

## Appendix D – Water Quality Standard Results

**Table 1.** 7DADMax Temperatures in water year 2023. Cells shaded green pass the state standard.

Watershed	Site	Waterbody	7DADMax (°C)
Samish Bay	11	Upper Samish River	14.65
	8	Swede Creek	18.26
	6	Friday Creek	22.68
	4	Upper Thomas Creek	17.40
	3	Lower Thomas Creek	-- <sup>1</sup>
	32	Lower Samish River	-- <sup>2</sup>
	39	Colony Creek	17.50
Middle Skagit	24	Mannser Creek	-- <sup>1</sup>
	22	Upper Coal Creek	18.52
	21	Lower Coal Creek	16.97
	20	Upper Hansen Creek	18.42
	19	Lower Hansen Creek	17.79
Nookachamps	18	Lake Creek	19.61
	17	Upper Nookachamps Creek	24.35
	15	Middle Nookachamps Creek	22.26
	16	Upper East Fork Nookachamps Creek	22.53
	13	Lower East Fork Nookachamps Creek	19.26
	12	Lower Nookachamps Creek	23.83
Lower Skagit	42	Lower Carpenter Creek	25.96
	48	Fisher Creek	15.76
	41	Maddox Creek/Big Ditch	27.79
Skagit River	30	Skagit River near Hamilton	18.50
	45	North Fork Skagit River	18.76

<sup>1</sup> Incomplete dataset as the logger was out of the water for some of the summer.

<sup>2</sup> Logger was not retrieved due to high water.

**Table 2.** Minimum and mean dissolved oxygen (DO) concentrations in water year 2023. Cells shaded green pass the state standard.

Watershed	Site	Watercourse	Min. DO (mg/L)	Min. DO (% sat.)	Mean DO (mg/L)	Mean DO (% sat.)
Samish Bay	11	Upper Samish River	6.29	58.7	8.07	69.2
	8	Swede Creek	7.90	79.6	10.68	91.4
	6	Friday Creek	7.92	10.1	11.32	96.0
	4	Upper Thomas Creek	9.01	84.5	11.21	96.0
	3	Lower Thomas Creek	0.08	0.9	6.01	50.7
	32	Lower Samish River	8.48	78.8	11.17	98.6
	39	Colony Creek	7.23	10.6	10.63	90.2
	37	North Edison Drainage	0.61	40.2	6.82	66.2
	38	South Edison Drainage	0.09	7.6	5.82	60.0
	36	Edison Slough	3.66	1.1	7.85	60.0
	33	Alice Bay Drainage	0.83	68.2	7.94	87.4
Middle Skagit	25	Red Cabin Creek	10.68	93.6	12.34	101.7
	24	Mannser Creek	4.61	39.4	6.62	57.9
	23	Wiseman Creek	10.07	92.4	12.16	101.4
	22	Upper Coal Creek	9.69	74.3	12.10	102.5
	21	Lower Coal Creek	7.66	91.2	11.47	94.2
	20	Upper Hansen Creek	9.08	89.8	11.26	96.2
	19	Lower Hansen Creek	5.83	57.3	9.87	83.2
Padilla Bay	49	Upper Joe Leary Slough	0.73	7.5	4.15	37.6
	50	Lower Joe Leary Slough	3.29	32.1	5.80	55.1
	34	No Name Slough	0.68	8.4	6.06	59.3
	52	Little Indian Slough	1.91	1.1	6.79	60.0
	40	Big Indian Slough	0.11	14.0	3.44	29.8
	47	Swinomish Channel*	6.82	70.1	8.75	90.2
Nookachamps	18	Lake Creek	8.55	83.9	11.32	97.5
	17	Upper Nookachamps Creek	6.26	69.6	9.76	88.4
	15	Middle Nookachamps Creek	8.19	8.1	7.46	63.6
	16	Upper East Fork Nookachamps Creek	0.81	82.2	11.61	99.4
	13	Lower East Fork Nookachamps Creek	2.01	22.5	7.35	62.5
	12	Lower Nookachamps Creek	2.67	26.9	8.18	70.2
Lower Skagit	51	Upper Carpenter Creek	1.53	15.1	8.80	73.2
	42	Lower Carpenter Creek	5.02	53.6	8.49	74.6
	48	Fisher Creek	9.68	88.7	11.50	96.8
	43	Wiley Slough	1.61	15.0	5.89	56.6
	41	Maddox Creek/Big Ditch	3.27	22.2	6.71	63.2
	44	Sullivan Slough	0.99	10.1	5.04	47.6
Skagit River	30	Skagit River near Hamilton	7.03	6.2	10.40	86.2
	29	Skagit River near Mount Vernon	8.98	86.5	11.53	98.1
	45	North Fork Skagit River	9.18	90.0	11.27	96.8
	46	South Fork Skagit River	8.71	86.2	11.15	95.9

\*The marine site is ranked as "Excellent" based on these results.

