

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	514	511	512	506	515	488	472	514	76	124	125	125	124	125	124
Mean	8.9	8.67	74.4	73	0.0	7.01	3.3	47	32	0.301	0.03	0.30	0.014	0.06	7
Std. Dev.	3.4	1.32	7.7	20	0.0	0.31	8.4	229	54	0.117	0.03	0.18	0.013	0.04	33
Minimum	0.8	4.70	45.1	22	0.0	6.00	0.0	1	1	0.070	0.01	0.25	0.005	0.05	2
Maximum	17.2	12.56	96.2	129	0.1	8.11	155.0	5000	350	0.790	0.12	1.77	0.070	0.36	333
Range	16.4	7.86	51.1	107	0.1	2.11	155.0	4999	349	0.720	0.11	1.52	0.065	0.31	331
Std. Error	0.1	0.06	0.3	1	0.0	0.01	0.4	10	6	0.010	0.00	0.02	0.001	0.00	3
Geomean								15	14						
Site 8	Swede Creek														
n	511	507	508	498	512	482	469	510	75	125	125	125	125	125	125
Mean	9.6	10.73	92.7	69	0.0	7.14	13.1	167	94	0.443	0.04	0.47	0.026	0.06	12
Std. Dev.	4.4	1.77	7.9	19	0.0	0.30	19.2	392	262	0.373	0.03	0.34	0.023	0.03	31
Minimum	0.1	5.62	59.5	33	0.0	5.99	2.0	1	4	0.030	0.01	0.25	0.005	0.05	2
Maximum	18.2	15.14	112.0	161	0.1	8.41	224.0	5000	1600	2.170	0.17	2.93	0.140	0.26	282
Range	18.1	9.52	52.5	128	0.1	2.42	222.0	4999	1596	2.140	0.16	2.68	0.135	0.21	280
Std. Error	0.2	0.08	0.4	1	0.0	0.01	0.9	17	30	0.033	0.00	0.03	0.002	0.00	3
Geomean								57	33						
Site 6	Friday Creek														
n	511	503	505	507	511	483	469	510	75	125	125	125	125	125	125
Mean	10.5	11.26	99.7	80	0.0	7.28	5.8	106	53	0.502	0.03	0.38	0.025	0.06	9
Std. Dev.	4.7	1.29	7.8	21	0.0	0.38	9.5	276	185	0.295	0.03	0.23	0.084	0.05	27
Minimum	0.1	6.95	10.1	42	0.0	6.26	0.3	1	2	0.017	0.01	0.25	0.005	0.05	2
Maximum	20.1	15.35	119.8	141	0.1	8.72	118.0	3000	1600	1.640	0.16	1.92	0.950	0.40	238
Range	20.0	8.40	109.7	99	0.1	2.46	117.7	2999	1598	1.623	0.15	1.67	0.945	0.35	236
Std. Error	0.2	0.06	0.3	1	0.0	0.02	0.4	12	21	0.026	0.00	0.02	0.008	0.00	2
Geomean								35	22						

Temp = Water Temperature, DO = Dissolved Oxygen, NO₃⁻ + NO₂⁻ = Nitrate + Nitrite, NH₃ = 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)	NO₃⁻ + NO₂⁻ (mg/L)	NH₃ (mg/L)	TKN (mg/L)	OP (mg/L)	TP (mg/L)	TSS (mg/L)
Site 4	Upper Thomas Creek														
<i>n</i>	510	506	507	499	508	483	468	506	75	125	125	125	125	125	125
<i>Mean</i>	9.4	11.11	96.0	125	0.0	7.21	18.7	617	287	1.009	0.04	0.48	0.045	0.07	15
<i>Std. Dev.</i>	3.8	1.28	6.8	51	0.1	0.32	27.6	1884	495	0.316	0.04	0.29	0.035	0.05	32
<i>Minimum</i>	0.0	6.73	13.7	48	0.0	6.29	0.8	5	8	0.005	0.01	0.25	0.005	0.05	2
<i>Maximum</i>	16.6	15.17	128.4	222	0.1	8.20	291.0	23000	3500	2.110	0.25	2.22	0.170	0.38	248
<i>Range</i>	16.6	8.44	114.7	174	0.1	1.91	290.2	22995	3492	2.105	0.24	1.97	0.165	0.33	246
<i>Std. Error</i>	0.2	0.06	0.3	2	0.0	0.01	1.3	84	57	0.028	0.00	0.03	0.003	0.00	3
<i>Geomean</i>								174	124						
Site 3	Lower Thomas Creek														
<i>n</i>	508	503	504	501	507	478	464	507	76	124	124	124	123	124	123
<i>Mean</i>	10.7	6.50	56.2	151	0.1	6.93	14.6	413	150	0.572	0.12	0.77	0.036	0.08	9
<i>Std. Dev.</i>	4.7	3.25	25.9	58	0.0	0.24	13.5	4131	329	0.529	0.13	0.51	0.028	0.06	14
<i>Minimum</i>	0.9	0.03	0.4	3	0.0	6.17	1.0	1	2	0.005	0.01	0.25	0.005	0.05	2
<i>Maximum</i>	20.2	13.51	124.3	446	0.2	7.68	113.0	92000	1700	2.220	0.92	3.68	0.180	0.44	90
<i>Range</i>	19.3	13.48	123.9	444	0.2	1.51	112.0	91999	1698	2.215	0.91	3.43	0.175	0.39	88
<i>Std. Error</i>	0.2	0.14	1.2	3	0.0	0.01	0.6	183	38	0.048	0.01	0.05	0.003	0.01	1
<i>Geomean</i>								53	35						
Site 32	Lower Samish River														
<i>n</i>	513	505	507	510	512	481	470	513	75	124	126	126	124	126	124
<i>Mean</i>	10.8	10.89	97.5	97	0.0	7.52	10.4	159	60	0.594	0.06	0.38	0.026	0.07	19
<i>Std. Dev.</i>	4.7	1.12	9.2	26	0.1	0.45	17.4	818	66	0.203	0.07	0.23	0.025	0.06	38
<i>Minimum</i>	1.2	6.86	14.1	45	0.0	6.50	0.8	2	1	0.220	0.01	0.25	0.005	0.05	2
<i>Maximum</i>	21.6	14.99	150	146	0.8	8.73	181.0	17000	350	1.690	0.68	1.60	0.160	0.47	229
<i>Range</i>	20.4	8.13	135.9	101	0.8	2.23	180.2	16998	349	1.470	0.67	1.35	0.155	0.42	227
<i>Std. Error</i>	0.2	0.05	0.4	1	0.0	0.02	0.8	36	8	0.018	0.01	0.02	0.002	0.01	3
<i>Geomean</i>								53	36						
Site 39	Colony Creek														
<i>n</i>	512	506	508	501	512	481	467	511	76	124	124	124	124	124	124
<i>Mean</i>	9.8	10.81	93.7	133	0.0	7.18	15.3	441	208	0.875	0.06	0.58	0.057	0.10	38
<i>Std. Dev.</i>	4.4	1.81	8.1	85	0.1	0.31	35.6	1631	372	0.628	0.05	0.63	0.050	0.17	189
<i>Minimum</i>	0.0	6.11	58.3	44	0.0	6.19	0.3	1	1	0.100	0.01	0.25	0.005	0.05	2
<i>Maximum</i>	20.5	15.52	116.4	398	0.2	7.97	377.0	16000	1600	3.020	0.34	4.96	0.210	1.70	1996
<i>Range</i>	20.5	9.41	58.1	353	0.2	1.78	376.7	15999	1599	2.920	0.33	4.71	0.205	1.65	1994
<i>Std. Error</i>	0.2	0.08	0.4	4	0.0	0.01	1.6	72	43	0.056	0.00	0.06	0.004	0.01	17
<i>Geomean</i>								67	38						

