Samish Bay Watershed

	Temp *(°C)*	***DO*** *(mg/L)*	***DO Percent*** *(%)*	***Cond.*** *(µS/cm)*	***Salinity*** *(psu)*	***pH***	***Turbidity*** *(NTU)*	***Fecal Coliform*** *(MPN / 100 mL)*	***E. coli*** *(MPN / 100 mL)*	***$NO_3^- + NO_2^-$*** *(mg/L)*	***NH_3*** *(mg/L)*	***TKN*** *(mg/L)*	***OP*** *(mg/L)*	***TP*** *(mg/L)*	***TSS*** *(mg/L)*
Site 11	**Upper Samish River**														
n	26	26	26	26	26	24	26	26	26	4	4	4	4	4	4
Mean	8.8	8.07	69.2	81	0.0	7.02	2.6	47	42	0.229	0.02	0.68	0.015	0.05	3
Std. Dev.	3.3	1.09	5.9	22	0.0	0.22	1.3	78	79	0.028	0.01	0.73	0.006	0.00	1
Minimum	2.6	6.29	58.7	44	0.0	6.45	1.0	2	1	0.203	0.01	0.25	0.010	0.05	2
Maximum	14.9	9.90	81.7	109	0.1	7.38	5.0	350	350	0.264	0.03	1.77	0.020	0.05	5
Range	12.3	3.61	23.0	65	0.1	0.93	4.0	348	349	0.061	0.02	1.52	0.010	0.00	3
Std. Error	0.7	0.21	1.2	4	0.0	0.04	0.2	15	15	0.014	0.01	0.37	0.003	0.00	1
Geomean								15	14						
Site 8	**Swede Creek**														
n	25	25	25	25	25	23	25	25	25	4	4	4	4	4	4
Mean	9.2	10.68	91.4	77	0.0	7.12	10.5	121	108	0.459	0.01	1.03	0.050	0.08	26
Std. Dev.	4.6	1.74	6.2	24	0.0	0.20	17.3	317	318	0.486	0.00	1.28	0.041	0.06	43
Minimum	2.1	7.90	79.6	46	0.0	6.52	2.9	7	7	0.044	0.01	0.28	0.020	0.05	3
Maximum	16.7	13.30	100.4	132	0.1	7.39	91.5	1600	1600	1.115	0.02	2.93	0.110	0.16	90
Range	14.6	5.40	20.8	86	0.1	0.87	88.6	1593	1593	1.071	0.01	2.65	0.090	0.11	87
Std. Error	0.9	0.35	1.2	5	0.0	0.04	3.5	63	64	0.243	0.00	0.64	0.020	0.03	21
Geomean								57	33						
Site 6	**Friday Creek**														
n	26	26	26	25	26	24	26	26	26	4	4	4	4	4	4
Mean	10.3	11.32	96.0	89	0.0	7.36	4.0	121	98	0.399	0.01	0.37	0.025	0.06	16
Std. Dev.	5.0	1.61	18.6	27	0.0	0.38	6.5	312	310	0.346	0.00	0.15	0.017	0.03	26
Minimum	3.1	7.92	10.1	52	0.0	6.67	0.4	4	4	0.062	0.01	0.25	0.010	0.05	2
Maximum	17.5	13.67	110.8	134	0.1	8.08	34.1	1600	1600	0.843	0.02	0.55	0.050	0.10	55
Range	14.4	5.75	100.7	82	0.1	1.41	33.7	1596	1596	0.781	0.01	0.30	0.040	0.05	53
Std. Error	1.0	0.32	3.6	5	0.0	0.08	1.3	61	61	0.173	0.00	0.07	0.009	0.01	13
Geomean								35	22						

Temp = Water Temperature, DO = Dissolved Oxygen, $NO_3^- + NO_2^-$ = Nitrate + Nitrite, NH_3 = Ammonia, TKN = Total Kjeldahl Nitrogen, OP = Orthophosphate, TP = Total Phosphate, TSS = Total Suspended Solids

	Temp (°C)	DO (mg/L)	DO Percent (%)	Cond. (µS/cm)	Salinity (psu)	pH	Turbidity (NTU)	Fecal Coliform (MPN / 100 mL)	E. coli (MPN / 100 mL)	$NO_3^- + NO_2^-$ (mg/L)	NH_3 (mg/L)	TKN (mg/L)	OP (mg/L)	TP (mg/L)	TSS (mg/L)
Site 4	**Upper Thomas Creek**														
n	26	26	26	26	26	24	26	26	26	4	4	4	4	4	4
Mean	9.2	11.21	96.0	139	0.1	7.33	11.0	354	317	0.975	0.01	0.56	0.075	0.13	65
Std. Dev.	3.8	1.23	5.1	56	0.1	0.31	8.0	682	679	0.287	0.00	0.34	0.066	0.16	122
Minimum	3.2	9.01	84.5	57	0.0	6.69	1.6	23	8	0.695	0.01	0.25	0.020	0.05	2
Maximum	14.8	13.07	108.1	214	0.1	7.77	30.9	3500	3500	1.354	0.02	0.92	0.170	0.38	248
Range	11.6	4.06	23.6	157	0.1	1.08	29.3	3477	3492	0.659	0.01	0.67	0.150	0.33	246
Std. Error	0.8	0.24	1.0	11	0.0	0.06	1.6	134	133	0.144	0.00	0.17	0.033	0.08	61
Geomean								174	124						
Site 3	**Lower Thomas Creek**														
n	26	26	26	26	26	24	26	26	26	4	4	4	4	4	4
Mean	10.4	6.01	50.7	169	0.1	7.06	18.3	280	120	0.512	0.06	0.70	0.035	0.09	14
Std. Dev.	4.8	3.87	31.8	78	0.0	0.24	15.8	731	244	0.618	0.07	0.70	0.006	0.05	8
Minimum	3.3	0.08	0.9	3	0.0	6.55	4.8	7	2	0.017	0.01	0.25	0.030	0.05	3
Maximum	18	13.51	124.3	298	0.1	7.68	58.9	3500	920	1.324	0.17	1.74	0.040	0.16	23
Range	14.7	13.43	123.4	296	0.1	1.13	54.1	3493	918	1.307	0.16	1.49	0.010	0.12	20
Std. Error	0.9	0.76	6.2	15	0.0	0.05	3.1	143	48	0.309	0.04	0.35	0.003	0.03	4
Geomean								53	35						
Site 32	**Lower Samish River**														
n	26	26	26	26	26	24	26	26	26	4	4	4	4	4	4
Mean	10.6	11.17	98.6	106	0.0	7.71	6.6	85	63	0.470	0.02	0.35	0.022	0.07	20
Std. Dev.	4.9	1.32	7.8	29	0.1	0.25	9.6	72	71	0.141	0.01	0.12	0.013	0.04	31
Minimum	3.0	8.48	78.8	57	0.0	7.21	1.5	8	1	0.324	0.01	0.25	0.010	0.05	2
Maximum	18.2	13.89	121.1	146	0.1	8.16	38.8	350	350	0.621	0.03	0.46	0.040	0.14	66
Range	15.2	5.41	42.3	89	0.1	0.95	37.3	342	349	0.297	0.02	0.21	0.030	0.09	64
Std. Error	1.0	0.26	1.5	6	0.0	0.05	1.9	14	14	0.070	0.01	0.06	0.006	0.02	15
Geomean								53	36						
Site 39	**Colony Creek**														
n	26	26	26	26	26	24	26	26	26	4	4	4	4	4	4
Mean	9.2	10.63	90.2	145	0.0	7.28	13.1	675	227	0.716	0.02	0.45	0.085	0.21	79
Std. Dev.	4.3	2.07	9.9	89	0.1	0.26	25.1	1810	438	0.557	0.02	0.25	0.050	0.17	143
Minimum	2.7	7.23	68.2	55	0.0	6.69	2.0	1	1	0.207	0.01	0.25	0.020	0.05	2
Maximum	15.8	13.62	102.3	290	0.1	7.63	132.0	9200	1600	1.352	0.05	0.81	0.140	0.43	294
Range	13.1	6.39	34.1	236	0.1	0.94	130.0	9199	1599	1.145	0.04	0.56	0.120	0.38	292
Std. Error	0.9	0.41	1.9	17	0.0	0.05	4.9	355	86	0.279	0.01	0.12	0.025	0.08	72
Geomean								67	38						

