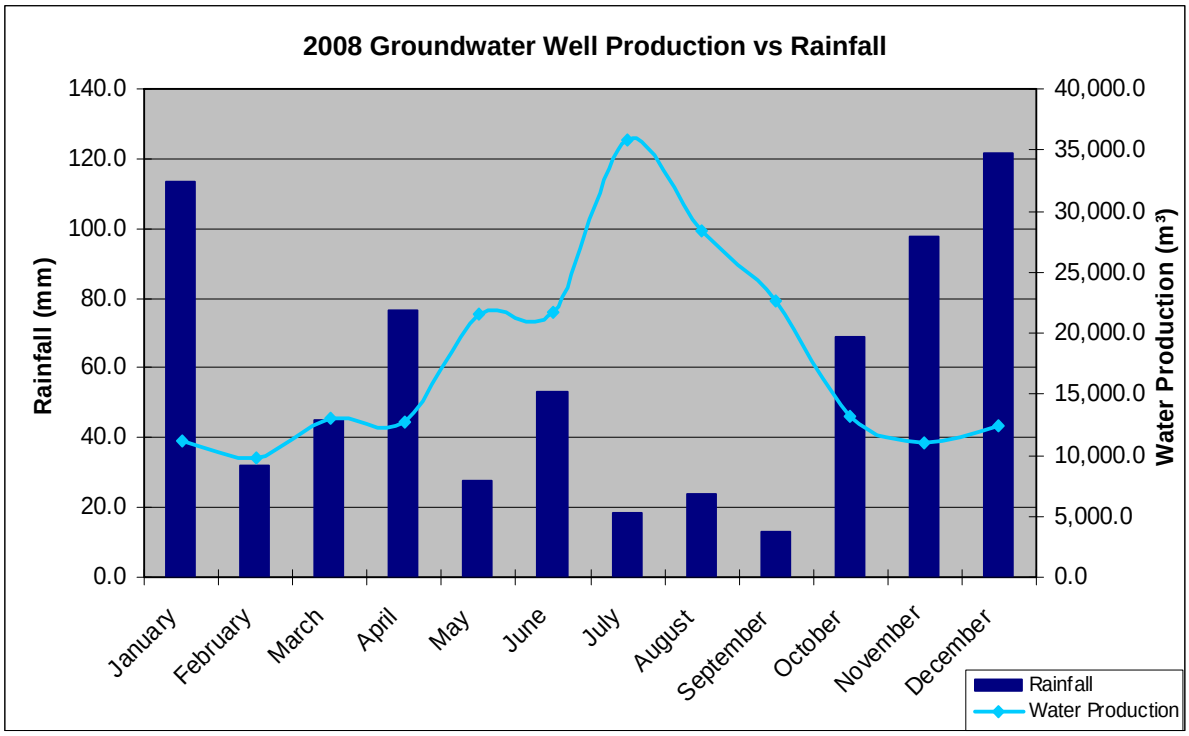
Up-to-date water quality reports and lab data are posted monthly on the RDN website at www.rdn.bc.ca in the WaterSmart section, under "Communities". Tables of water quality testing results for both the source water and distribution system are provided at the end of this report under Appendix B.

5. Water Quality Inquiries and Complaints

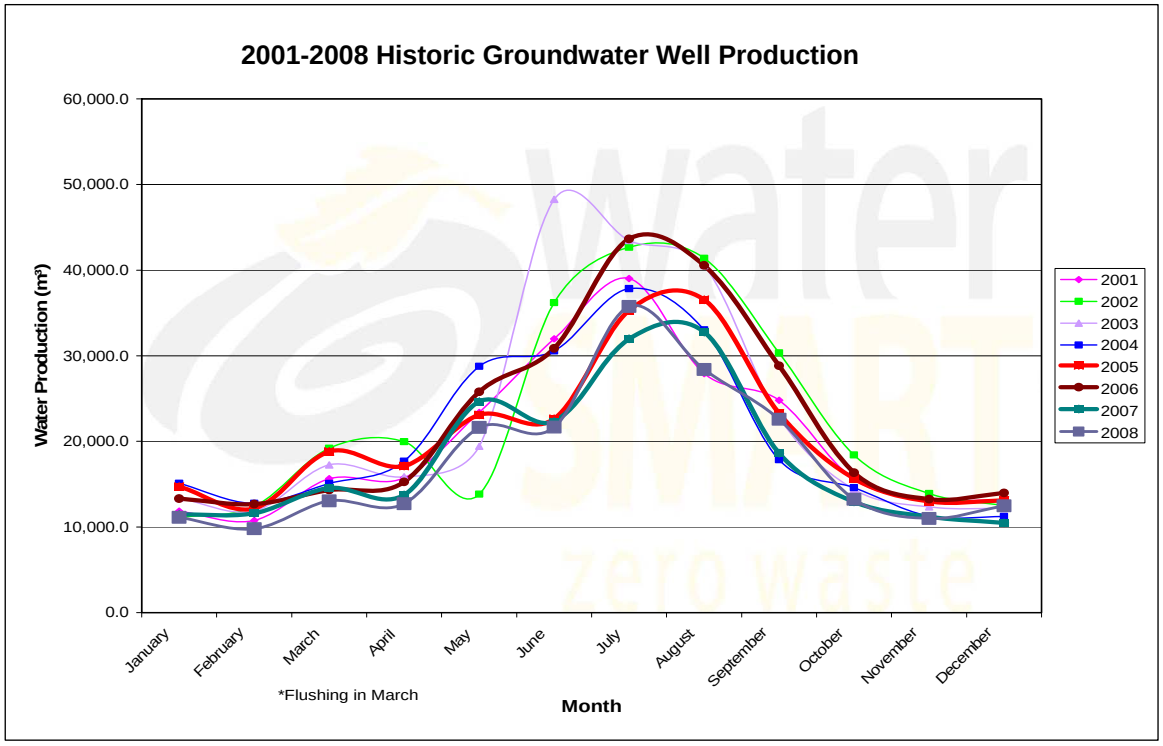
No complaints or inquiries were received from the Driftwood Water System.

6. Groundwater Production and Consumption

The 2008 monthly groundwater production for Driftwood (Nanoose Bay) is shown in the chart below. There are 30 water service connections in the Driftwood Water System. Groundwater production for the Driftwood/Nanoose Bay area has been charted against rainfall data from the City of Parksville website to show the correlation between rainfall and water consumption.



The monthly groundwater production for Driftwood (Nanoose Bay) for the past 8 years is shown in the chart below. Groundwater production in 2008 was typically lower than previous years.



Consumption

In the Fall/Winter of 2008, the average usage per home in the Driftwood area was 0.49 cubic metres per day (108 imperial gallons). In the summer, the average water usage was 1.14 cubic metres per day (251 imperial gallons). Based on these figures, the annual consumption per capita is estimated to be 302 L/day. This consumption is 1.2% more than the RDN system average of 298.4 L/day/capita for 2008.

7. Maintenance Program

Watermains are flushed once annually in the Spring.

8. Water System Projects

8.1 2008 Completed Studies & Projects

- Drilled and completed a new production well on Claudet Road.
- Upgraded the Outrigger Road PRV station.
- Upgraded the chlorine dosing pump in the Fairwinds Rechlorination Building.
- Completed the Redden Road – Sherbrooke Road watermain loop
- Released Nanoose Well #1 back to owner due to lease expiry.
- Secured a new right of way for a power line at Eagle Heights reservoir.
- Initiated the Water Quality Well Sequencing Program.
- Completed the Nanoose Bay Peninsula Capital Plan.
- Replaced all facility signs.

