REGIONAL DISTRICT OF NANAIMO

Surfside Distribution Water Analysis
1105 Surfside Drive (*Sample Collected at 1081 Surfside Drive)

CDWG=Canadian Drinking Water Guidelines
OG= Operational Guidance Value

MAC=Maximum Acceptable Concentration
AO= Asthetic Objective.

Green font indicates a value flagged for operational consideration
Orange font indicates non-compliance with the Aesthetic Objective in the Canadian Drinking Water Guidelines (CDWG)
Red font indicates non-compliance with the Maximum Acceptable Concentration (MAC) in the CDWG

	Units	CDWG		2000*	June 28 2001*	March 6 2002*	April 23 2003*	2004*	April 20 2005*	May 17 2006*	May 22 2007*	May 26 2008*	May 11 2009*	May 19 2010*	May 18 2011*	May 16 2012*	May 27 2013	May 13 2014	May 19 2015	May 10 2016
Miscellaneous Inorganics																				
Fluoride	mg/L	1.5	MAC	0.12	<.04	0.07	<0.01	<1	<1.0	<0.1	<1.0	<1.0	<1.0	<1.0	<1.0	<0.05	<0.05	<0.05	0.024	0.026
Alkalinity (total as CaCO)	mg/L			151	47	47	23	53	59	53	53	49	48	54	56	50	54	54	53.7	61.4
Anions																				
Dissolved Sulphate	mg/L	500	AO	0.5	3.97	4.08	4.86	17.4	6.4	7.3	8.1	6.1	4.8	14.8	5.5	4.2	4.5	4.1	5.19	5.38
Dissolved Chloride	mg/L	250	AO	12.5	7.3	6.41	7.58	7.9	9.3	6.8	10.5	8.5	12.9	8.9	8.3	7.5	7.8	9	10	8.6
Nitrite	mg/L	1	MAC	0.068	<.002	<.006	<0.01	<0.1	<0.1	<0.01	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.0050	<0.0050
Miscellaneous																				
Apparent Colour	Colour Unit			15	3	2	2	5	<5	<5	8	<5	<5	<5	<5	3	<5	<5	<5	10
Nutrients																				
Total Ammonia	mg/L															0.03	0.02	0.02	0.017	0.017
Physical Properties																				
Conductivity	µS/cm			291	137	128	175	159	163.1	148.3	163.7	151	157.9	166.2	155.2	134.1	140	161	154	157
pH	pH	7.0:10.5	AO	7.35	6.8	6.39	6.8	6.8	6.7	6.8	6.7	6.96	7	6.9	7	6.9	6.8	7	7.68	7.55
TDS	mg/L	500	AO	211	87	53	53	93	53	93	86	104	116	108	120	62	100	126	90	78
Turbidity	NTU			1.1	<0.05	0.43	0.06	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.10	0.2
Microbiological Parameters																				
E.coli	MPN/100mL	<1	MAC							<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Total Coliforms	MPN/100mL	<1	MAC	<1	<1	n/a	n/a	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Calculated Parameters																				
Total Hardness (CaCO)	mg/L			88	55.3	55.2	58.4	64	68	58	73	53	67	66	56	57	54	66	59.4	60
Nitrate	mg/L	10	MAC	0.33	0.459	0.46	0.52	0.6	0.6	0.54	0.4	0.6	0.8	<0.1	0.6	0.54	0.56	0.71	0.533	0.555
Elements																				
Total Mercury	mg/L	0.001	MAC		<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.02	<0.01	<0.01	<0.01	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Total Metals																				
Total Aluminum	mg/L	0.1	OG		0.031	<.009	<0.005	<0.005	<0.005	<0.005	<0.01	<0.05	<0.005	0.009	<0.005	<0.05	<0.005	<0.025	0.003	<0.003
Total Antimony	mg/L	0.006	MAC		<.006	<.006	<0.0002	<0.0002	<0.0002	<0.0002	<0.0004	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0001	<0.0005	<0.0005	<0.0005
Total Arsenic	mg/L	0.01	MAC	0.001	<.01	<.01	<0.0002	<0.0002	0.0002	<0.0002	<0.0004	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.00005	<0.00025	<0.0001	<0.0001