Temp = Water Temperature, DO = Dissolved Oxygen, NO₃⁻ + NO₂⁻ = Nitrate + Nitrite, NH₃ = Ammonia, TKN = Total Kjeldahl Nitrogen, OP = Orthophosphate, TP = Total Phosphate, TSS = Total Suspended Solids

Appendix A – Summary Statistics Water Year 2004 - 2023

Skagit County Monitoring Program - Water Year 2023

	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)	NO₃⁻ + NO₂⁻ (mg/L)	NH₃ (mg/L)	TKN (mg/L)	OP (mg/L)	TP (mg/L)	TSS (mg/L)
Site 38	North Edison Drainage														
<i>n</i>	503	476	492	497	502	474	462	503	75	123	123	122	123	123	123
<i>Mean</i>	12.9	6.83	81.1	17991	10.9	7.24	38.5	632	416	0.528	1.23	2.93	0.572	0.94	53
<i>Std. Dev.</i>	5.8	4.76	78.3	13977	9.1	0.85	123.2	2022	887	0.967	0.77	1.04	0.696	0.86	70
<i>Minimum</i>	1.7	0.00	0.0	112	0.0	5.60	1.8	1	4	0.005	0.02	0.96	0.005	0.05	5
<i>Maximum</i>	26.1	37.78	455.1	45856	29.8	9.20	2300.0	30000	5400	9.540	4.24	7.04	3.190	3.78	524
<i>Range</i>	24.4	37.78	455.1	45744	29.8	3.60	2298.2	29999	5396	9.535	4.22	6.08	3.185	3.73	519
<i>Std. Error</i>	0.3	0.22	3.5	627	0.4	0.04	5.7	90	102	0.087	0.07	0.09	0.063	0.08	6
<i>Geomean</i>								149	94						
Site 36	Edison Slough														
<i>n</i>	510	499	506	497	508	479	466	510	76	123	123	124	124	124	124
<i>Mean</i>	13.7	9.02	97.0	13862	8.5	7.30	9.8	248	176	0.484	0.22	1.21	0.336	0.46	19
<i>Std. Dev.</i>	7.7	3.55	57.2	15892	10.1	0.73	6.8	589	295	1.002	0.33	0.69	0.517	0.61	20
<i>Minimum</i>	0.1	2.32	21.3	13	0.0	5.94	0.6	1	4	0.005	0.01	0.51	0.005	0.05	2
<i>Maximum</i>	32.4	26.00	359.2	44950	29.1	9.58	49.3	9200	1600	10.000	2.51	4.82	2.730	2.81	95
<i>Range</i>	32.3	23.68	337.9	44937	29.1	3.64	48.7	9199	1596	9.995	2.50	4.31	2.725	2.76	93
<i>Std. Error</i>	0.3	0.16	2.5	713	0.4	0.03	0.3	26	34	0.090	0.03	0.06	0.046	0.05	2
<i>Geomean</i>								73	67						
Site 37	South Edison Drainage														
<i>n</i>	507	486	503	502	505	477	467	508	76	124	124	123	124	124	124
<i>Mean</i>	13.5	6.96	79.5	11056	6.5	7.32	41.6	438	345	0.837	1.44	3.36	0.486	0.85	42
<i>Std. Dev.</i>	6.7	4.16	66.6	11494	7.2	0.68	110.3	983	563	1.277	1.03	5.14	0.595	0.84	47
<i>Minimum</i>	1.8	0.04	0.6	172	0.1	6.16	2.2	1	2	0.005	0.01	0.25	0.005	0.17	7
<i>Maximum</i>	27.5	25.00	387.3	44758	28.9	9.35	1567.0	16000	2400	9.630	6.71	58.30	3.220	4.26	250
<i>Range</i>	25.7	24.96	386.7	44586	28.8	3.19	1564.8	15999	2398	9.625	6.70	58.05	3.215	4.09	243
<i>Std. Error</i>	0.3	0.19	3.0	513	0.3	0.03	5.1	44	65	0.115	0.09	0.46	0.053	0.08	4
<i>Geomean</i>								167	108						
Site 33	Alice Bay Drainage														
<i>n</i>	508	484	503	499	507	479	467	506	76	121	122	122	121	122	121
<i>Mean</i>	13.3	9.06	106.6	25603	15.9	7.17	26.8	163	95	0.723	1.16	2.91	0.282	0.54	44
<i>Std. Dev.</i>	6.4	4.63	73.1	13861	9.1	0.84	52.7	372	266	1.150	0.83	1.80	0.338	0.52	34
<i>Minimum</i>	0.4	0.41	4.0	204	0.1	5.66	2.6	1	1	0.005	0.01	0.74	0.005	0.05	2
<i>Maximum</i>	27.2	23.93	348.6	52822	30.5	9.64	910.0	5000	1600	10.000	3.94	17.80	1.710	2.59	241
<i>Range</i>	26.8	23.52	344.6	52618	30.4	3.98	907.4	4999	1599	9.995	3.93	17.06	1.705	2.54	239
<i>Std. Error</i>	0.3	0.21	3.3	621	0.4	0.04	2.4	17	30	0.105	0.08	0.16	0.031	0.05	3
<i>Geomean</i>								48	23						