- Began keyless door entry installation (card lock) at the Water Services field office, and all pumphouse sites.
- Re-keyed all gates and points of entry.
- Established electrical connections for the mobile generator at key sites.
- Completed 'B' fire hydrant maintenance.
- Completed semi-annual watermain flushing.
- Completed a comprehensive water conservation program (**Team WaterSmart**) from May to October.
- Initiated the WaterSmart school program in partnership with Nanaimo Recycling Exchange.
- Updated and improved the RDN **WaterSmart** website.
- Updated the Emergency Response Plan.
- Expanded the Operating Procedures binder.
- Completed the SCADA (Supervisory Control and Data Acquisition) Study.
- Completed the Innovative Water Supply and Re-Use study.
- Completed the *Action for Water* referendum process.
- Achieved Backflow Prevention Tester's Certification for 3 Operations staff.
- Renewed the water supply agreement with the City of Parksville.
- Created the Auto E-Message notification sign-up on the RDN website.

8.2 2009 Proposed Projects & Upgrades

- Complete the well sequencing program to improve water quality.
- Purchase well sequencing controllers.
- Loop the watermain on Delanice Way.
- Establish the Drinking Water Protection Advisory Committee.
- Review the SCADA report and options for implementation.
- Complete the keyless door entry installations at all field sites.
- Commence the 2009 **Team WaterSmart** education program.
- Develop a rebate / incentive program.
- Develop the *Well Aware* well safety program.
- Convert two wells to observation wells.
- Re-develop one well.
- Install a stand-alone water sampling station.
- Replace the Dolphin reservoir altitude valve

8.3 2009 Proposed Studies

- Complete the well re-development study in Nanoose Bay.

9. Emergency Response Plan

The Emergency Response Plan (ERP) was reviewed and updated in 2008. A copy of the ERP is attached in Appendix C.

10. Cross Connection Control

A formalized Cross Connection Control Program was initiated in 2007. Cross connection controls in-place include dual check valves at each service connection, fire hydrant use permits, and water supply bylaws noting discontinued service if a threat to the water supply is perceived by staff.

In 2008, a review and comparison of successful cross-connection control programs in other small water systems nearby was undertaken. A database of commercial customers was set-up in order to keep track of the maintenance history of testable backflow prevention assemblies at each site. Three RDN Operations staff achieved Backflow Prevention Tester's certification.

The program in 2009 will include:

- A survey of existing and potential cross-connections,
- An audit of RDN-owned facilities in each water service area,
- The preparation of a draft bylaw to allow enforcement of the Cross Connection Control Program.

11. Closing

An annual report for the year 2009 will be prepared and submitted to the Vancouver Island Health Authority in the Spring of 2010. Annual reports are also available on our website at www.rdn.bc.ca in the WaterSmart section, under "Communities".

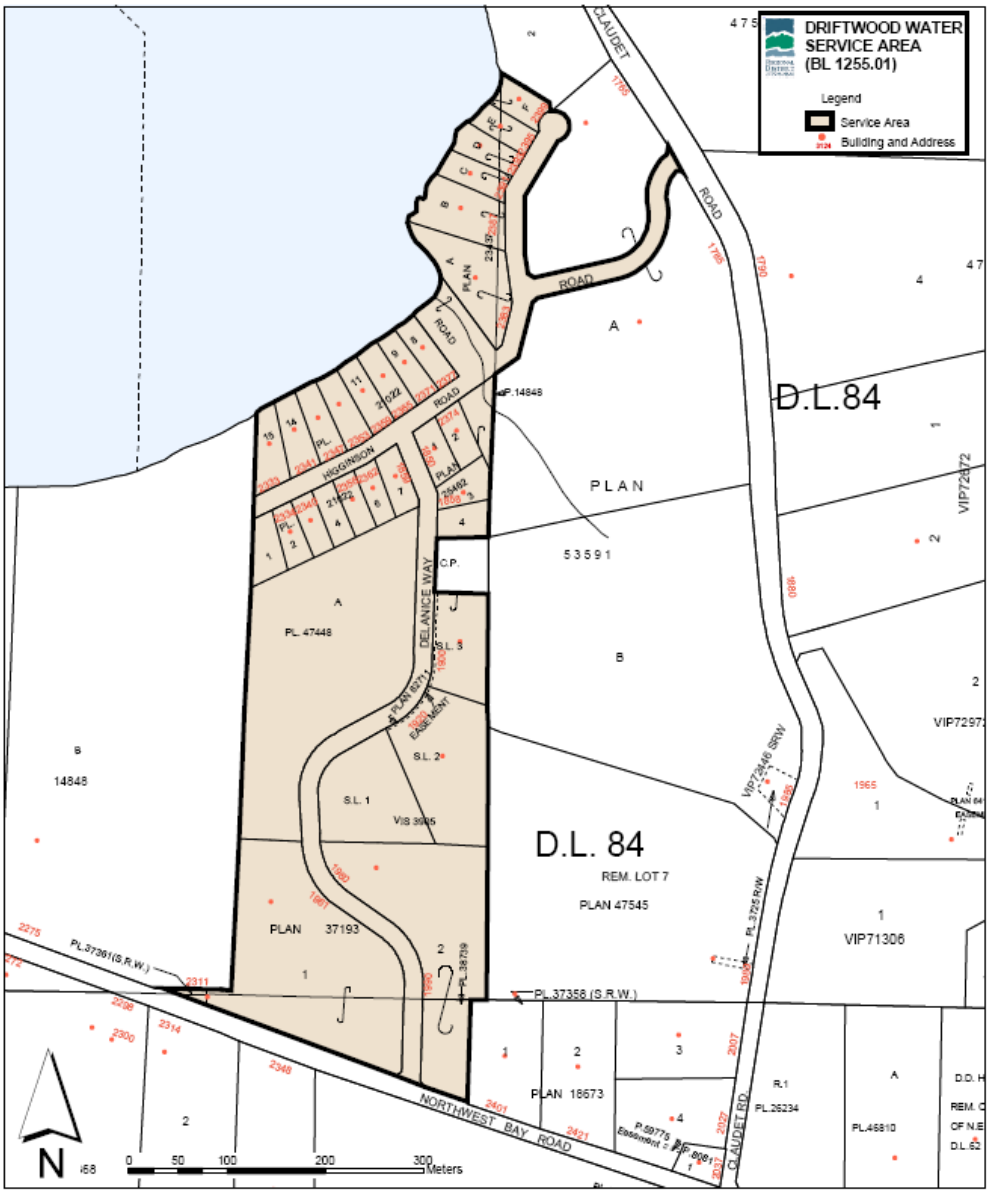
APPENIDX A

MAP OF DRIFTWOOD

WATER LOCAL SERVICE AREA

DRIFTWOOD

WATER LOCAL SERVICE AREA



APPENDIX B

WATER QUALITY TESTING RESULTS

Distribution Potability Test Results - Nanoose/Driftwood

(Treated Drinking Water)