Temp = Water Temperature, DO = Dissolved Oxygen, $NO_3^- + NO_2^-$ = Nitrate + Nitrite, NH_3 = Ammonia, TKN = Total Kjeldahl Nitrogen, OP = Orthophosphate, TP = Total Phosphate, TSS = Total Suspended Solids

	Temp (°C)	DO (mg/L)	DO Percent (%)	Cond. (µS/cm)	Salinity (psu)	pH	Turbidity (NTU)	Fecal Coliform (MPN / 100 mL)	E. coli (MPN / 100 mL)	$NO_3^- + NO_2^-$ (mg/L)	NH_3 (mg/L)	TKN (mg/L)	OP (mg/L)	TP (mg/L)	TSS (mg/L)
Site 38	**North Edison Drainage**														
n	26	26	26	26	26	24	26	26	26	4	4	4	4	4	4
Mean	12.2	5.82	60.0	20566	12.8	7.60	23.8	560	478	0.540	1.27	2.87	0.950	1.49	40
Std. Dev.	5.8	5.24	62.2	15819	10.4	0.76	15.6	902	921	0.633	1.45	1.54	1.014	1.49	25
Minimum	3.4	0.09	1.1	836	0.4	6.62	11.0	5	5	0.016	0.27	0.96	0.140	0.24	14
Maximum	22.2	20.17	238.0	45856	29.8	8.87	83.0	3500	3500	1.364	3.40	4.48	2.250	3.26	69
Range	18.8	20.08	236.9	45020	29.4	2.25	72.0	3495	3495	1.348	3.13	3.52	2.110	3.02	55
Std. Error	1.1	1.03	12.2	3102	2.0	0.16	3.1	177	181	0.317	0.72	0.77	0.507	0.75	12
Geomean								149	94						
Site 36	**Edison Slough**														
n	26	26	26	26	26	24	26	26	26	4	4	4	4	4	4
Mean	12.5	7.85	80.3	18178	11.4	7.55	13.1	437	218	0.403	0.13	0.95	0.430	0.39	21
Std. Dev.	7.1	3.24	44.5	18120	11.7	0.72	12.0	550	341	0.459	0.17	0.33	0.482	0.58	16
Minimum	2.0	3.66	40.2	13	0.1	6.60	3.4	11	8	0.017	0.02	0.51	0.060	0.05	5
Maximum	25.2	17.32	239.3	44498	28.8	8.92	46.3	1600	1600	0.974	0.38	1.21	1.100	1.26	43
Range	23.2	13.66	199.1	44485	28.7	2.32	42.9	1589	1592	0.957	0.36	0.70	1.040	1.21	38
Std. Error	1.4	0.64	8.7	3554	2.3	0.15	2.3	108	67	0.230	0.08	0.16	0.241	0.29	8
Geomean								73	67						
Site 37	**South Edison Drainage**														
n	26	26	26	26	26	24	26	26	26	4	4	3	4	4	4
Mean	12.6	6.82	66.2	9143	5.4	7.66	22.1	726	577	0.777	0.86	2.50	0.385	0.66	49
Std. Dev.	6.2	3.75	40.4	10354	6.5	0.66	33.3	912	742	1.036	0.81	0.20	0.296	0.44	67
Minimum	3.1	0.61	7.6	465	0.2	6.85	2.2	23	17	0.005	0.01	2.37	0.170	0.25	9
Maximum	21.8	18.62	186.0	38713	24.7	8.65	136.0	3500	2400	2.211	1.74	2.73	0.820	1.21	149
Range	18.7	18.01	178.4	38248	24.5	1.80	133.8	3477	2383	2.206	1.73	0.36	0.650	0.96	140
Std. Error	1.2	0.74	7.9	2031	1.3	0.13	6.5	179	145	0.518	0.40	0.12	0.148	0.22	34
Geomean								167	108						
Site 33	**Alice Bay Drainage**														
n	26	26	26	26	26	24	26	26	26	4	4	4	4	4	4
Mean	12.3	7.94	87.4	30237	19.0	7.40	20.1	284	188	0.517	0.52	3.05	0.210	0.62	54
Std. Dev.	5.5	5.57	70.6	13712	9.3	0.84	16.8	560	437	0.594	0.68	1.47	0.307	0.68	24
Minimum	3.7	0.83	10.6	4539	2.4	6.15	6.6	2	1	0.005	0.06	1.07	0.030	0.15	24
Maximum	20.3	20.52	263.7	46855	30.5	8.99	95.1	2400	1600	1.153	1.52	4.32	0.670	1.60	76
Range	16.6	19.69	253.1	42316	28.1	2.84	88.5	2398	1599	1.148	1.46	3.25	0.640	1.45	52
Std. Error	1.1	1.09	13.8	2689	1.8	0.17	3.3	110	86	0.297	0.34	0.73	0.154	0.34	12
Geomean								48	23						