Temp = Water Temperature, DO = Dissolved Oxygen, NO₃⁻ + NO₂⁻ = Nitrate + Nitrite, NH₃ = Ammonia, TKN = Total Kjeldahl Nitrogen, OP = Orthophosphate, TP = Total Phosphate, TSS = Total Suspended Solids

Appendix A – Summary Statistics Water Year 2004 - 2023

Skagit County Monitoring Program - Water Year 2023

Padilla Bay Watershed

	<i>Temp</i> (°C)	<i>DO</i> (mg/L)	<i>DO Percent</i> (%)	<i>Cond.</i> (µS/cm)	<i>Salinity</i> (psu)	<i>pH</i>	<i>Turbidity</i> (NTU)	<i>Fecal Coliform</i> (MPN / 100 mL)	<i>E. coli</i> (MPN / 100 mL)	<i>NO₃⁻ + NO₂⁻</i> (mg/L)	<i>NH₃</i> (mg/L)	<i>TKN</i> (mg/L)	<i>OP</i> (mg/L)	<i>TP</i> (mg/L)	<i>TSS</i> (mg/L)
Site 49	Middle Joe Leary Slough														
<i>n</i>	51	50	50	51	51	49	51	50	50	8	8	8	8	8	8
<i>Mean</i>	11.5	4.45	40.2	347	0.2	6.99	36.8	211	102	1.118	0.62	1.42	0.104	0.31	37
<i>Std. Dev.</i>	3.5	1.51	12.6	49	0.0	0.24	26.4	258	151	1.400	0.26	0.59	0.060	0.25	39
<i>Minimum</i>	4.8	0.73	7.5	214	0.1	6.45	2.9	4	2	0.100	0.26	0.71	0.040	0.06	7
<i>Maximum</i>	17.6	7.96	66.4	415	0.2	7.41	149.0	920	920	4.307	1.04	2.63	0.220	0.76	122
<i>Range</i>	12.8	7.23	58.9	201	0.1	0.96	146.1	916	918	4.207	0.78	1.92	0.180	0.70	115
<i>Std. Error</i>	0.5	0.21	1.8	7	0.0	0.03	3.7	36	21	0.495	0.09	0.21	0.021	0.09	14
<i>Geomean</i>								105	51						
Site 50	Lower Joe Leary Slough														
<i>n</i>	51	51	51	51	51	49	51	50	50	7	7	7	7	7	7
<i>Mean</i>	12.7	5.63	52.9	1175	0.6	6.96	29.9	274	127	1.117	0.36	1.07	0.090	0.19	15
<i>Std. Dev.</i>	4.9	1.81	18.0	1748	1.0	0.32	17.5	366	172	1.299	0.27	0.60	0.035	0.07	5
<i>Minimum</i>	4.2	0.26	2.9	8	0.0	6.05	3.5	13	8	0.009	0.01	0.36	0.050	0.08	8
<i>Maximum</i>	21.3	10.01	111.9	8032	4.5	7.50	105.2	1600	920	3.737	0.79	2.02	0.160	0.26	24
<i>Range</i>	17.1	9.75	109.0	8024	4.5	1.45	101.7	1587	912	3.728	0.78	1.66	0.110	0.18	16
<i>Std. Error</i>	0.7	0.25	2.5	245	0.1	0.05	2.4	52	24	0.491	0.10	0.23	0.013	0.03	2
<i>Geomean</i>								133	65						
Site 34	No Name Slough														
<i>n</i>	503	499	499	493	501	474	466	497	76	121	121	121	121	121	121
<i>Mean</i>	11.9	6.81	62.5	16682	10.5	7.03	15.2	441	125	0.467	0.26	1.39	0.473	0.58	26
<i>Std. Dev.</i>	6.3	3.73	33.5	18319	11.9	0.58	15.4	1238	374	0.700	0.29	0.70	0.965	0.85	31
<i>Minimum</i>	0.1	0.00	0.0	31	0.0	5.67	0.9	1	1	0.005	0.01	0.25	0.005	0.05	2
<i>Maximum</i>	27.0	22.31	224.8	56800	38.0	8.71	211.0	16000	3100	4.140	1.70	5.34	7.500	4.62	233
<i>Range</i>	26.9	22.31	224.8	56769	38.0	3.04	210.1	15999	3099	4.135	1.69	5.09	7.495	4.57	231
<i>Std. Error</i>	0.3	0.17	1.5	825	0.5	0.03	0.7	56	43	0.064	0.03	0.06	0.088	0.08	3
<i>Geomean</i>								100	32						

Temp = Water Temperature, DO = Dissolved Oxygen, NO₃⁻ + NO₂⁻ = Nitrate + Nitrite, NH₃ = Ammonia, TKN = Total Kjeldahl Nitrogen, OP = Orthophosphate, TP = Total Phosphate, TSS = Total Suspended Solids