Test	Water Quality Guidelines											Date		
	Units	CDWG	BCAWQG		1999	2000	2001	2002	2003	2004	2005	May 17 2006	May 22 2007	May 27 2008
Color	CU	15	</=15	AO			27	45	14	22	6	14	12	18
Conductivity	uS		700	MAC			349	304	362	357	356	357	358	372
TDS	mg/L	500	</=500	AO			200	193	187	233	210	233	206	238
Hardness (CaCO3)	mg/L	80-100	</=500	AO			132.1	128	149.3	140	140	140	150	130
pH	pH units	6.5-8.5	6.5-8.5	AO			7.69	7.52	7.68	7.8	7.6	7.7	7.7	7.86
Turbidity	NTU's	5	1	MAC			0.84	0.27	0.36	0.6	<0.5	<0.5	<0.5	<0.5
Alkalinity	mg/L						145	144	150	150	150	150	150	150
Chloride	mg/L	250	</=250	AO			14.4	11.28	9.42	11.6	10.9	12.8	9	13.1
Fluoride	mg/L	1.5	1.5	MAC			0.15	0.14	0.08	<1.0	<1.0	0.2	<1.0	<1.0
Sulfate	mg/L	500	</=500	AO			15.4	12.07	23.65	22.8	15.5	14.9	15.3	15.4
Nitrate	mg/L	10	10	MAC			0.092	0.04	0.1	0.2	0.3	0.04	<0.1	<0.1
Nitrite	mg/L	1					<.002	0.04	<0.01	<0.01	<0.1	<0.01	<0.1	<0.1
T-Aluminum	mg/L		0.2	MAC			0.014	<.009	0.006	<0.005	<0.005	<0.005	0.013	<0.05
T-Antimony	mg/L		0.006	MAC			<.006	<.006	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.001
T-Arsenic	mg/L	0.025	0.025	IMAC			<.01	<.01	0.001	0.0011	0.001	0.0011	0.0009	0.004
T-Barium	mg/L	1.0	1	MAC			0.0169	0.0121	0.033	0.015	0.023	0.028	0.03	0.02
T-Boron	mg/L	5.0	5	MAC			0.065	0.058	0.055	0.065	0.052	0.058	0.069	0.05
T-Cadmium	mg/L	0.005					<.0006	<.0006	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.0003
T-Calcium	mg/L						34.6	32.1	45.3	35	41.1	40.7	44.6	37.6
T-Chromium	mg/L	0.05	0.05	MAC			<.0009	<.0009	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.003
T-Copper	mg/L	1.0	</=1	MAC			0.002	0.002	0.004	0.004	0.002	0.004	0.005	<0.005
T-Iron	mg/L	0.3	</=0.3	AO			0.507	0.199	0.2	<0.1	<0.1	<0.1	<0.1	0.07
T-Lead	mg/L	0.01	0.01	MAC			<.002	<.002	0.0002	0.0003	0.0003	0.0004	0.0005	<0.0005
T-Magnesium	mg/L		</=700	AO			11.1	11.6	8.8	11.6	9.5	8.2	9.5	9
T-Manganese	mg/L	0.05	</=0.05	AO			0.208	0.175	0.118	0.102	0.083	0.11	0.123	0.134
T-Mercury	mg/L	0.001	0.001	MAC			<.0001	<.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.01
T-Potassium	mg/L						2.2	2.4	2	2.5	2	2.1	2.2	2
T-Selium	mg/L	0.01	0.01	MAC			<.004	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.003
T-Sodium	mg/L	200	</=200	AO			20.1	23.3	16.2	22.3	19	21.1	19.7	21.9
T-Uranium	mg/L	0.1	0.1	MAC			<.06	<.02	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.002
T-Zinc	mg/L	5	<5	AO			0.0029	0.0028	0.017	0.004	0.013	0.022	0.025	0.01
Total Coliform	cfu/100ml	<1	<1	cfu/100ml			<1	n/a	n/a	<1	<1	<1	<1	<1.0
Fecal Coliform	cfu/100ml	<1	<1	cfu/100ml			<1	n/a	n/a	<1	<1	<1	<1	
E.coli	cfu/100ml	<1	<1	cfu/100ml								<1	<1	<1.0
Tannins & Lignins							n/a	0.15	n/a	n/a		n/a	n/a	n/a
Trihalomethanes	mg/l	0.1		MAC			n/a	n/a	n/a	n/a		0.01	n/a	n/a

BCAWQG - BC approved water quality guidelines
MAC - maximum acceptable concentrations
IMAC - interim maximum acceptable concentrations
AO - aesthetic objective
Red font indicates non-compliance.

REGIONAL DISTRICT OF NANAIMO

Nanoose Well #1 Water Analysis Results
Canadian Drinking Water Guidelines Package

water SMART zero waste

Red font indicates non-compliance with Canadian Drinking Water Guidelines
MAC=Maximum Acceptable Concentration.
IMAC= Interim Maximum Acceptable Concentration.
AO= Asthetic Objective.

					Year						
Parameter	**Units**	**CDWG**	**BCAWQG**		**2002**	**2003**	**2004**	**2005**	**Oct 24 2006**	**Oct 24 2007**	**Oct 30 2008**
Color	CU	15	</=15	AO	7	<5	5	6	5	8	13
Conductivity	µS		700	MAC	254	33	317	321	317	324	320
Total Dissolved Solids	mg/L	500	</=500	AO	180	173	190	300	210	247	174
Hardness (CaCO3)	mg/L	80-100	</=500	AO	**134.1**	**138**	**120**	**150**	**130**	**140**	**140**
pH	pH units	6.5-8.5	6.5-8.5	AO	7.89	7.62	7.9	8	8	8.15	7.8
Turbidity	NTU's	5	1	MAC	0.64	1.16	0.9	0.7	0.7	0.6	0.8
Alkalinity	mg/L				150	160	160	160	160	150	160
Chloride	mg/L	250	</=250	AO	3.83	4.1	3.8	3.6	4.4	3.7	3.7
Fluoride	mg/L	1.5	1.5	MAC	0.10	<0.6	<1.0	<1.0	<1.0	<1.0	<1.0
Sulfate	mg/L	500	</=500	AO	9.31	9.4	8.1	8	8.9	6.9	6.5
Nitrate (N)	mg/L	10	10	MAC	<0.01	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrite (N)	mg/L	1			<0.01	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
T-Aluminum	mg/L		0.2	MAC	<0.005	<0.005	0.007	<0.005	0.018	0.009	<0.005
T-Antimony	mg/L		0.006	MAC	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
T-Arsenic	mg/L	0.025	0.025	IMAC	0.0011	0.0012	0.0009	0.001	0.001	0.001	0.0009
T- Barium	mg/L	1.0	1	MAC	0.017	0.018	0.009	0.019	0.018	0.019	0.017
T-Boron	mg/L	5.0	5	MAC	0.024	0.034	0.074	0.035	0.035	0.035	0.029
T-Cadmium	mg/L	0.005			<0.00001	<0.00001	0.00002	<0.00001	<0.00001	<0.00001	<0.00001
T-Calcium	mg/L				32.9	34	35.8	36.6	33.2	35.1	35.8
T-Chromium	mg/L	0.05	0.05	MAC	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0004
T-Copper	mg/L	1.0	</=1	MAC	0.001	0.05	0.079	0.003	0.003	0.007	0.02
T-Iron	mg/L	0.3	</=0.3	AO	**0.3**	**0.4**	**0.4**	**0.4**	**0.3**	**0.4**	**0.32**
T-Lead	mg/L	0.01	0.01	MAC	0.0003	0.0034	0.007	0.001	0.0005	0.0019	0.0033
T-Magnesium	mg/L		</=700	AO	12.6	13.1	13.6	13	11.9	12.8	12.9
T-Manganese	mg/L	0.05	</=0.05	AO	**0.166**	**0.161**	**0.178**	**0.19**	0.17	**0.191**	**0.18**
T-Mercury	mg/L	0.001	0.001	MAC	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.01
T-Potassium	mg/L				2	2.2	2.3	2.2	2.3	2.4	2.2
T-Selenium	mg/L	0.01	0.01	MAC	<0.0002	<0.0002	0.0002	<0.0002	<0.0002	0.0004	<0.0006
T-Sodium	mg/L	200	</=200	AO	12	12.1	13	13.2	12.9	13	11.6
T-Uranium	mg/L	0.1	0.1	MAC	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0004
T-Zinc	mg/L	5	<5	AO	0.013	0.177	0.321	0.006	0.01	0.018	0.101
Total Coliform	cfu/100ml	<1	<1	cfu/100ml			<1	<1	<1	<1	<1
Fecal Coliform	cfu/100ml	<1	<1	cfu/100ml			<1	<1	<1	<1	<1
E.coli	cfu/100ml	<1	<1	cfu/100ml					<1	<1	<1

REGIONAL DISTRICT OF NANAIMO

Nanoose Well #2 Water Analysis Results
Canadian Drinking Water Guidelines Package

water SMART zero waste

Red font indicates non-compliance with Canadian Drinking Water Guidelines
MAC=Maximum Acceptable Concentration.
IMAC= Interim Maximum Acceptable Concentration.
AO= Asthetic Objective.