Temp = Water Temperature, DO = Dissolved Oxygen, $NO_3^- + NO_2^-$ = Nitrate + Nitrite, NH_3 = Ammonia, TKN = Total Kjeldahl Nitrogen, OP = Orthophosphate, TP = Total Phosphate, TSS = Total Suspended Solids

Padilla Bay Watershed

	Temp *(°C)*	***DO*** *(mg/L)*	***DO Percent*** *(%)*	***Cond.*** *(µS/cm)*	***Salinity*** *(psu)*	***pH***	***Turbidity*** *(NTU)*	***Fecal Coliform*** *(MPN / 100 mL)*	***E. coli*** *(MPN / 100 mL)*	***$NO_3^- + NO_2^-$*** *(mg/L)*	***NH_3*** *(mg/L)*	***TKN*** *(mg/L)*	***OP*** *(mg/L)*	***TP*** *(mg/L)*	***TSS*** *(mg/L)*
Site 49	**Middle Joe Leary Slough**														
n	26	26	26	26	26	24	26	26	26	4	4	4	4	4	4
Mean	11.6	4.15	37.6	358	0.2	7.10	32.5	224	120	1.333	0.6	1.51	0.103	0.30	42
Std. Dev.	4.0	1.68	14.2	44	0.0	0.17	30.6	252	180	2.010	0.36	0.81	0.080	0.32	54
Minimum	4.8	0.73	7.5	216	0.1	6.71	2.9	13	4	0.100	0.26	0.71	0.040	0.06	8
Maximum	17.6	7.96	66.4	408	0.2	7.41	149.0	920	920	4.307	1.04	2.63	0.220	0.76	122
Range	12.8	7.23	58.9	192	0.1	0.70	146.1	907	916	4.207	0.78	1.92	0.180	0.70	114
Std. Error	0.8	0.33	2.8	9	0.0	0.04	6.0	50	35	1.005	0.18	0.40	0.040	0.16	27
Geomean								105	51						
Site 50	**Lower Joe Leary Slough**														
n	26	26	26	26	26	24	26	26	26	4	4	4	4	4	4
Mean	12.8	5.80	55.0	1555	0.8	7.14	26.9	282	131	1.138	0.38	1.13	0.078	0.16	15
Std. Dev.	5.5	1.76	18.4	2167	1.2	0.19	19.9	374	197	1.743	0.34	0.72	0.022	0.08	7
Minimum	4.2	3.29	32.1	192	0.1	6.74	3.5	31	8	0.009	0.01	0.36	0.050	0.08	8
Maximum	21.3	10.01	111.9	8032	4.5	7.50	105.2	1600	920	3.737	0.79	2.02	0.100	0.25	24
Range	17.1	6.72	79.8	7840	4.4	0.76	101.7	1569	912	3.728	0.78	1.66	0.050	0.17	16
Std. Error	1.1	0.34	3.6	425	0.2	0.04	3.9	73	39	0.871	0.17	0.36	0.011	0.04	3
Geomean								133	65						
Site 34	**No Name Slough**														
n	24	24	24	24	24	22	24	24	24	3	3	3	3	3	3
Mean	12.2	6.06	59.3	24476	15.6	7.69	8.2	343	205	0.109	0.10	1.57	1.367	1.84	46
Std. Dev.	6.5	3.53	31.7	21148	13.9	0.78	5.4	815	646	0.170	0.08	0.91	1.208	1.52	41
Minimum	2.5	0.68	8.4	349	0.2	6.47	0.9	1	1	0.005	0.04	0.69	0.030	0.09	10
Maximum	21.1	11.77	138.9	50140	32.9	8.71	24.8	3100	3100	0.305	0.19	2.50	2.380	2.76	90
Range	18.6	11.09	130.5	49791	32.7	2.24	23.9	3099	3099	0.300	0.15	1.81	2.350	2.67	80
Std. Error	1.3	0.72	6.5	4317	2.8	0.17	1.1	166	132	0.098	0.05	0.52	0.697	0.88	23
Geomean								100	32						

Temp = Water Temperature, DO = Dissolved Oxygen, $NO_3^- + NO_2^-$ = Nitrate + Nitrite, NH_3 = Ammonia, TKN = Total Kjeldahl Nitrogen, OP = Orthophosphate, TP = Total Phosphate, TSS = Total Suspended Solids