	<i>Temp</i> (°C)	<i>DO</i> (mg/L)	<i>DO Percent</i> (%)	<i>Cond.</i> (µS/cm)	<i>Salinity</i> (psu)	<i>pH</i>	<i>Turbidity</i> (NTU)	<i>Fecal Coliform</i> (MPN / 100 mL)	<i>E. coli</i> (MPN / 100 mL)	<i>NO₃⁻ + NO₂⁻</i> (mg/L)	<i>NH₃</i> (mg/L)	<i>TKN</i> (mg/L)	<i>OP</i> (mg/L)	<i>TP</i> (mg/L)	<i>TSS</i> (mg/L)
Site 52	Little Indian Slough														
<i>n</i>	508	503	504	501	507	478	464	507	76	124	124	124	123	124	123
<i>Mean</i>	10.7	6.50	56.2	151	0.1	6.93	14.6	413	150	0.572	0.12	0.77	0.036	0.08	9
<i>Std. Dev.</i>	4.7	3.25	25.9	58	0.0	0.24	13.5	4131	329	0.529	0.13	0.51	0.028	0.06	14
<i>Minimum</i>	0.9	0.03	0.4	3	0.0	6.17	1.0	1	2	0.005	0.01	0.25	0.005	0.05	2
<i>Maximum</i>	20.2	13.51	124.3	446	0.2	7.68	113.0	92000	1700	2.220	0.92	3.68	0.180	0.44	90
<i>Range</i>	19.3	13.48	123.9	444	0.2	1.51	112.0	91999	1698	2.215	0.91	3.43	0.175	0.39	88
<i>Std. Error</i>	0.2	0.14	1.2	3	0.0	0.01	0.6	183	38	0.048	0.01	0.05	0.003	0.01	1
<i>Geomean</i>								53	35						
Site 40	Big Indian Slough														
<i>n</i>	504	501	501	503	503	476	467	500	77	120	121	121	120	121	120
<i>Mean</i>	10.9	4.86	42.8	357	0.2	6.77	22.8	595	242	0.719	0.36	0.99	0.085	0.13	10
<i>Std. Dev.</i>	4.1	2.10	16.8	240	1.2	0.32	14.2	7237	1078	0.509	0.22	0.37	0.075	0.07	10
<i>Minimum</i>	0.9	0.10	1.0	93	0.0	5.42	2.5	1	2	0.005	0.01	0.25	0.005	0.05	2
<i>Maximum</i>	22.1	11.97	124.6	3748	27.8	7.92	150.0	160000	9200	2.250	0.84	2.10	0.490	0.37	54
<i>Range</i>	21.2	11.87	123.6	3655	27.8	2.50	147.5	159999	9198	2.245	0.83	1.85	0.485	0.32	52
<i>Std. Error</i>	0.2	0.09	0.7	11	0.1	0.01	0.7	324	123	0.046	0.02	0.03	0.007	0.01	1
<i>Geomean</i>								65	47						
Site 47	Swinomish Channel														
<i>n</i>	515	510	511	515	515	485	476	509	76	125	125	125	125	125	125
<i>Mean</i>	10.6	8.72	88.9	34033	21.4	7.25	5.3	10	12	0.195	0.06	0.32	0.049	0.08	31
<i>Std. Dev.</i>	3.3	1.07	9.5	6302	4.3	0.65	5.9	21	29	0.115	0.03	0.22	0.075	0.04	21
<i>Minimum</i>	3.3	5.48	7.2	11027	6.4	5.29	0.6	1	1	0.005	0.01	0.25	0.005	0.05	2
<i>Maximum</i>	18.5	11.41	115.4	45590	29.1	8.11	80.2	350	240	0.690	0.17	1.84	0.830	0.40	140
<i>Range</i>	15.2	5.93	108.2	34563	22.7	2.82	79.6	349	239	0.685	0.16	1.59	0.825	0.35	138
<i>Std. Error</i>	0.1	0.05	0.4	278	0.2	0.03	0.3	1	3	0.010	0.00	0.02	0.007	0.00	2
<i>Geomean</i>								5	5						

Temp = Water Temperature, DO = Dissolved Oxygen, NO₃⁻ + NO₂⁻ = Nitrate + Nitrite, NH₃ = 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	411	408	410	409	410	393	379	407	58	103	103	103	103	103	103
Mean	7.5	11.85	98.9	67	0.0	7.23	3.0	44	28	0.527	0.02	0.29	0.016	0.06	9
Std. Dev.	2.4	0.81	4.8	21	0.0	0.44	20.0	159	60	0.207	0.02	0.14	0.016	0.04	42
Minimum	1.9	9.40	84	17	0.0	6.05	0.0	1	1	0.044	0.01	0.25	0.005	0.05	2
Maximum	13.9	14.51	133.8	110	0.1	8.64	291.0	2400	350	1.400	0.16	1.18	0.090	0.44	410
Range	12.0	5.11	49.8	93	0.1	2.59	291.0	2399	349	1.356	0.15	0.93	0.085	0.39	408
Std. Error	0.1	0.04	0.2	1	0.0	0.02	1.0	8	8	0.020	0.00	0.01	0.002	0.00	4
Geomean								8	7						
Site 24	Mannser Creek														
n	511	508	509	505	512	488	470	506	75	125	125	125	125	125	125
Mean	8.8	6.82	58.5	108	0.0	6.94	2.0	42	31	0.228	0.02	0.34	0.032	0.05	4
Std. Dev.	3.0	1.42	11.6	22	0.1	0.31	1.8	88	52	0.120	0.02	0.52	0.060	0.03	5
Minimum	0.8	1.97	18.5	1	0.0	5.98	0.0	1	1	0.005	0.01	0.25	0.005	0.05	2
Maximum	15.6	12.4	104.2	408	0.2	8.12	25.7	920	350	0.560	0.08	6.00	0.590	0.33	36
Range	14.8	10.43	85.7	406	0.2	2.14	25.7	919	349	0.555	0.07	5.75	0.585	0.28	34
Std. Error	0.1	0.06	0.5	1	0.0	0.01	0.1	4	6	0.011	0.00	0.05	0.005	0.00	0
Geomean								15	14						
Site 23	Wiseman Creek														
n	458	455	457	452	458	432	420	455	65	115	116	116	116	116	115
Mean	8.1	11.92	100.3	74	0.0	7.23	12.0	88	109	0.915	0.02	0.32	0.016	0.08	25
Std. Dev.	3.5	1.09	5.5	19	0.0	0.37	76.6	327	358	0.327	0.03	0.19	0.022	0.12	103
Minimum	0.7	7.52	61.7	15	0.0	6.06	0.0	1	1	0.330	0.01	0.25	0.005	0.05	2
Maximum	16.2	15.77	157.7	218	0.1	8.52	1072.0	5000	2400	2.210	0.33	1.52	0.160	0.91	640
Range	15.5	8.25	96.0	203	0.1	2.46	1072.0	4999	2399	1.880	0.32	1.27	0.155	0.86	638
Std. Error	0.2	0.05	0.3	1	0.0	0.02	3.7	15	44	0.030	0.00	0.02	0.002	0.01	10
Geomean								13	14						