					Year						
Parameter	**Units**	**CDWG**	**BCAWQG**		**2002**	**2003**	**2004**	**2005**	**Oct 24 2006**	**Oct 24 2007**	**Oct 30 2008**
Color	CU	15	</=15	AO	8	11	<5	8	5	10	10
Conductivity	µS		700	MAC	307	321	324	329	320	333	336
Total Dissolved Solids	mg/L	500	</=500	AO	180	167	180	182	210	240	208
Hardness (CaCO3)	mg/L	80-100	</=500	AO	**113.6**	**124**	**120**	**130**	**120**	**130**	**130**
pH	pH units	6.5-8.5	6.5-8.5	AO	7.95	7.86	8	8	8.1	8.16	7.92
Turbidity	NTU's	5	1	MAC	1.02	0.98	<0.5	<0.5	<0.5	<0.5	0.5
Alkalinity	mg/L				138	150	140	140	140	140	150
Chloride	mg/L	250	</=250	AO	6.32	7.2	6.9	7.5	6.7	6.5	0.7
Fluoride	mg/L	1.5	1.5	MAC	0.16	<0.6	<1	<1.0	<1.0	<1.0	<1.0
Sulfate	mg/L	500	</=500	AO	21.06	16.9	20.8	21.5	16.6	18.7	19.7
Nitrate (N)	mg/L	10	10	MAC	0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrite (N)	mg/L	1			0.03	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
T-Aluminum	mg/L		0.2	MAC	<0.005	<0.005	0.005	<0.005	<0.005	<0.005	<0.005
T-Antimony	mg/L		0.006	MAC	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
T-Arsenic	mg/L	0.025	0.025	IMAC	0.0004	0.0006	0.0006	0.0006	0.0005	0.0007	0.0006
T- Barium	mg/L	1.0	1	MAC	0.017	0.019	0.018	0.02	0.018	0.02	0.017
T-Boron	mg/L	5.0	5	MAC	0.054	0.07	0.072	0.07	0.069	0.07	0.06
T-Cadmium	mg/L	0.005			<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	0.00001	<0.00001
T-Calcium	mg/L				31.3	35	36.4	38.1	33.4	36.8	37.8
T-Chromium	mg/L	0.05	0.05	MAC	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0004
T-Copper	mg/L	1.0	</=1	MAC	<0.001	0.006	<0.001	<0.001	<0.001	<0.001	0.002
T-Iron	mg/L	0.3	</=0.3	AO	0.2	0.2	0.2	0.2	0.2	0.2	0.18
T-Lead	mg/L	0.01	0.01	MAC	<0.001	0.0002	<0.0001	<0.0001	<0.0001	<0.0001	0.0001
T-Magnesium	mg/L		</=700	AO	8.6	9.5	9.6	9.4	8.4	9.3	9.28
T-Manganese	mg/L	0.05	</=0.05	AO	**0.11**	**0.11**	**0.116**	**0.122**	**0.107**	**0.121**	**0.112**
T-Mercury	mg/L	0.001	0.001	MAC	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.01
T-Potassium	mg/L				2.4	2.4	2.6	2.5	2.4	2.6	2.2
T-Selenium	mg/L	0.01	0.01	MAC	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0006
T-Sodium	mg/L	200	</=200	AO	17	16	17.8	17.7	16.4	17	14.7
T-Uranium	mg/L	0.1	0.1	MAC	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0004
T-Zinc	mg/L	5	<5	AO	0.046	0.009	0.02	0.001	0.002	0.018	0.01
Total Coliform	cfu/100ml	<1	<1	cfu/100ml			<1	<1	<1	<1	<1
Fecal Coliform	cfu/100ml	<1	<1	cfu/100ml			<1	<1	<1	<1	<1
E.coli	cfu/100ml	<1	<1	cfu/100ml					<1	<1	<1

REGIONAL DISTRICT OF NANAIMO

Nanoose Well #3 Water Analysis Results
Canadian Drinking Water Guidelines Package

water SMART zero waste

Red font indicates non-compliance with Canadian Drinking Water Guidelines
MAC=Maximum Acceptable Concentration.
IMAC= Interim Maximum Acceptable Concentration.
AO= Asthetic Objective.

					Year						
Parameter	**Units**	**CDWG**	**BCAWQG**		**2002**	**2003**	**2004**	**2005**	**Oct 24 2006**	**Oct 24 2007**	**Oct 30 2008**
Color	CU	15	</=15	AO	**23**	10	<5	**16**	<5	8	5
Conductivity	µS		700	MAC	311	336	371	359	167.9	377	90
Total Dissolved Solids	mg/L	500	</=500	AO	180	220	210	236	98	280	42
Hardness (CaCO3)	mg/L	80-100	</=500	AO	**115.6**	**123**	**120**	**120**	**45**	**110**	**31**
pH	pH units	6.5-8.5	6.5-8.5	AO	7.72	7.59	7.7	8	7.4	8.08	7.04
Turbidity	NTU's	5	1	MAC	1.68	2.45	<0.5	0.8	<0.5	<0.5	0.5
Alkalinity	mg/L				142	150	150	150	30	140	30
Chloride	mg/L	250	</=250	AO	2.97	6.5	29	20.6	24.7	24.3	9.9
Fluoride	mg/L	1.5	1.5	MAC	0.42	<0.6	<1.0	<1.0	<1.0	<1.0	<1.0
Sulfate	mg/L	500	</=500	AO	7.47	16.4	2.4	2.3	2.9	3.3	<2.0
Nitrate (N)	mg/L	10	10	MAC	0.09	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrite (N)	mg/L	1			<0.01	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
T-Aluminum	mg/L		0.2	MAC	<0.005	<0.005	<0.005	<0.005	0.009	<0.005	0.005
T-Antimony	mg/L		0.006	MAC	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
T-Arsenic	mg/L	0.025	0.025	IMAC	0.0015	0.0016	0.0013	0.0015	<0.0002	0.0012	<0.0002
T- Barium	mg/L	1.0	1	MAC	0.017	0.019	0.006	0.008	0.01	0.006	0.005
T-Boron	mg/L	5.0	5	MAC	0.05	0.072	0.082	0.083	0.018	0.079	0.009
T-Cadmium	mg/L	0.005			<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
T-Calcium	mg/L				28.8	30.6	28.5	29.3	15.2	28.2	10.4
T-Chromium	mg/L	0.05	0.05	MAC	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0004
T-Copper	mg/L	1.0	</=1	MAC	0.001	<0.001	0.004	0.003	0.005	0.007	0.008
T-Iron	mg/L	0.3	</=0.3	AO	**1.1**	**1.2**	<0.1	**0.5**	<0.1	0.2	0.03
T-Lead	mg/L	0.01	0.01	MAC	0.0004	0.0003	0.0005	0.0006	0.0003	0.0013	0.0003
T-Magnesium	mg/L		</=700	AO	10.6	11.3	10.7	10.3	1.8	10.1	1.19
T-Manganese	mg/L	0.05	</=0.05	AO	**0.26**	**0.257**	**0.095**	**0.236**	<0.005	**0.188**	0.0009
T-Mercury	mg/L	0.001	0.001	MAC	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.01
T-Potassium	mg/L				2.2	2.3	2.6	2.6	<0.4	2.6	0.2
T-Selenium	mg/L	0.01	0.01	MAC	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0006
T-Sodium	mg/L	200	</=200	AO	18.5	18.3	36.7	31.7	9.2	32.6	4.19
T-Uranium	mg/L	0.1	0.1	MAC	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0004
T-Zinc	mg/L	5	<5	AO	0.008	0.002	0.009	0.009	0.006	0.008	0.011
Total Coliform	cfu/100ml	<1	<1	cfu/100ml			<1	<1	<1	<1	<1
Fecal Coliform	cfu/100ml	<1	<1	cfu/100ml			<1	<1	<1	<1	<1
E.coli	cfu/100ml	<1	<1	cfu/100ml					<1	<1	<1

REGIONAL DISTRICT OF NANAIMO

Nanoose Well #4 Water Analysis Results
Canadian Drinking Water Guidelines Package

water SMART zero waste

Red font indicates non-compliance with Canadian Drinking Water Guidelines
MAC=Maximum Acceptable Concentration.
IMAC= Interim Maximum Acceptable Concentration.
AO= Asthetic Objective.