	Temp (°C)	DO (mg/L)	DO Percent (%)	Cond. (µS/cm)	Salinity (psu)	pH	Turbidity (NTU)	Fecal Coliform (MPN / 100 mL)	E. coli (MPN / 100 mL)	$NO_3^- + NO_2^-$ (mg/L)	NH_3 (mg/L)	TKN (mg/L)	OP (mg/L)	TP (mg/L)	TSS (mg/L)
Site 52	**Little Indian Slough**														
n	26	26	26	26	26	24	26	26	26	4	4	4	4	4	4
Mean	10.4	6.01	50.7	169	0.1	7.06	18.3	280	120	0.512	0.06	0.70	0.035	0.09	14
Std. Dev.	4.8	3.87	31.8	78	0.0	0.24	15.8	731	244	0.618	0.07	0.70	0.006	0.05	8
Minimum	3.3	0.08	0.9	3	0.0	6.55	4.8	7	2	0.017	0.01	0.25	0.030	0.05	3
Maximum	18.0	13.51	124.3	298	0.1	7.68	58.9	3500	920	1.324	0.17	1.74	0.040	0.16	23
Range	14.7	13.43	123.4	296	0.1	1.13	54.1	3493	918	1.307	0.16	1.49	0.010	0.12	20
Std. Error	0.9	0.76	6.2	15	0.0	0.05	3.1	143	48	0.309	0.04	0.35	0.003	0.03	4
Geomean								53	35						
Site 40	**Big Indian Slough**														
n	25	25	25	25	25	23	25	25	25	4	4	4	4	4	4
Mean	11.0	3.44	29.8	619	0.2	6.93	16.5	242	92	0.351	0.30	1.02	0.053	0.20	20
Std. Dev.	5.3	1.88	15.3	858	0.3	0.21	9.0	352	77	0.305	0.21	0.12	0.019	0.09	14
Minimum	0.9	0.11	1.1	229	0.1	6.44	5.9	33	9	0.008	0.02	0.84	0.040	0.07	6
Maximum	19.4	6.42	50.9	3748	1.6	7.42	38.3	1600	280	0.700	0.50	1.11	0.080	0.29	39
Range	18.5	6.31	49.8	3519	1.5	0.98	32.4	1567	271	0.692	0.48	0.27	0.040	0.22	33
Std. Error	1.1	0.38	3.1	172	0.1	0.04	1.8	70	15	0.153	0.11	0.06	0.009	0.05	7
Geomean								65	47						
Site 47	**Swinomish Channel**														
n	25	25	25	25	25	23	25	25	25	4	4	4	4	4	4
Mean	10.2	8.75	90.2	39044	24.8	7.76	3.6	15	12	0.208	0.04	0.25	0.060	0.08	36
Std. Dev.	3.7	1.06	10.0	4356	3.1	0.20	1.4	24	17	0.092	0.02	0.00	0.016	0.02	8
Minimum	3.3	6.82	70.1	25906	15.7	7.07	0.8	1	1	0.132	0.03	0.25	0.040	0.06	27
Maximum	16.7	11.34	110.7	43290	27.7	7.99	5.9	110	70	0.339	0.06	0.25	0.080	0.10	46
Range	13.4	4.52	40.6	17384	12.0	0.92	5.1	109	69	0.207	0.03	0.00	0.040	0.04	19
Std. Error	0.7	0.21	2.0	871	0.6	0.04	0.3	5	3	0.046	0.01	0.00	0.008	0.01	4
Geomean								5	5						

Temp = Water Temperature, DO = Dissolved Oxygen, $NO_3^- + NO_2^-$ = Nitrate + Nitrite, NH_3 = Ammonia, TKN = Total Kjeldahl Nitrogen, OP = Orthophosphate, TP = Total Phosphate, TSS = Total Suspended Solids

Middle Skagit Watershed

	Temp *(°C)*	***DO*** *(mg/L)*	***DO Percent*** *(%)*	***Cond.*** *(µS/cm)*	***Salinity*** *(psu)*	***pH***	***Turbidity*** *(NTU)*	***Fecal Coliform*** *(MPN / 100 mL)*	***E. coli*** *(MPN / 100 mL)*	***$NO_3^- + NO_2^-$*** *(mg/L)*	***NH_3*** *(mg/L)*	***TKN*** *(mg/L)*	***OP*** *(mg/L)*	***TP*** *(mg/L)*	***TSS*** *(mg/L)*
Site 25	**Red Cabin Creek**														
n	18	18	18	18	18	16	18	18	18	3	3	3	3	3	3
Mean	7.0	12.34	101.7	68	0.0	7.13	1.5	45	44	0.438	0.01	0.25	0.013	0.05	7
Std. Dev.	2.3	0.88	5.8	18	0.0	0.33	3.2	83	83	0.349	0.01	0.00	0.006	0.00	9
Minimum	3.4	10.68	93.6	33	0.0	6.32	0.0	1	1	0.044	0.01	0.25	0.008	0.05	2
Maximum	10.8	14.51	116.8	105	0.1	7.57	10.4	350	350	0.710	0.02	0.25	0.020	0.06	17
Range	7.4	3.83	23.2	72	0.1	1.25	10.4	349	349	0.666	0.01	0.00	0.012	0.00	15
Std. Error	0.5	0.21	1.4	4	0.0	0.08	0.7	20	20	0.202	0.00	0.00	0.004	0.00	5
Geomean								8	7						
Site 24	**Mannser Creek**														
n	26	26	26	26	26	24	26	26	26	4	4	4	4	4	4
Mean	9.5	6.62	57.9	110	0.1	6.94	1.8	42	30	0.223	0.03	0.27	0.018	0.05	3
Std. Dev.	3.6	0.84	8.1	22	0.0	0.17	0.7	58	53	0.095	0.02	0.04	0.005	0.00	0
Minimum	3.5	4.61	39.4	53	0.0	6.53	0.7	1	1	0.083	0.01	0.25	0.010	0.05	2
Maximum	15.6	8.85	71.4	136	0.1	7.26	3.4	240	240	0.290	0.06	0.33	0.020	0.05	3
Range	12.1	4.24	32.0	83	0.1	0.73	2.7	239	239	0.207	0.05	0.08	0.010	0.00	1
Std. Error	0.7	0.16	1.6	4	0.0	0.03	0.1	11	10	0.047	0.01	0.02	0.002	0.00	0
Geomean								15	14						
Site 23	**Wiseman Creek**														
n	21	21	21	21	21	19	21	21	21	4	4	4	4	4	4
Mean	7.8	12.16	101.4	73	0.0	7.26	3.7	253	171	0.624	0.01	0.25	0.012	0.08	18
Std. Dev.	3.9	1.10	3.6	16	0.0	0.27	9.1	609	522	0.251	0.00	0.00	0.005	0.06	32
Minimum	2.2	10.07	92.4	46	0.0	6.84	0.1	1	1	0.390	0.01	0.25	0.009	0.05	2
Maximum	14.4	13.64	107.0	109	0.1	7.84	31.9	2400	2400	0.890	0.01	0.25	0.020	0.16	67
Range	12.2	3.57	14.6	63	0.1	1.00	31.8	2399	2399	0.500	0.00	0.00	0.011	0.11	65
Std. Error	0.9	0.24	0.8	3	0.0	0.06	2.0	133	114	0.125	0.00	0.00	0.003	0.03	16
Geomean								13	14						