Temp = Water Temperature, DO = Dissolved Oxygen, NO₃⁻ + NO₂⁻ = Nitrate + Nitrite, NH₃ = 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)	NO₃⁻ + NO₂⁻ (mg/L)	NH₃ (mg/L)	TKN (mg/L)	OP (mg/L)	TP (mg/L)	TSS (mg/L)
Site 22	Upper Coal Creek														
<i>n</i>	509	505	506	499	508	486	471	508	75	123	124	124	123	124	123
<i>Mean</i>	8.3	11.80	99.7	81	0.0	7.20	9.9	70	38	0.621	0.02	0.31	0.014	0.07	21
<i>Std. Dev.</i>	3.9	1.24	4.9	23	0.0	0.47	60.4	264	75	0.315	0.02	0.19	0.018	0.10	84
<i>Minimum</i>	0.0	8.33	73.2	18	0.0	5.54	0.0	1	1	0.005	0.01	0.25	0.005	0.05	2
<i>Maximum</i>	15.7	15.60	137.0	160	0.1	8.55	1138.0	5000	350	2.230	0.15	1.50	0.120	0.79	650
<i>Range</i>	15.7	7.27	63.8	142	0.1	3.01	1138.0	4999	349	2.225	0.14	1.25	0.115	0.74	648
<i>Std. Error</i>	0.2	0.06	0.2	1	0.0	0.02	2.8	12	9	0.028	0.00	0.02	0.002	0.01	8
<i>Geomean</i>								12	8						
Site 21	Lower Coal Creek														
<i>n</i>	440	439	439	429	440	414	402	436	60	109	109	109	109	109	109
<i>Mean</i>	8.1	11.19	93.6	81	0.0	7.10	12.2	282	225	0.749	0.03	0.33	0.020	0.06	21
<i>Std. Dev.</i>	4.1	1.48	5.9	23	0.2	0.30	58.2	614	393	0.309	0.04	0.18	0.029	0.06	66
<i>Minimum</i>	0.1	6.61	68.1	38	0.0	6.07	0.0	1	2	0.210	0.01	0.25	0.005	0.03	2
<i>Maximum</i>	17.5	15.05	115.9	230	3.9	8.32	1005.0	5000	1600	2.090	0.26	1.30	0.230	0.49	438
<i>Range</i>	17.4	8.44	47.8	192	3.9	2.25	1005.0	4999	1598	1.880	0.25	1.05	0.225	0.46	436
<i>Std. Error</i>	0.2	0.07	0.3	1	0.0	0.01	2.9	29	51	0.030	0.00	0.02	0.003	0.01	6
<i>Geomean</i>								76	63						
Site 20	Upper Hansen Creek														
<i>n</i>	510	508	509	504	510	483	466	507	76	125	125	125	125	125	125
<i>Mean</i>	9.0	11.19	96.1	80	0.0	7.13	13.6	113	73	0.461	0.03	0.36	0.023	0.11	56
<i>Std. Dev.</i>	3.7	1.19	4.7	22	0.0	0.30	69.1	224	135	0.250	0.03	0.30	0.032	0.25	222
<i>Minimum</i>	0.5	7.34	66.5	40	0.0	6.08	0.0	1	2	0.050	0.01	0.25	0.005	0.05	2
<i>Maximum</i>	16.2	14.67	115.6	199	0.1	8.18	900.0	3000	920	1.300	0.15	2.20	0.270	1.90	1720
<i>Range</i>	15.7	7.33	49.1	159	0.1	2.10	900.0	2999	918	1.250	0.14	1.95	0.265	1.85	1718
<i>Std. Error</i>	0.2	0.05	0.2	1	0.0	0.01	3.2	10	15	0.022	0.00	0.03	0.003	0.02	20
<i>Geomean</i>								44	31						
Site 19	Lower Hansen Creek														
<i>n</i>	476	473	474	464	476	450	438	474	61	118	118	118	118	119	118
<i>Mean</i>	9.2	10.27	88.1	82	0.0	7.08	13.2	209	86	0.415	0.04	0.41	0.024	0.08	37
<i>Std. Dev.</i>	4.4	1.50	7.4	18	0.0	0.30	62.9	412	122	0.225	0.03	0.59	0.037	0.15	137
<i>Minimum</i>	0.1	4.71	48.0	39	0.0	6.06	0.2	1	7	0.030	0.01	0.25	0.005	0.05	2
<i>Maximum</i>	19.0	14.34	110.0	229	0.1	8.64	848.0	5000	540	1.100	0.14	6.14	0.360	1.07	902
<i>Range</i>	18.9	9.63	62.0	190	0.1	2.58	847.8	4999	533	1.070	0.13	5.89	0.355	1.02	900
<i>Std. Error</i>	0.2	0.07	0.3	1	0.0	0.01	3.00	19	16	0.021	0.00	0.05	0.003	0.01	13
<i>Geomean</i>								75	46						

Temp = Water Temperature, DO = Dissolved Oxygen, NO₃⁻ + NO₂⁻ = Nitrate + Nitrite, NH₃ = Ammonia, TKN = Total Kjeldahl Nitrogen, OP = Orthophosphate, TP = Total Phosphate, TSS = Total Suspended Solids