					Year						
Parameter	**Units**	**CDWG**	**BCAWQG**		**2002**	**2003**	**2004**	**2005**	**Oct 24 2006**	**Oct 24 2007**	**Oct 30 2008**
Color	CU	15	</=15	AO	**28**	10	11	**16**	7	**16**	10
Conductivity	µS		700	MAC	330	345	331	333	325	329	324
Total Dissolved Solids	mg/L	500	</=500	AO	180	193	170	240	210	173	54
Hardness (CaCO3)	mg/L	80-100	</=500	AO	**120.2**	**125**	**130**	**130**	**120**	**120**	**27**
pH	pH units	6.5-8.5	6.5-8.5	AO	7.36	7.55	7.8	8	7.9	8.05	6.45
Turbidity	NTU's	5	1	MAC	1.65	4.76	1.7	2.6	1.6	1.8	1.7
Alkalinity	mg/L				196	180	180	170	170	160	170
Chloride	mg/L	250	</=250	AO	1.77	4	3.7	3.5	3.9	3.6	8.5
Fluoride	mg/L	1.5	1.5	MAC	0.42	<0.6	<1.0	<1.0	<1.0	<1.0	<1.0
Sulfate	mg/L	500	</=500	AO	0.41	1.7	<2.0	<2	<2.0	<2.0	<2.0
Nitrate (N)	mg/L	10	10	MAC	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrite (N)	mg/L	1			0.14	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
T-Aluminum	mg/L		0.2	MAC	0.019	<0.005	0.008	<0.005	0.008	0.019	0.014
T-Antimony	mg/L		0.006	MAC	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
T-Arsenic	mg/L	0.025	0.025	IMAC	0.0027	0.0025	0.0024	0.0022	0.0022	0.0024	<0.0002
T- Barium	mg/L	1.0	1	MAC	0.017	0.011	0.011	0.012	0.01	0.012	0.003
T-Boron	mg/L	5.0	5	MAC	0.045	0.078	0.073	0.074	0.071	0.076	0.009
T-Cadmium	mg/L	0.005			<0.00001	0.0003	<0.00001	<0.00001	<0.00001	0.00002	<0.00001
T-Calcium	mg/L				29	30.1	31.5	31.6	29.1	29.8	8.61
T-Chromium	mg/L	0.05	0.05	MAC	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0006	<0.0004
T-Copper	mg/L	1.0	</=1	MAC	0.002	0.052	0.003	0.006	<0.001	0.234	0.005
T-Iron	mg/L	0.3	</=0.3	AO	**1.7**	**1**	**0.7**	**0.8**	**0.6**	**0.9**	0.03
T-Lead	mg/L	0.01	0.01	MAC	0.0005	0.0081	0.0005	0.0007	0.0002	***0.0101**	0.0008
T-Magnesium	mg/L		</=700	AO	11.6	12.2	12.3	11.6	10.9	11.2	1.3
T-Manganese	mg/L	0.05	</=0.05	AO	**0.34**	**0.37**	**0.260**	**0.278**	**0.242**	**0.319**	0.0124
T-Mercury	mg/L	0.001	0.001	MAC	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.01
T-Potassium	mg/L				2.1	2.3	2.3	2.3	2.4	2.3	0.3
T-Selenium	mg/L	0.01	0.01	MAC	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	<0.0006
T-Sodium	mg/L	200	</=200	AO	21.2	15.5	23.4	24.5	22.8	23.2	3.96
T-Uranium	mg/L	0.1	0.1	MAC	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0004
T-Zinc	mg/L	5	<5	AO	0.16	0.761	0.005	0.01	0.004	0.224	0.031
Total Coliform	cfu/100ml	<1	<1	cfu/100ml			<1	<1	<1	**OG**	<1
Fecal Coliform	cfu/100ml	<1	<1	cfu/100ml			<1	<1	<1	<1	<1
E.coli	cfu/100ml	<1	<1	cfu/100ml					<1	<1	<1

Note: Total coliforms can be an indicator of adverse water quality if the result in the re-sample is confirmed positive. (United States Environmental Protection Agency (EPA), 2008) RDN Water samples are always tested for Fecal coliform bacteria at the same time as Total coliforms to rule out the presence of harmful pathogens.

* Re-sample for Lead for 2007 - Result 0.0001 mg/l

REGIONAL DISTRICT OF NANAIMO

Nanoose Well #5 Water Analysis Results

Canadian Drinking Water Guidelines Package

water SMART zero waste

Red font indicates non-compliance with Canadian Drinking Water Guidelines
MAC=Maximum Acceptable Concentration.
IMAC= Interim Maximum Acceptable Concentration.
AO= Asthetic Objective.

Parameter	Units	CDWG	BCAWQG		2002	2003	2004	2005	2006	2007	2008
Color	CU	15	</=15	AO	12	off	off	off	off	off	off
Conductivity	µS		700	MAC	432	off	off	off	off	off	off
Total Dissolved Solids	mg/L	500	</=500	AO	260	off	off	off	off	off	off
Hardness (CaCO3)	mg/L	80-100	</=500	AO	**204.4**	off	off	off	off	off	off
pH	pH units	6.5-8.5	6.5-8.5	AO	7.92	off	off	off	off	off	off
Turbidity	NTU's	5	1	MAC	3.89	off	off	off	off	off	off
Alkalinity	mg/L				142	off	off	off	off	off	off
Chloride	mg/L	250	</=250	AO	8.57	off	off	off	off	off	off
Fluoride	mg/L	1.5	1.5	MAC	0.09	off	off	off	off	off	off
Sulfate	mg/L	500	</=500	AO	34.2	off	off	off	off	off	off
Nitrate (N)	mg/L	10	10	MAC	<0.01	off	off	off	off	off	off
Nitrite (N)	mg/L	1			<0.01	off	off	off	off	off	off
T-Aluminum	mg/L		0.2	MAC	0.158	off	off	off	off	off	off
T-Antimony	mg/L		0.006	MAC	<0.0002	off	off	off	off	off	off
T-Arsenic	mg/L	0.025	0.025	IMAC	0.0005	off	off	off	off	off	off
T- Barium	mg/L	1.0	1	MAC	0.105	off	off	off	off	off	off
T-Boron	mg/L	5.0	5	MAC	0.036	off	off	off	off	off	off
T-Cadmium	mg/L	0.005			<0.0001	off	off	off	off	off	off
T-Calcium	mg/L				77.1	off	off	off	off	off	off
T-Chromium	mg/L	0.05	0.05	MAC	<0.0005	off	off	off	off	off	off
T-Copper	mg/L	1.0	</=1	MAC	0.004	off	off	off	off	off	off
T-Iron	mg/L	0.3	</=0.3	AO	**2.2**	off	off	off	off	off	off
T-Lead	mg/L	0.01	0.01	MAC	0.0011	off	off	off	off	off	off
T-Magnesium	mg/L		</=700	AO	2.9	off	off	off	off	off	off
T-Manganese	mg/L	0.05	</=0.05	AO	**0.149**	off	off	off	off	off	off
T-Mercury	mg/L	0.001	0.001	MAC	<0.0002	off	off	off	off	off	off
T-Potassium	mg/L				0.7	off	off	off	off	off	off
T-Selenium	mg/L	0.01	0.01	MAC	0.0002	off	off	off	off	off	off
T-Sodium	mg/L	200	</=200	AO	9.2	off	off	off	off	off	off
T-Uranium	mg/L	0.1	0.1	MAC	<0.0005	off	off	off	off	off	off
T-Zinc	mg/L	5	<5	AO	0.409	off	off	off	off	off	off
						off	off	off	off	off	off
Total Coli	cfu/100ml	<1	<1	cfu/100ml		off	off	off	off	off	off
Fecal Coli	cfu/100ml	<1	<1	cfu/100ml		off	off	off	off	off	off