Temp = Water Temperature, DO = Dissolved Oxygen, $NO_3^- + NO_2^-$ = Nitrate + Nitrite, NH_3 = Ammonia, TKN = Total Kjeldahl Nitrogen, OP = Orthophosphate, TP = Total Phosphate, TSS = Total Suspended Solids

	Temp (°C)	DO (mg/L)	DO Percent (%)	Cond. (µS/cm)	Salinity (psu)	pH	Turbidity (NTU)	Fecal Coliform (MPN / 100 mL)	E. coli (MPN / 100 mL)	$NO_3^- + NO_2^-$ (mg/L)	NH_3 (mg/L)	TKN (mg/L)	OP (mg/L)	TP (mg/L)	TSS (mg/L)
Site 22	**Upper Coal Creek**														
n	25	25	25	25	25	23	25	25	25	4	4	4	4	4	4
Mean	8.4	12.10	102.5	91	0.0	7.07	4.7	69	62	0.511	0.01	0.27	0.012	0.05	10
Std. Dev.	4.3	1.45	6.6	33	0.0	0.41	15.4	114	110	0.311	0.00	0.02	0.006	0.01	17
Minimum	2.2	9.69	91.2	52	0.0	6.27	0.0	1	1	0.240	0.01	0.25	0.007	0.05	2
Maximum	15.0	15.2	121.9	160	0.1	7.72	77.2	350	350	0.790	0.01	0.29	0.020	0.06	36
Range	12.8	5.51	30.7	109	0.1	1.45	77.2	349	349	0.550	0.00	0.04	0.013	0.01	34
Std. Error	0.9	0.29	1.3	7	0.0	0.09	3.1	23	22	0.156	0.00	0.01	0.003	0.00	8
Geomean								12	8						
Site 21	**Lower Coal Creek**														
n	19	19	19	19	19	17	19	19	19	3	3	3	3	3	3
Mean	7.4	11.47	94.2	80	0.0	7.13	9.6	161	133	0.562	0.02	0.25	0.017	0.06	18
Std. Dev.	4.2	1.50	5.8	22	0.0	0.14	24.3	192	168	0.305	0.01	0.00	0.006	0.02	24
Minimum	1.7	7.66	74.3	38	0.0	6.85	1.0	5	2	0.210	0.01	0.25	0.010	0.05	2
Maximum	14.3	13.20	102.0	138	0.1	7.33	106.7	540	540	0.747	0.03	0.25	0.020	0.09	46
Range	12.6	5.54	27.7	100	0.1	0.48	105.7	535	538	0.537	0.02	0.00	0.010	0.04	44
Std. Error	1.0	0.34	1.3	5	0.0	0.03	5.6	44	38	0.176	0.01	0.00	0.003	0.01	14
Geomean								76	63						
Site 20	**Upper Hansen Creek**														
n	26	26	26	26	26	24	26	26	26	4	4	4	4	4	4
Mean	9.0	11.26	96.2	92	0.0	7.18	5.5	129	103	0.327	0.01	0.28	0.052	0.12	53
Std. Dev.	3.8	1.15	3.6	26	0.0	0.18	13.1	186	185	0.203	0.00	0.06	0.072	0.14	102
Minimum	3.3	9.08	89.8	52	0.0	6.83	0.9	2	2	0.153	0.01	0.25	0.010	0.05	2
Maximum	14.9	13.2	105.0	132	0.1	7.49	59.9	920	920	0.556	0.01	0.37	0.160	0.33	206
Range	11.6	4.12	15.2	80	0.1	0.66	59.0	918	918	0.403	0.00	0.12	0.150	0.28	204
Std. Error	0.7	0.23	0.7	5	0.0	0.04	2.6	37	36	0.101	0.00	0.03	0.036	0.07	51
Geomean								44	31						
Site 19	**Lower Hansen Creek**														
n	19	19	19	19	19	17	19	19	19	3	3	3	3	3	3
Mean	8.7	9.87	83.2	83	0.0	7.03	5.0	112	73	0.268	0.02	0.56	0.020	0.06	8
Std. Dev.	4.9	2.01	9.9	13	0.0	0.22	6.9	212	123	0.160	0.02	0.54	0.010	0.01	9
Minimum	2.5	5.83	57.3	54	0.0	6.38	0.7	11	8	0.101	0.01	0.25	0.010	0.05	3
Maximum	17.0	13.56	98.1	103	0.1	7.24	30.0	920	540	0.420	0.04	1.19	0.030	0.07	18
Range	14.5	7.73	40.8	48	0.1	0.86	29.3	909	532	0.319	0.03	0.94	0.020	0.02	15
Std. Error	1.1	0.46	2.3	3	0.0	0.05	1.6	49	28	0.092	0.01	0.31	0.006	0.01	5
Geomean								75	46						

Temp = Water Temperature, DO = Dissolved Oxygen, $NO_3^- + NO_2^-$ = Nitrate + Nitrite, NH_3 = Ammonia, TKN = Total Kjeldahl Nitrogen, OP = Orthophosphate, TP = Total Phosphate, TSS = Total Suspended Solids