Appendix A – Summary Statistics Water Year 2004 - 2023

Skagit County Monitoring Program - Water Year 2023

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														
<i>n</i>	514	508	509	512	514	484	477	512	77	125	125	125	125	125	125
<i>Mean</i>	10.0	11.05	96.8	91	0.0	7.43	2.9	178	82	0.452	0.03	0.36	0.020	0.05	5
<i>Std. Dev.</i>	4.1	1.35	5.4	26	0.0	0.30	4.1	841	171	0.207	0.02	0.30	0.019	0.01	10
<i>Minimum</i>	0.6	7.43	74.7	44	0.0	6.40	0.0	1	1	0.050	0.01	0.25	0.005	0.05	2
<i>Maximum</i>	21.9	14.43	128.6	174	0.1	8.34	47.8	16000	920	0.970	0.10	3.22	0.110	0.10	72
<i>Range</i>	21.3	7.00	53.9	130	0.1	1.94	47.8	15999	919	0.920	0.09	2.97	0.105	0.05	70
<i>Std. Error</i>	0.2	0.06	0.2	1	0.0	0.01	0.2	37	19	0.018	0.00	0.03	0.002	0.00	1
<i>Geomean</i>								42	22						
Site 17	Upper Nookachamps Creek (Big Lake Outlet)														
<i>n</i>	513	507	508	510	513	480	475	509	77	125	125	125	125	125	125
<i>Mean</i>	12.7	9.94	91.8	87	0.0	7.42	2.5	40	33	0.233	0.04	0.42	0.017	0.05	4
<i>Std. Dev.</i>	6.0	1.92	9.8	14	0.0	0.30	1.9	86	59	0.223	0.03	0.20	0.024	0.01	4
<i>Minimum</i>	0.9	4.94	51.8	49	0.0	6.44	0.2	1	1	0.005	0.01	0.25	0.005	0.05	2
<i>Maximum</i>	26.9	14.38	123.9	222	0.1	8.46	13.7	900	350	0.900	0.18	1.23	0.230	0.14	32
<i>Range</i>	26.0	9.44	72.1	172	0.1	2.02	13.5	899	349	0.895	0.17	0.98	0.225	0.09	30
<i>Std. Error</i>	0.3	0.09	0.4	1	0.0	0.01	0.1	4	7	0.020	0.00	0.02	0.002	0.00	0
<i>Geomean</i>								14	12						
Site 15	Middle Nookachamps Creek														
<i>n</i>	511	505	506	510	511	481	474	509	75	125	125	125	125	125	125
<i>Mean</i>	12.0	8.08	72.1	114	0.0	7.21	5.1	165	61	0.310	0.09	0.61	0.056	0.08	6
<i>Std. Dev.</i>	5.5	3.47	27.1	38	0.0	0.27	3.8	402	86	0.273	0.08	0.27	0.088	0.05	5
<i>Minimum</i>	1.4	0.26	2.6	69	0.0	6.50	1.2	1	2	0.005	0.01	0.25	0.005	0.05	2
<i>Maximum</i>	25.3	13.51	114.3	329	0.2	7.92	62.4	5400	540	1.010	0.54	1.72	0.870	0.38	34
<i>Range</i>	23.9	13.25	111.7	260	0.2	1.42	61.2	5399	538	1.005	0.53	1.47	0.865	0.33	32
<i>Std. Error</i>	0.2	0.15	1.2	2	0.0	0.01	0.2	18	10	0.024	0.01	0.02	0.008	0.00	0
<i>Geomean</i>								67	33						

Temp = Water Temperature, DO = Dissolved Oxygen, NO₃⁻ + NO₂⁻ = Nitrate + Nitrite, NH₃ = Ammonia, TKN = Total Kjeldahl Nitrogen, OP = Orthophosphate, TP = Total Phosphate, TSS = Total Suspended Solids

	<i>Temp</i> (°C)	<i>DO</i> (mg/L)	<i>DO Percent</i> (%)	<i>Cond.</i> (µS/cm)	<i>Salinity</i> (psu)	<i>pH</i>	<i>Turbidity</i> (NTU)	<i>Fecal Coliform</i> (MPN / 100 mL)	<i>E. coli</i> (MPN / 100 mL)	<i>NO₃⁻ + NO₂⁻</i> (mg/L)	<i>NH₃</i> (mg/L)	<i>TKN</i> (mg/L)	<i>OP</i> (mg/L)	<i>TP</i> (mg/L)	<i>TSS</i> (mg/L)
Site 16	Upper East Fork Nookachamps														
<i>n</i>	513	508	509	508	513	483	476	510	77	124	124	124	124	124	124
<i>Mean</i>	9.5	11.47	99.2	91	0.0	7.40	3.8	130	111	0.329	0.03	0.31	0.016	0.05	6
<i>Std. Dev.</i>	4.7	1.33	5.6	34	0.0	0.30	8.3	752	373	0.206	0.03	0.15	0.023	0.02	20
<i>Minimum</i>	0.1	7.13	67.5	29	0.0	6.42	0.0	1	1	0.005	0.01	0.25	0.005	0.05	2
<i>Maximum</i>	20.5	14.51	116.4	194	0.1	8.38	82.6	16000	3100	1.090	0.19	1.31	0.220	0.29	190
<i>Range</i>	20.4	7.38	48.9	165	0.1	1.96	82.6	15999	3099	1.085	0.18	1.06	0.215	0.24	188
<i>Std. Error</i>	0.2	0.06	0.2	2	0.0	0.01	0.4	33	43	0.019	0.00	0.01	0.002	0.00	2
<i>Geomean</i>								26	23						
Site 13	Lower East Fork Nookachamps														
<i>n</i>	509	506	507	506	510	480	474	508	77	124	124	124	124	124	124
<i>Mean</i>	10.2	9.59	84.2	94	0.0	7.25	5.0	131	90	0.301	0.05	0.38	0.014	0.05	6
<i>Std. Dev.</i>	5.2	1.89	12.9	30	0.0	0.30	7.7	275	153	0.217	0.04	0.16	0.012	0.01	12
<i>Minimum</i>	0.3	2.01	22.5	38	0.0	6.43	0.0	1	2	0.005	0.01	0.25	0.005	0.05	2
<i>Maximum</i>	24.0	12.96	110.4	182	0.1	8.08	84.6	3000	920	0.970	0.24	0.92	0.060	0.10	113
<i>Range</i>	23.7	10.95	87.9	143	0.1	1.65	84.6	2999	918	0.965	0.23	0.67	0.055	0.05	111
<i>Std. Error</i>	0.2	0.08	0.6	1	0.0	0.01	0.4	12	17	0.019	0.00	0.01	0.001	0.00	1
<i>Geomean</i>								49	37						
Site 12	Lower Nookachamps Creek														
<i>n</i>	489	484	486	487	489	459	455	488	77	120	120	120	120	120	120
<i>Mean</i>	11.1	9.01	79.9	107	0.0	7.16	7.7	129	85	0.368	0.07	0.48	0.023	0.06	9
<i>Std. Dev.</i>	5.6	2.22	14.6	37	0.0	0.27	13.6	218	124	0.230	0.05	0.22	0.021	0.04	15
<i>Minimum</i>	0.7	1.90	22.0	11	0.0	6.40	1.5	2	2	0.010	0.01	0.25	0.005	0.05	2
<i>Maximum</i>	24.8	13.79	139.5	239	0.1	8.07	208.0	2400	920	0.940	0.34	1.44	0.100	0.40	156
<i>Range</i>	24.1	11.89	117.5	228	0.1	1.67	206.5	2398	918	0.930	0.33	1.19	0.095	0.35	154
<i>Std. Error</i>	0.3	0.10	0.7	2	0.0	0.01	0.6	10	14	0.021	0.00	0.02	0.002	0.00	1
<i>Geomean</i>								63	45						