Total Barium	mg/L	1	MAC	0.005	0.0448	0.0004	0.002	0.002	0.002	0.002	<0.002	<0.005	0.002	0.002	0.002	<0.001	0.0015	0.00357	0.0011	0.0017
Total Beryllium	mg/L															<0.00004	<0.00005	<0.00025	<0.0001	<0.0001
Total Bismuth	mg/L															<0.001	<0.0001	<0.0005	<0.001	<0.001
Total Boron	mg/L	5	MAC	0.1	0.021	0.02	0.022	0.02	0.022	0.016	0.022	<0.02	0.049	0.022	0.015	0.017	0.016	0.023	<0.050	<0.050
Total Cadmium	mg/L	0.005	MAC		<0.0006	<0.0006	<0.00001	<0.00001	<0.00001	<0.00001	<0.00002	<0.0003	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00005	<0.00001	<0.00001
Total Chromium	mg/L	0.05	MAC		<0.0009	<0.0009	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.003	<0.0004	<0.0004	<0.0004	0.0006	<0.0005	<0.0025	<0.001	<0.001
Total Cobalt	mg/L															0.00002	<0.0001	<0.0005	<0.0005	<0.0005
Total Copper	mg/L	1	AO		0.016	0.014	0.013	0.014	0.013	0.011	0.01	0.02	0.017	0.01	0.012	0.015	0.0091	0.0088	0.00594	0.00898
Total Iron	mg/L	0.3	AO	0.17	0.031	0.109	<0.1	<.01	<0.1	<0.1	<0.2	0.06	<0.01	<0.01	<0.01	0.042	0.011	0.068	0.011	0.0288
Total Lead	mg/L	0.01	MAC		<0.002	0.003	0.0003	0.0002	0.0003	0.0002	0.0004	<0.0005	0.0003	0.0002	0.0002	0.0006	0.0023	0.0019	0.00054	0.00101
Total Manganese	mg/L	0.05	AO	0.11	0.0006	0.0018	<0.005	<0.005	<0.005	<0.005	<0.005	0.002	0.0005	0.0007	0.008	<0.005	0.0016	<0.0050	<0.001	<0.001
Total Molybdenum	mg/L															<0.0001	0.00006	<0.00025	<0.001	<0.001
Total Nickel	mg/L												<0.001	<0.001	<0.001	<0.001	0.0004	<0.0010	<0.001	<0.001
Total Selenium	mg/L	0.05	MAC		0.007	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0004	<0.003	<0.0006	<0.0006	<0.0006	<0.0006	<0.0001	<0.0005	<0.0001	<0.0001
Total Silicon	mg/L															6.8	6.95	8.18	7.91	8.16
Total Silver	mg/L												<0.00001	<0.00001	<0.00001	<0.00001	<0.00005	0.00031	<0.00002	<0.00002
Total Strontium	mg/L															0.041	0.0468	0.065	0.0495	0.0551
Total Thallium	mg/L															<0.00001	<0.00001	<0.00005	<0.00005	<0.00005
Total Tin	mg/L															0.0001	0.0002	<0.0005	<0.005	<0.005
Total Titanium	mg/L															<0.001	<0.0005	<0.0025	<0.005	<0.005
Total Uranium	mg/L	0.02	MAC		<.06	<.02	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.002	<0.0004	<0.0004	<0.0004	<0.0004	0.00003	<0.00005	<0.0001	<0.0001
Total Vanadium	mg/L															0.0008	0.0007	<0.0005	<0.005	<0.005
Total Zinc	mg/L	5	AO	0.009	0.009	0.0211	0.004	0.003	0.003	0.004	0.027	<0.005	0.007	0.006	0.003	0.001	0.0045	0.0229	<0.005	<0.005
Total Zirconium	mg/L																		<0.0005	<0.0005
Total Calcium	mg/L				18	16.7	18.8	21	21.7	18.9	23.5	17.1	21.5	21.4	18.3	17.8	17.4	22.8	18.9	19.4
Total Magnesium	mg/L			9.24	2.53	3.29	2.8	3	3.4	2.7	3.4	2.6	3.24	2.99	2.57	3.07	2.63	2.31	2.96	2.81
Total Potassium	mg/L				<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.8	0.3	0.4	0.5	0.4	0.4	0.3	<0.5	0.355	0.404
Total Sodium	mg/L	200	AO		3.6	4.4	4.4	4.5	5.3	5.5	6.6	6.5	6.57	6.74	7.4	6.08	6.4	8.2	6.63	7.03
Total Sulphur	mg/L																		<3.0	<3.0