REGIONAL DISTRICT OF NANAIMO

Nanoose Well #6 Water Analysis Results
Canadian Drinking Water Guidelines Package

water SMART zero waste

Red font indicates non-compliance with Canadian Drinking Water Guidelines
MAC=Maximum Acceptable Concentration.
IMAC= Interim Maximum Acceptable Concentration.
AO= Asthetic Objective.

					Year						
Parameter	**Units**	**CDWG**	**BCAWQG**		**2002**	**2003**	**2004**	**2005**	**Oct 24 2006**	**Oct 24 2007**	**Oct 30 2008**
Color	CU	15	</=15	AO		<5	<5	**37**	10	<5	11
Conductivity	µS		700	MAC		**737**	467	430	506	560	436
Total Dissolved Solids	mg/L	500	</=500	AO		467	290	300	320	447	268
Hardness (CaCO3)	mg/L	80-100	</=500	AO		**330**	**220**	**190**	**260**	**270**	**190**
pH	pH units	6.5-8.5	6.5-8.5	AO		7.24	7.5	7.8	7.5	7.96	7.51
Turbidity	NTU's	5	1	MAC		1.55	2.4	**26.7**	2.2	1.1	2.8
Alkalinity	mg/L					200	200	190	180	190	200
Chloride	mg/L	250	</=250	AO		7.6	7.5	7.1	8.7	7.7	7.7
Fluoride	mg/L	1.5	1.5	MAC		<0.6	<1.0	<1.0	<1.0	<1.0	<1.0
Sulfate	mg/L	500	</=500	AO		189	47.6	27.8	66.5	80.4	29.1
Nitrate (N)	mg/L	10	10	MAC		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrite (N)	mg/L	1				<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
T-Aluminum	mg/L		0.2	MAC		0.115	0.008	0.945	<0.005	<0.005	<0.005
T-Antimony	mg/L		0.006	MAC		0.0009	<0.0002	0.0003	<0.0002	<0.0002	<0.0002
T-Arsenic	mg/L	0.025	0.025	IMAC		0.0006	0.0004	0.0018	0.0004	0.0005	0.0003
T- Barium	mg/L	1.0	1	MAC		0.133	0.106	0.125	0.089	0.109	0.096
T-Boron	mg/L	5.0	5	MAC		0.093	0.147	0.179	0.055	0.081	0.166
T-Cadmium	mg/L	0.005				0.0006	<0.00001	0.00011	<0.00001	0.00002	<0.00001
T-Calcium	mg/L					118	79.7	70.2	96	101	70
T-Chromium	mg/L	0.05	0.05	MAC		<0.0005	<0.0005	0.0015	<0.0005	<0.0005	<0.0004
T-Copper	mg/L	1.0	</=1	MAC		0.004	0.003	0.022	<0.001	0.01	0.022
T-Iron	mg/L	0.3	</=0.3	AO		0.2	**0.3**	**3.4**	0.2	0.2	0.19
T-Lead	mg/L	0.01	0.01	MAC		0.0011	0.0016	**0.024**	0.0001	0.0015	0.0016
T-Magnesium	mg/L		</=700	AO		8.7	4.2	3.9	4.4	4.8	3.61
T-Manganese	mg/L	0.05	</=0.05	AO		**0.054**	**0.076**	**0.078**	**0.102**	**0.108**	**0.0554**
T-Mercury	mg/L	0.001	0.001	MAC		<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.01
T-Potassium	mg/L					1.6	1.3	1.3	0.9	1.1	0.9
T-Selenium	mg/L	0.01	0.01	MAC		0.0013	<0.0002	<0.0002	0.0004	0.0003	<0.0006
T-Sodium	mg/L	200	</=200	AO		14.6	18.9	21.9	10.4	12.1	16.9
T-Uranium	mg/L	0.1	0.1	MAC		0.0012	<0.0005	<0.0005	<0.0005	<0.0005	<0.0004
T-Zinc	mg/L	5	<5	AO		0.068	0.220	0.503	0.06	0.155	0.084
Total Coliform	cfu/100ml	<1	<1	cfu/100ml			***140**	***>200**	***20**	***2**	***12.4**
Fecal Coliform	cfu/100ml	<1	<1	cfu/100ml			<1	<1	<1	<1	<1
E.coli	cfu/100ml	<1	<1	cfu/100ml					<1	<1	<1

Note: Total coliforms can be an indicator of adverse water quality if the result in the re-sample is confirmed positive. (United States Environmental Protection Agency (EPA), 2008) RDN Water samples are always tested for Fecal coliform bacteria at the same time as Total coliforms to rule out the presence of harmful pathogens.

*Resampled and had <1 for all Coliforms

Regional District of Nanaimo - Utilities Department

Driftwood Water Analysis - Monthly Report

Date Jan-08	Sample Location (Address)	Fecal Coli * Health Dep	Total Coli * Health Dep	Total Coli RDN	E Coli RDN	Temp ^{o} C	pH	Cl_2 ppm	TDS ppm	Sal %	Cond uS/cm	Fe ppm	Mn ppm
08-Jan	1961 Harlequin	0	0	0	0	6	7	0.06	173	0.2	362	0.09	0.145
15-Jan	1900 Sea Otter	0	0	0	0	6	7	0.02	162	0.2	346		
22-Jan	1597 Haida Way	0	0			6	7	0.05	149	0.1	319		
29-Jan	1270 Seadog	0	0	0	0	6		0.05					
	Average	0	0	0	0	6.0	7.0	0.05	161.3	0.2	342.3	0.09	0.145
	Maximum	0	0	0	0	6	7	0.06	173	0.2	362	0.09	0.145
	Minimum	0	0	0	0	6	7	0.02	149	0.1	319	0.09	0.145

Red font indicates non-compliance with Canadian Drinking Water Guidelines / BC Approved Water Quality Guidelines
Coliforms are measured in colony forming units (CFU) per 100 millilitres of water
* Yellow Column Coliform tests are done by Health Department
Green tests are completed by RDN

Comments:

Iron and manganese are found naturally in drinking water. Levels found in these samples are not a health concern.