**Table 3.** *E. coli* results for water year 2023. Cells shaded dark green pass the state standard a geomean less 100 MPN/100 mL and less than 10% of the results are greater than 320 MPN/100 mL. The light green shading meets one of the two requirements.

Watershed	Site	Watercourse	n	Geometric Mean (MPN/100 mL)	Percentage > 320 MPN/100 mL
Samish Bay	11	Upper Samish River	26	16	4
	8	Swede Creek	25	34	8
	6	Friday Creek	26	28	4
	4	Upper Thomas Creek	26	129	23
	3	Lower Thomas Creek	26	30	8
	32	Lower Samish River	26	36	4
	39	Colony Creek	26	24	19
	37	North Edison Drainage	26	102	23
	38	South Edison Drainage	26	196	46
	36	Edison Slough	26	84	27
	33	Alice Bay Drainage	26	33	27
Middle Skagit	25	Red Cabin Creek	18	11	4
	24	Mannser Creek	26	11	8
	23	Wiseman Creek	21	17	13
	22	Upper Coal Creek	25	54	0
	21	Lower Coal Creek	19	10	32
	20	Upper Hansen Creek	26	42	0
	19	Lower Hansen Creek	19	35	4
Padilla Bay	49	Upper Joe Leary Slough	26	61	6
	50	Lower Joe Leary Slough	26	64	0
	34	No Name Slough	24	22	14
	52	Little Indian Slough	25	61	11
	40	Big Indian Slough	25	109	8
	47	Swinomish Channel*	25	5	8
Nookachamps	18	Lake Creek	25	20	0
	17	Upper Nookachamps Creek	25	16	4
	15	Middle Nookachamps Creek	25	32	0
	16	Upper East Fork Nookachamps Creek	25	22	8
	13	Lower East Fork Nookachamps Creek	25	49	20
	12	Lower Nookachamps Creek	25	52	8
Lower Skagit	51	Upper Carpenter Creek	25	54	8
	42	Lower Carpenter Creek	25	33	0
	48	Fisher Creek	25	38	8
	43	Wiley Slough	25	50	8
	41	Maddox Creek/Big Ditch	25	78	12
	44	Sullivan Slough	25	40	12
Skagit River	30	Skagit River near Hamilton	26	6	0
	29	Skagit River near Mount Vernon	25	18	8
	45	North Fork Skagit River	25	7	0
	46	South Fork Skagit River	25	15	8

\*Marine sites do not have an *E. coli* water quality standard.

**Table 4.** Fecal coliform results for water year 2023. Cells shaded dark green pass the former state standard of a geomean less 100 MPN and less than 10% of the results are greater than 200 MPN. The light green shading meets one of the two requirements.

Watershed	Site	Watercourse	n	Geometric Mean (MPN/100 mL)	Percentage > 200 MPN/100 mL
Samish Bay	11	Upper Samish River	26	21	8
	8	Swede Creek	25	43	12
	6	Friday Creek	26	40	12
	4	Upper Thomas Creek	26	168	42
	3	Lower Thomas Creek	26	51	19
	32	Lower Samish River	26	60	4
	39	Colony Creek	26	53	31
	37	North Edison Drainage	26	191	46
	38	South Edison Drainage	26	302	62
	36	Edison Slough	26	143	46
	33	Alice Bay Drainage	26	74	50
Middle Skagit	25	Red Cabin Creek	18	11	6
	24	Mannser Creek	26	16	4
	23	Wiseman Creek	21	24	19
	22	Upper Coal Creek	25	72	32
	21	Lower Coal Creek	19	12	20
	20	Upper Hansen Creek	26	60	19
	19	Lower Hansen Creek	19	47	11
Padilla Bay	49	Upper Joe Leary Slough	26	128	35
	50	Lower Joe Leary Slough	26	141	38
	34	No Name Slough	24	44	17
	52	Little Indian Slough	25	131	28
	40	Big Indian Slough	25	196	48
	47	Swinomish Channel*	25	6	8
Nookachamps	18	Lake Creek	25	31	20
	17	Upper Nookachamps Creek	25	25	4
	15	Middle Nookachamps Creek	25	47	12
	16	Upper East Fork Nookachamps Creek	25	34	20
	13	Lower East Fork Nookachamps Creek	25	77	16
	12	Lower Nookachamps Creek	25	81	28
Lower Skagit	51	Upper Carpenter Creek	25	91	16
	42	Lower Carpenter Creek	25	56	16
	48	Fisher Creek	25	60	20
	43	Wiley Slough	25	75	8
	41	Maddox Creek/Big Ditch	25	130	32
	44	Sullivan Slough	25	95	40
Skagit River	30	Skagit River near Hamilton	26	7	0
	29	Skagit River near Mount Vernon	25	22	12
	45	North Fork Skagit River	25	8	0
	46	South Fork Skagit River	25	22	12

\* For marine sites, the former fecal coliform standard requires a geomean less than 14 MPN/100mL, with no more than 10% of the results greater than 43 MPN/100mL.