Nookachamps Watershed

	Temp *(°C)*	***DO*** *(mg/L)*	***DO Percent*** *(%)*	***Cond.*** *(µS/cm)*	***Salinity*** *(psu)*	***pH***	***Turbidity*** *(NTU)*	***Fecal Coliform*** *(MPN / 100 mL)*	***E. coli*** *(MPN / 100 mL)*	***$NO_3^- + NO_2^-$*** *(mg/L)*	***NH_3*** *(mg/L)*	***TKN*** *(mg/L)*	***OP*** *(mg/L)*	***TP*** *(mg/L)*	***TSS*** *(mg/L)*
Site 18	**Lake Creek**														
n	25	25	25	25	25	23	25	25	25	4	4	4	4	4	4
Mean	9.5	11.32	97.5	100	0.0	7.52	2.1	101	61	0.281	0.01	0.25	0.015	0.05	2
Std. Dev.	4.8	1.68	6.7	33	0.1	0.13	1.5	140	98	0.101	0.00	0.00	0.006	0.00	0
Minimum	0.6	8.55	83.9	59	0.0	7.18	0.5	1	1	0.176	0.01	0.25	0.010	0.05	2
Maximum	17.5	14.43	112.5	145	0.1	7.71	7.3	540	350	0.414	0.02	0.25	0.020	0.05	2
Range	16.9	5.88	28.6	86	0.1	0.53	6.8	539	349	0.238	0.01	0.00	0.010	0.00	0
Std. Error	1.0	0.34	1.3	7	0.0	0.03	0.3	28	20	0.051	0.00	0.00	0.003	0.00	0
Geomean								42	22						
Site 17	**Upper Nookachamps Creek (Big Lake Outlet)**														
n	25	25	25	25	25	23	25	25	25	4	4	4	4	4	4
Mean	12.4	9.76	88.4	87	0.0	7.42	2.8	48	35	0.152	0.01	0.30	0.028	0.07	10
Std. Dev.	6.5	2.29	11.6	10	0.0	0.13	2.7	57	58	0.135	0.01	0.10	0.010	0.05	15
Minimum	3.0	6.26	69.6	68	0.0	7.12	0.5	1	1	0.018	0.01	0.25	0.020	0.05	2
Maximum	21.8	13.05	114.8	104	0.1	7.65	13.7	240	240	0.285	0.02	0.46	0.040	0.14	32
Range	18.8	6.79	45.2	36	0.1	0.53	13.2	239	239	0.267	0.01	0.21	0.020	0.09	30
Std. Error	1.3	0.46	2.3	2	0.0	0.03	0.5	11	12	0.067	0.00	0.05	0.005	0.02	7
Geomean								14	12						
Site 15	**Middle Nookachamps Creek**														
n	25	25	25	25	25	23	25	25	25	4	4	4	4	4	4
Mean	11.1	7.46	63.6	122	0.0	7.22	4.9	89	71	0.254	0.02	0.33	0.022	0.07	10
Std. Dev.	5.7	4.62	36.0	40	0.1	0.16	2.4	123	120	0.175	0.02	0.16	0.019	0.03	16
Minimum	2.2	0.81	8.1	82	0.0	6.98	2.3	5	2	0.086	0.01	0.25	0.009	0.05	2
Maximum	20.4	13.18	106.5	204	0.1	7.54	14.5	540	540	0.480	0.04	0.58	0.050	0.12	34
Range	18.2	12.37	98.4	122	0.1	0.56	12.2	535	538	0.394	0.03	0.33	0.041	0.07	32
Std. Error	1.1	0.92	7.2	8	0.0	0.03	0.5	25	24	0.088	0.01	0.08	0.010	0.02	8
Geomean								67	33						

Temp = Water Temperature, DO = Dissolved Oxygen, $NO_3^- + NO_2^-$ = Nitrate + Nitrite, NH_3 = Ammonia, TKN = Total Kjeldahl Nitrogen, OP = Orthophosphate, TP = Total Phosphate, TSS = Total Suspended Solids

	Temp (°C)	DO (mg/L)	DO Percent (%)	Cond. (µS/cm)	Salinity (psu)	pH	Turbidity (NTU)	Fecal Coliform (MPN / 100 mL)	E. coli (MPN / 100 mL)	$NO_3^- + NO_2^-$ (mg/L)	NH_3 (mg/L)	TKN (mg/L)	OP (mg/L)	TP (mg/L)	TSS (mg/L)
Site 16	**Upper East Fork Nookachamps**														
n	25	25	25	25	25	23	25	25	25	4	4	4	4	4	4
Mean	9.4	11.61	99.4	109	0.0	7.38	1.8	129	72	0.170	0.02	0.28	0.035	0.07	4
Std. Dev.	5.5	1.65	6.2	42	0.0	0.13	2.0	225	128	0.163	0.01	0.03	0.026	0.03	2
Minimum	0.1	8.19	82.2	54	0.0	7.03	0.1	2	2	0.005	0.01	0.25	0.010	0.05	2
Maximum	19.1	14.51	110.3	194	0.1	7.64	8.1	920	540	0.340	0.03	0.32	0.070	0.11	7
Range	19.0	6.32	28.1	141	0.1	0.61	8.1	918	538	0.335	0.02	0.07	0.060	0.06	5
Std. Error	1.1	0.33	1.2	8	0.0	0.03	0.4	45	26	0.081	0.00	0.02	0.013	0.01	1
Geomean								26	23						
Site 13	**Lower East Fork Nookachamps**														
n	25	25	25	25	25	23	25	25	25	4	4	4	4	4	4
Mean	10.3	7.35	62.5	115	0.1	7.14	4.8	160	116	0.158	0.03	0.33	0.015	0.05	4
Std. Dev.	6.3	2.78	19.1	41	0.1	0.15	2.7	245	194	0.120	0.02	0.12	0.006	0.00	2
Minimum	0.3	2.01	22.5	42	0.0	6.89	1.4	5	5	0.016	0.01	0.25	0.010	0.05	2
Maximum	21.3	12.18	95.2	182	0.1	7.49	13.0	920	920	0.270	0.06	0.50	0.020	0.05	6
Range	21.0	10.17	72.7	139	0.1	0.60	11.6	915	915	0.254	0.05	0.25	0.010	0.00	4
Std. Error	1.3	0.56	3.8	8	0.0	0.03	0.5	49	39	0.060	0.01	0.06	0.003	0.00	1
Geomean								49	37						
Site 12	**Lower Nookachamps Creek**														
n	25	25	25	25	25	23	25	25	25	4	4	4	4	4	4
Mean	10.8	8.18	70.2	129	0.1	7.04	8.7	130	97	0.174	0.05	0.30	0.028	0.06	8
Std. Dev.	6.4	3.03	19.4	61	0.1	0.19	6.7	121	113	0.151	0.03	0.09	0.010	0.02	9
Minimum	0.7	2.67	26.9	24	0.0	6.75	2.5	21	7	0.010	0.01	0.25	0.020	0.05	2
Maximum	21.9	12.15	94.8	239	0.1	7.42	28.5	350	350	0.314	0.09	0.43	0.040	0.09	21
Range	21.2	9.48	67.9	215	0.1	0.67	26.00	329	343	0.304	0.08	0.18	0.020	0.04	19
Std. Error	1.3	0.61	3.9	12	0.0	0.04	1.3	24	23	0.075	0.02	0.04	0.005	0.01	4
Geomean								63	45						

Temp = Water Temperature, DO = Dissolved Oxygen, $NO_3^- + NO_2^-$ = Nitrate + Nitrite, NH_3 = Ammonia, TKN = Total Kjeldahl Nitrogen, OP = Orthophosphate, TP = Total Phosphate, TSS = Total Suspended Solids