Regional District of Nanaimo - Utilities Department

Driftwood Water Analysis - Monthly Report

Date Feb-08	Sample Location (Address)	Fecal Coli * Health Dep	Total Coli * Health Dep	Total Coli RDN	E Coli RDN	Temp ^{o} C	pH	Cl_2 ppm	TDS ppm	Sal %	Cond uS/cm	Fe ppm	Mn ppm
05-Feb	1900 Sea Otter	0	0	0	0	6	6.9	0.04	151	0.2	325	0.38	0.111
12-Feb	1597 Haida Way	0	0	0	0	7	7.1	0.11	153	0.2	325		
20-Feb	1270 Seadog	0	0	0	0	7	6.9	0.11	153	0.2	325		
26-Feb	1961 Harlequin	0	0	0	0	8	7.1	0.11	157	0.2	334		
	Average	0	0	0	0	7.0	7.0	0.09	153.5	0.2	327.3	0.38	0.111
	Maximum	0	0	0	0	8	7.1	0.11	157	0.2	334	0.38	0.111
	Minimum	0	0	0	0	6	6.9	0.04	151	0.2	325	0.38	0.111

Red font indicates non-compliance with Canadian Drinking Water Guidelines / BC Approved Water Quality Guidelines
Coliforms are measured in colony forming units (CFU) per 100 millilitres of water
* Yellow Column Coliform tests are done by Health Department
Green tests are completed by RDN

Comments:

Iron and manganese are found naturally in drinking water. Levels found in these samples are not a health concern.

Regional District of Nanaimo - Utilities Department

Driftwood Water Analysis - Monthly Report

Date Mar-08	Sample Location (Address)	Fecal Coli * Health Dep	Total Coli * Health Dep	Total Coli RDN	E Coli RDN	Temp ^{o} C	pH	Cl_2 ppm	TDS ppm	Sal %	Cond uS/cm	Fe ppm	Mn ppm
04-Mar	1900 Sea Otter	0	0	0	0	7	6.9	0.05	157	0.2	332	0.27	0.128
12-Mar	1597 Haida Way	0	0	0	0	9	7.1	0.11	150	0.1	318		
18-Mar	1270 Seadog	0	0	0	0	9	7	0.05	152	0.2	321		
26-Mar	1961 Harlequin	0	0			8	6.9	0.04	166	0.2	355		
	Average	0	0	0	0	8.3	7.0	0.06	156.3	0.2	331.5	0.27	0.128
	Maximum	0	0	0	0	9	7.1	0.11	166	0.2	355	0.27	0.128
	Minimum	0	0	0	0	7	6.9	0.04	150	0.1	318	0.27	0.128

Red font indicates non-compliance with Canadian Drinking Water Guidelines / BC Approved Water Quality Guidelines
Coliforms are measured in colony forming units (CFU) per 100 millilitres of water
* Yellow Column Coliform tests are done by Health Department
Green tests are completed by RDN

Comments:

Iron and manganese are found naturally in drinking water. Levels found in these samples are not a health concern.

Regional District of Nanaimo - Utilities Department

Driftwood Water Analysis - Monthly Report

Date Apr-08	Sample Location (Address)	Fecal Coli * Health Dep	Total Coli * Health Dep	Total Coli RDN	E Coli RDN	Temp ^{o} C	pH	Cl_2 ppm	TDS ppm	Sal %	Cond uS/cm	Fe ppm	Mn ppm
02-Apr	1900 Sea Otter	0	0	0	0	8	6.9	0.04	159	0.2	339	0.22	
08-Apr	1597 Haida Way	0	0	0	0	9	7	0.09	153	0.2	324		
15-Apr	1270 Seadog Rd	0	0	0	0	10	6.9	0.09	154	0.2	325		0.159
22-Apr	1961 Harlequin	0	0	0	0	11	7	0.12	163	0.2	344		
	Average	0	0	0	0	9.5	7.0	0.09	157.3	0.2	333.0	0.22	0.159
	Maximum	0	0	0	0	11	7	0.12	163	0.2	344	0.22	0.159
	Minimum	0	0	0	0	8	6.9	0.04	153	0.2	324	0.22	0.159

Red font indicates non-compliance with Canadian Drinking Water Guidelines / BC Approved Water Quality Guidelines
Coliforms are measured in colony forming units (CFU) per 100 millilitres of water
* Yellow Column Coliform tests are done by Health Department
Green tests are completed by RDN

Comments:

Iron and manganese are found naturally in drinking water. Levels found in these samples are not a health concern.

Regional District of Nanaimo - Utilities Department

Driftwood Water Analysis - Monthly Report

Date May-08	Sample Location (Address)	Fecal Coli * Health Dep	Total Coli * Health Dep	Total Coli RDN	E Coli RDN	Temp ^{o} C	pH	Cl_2 ppm	TDS ppm	Sal %	Cond uS/cm	Fe ppm	Mn ppm
06-May	1900 Sea Otter Pl	0	0	0	0	12	7	0.03	163	0.2	344	0.25	0.144
14-May	1597 Haida Way	0	0										
21-May	1961 Harlequin	0	0	0	0	13	6.9	0.05	162	0.2	340		
27-May	1270 Seadog	0	0	0	0	14	6.9	0.12	154	0.2	321		
	Average	0	0	0	0	13.0	6.9	0.07	159.7	0.2	335.0	0.25	0.144
	Maximum	0	0	0	0	14	7	0.12	163	0.2	344	0.25	0.144
	Minimum	0	0	0	0	12	6.9	0.03	154	0.2	321	0.25	0.144

Red font indicates non-compliance with Canadian Drinking Water Guidelines / BC Approved Water Quality Guidelines
Coliforms are measured in colony forming units (CFU) per 100 millilitres of water
* Yellow Column Coliform tests are done by Health Department
Green tests are completed by RDN

Comments:

Iron and manganese are found naturally in drinking water. Levels found in these samples are not a health concern.

Regional District of Nanaimo - Utilities Department

Driftwood Water Analysis - Monthly Report

Date Jun-08	Sample Location (Address)	Fecal Coli * Health Dep	Total Coli * Health Dep	Total Coli RDN	E Coli RDN	Temp ^{o} C	pH	Cl_2 ppm	TDS ppm	Sal %	Cond uS/cm	Fe ppm	Mn ppm
04-Jun	1900 Sea Otter Pl	0	0	0	0	15	6.8	0.04	156	0.2	328	0.09	0.088
11-Jun	1597 Haida Way	0	0	0	0	13	6.9	0.15	146	0.1	307		
17-Jun	1270 Seadog	0	0	0	0	15	6.8	0.07	128	0.1	268		
24-Jun	1961 Harlequin	0	0	0	0	15	6.9	0.07	130	0.1	275		
	Average	0	0	0	0	14.5	6.9	0.08	140.0	0.1	294.5	0.09	0.088
	Maximum	0	0	0	0	15	6.9	0.15	156	0.2	328	0.09	0.088
	Minimum	0	0	0	0	13	6.8	0.04	128	0.1	268	0.09	0.088

Red font indicates non-compliance with Canadian Drinking Water Guidelines / BC Approved Water Quality Guidelines
Coliforms are measured in colony forming units (CFU) per 100 millilitres of water
* Yellow Column Coliform tests are done by Health Department
Green tests are completed by RDN

Comments:

Iron and manganese are found naturally in drinking water. Levels found in these samples are not a health concern.

Regional District of Nanaimo - Utilities Department

Driftwood Water Analysis - Monthly Report

Date Jul-08	Sample Location (Address)	Fecal Coli * Health Dep	Total Coli * Health Dep	Total Coli RDN	E Coli RDN	Temp ^{o} C	pH	Cl_2 ppm	TDS ppm	Sal %	Cond uS/cm	Fe ppm	Mn ppm
02-Jul	1900 Sea Otter	0	0										
09-Jul	1597 Haida Way	0	0	0	0	14	6.8	0.11	124	0.1	261	0.45	0.15
15-Jul	1270 Seadog	0	0	0	0	18	6.9	0.08	129	0.1	272		
22-Jul	1961 Harlequin	0	0	0	0	19	6.8	0.04	130	0.1	272	0.14	0.161
29-Jul	1597 Haida Way			0	0	15	6.7	0.12	126	0.1	265	0.4	0.166
	Average	0	0	0	0	16.5	6.8	0.09	127.3	0.1	267.5	0.33	0.159
	Maximum	0	0	0	0	19	6.9	0.12	130	0.1	272	0.45	0.166
	Minimum	0	0	0	0	14	6.7	0.04	124	0.1	261	0.14	0.15

Red font indicates non-compliance with Canadian Drinking Water Guidelines / BC Approved Water Quality Guidelines
Coliforms are measured in colony forming units (CFU) per 100 millilitres of water
* Yellow Column Coliform tests are done by Health Department
Green tests are completed by RDN

Comments:

Iron and manganese are found naturally in drinking water. Levels found in these samples are not a health concern.