Temp = Water Temperature, DO = Dissolved Oxygen, NO₃⁻ + NO₂⁻ = Nitrate + Nitrite, NH₃ = 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	51	51	51	51	51	49	51	51	51	8	8	8	8	8	8
Mean	9.9	9.14	77.5	303	0.1	7.32	3.8	196	110	0.584	0.02	0.37	0.045	0.06	4
Std. Dev.	4.4	3.80	28.3	122	0.1	0.34	2.0	311	228	0.598	0.01	0.21	0.024	0.01	2
Minimum	0.3	1.53	15.1	45	0.0	6.68	0.8	13	9	0.005	0.01	0.25	0.020	0.05	2
Maximum	18.6	15.10	107.6	513	0.4	7.82	13.2	1600	1600	1.870	0.03	0.86	0.090	0.09	6
Range	18.3	13.57	92.5	468	0.4	1.14	12.4	1587	1591	1.865	0.02	0.61	0.070	0.04	4
Std. Error	0.6	0.53	4.0	17	0.0	0.05	0.3	44	32	0.212	0.00	0.08	0.009	0.01	1
Geomean								108	56						
Site 42	Lower Carpenter Creek														
n	513	509	510	510	513	482	475	507	76	125	125	125	125	124	125
Mean	11.4	8.17	73.2	186	0.1	7.30	3.9	169	99	0.571	0.07	0.55	0.044	0.07	3
Std. Dev.	5.7	2.30	17.6	52	0.0	0.31	4.2	842	155	0.508	0.05	0.25	0.038	0.06	3
Minimum	0.1	2.05	19.1	4	0.0	6.30	0.0	1	4	0.005	0.01	0.25	0.005	0.05	1
Maximum	23.1	14.37	159.1	365	0.4	8.74	47.2	16000	920	1.960	0.30	1.78	0.210	0.46	28
Range	23.0	12.32	140.0	360	0.4	2.44	47.2	15999	916	1.955	0.29	1.53	0.205	0.41	27
Std. Error	0.3	0.10	0.8	2	0.0	0.01	0.2	37	18	0.045	0.00	0.02	0.003	0.01	0
Geomean								54	47						
Site 48	Fisher Creek														
n	514	510	511	511	515	485	477	509	77	125	125	124	125	125	125
Mean	9.1	11.17	96.2	164	0.1	7.50	3.0	198	123	0.629	0.08	0.61	0.205	0.2	5
Std. Dev.	3.5	1.33	5.2	63	0.1	0.32	4.5	776	308	0.500	0.04	0.28	0.187	0.18	11
Minimum	0.3	7.53	62.4	61	0.0	6.56	0.0	1	1	0.005	0.01	0.25	0.005	0.05	2
Maximum	15.8	16.77	114.7	272	1.1	8.18	40.7	16000	2000	2.250	0.17	1.38	0.630	0.81	98
Range	15.5	9.24	52.3	211	1.1	1.62	40.7	15999	1999	2.245	0.16	1.13	0.625	0.76	96
Std. Error	0.2	0.06	0.2	3	0.0	0.01	0.2	34	35	0.045	0.00	0.02	0.017	0.02	1
Geomean								72	38						

Temp = Water Temperature, DO = Dissolved Oxygen, NO₃⁻ + NO₂⁻ = Nitrate + Nitrite, NH₃ = Ammonia, TKN = Total Kjeldahl Nitrogen, OP = Orthophosphate, TP = Total Phosphate, TSS = Total Suspended Solids

	<i>Temp</i> (°C)	<i>DO</i> (mg/L)	<i>DO Percent</i> (%)	<i>Cond.</i> (µS/cm)	<i>Salinity</i> (psu)	<i>pH</i>	<i>Turbidity</i> (NTU)	<i>Fecal Coliform</i> (MPN / 100 mL)	<i>E. coli</i> (MPN / 100 mL)	<i>NO₃⁻ + NO₂⁻</i> (mg/L)	<i>NH₃</i> (mg/L)	<i>TKN</i> (mg/L)	<i>OP</i> (mg/L)	<i>TP</i> (mg/L)	<i>TSS</i> (mg/L)
Site 41	Maddox Creek/Big Ditch														
<i>n</i>	515	510	511	511	515	484	477	513	77	125	125	125	124	125	125
<i>Mean</i>	11.9	6.20	57.7	508	0.2	7.18	18.4	174	152	1.030	0.37	1.18	0.087	0.18	11
<i>Std. Dev.</i>	5.1	2.15	21.8	469	0.3	0.36	27.2	563	269	1.054	0.37	0.74	0.075	0.13	16
<i>Minimum</i>	0.4	0.05	0.6	34	0.0	6.20	1.9	1	7	0.005	0.01	0.25	0.005	0.05	2
<i>Maximum</i>	23.7	12.32	122.3	8358	4.7	8.80	268.0	9200	1600	3.460	1.52	3.03	0.340	0.72	110
<i>Range</i>	23.3	12.27	121.7	8324	4.7	2.60	266.1	9199	1593	3.455	1.51	2.78	0.335	0.67	108
<i>Std. Error</i>	0.2	0.10	1.0	21	0.0	0.02	1.2	25	31	0.094	0.03	0.07	0.007	0.01	1
<i>Geomean</i>								61	58						
Site 44	Sullivan Slough														
<i>n</i>	511	504	507	508	511	482	474	507	77	124	125	125	124	125	124
<i>Mean</i>	11.4	6.66	64.7	9881	5.9	7.20	34.3	221	92	0.665	0.66	1.44	0.130	0.27	27
<i>Std. Dev.</i>	4.3	2.72	30.5	9248	5.9	0.46	84.6	352	110	1.030	0.58	0.75	0.317	0.48	36
<i>Minimum</i>	0.5	0.09	0.8	201	0.1	5.80	1.5	1	2	0.005	0.01	0.25	0.005	0.05	4
<i>Maximum</i>	21.7	19.82	237.9	40199	26.5	9.08	1345.0	2400	540	7.210	3.10	4.5	3.500	5.00	280
<i>Range</i>	21.2	19.73	237.1	39998	26.4	3.28	1343.5	2399	538	7.205	3.09	4.25	3.495	4.95	276
<i>Std. Error</i>	0.2	0.12	1.4	410	0.3	0.02	3.9	16	12	0.093	0.05	0.07	0.028	0.04	3
<i>Geomean</i>								81	47						

Temp = Water Temperature, DO = Dissolved Oxygen, NO₃⁻ + NO₂⁻ = Nitrate + Nitrite, NH₃ = Ammonia, TKN = Total Kjeldahl Nitrogen, OP = Orthophosphate, TP = Total Phosphate, TSS = Total Suspended Solids