Lower Skagit Watershed

	Temp *(°C)*	***DO*** *(mg/L)*	***DO Percent*** *(%)*	***Cond.*** *(µS/cm)*	***Salinity*** *(psu)*	***pH***	***Turbidity*** *(NTU)*	***Fecal Coliform*** *(MPN / 100 mL)*	***E. coli*** *(MPN / 100 mL)*	***$NO_3^- + NO_2^-$*** *(mg/L)*	***NH_3*** *(mg/L)*	***TKN*** *(mg/L)*	***OP*** *(mg/L)*	***TP*** *(mg/L)*	***TSS*** *(mg/L)*
Site 51	**Upper Carpenter Creek**														
n	25	25	25	25	25	23	25	25	25	4	4	4	4	4	4
Mean	9.7	8.80	73.2	329	0.1	7.44	3.2	174	77	0.432	0.02	0.30	0.042	0.06	3
Std. Dev.	4.9	4.32	31.8	127	0.1	0.14	1.5	318	68	0.360	0.01	0.11	0.033	0.02	1
Minimum	0.3	1.53	15.1	45	0.0	7.16	0.8	13	13	0.007	0.01	0.25	0.020	0.05	2
Maximum	18.6	15.10	107.6	513	0.2	7.73	6.6	1600	280	0.864	0.03	0.47	0.090	0.09	4
Range	18.3	13.57	92.5	468	0.2	0.57	5.8	1587	267	0.857	0.02	0.22	0.070	0.04	2
Std. Error	1.0	0.86	6.4	25	0.0	0.03	0.3	64	14	0.180	0.00	0.05	0.017	0.01	0
Geomean								108	56						
Site 42	**Lower Carpenter Creek**														
n	25	25	25	25	25	23	25	25	25	4	4	4	4	4	4
Mean	11.0	8.49	74.6	163	0.1	7.42	3.0	96	62	0.294	0.04	0.39	0.032	0.06	10
Std. Dev.	6.5	1.87	10.7	45	0.0	0.15	1.4	116	108	0.339	0.03	0.07	0.010	0.02	12
Minimum	0.1	5.02	53.6	52	0.0	6.98	1.2	8	8	0.005	0.01	0.33	0.020	0.05	2
Maximum	21.6	11.4	88.7	236	0.1	7.61	6.8	540	540	0.666	0.08	0.47	0.040	0.09	28
Range	21.5	6.38	35.1	184	0.1	0.63	5.6	532	532	0.661	0.07	0.14	0.020	0.04	26
Std. Error	1.3	0.37	2.1	9	0.0	0.03	0.3	23	22	0.170	0.02	0.03	0.005	0.01	6
Geomean								54	47						
Site 48	**Fisher Creek**														
n	25	25	25	25	25	23	25	25	25	4	4	4	4	4	4
Mean	8.7	11.50	96.8	178	0.1	7.69	2.7	115	59	0.340	0.03	0.38	0.210	0.23	3
Std. Dev.	4.2	1.70	4.5	75	0.0	0.18	5.2	147	57	0.226	0.02	0.15	0.199	0.21	1
Minimum	0.3	9.68	88.7	80	0.0	7.14	0.3	8	5	0.122	0.02	0.25	0.040	0.05	2
Maximum	14.4	16.77	113.5	269	0.1	7.97	27.0	540	220	0.615	0.05	0.53	0.460	0.50	5
Range	14.1	7.09	24.8	189	0.1	0.83	26.6	532	215	0.493	0.03	0.28	0.420	0.45	3
Std. Error	0.8	0.34	0.9	15	0.0	0.04	1.0	29	11	0.113	0.01	0.08	0.099	0.11	1
Geomean								72	38						

Temp = Water Temperature, DO = Dissolved Oxygen, $NO_3^- + NO_2^-$ = Nitrate + Nitrite, NH_3 = Ammonia, TKN = Total Kjeldahl Nitrogen, OP = Orthophosphate, TP = Total Phosphate, TSS = Total Suspended Solids

	Temp (°C)	DO (mg/L)	DO Percent (%)	Cond. (µS/cm)	Salinity (psu)	pH	Turbidity (NTU)	Fecal Coliform (MPN / 100 mL)	E. coli (MPN / 100 mL)	$NO_3^- + NO_2^-$ (mg/L)	NH_3 (mg/L)	TKN (mg/L)	OP (mg/L)	TP (mg/L)	TSS (mg/L)
Site 41	**Maddox Creek/Big Ditch**														
n	25	25	25	25	25	23	25	25	25	4	4	4	4	4	4
Mean	11.6	6.71	63.2	462	0.2	7.40	14.4	291	182	0.667	0.52	1.28	0.128	0.34	38
Std. Dev.	6.1	2.28	28.1	348	0.2	0.29	13.7	443	258	0.774	0.71	1.33	0.095	0.28	50
Minimum	0.4	3.27	22.2	34	0.0	6.81	2.3	22	8	0.005	0.01	0.25	0.040	0.12	3
Maximum	22.7	11.53	122.3	992	0.5	8.19	70.6	1600	920	1.490	1.52	3.03	0.210	0.72	110
Range	22.3	8.26	100.1	958	0.5	1.38	68.3	1578	912	1.485	1.51	2.78	0.170	0.60	107
Std. Error	1.2	0.46	5.6	70	0.0	0.06	2.7	89	52	0.387	0.35	0.66	0.048	0.14	25
Geomean								61	58						
Site 44	**Sullivan Slough**														
n	25	25	25	25	25	23	25	25	25	4	4	4	4	4	4
Mean	10.4	5.04	47.6	19178	11.7	7.42	19.0	268	90	0.374	0.81	1.23	0.055	0.21	22
Std. Dev.	3.7	2.34	22.2	12166	7.8	0.21	11.6	428	109	0.401	0.61	0.89	0.037	0.07	6
Minimum	3.1	0.99	10.1	2682	1.4	7.12	1.9	9	2	0.012	0.18	0.33	0.030	0.12	15
Maximum	17.4	8.61	90.3	37763	24.0	7.84	49.1	1600	350	0.750	1.56	2.18	0.110	0.28	27
Range	14.3	7.62	80.2	35081	22.6	0.72	47.2	1591	348	0.738	1.38	1.85	0.080	0.16	12
Std. Error	0.7	0.47	4.4	2433	1.6	0.04	2.3	86	22	0.200	0.31	0.44	0.018	0.04	3
Geomean								81	47						