Regional District of Nanaimo - Utilities Department

Driftwood Water Analysis - Monthly Report

Date Aug-08	Sample Location (Address)	Fecal Coli * Health Dep	Total Coli * Health Dep	Total Coli RDN	E Coli RDN	Temp ^{o} C	pH	Cl_2 ppm	TDS ppm	Sal %	Cond uS/cm	Fe ppm	Mn ppm
06-Aug	1900 Sea Otter	0	0	BG	0	19	6.8	0.03	130	0.1	273	0.4	0.067
12-Aug	1597 Haida Way	0	0	0	0	13	6.7	0.09	129	0.1	270	0.32	0.168
19-Aug	1961 Harlequin	0	0	0	0	18	6.8	0.02	128	0.1	268	0.13	0.169
26-Aug	1270 Sea Dog	0	0	0	0	17	6.8	0.01	132	0.1	277		0.162
	Average	0	0	0	0	16.8	6.8	0.04	129.8	0.1	272.0	0.28	0.1415
	Maximum	0	0	0	0	19	6.8	0.09	132	0.1	277	0.4	0.169
	Minimum	0	0	0	0	13	6.7	0.01	128	0.1	268	0.13	0.067

Red font indicates non-compliance with Canadian Drinking Water Guidelines / BC Approved Water Quality Guidelines
Coliforms are measured in colony forming units (CFU) per 100 millilitres of water
* Yellow Column Coliform tests are done by Health Department
Green tests are completed by RDN

Comments:

Iron and manganese are found naturally in drinking water. Levels found in these samples are not a health concern.

Regional District of Nanaimo - Utilities Department

Driftwood Water Analysis - Monthly Report

Date Sep-08	Sample Location (Address)	Fecal Coli * Health Dep	Total Coli * Health Dep	Total Coli RDN	E Coli RDN	Temp ^{o} C	pH	Cl_2 ppm	TDS ppm	Sal %	Cond uS/cm	Fe ppm	Mn ppm
03-Sep	1900 Sea Otter	0	0										
09-Sep	1270 Sea Dog	0	0										
16-Sep	1597 Haida Way	0	0	0	0	14	7	0.03	129	0.1	271	0.37	0.164
24-Sep	1961 Harlequin	0	0										
	Average	0	0	0	0	14.0	7.0	0.03	129.0	0.1	271.0	0.37	0.164
	Maximum	0	0	0	0	14	7	0.03	129	0.1	271	0.37	0.164
	Minimum	0	0	0	0	14	7	0.03	129	0.1	271	0.37	0.164

Red font indicates non-compliance with Canadian Drinking Water Guidelines / BC Approved Water Quality Guidelines
Coliforms are measured in colony forming units (CFU) per 100 millilitres of water
* Yellow Column Coliform tests are done by Health Department
Green tests are completed by RDN

Comments:

Iron and manganese are found naturally in drinking water. Levels found in these samples are not a health concern.

Regional District of Nanaimo - Utilities Department

Driftwood Water Analysis - Monthly Report

Date Oct-08	Sample Location (Address)	Fecal Coli * Health Dep	Total Coli * Health Dep	Total Coli RDN	E Coli RDN	Temp ^{o} C	pH	Cl_2 ppm	TDS ppm	Sal %	Cond uS/cm	Fe ppm	Mn ppm
07-Oct	1900 Sea Otter	0	0	0	0	15	6.9	0.04	133	0.1	280	0.04	0.147
15-Oct	1597 Haida Way	0	0	0	0	12	7	0.04	127	0.1	268		
21-Oct	1270 Seadog	0	0	0	0	12	7.1	0.02	125	0.1	265		
29-Oct	1961 Harlequin	0	0	0	0	12	6.9	0.04	153	0.2	321		
	Average	0	0	0	0	12.8	7.0	0.04	134.5	0.1	283.5	0.04	0.147
	Maximum	0	0	0	0	15	7.1	0.04	153	0.2	321	0.04	0.147
	Minimum	0	0	0	0	12	6.9	0.02	125	0.1	265	0.04	0.147

Red font indicates non-compliance with Canadian Drinking Water Guidelines / BC Approved Water Quality Guidelines
Coliforms are measured in colony forming units (CFU) per 100 millilitres of water
* Yellow Column Coliform tests are done by Health Department
Green tests are completed by RDN

Comments:

Iron and manganese are found naturally in drinking water. Levels found in these samples are not a health concern.

Regional District of Nanaimo - Utilities Department

Driftwood Water Analysis - Monthly Report

Date Nov-08	Sample Location (Address)	Fecal Coli * Health Dep	Total Coli * Health Dep	Total Coli RDN	E Coli RDN	Temp ^{o} C	pH	Cl_2 ppm	TDS ppm	Sal %	Cond uS/cm	Fe ppm	Mn ppm
04-Nov	1900 Sea Otter	0	0	0	0	12	7	0.05	152	0.2	320	0.05	0.093
12-Nov	1597 Haida Way	0	0	0	0	11	7.1	0.05	152	0.2	320		
18-Nov	1961 Harlequin	0	0	0	0	11	6.8	0.04	167	0.2	351		
25-Nov	1270 Seadog	0	0	0	0	10	6.8	0.02	151	0.2	319		
	Average	0	0	0	0	11.0	6.9	0.04	155.5	0.2	327.5	0.05	0.093
	Maximum	0	0	0	0	12	7.1	0.05	167	0.2	351	0.05	0.093
	Minimum	0	0	0	0	10	6.8	0.02	151	0.2	319	0.05	0.093

Red font indicates non-compliance with Canadian Drinking Water Guidelines / BC Approved Water Quality Guidelines
Coliforms are measured in colony forming units (CFU) per 100 millilitres of water
* Yellow Column Coliform tests are done by Health Department
Green tests are completed by RDN

Comments:

Iron and manganese are found naturally in drinking water. Levels found in these samples are not a health concern.

Regional District of Nanaimo - Utilities Department

Driftwood Water Analysis - Monthly Report

Date Dec-08	Sample Location (Address)	Fecal Coli * Health Dep	Total Coli * Health Dep	Total Coli RDN	E Coli RDN	Temp ^{o} C	pH	Cl_2 ppm	TDS ppm	Sal %	Cond uS/cm	Fe ppm	Mn ppm
02-Dec	1900 Sea Otter	0	0	0	0	10	6.8	0.05	170	0.2	359	0.05	0.112
09-Dec	1597 Haida Way	0	0	0	0	10	7	0.07	155	0.2	327		
16-Dec	1270 Seadoog	0	0										
	Average	0	0	0	0	10.0	6.9	0.06	162.5	0.2	343.0	0.05	0.112
	Maximum	0	0	0	0	10	7	0.07	170	0.2	359	0.05	0.112
	Minimum	0	0	0	0	10	6.8	0.05	155	0.2	327	0.05	0.112

Red font indicates non-compliance with Canadian Drinking Water Guidelines / BC Approved Water Quality Guidelines
Coliforms are measured in colony forming units (CFU) per 100 millilitres of water
* Yellow Column Coliform tests are done by Health Department
Green tests are completed by RDN

Comments:

Iron and manganese are found naturally in drinking water. Levels found in these samples are not a health concern.

APPENDIX C

EMERGENCY RESPONSE PLAN

* Emergency Response Plan not included in Public Copy.