Skagit River

	<i>Temp</i> (°C)	<i>DO</i> (mg/L)	<i>DO Percent</i> (%)	<i>Cond.</i> (µS/cm)	<i>Salinity</i> (psu)	<i>pH</i>	<i>Turbidity</i> (NTU)	<i>Fecal Coliform</i> (MPN / 100 mL)	<i>E. coli</i> (MPN / 100 mL)	<i>NO₃⁻ + NO₂⁻</i> (mg/L)	<i>NH₃</i> (mg/L)	<i>TKN</i> (mg/L)	<i>OP</i> (mg/L)	<i>TP</i> (mg/L)	<i>TSS</i> (mg/L)
Site 30	Skagit River near Hamilton														
<i>n</i>	513	510	511	511	513	490	471	505	75	124	124	124	124	124	124
<i>Mean</i>	8.6	11.24	95.7	58	0.0	7.16	8.5	11	9	0.084	0.01	0.28	0.014	0.06	21
<i>Std. Dev.</i>	3.4	1.13	6.7	15	0.0	0.40	20.8	31	13	0.070	0.01	0.12	0.020	0.06	56
<i>Minimum</i>	0.0	7.03	6.2	3	0.0	5.94	0.0	1	1	0.005	0.01	0.25	0.005	0.05	2
<i>Maximum</i>	16.3	14.24	118.0	140	0.1	8.49	238.0	540	79	0.650	0.07	1.34	0.170	0.49	501
<i>Range</i>	16.3	7.21	111.8	137	0.1	2.55	238.0	539	78	0.645	0.06	1.09	0.165	0.44	499
<i>Std. Error</i>	0.2	0.05	0.3	1	0.0	0.02	1.0	1	2	0.006	0.00	0.01	0.002	0.01	5
<i>Geomean</i>								4	5						
Site 29	Skagit River near Mount Vernon														
<i>n</i>	512	506	507	508	512	482	473	506	76	123	123	123	123	122	123
<i>Mean</i>	9.1	11.19	96.2	55	0.0	7.25	11.1	41	72	0.081	0.04	0.31	0.012	0.06	22
<i>Std. Dev.</i>	3.8	1.11	5.1	12	0.0	0.53	34.9	142	214	0.049	0.24	0.24	0.014	0.05	56
<i>Minimum</i>	0.2	7.51	73.1	29	0.0	5.81	0.8	1	1	0.005	0.01	0.25	0.005	0.05	2
<i>Maximum</i>	17.6	14.59	111.3	114	0.1	8.84	608.0	1600	1600	0.200	2.65	2.10	0.100	0.40	383
<i>Range</i>	17.4	7.08	38.2	85	0.1	3.03	607.2	1599	1599	0.195	2.64	1.85	0.095	0.35	381
<i>Std. Error</i>	0.2	0.05	0.2	1	0.0	0.02	1.6	6	25	0.004	0.02	0.02	0.001	0.00	5
<i>Geomean</i>								10	12						
Site 45	North Fork Skagit River														
<i>n</i>	498	490	490	492	494	467	463	493	76	121	121	121	121	121	121
<i>Mean</i>	9.3	11.28	97.4	56	0.0	7.66	10.1	14	10	0.080	0.02	0.29	0.063	0.01	18
<i>Std. Dev.</i>	4.0	1.18	4.8	11	0.0	0.42	31.2	27	12	0.049	0.02	0.16	0.062	0.02	46
<i>Minimum</i>	1.4	7.35	76.0	31	0.0	6.48	0.6	1	1	0.005	0.01	0.25	0.050	0.00	2
<i>Maximum</i>	18.1	14.61	120.1	113	0.1	9.10	576.0	350	79	0.190	0.10	1.34	0.600	0.16	452
<i>Range</i>	16.7	7.26	44.1	83	0.1	2.62	575.5	349	78	0.185	0.09	1.09	0.550	0.16	450
<i>Std. Error</i>	0.2	0.05	0.2	0	0.0	0.02	1.4	1	1	0.004	0.00	0.01	0.006	0.00	4
<i>Geomean</i>								7	6						

Temp = Water Temperature, DO = Dissolved Oxygen, NO₃⁻ + NO₂⁻ = Nitrate + Nitrite, NH₃ = Ammonia, TKN = Total Kjeldahl Nitrogen, OP = Orthophosphate, TP = Total Phosphate, TSS = Total Suspended Solids

	<i>Temp</i> (°C)	<i>DO</i> (mg/L)	<i>DO Percent</i> (%)	<i>Cond.</i> (µS/cm)	<i>Salinity</i> (psu)	<i>pH</i>	<i>Turbidity</i> (NTU)	<i>Fecal Coliform</i> (MPN / 100 mL)	<i>E. coli</i> (MPN / 100 mL)	<i>NO₃⁻ + NO₂⁻</i> (mg/L)	<i>NH₃</i> (mg/L)	<i>TKN</i> (mg/L)	<i>OP</i> (mg/L)	<i>TP</i> (mg/L)	<i>TSS</i> (mg/L)
Site 46	South Fork Skagit River														
<i>n</i>	504	500	501	501	503	473	470	504	76	122	122	122	122	122	122
<i>Mean</i>	9.5	11.28	97.8	55	0.0	7.58	8.3	23	28	0.086	0.02	0.28	0.012	0.06	15
<i>Std. Dev.</i>	4.0	1.10	4.2	11	0.3	0.39	11.2	55	86	0.063	0.02	0.16	0.011	0.02	27
<i>Minimum</i>	1.4	8.40	83.9	30	0.0	6.38	0.9	1	1	0.005	0.01	0.25	0.005	0.05	2
<i>Maximum</i>	18.3	13.73	112.3	112	6.9	8.91	109.0	540	540	0.510	0.10	1.66	0.050	0.23	231
<i>Range</i>	16.9	5.33	28.4	83	6.9	2.53	108.1	539	539	0.505	0.09	1.41	0.045	0.18	229
<i>Std. Error</i>	0.2	0.05	0.2	0	0.0	0.02	0.5	2	10	0.006	0.00	0.01	0.001	0.00	2
<i>Geomean</i>								10	9						

Temp = Water Temperature, DO = Dissolved Oxygen, NO₃⁻ + NO₂⁻ = Nitrate + Nitrite, NH₃ = Ammonia, TKN = Total Kjeldahl Nitrogen, OP = Orthophosphate, TP = Total Phosphate, TSS = Total Suspended Solids