Temp = Water Temperature, DO = Dissolved Oxygen, $NO_3^- + NO_2^-$ = Nitrate + Nitrite, NH_3 = Ammonia, TKN = Total Kjeldahl Nitrogen, OP = Orthophosphate, TP = Total Phosphate, TSS = Total Suspended Solids

Skagit River

	Temp *(°C)*	***DO*** *(mg/L)*	***DO Percent*** *(%)*	***Cond.*** *(µS/cm)*	***Salinity*** *(psu)*	***pH***	***Turbidity*** *(NTU)*	***Fecal Coliform*** *(MPN / 100 mL)*	***E. coli*** *(MPN / 100 mL)*	***$NO_3^- + NO_2^-$*** *(mg/L)*	***NH_3*** *(mg/L)*	***TKN*** *(mg/L)*	***OP*** *(mg/L)*	***TP*** *(mg/L)*	***TSS*** *(mg/L)*
Site 30	**Skagit River near Hamiliton**														
n	26	26	26	26	26	24	26	26	26	4	4	4	4	4	4
Mean	8.6	10.40	86.2	77	0.0	7.11	4.1	13	12	0.160	0.01	0.26	0.015	0.08	21
Std. Dev.	3.1	1.79	19.7	37	0.0	0.23	6.4	14	14	0.107	0.00	0.02	0.006	0.05	36
Minimum	4.7	7.03	6.2	3	0.0	6.66	0.2	1	1	0.029	0.01	0.25	0.010	0.05	2
Maximum	13.3	12.76	108.0	140	0.1	7.50	28.1	49	49	0.290	0.01	0.28	0.020	0.16	75
Range	8.6	5.73	101.8	137	0.1	0.84	27.9	48	48	0.261	0.00	0.03	0.010	0.11	73
Std. Error	0.6	0.35	3.9	7	0.0	0.05	1.3	3	3	0.053	0.00	0.01	0.003	0.03	18
Geomean								4	5						
Site 29	**Skagit River near Mount Vernon**														
n	25	25	25	25	25	23	25	25	25	4	4	4	4	4	4
Mean	9.1	11.53	98.1	60	0.0	6.82	3.0	121	106	0.064	0.01	0.26	0.009	0.05	4
Std. Dev.	4.7	1.49	5.3	13	0.0	0.36	1.8	332	329	0.035	0.00	0.02	0.001	0.00	2
Minimum	0.2	8.98	86.5	31	0.0	6.24	1.0	2	2	0.031	0.01	0.25	0.008	0.05	2
Maximum	17.1	13.80	107.6	90	0.0	7.55	7.6	1600	1600	0.103	0.02	0.28	0.010	0.05	7
Range	16.9	4.82	21.1	59	0.0	1.31	6.5	1598	1598	0.072	0.01	0.03	0.002	0.00	5
Std. Error	0.9	0.30	1.1	3	0.0	0.08	0.4	66	66	0.018	0.00	0.01	0.000	0.00	1
Geomean								10	12						
Site 45	**North Fork Skagit River**														
n	25	25	25	25	25	23	25	25	25	4	4	4	4	4	4
Mean	9.4	11.27	96.8	63	0.0	7.80	3.4	11	9	0.066	0.01	0.25	0.05	0.01	4
Std. Dev.	4.9	1.20	4.0	15	0.0	0.13	1.9	10	7	0.032	0.00	0.00	0.00	0.00	3
Minimum	1.6	9.18	90.0	39	0.0	7.56	1.4	2	1	0.038	0.01	0.25	0.05	0.01	2
Maximum	17.6	13.04	104.2	113	0.0	8.07	7.4	33	27	0.104	0.01	0.25	0.05	0.01	8
Range	16.0	3.86	14.2	75	0.0	0.51	6.1	31	26	0.066	0.00	0.00	0.00	0.00	6
Std. Error	1.0	0.24	0.8	3	0.0	0.03	0.4	2	1	0.016	0.00	0.00	0.00	0.00	2
Geomean								7	6						

Temp = Water Temperature, DO = Dissolved Oxygen, $NO_3^- + NO_2^-$ = Nitrate + Nitrite, NH_3 = Ammonia, TKN = Total Kjeldahl Nitrogen, OP = Orthophosphate, TP = Total Phosphate, TSS = Total Suspended Solids

	Temp (°C)	DO (mg/L)	DO Percent (%)	Cond. (µS/cm)	Salinity (psu)	pH	Turbidity (NTU)	Fecal Coliform (MPN / 100 mL)	E. coli (MPN / 100 mL)	$NO_3^- + NO_2^-$ (mg/L)	NH_3 (mg/L)	TKN (mg/L)	OP (mg/L)	TP (mg/L)	TSS (mg/L)
Site 46	**South Fork Skagit River**														
n	25	25	25	25	25	23	25	25	25	4	4	4	4	4	4
Mean	9.6	11.15	95.9	62	0.0	7.65	3.5	81	62	0.068	0.02	0.25	0.012	0.05	3
Std. Dev.	5.0	1.35	4.5	14	0.0	0.17	1.9	155	145	0.030	0.01	0.00	0.005	0.00	2
Minimum	1.4	8.71	86.2	37	0.0	7.29	1.3	1	1	0.043	0.01	0.25	0.008	0.05	2
Maximum	18.1	13.03	103.4	112	0.0	7.95	7.5	540	540	0.104	0.03	0.25	0.020	0.05	6
Range	16.7	4.32	17.2	76	0.0	0.66	6.2	539	539	0.061	0.02	0.00	0.012	0.00	4
Std. Error	1.0	0.27	0.9	3	0.0	0.03	0.4	31	29	0.015	0.01	0.00	0.003	0.00	1
Geomean								10	9						

Temp = Water Temperature, DO = Dissolved Oxygen, $NO_3^- + NO_2^-$ = Nitrate + Nitrite, NH_3 = Ammonia, TKN = Total Kjeldahl Nitrogen, OP = Orthophosphate, TP = Total Phosphate, TSS = Total Suspended Solids