

Table 17
Sumas River Watershed Surface Water Quality - Winter Sampling 1994

	Site 7: Sumas River @ Vye Road								
Parameter	Feb 10	Feb 22 *	March 3 *	March 10	March 24	Average	Std. Dev	Minimum	Maximum
Temperature (field) (C)	3.9	4.0	9.8	8.0	7.5	6.6	2.3	3.9	9.8
Dissolved Oxygen (mg/L)	12.0	11.2	7.8	9.1	10.2	10.1	1.5	7.8	12
% Saturation Dissolved Oxygen	91%	85%	69%	77%	85%	81%	8%	69%	91%
pH (field)	no data	7.3	6.1	7.3	7.1	6.9	0.5	6.1	7.3
pH (lab)	7.5	7.1	7.3	7.2	7.4	7.3	0.1	7.1	7.5
Conductivity (field) (umhos/cm)	no data	150	no data	220	200	190	29	150	220
Conductivity (lab) (umhos/cm)	320	200	220	310	260	262	47	200	320
Total Dissolved Solids (mg/L)	200	180	140	190	190	180	21	140	200
Total Suspended Solids (mg/L)	18	130	130	25	28	66	52	18	130
Turbidity (NTU)	13.0	65.0	86.0	15.0	17.0	39.2	30.4	13.0	86.0
Alkalinity to pH 4.5 (mg (CaCO3/L)	120	95	82	120	110	105	15	82	120
Hardness - CALC (mg/L)	110	76	96	110	130	104	18	76	130
Total Organic Carbon (mg/L)	2.76	6.80	7.60	5.05	4.10	5.26	1.76	2.76	7.60
Faecal Coliform (MPN/100 ml)	23	70	500	220	500	155	204	23	500
Free Ammonia (mg NH3-N/L)	0.160	0.119	0.190	0.487	0.153	0.222	0.135	0.119	0.487
Nitrate+Nitrite ((NO3-N+NO2-N)mg/L))	2.980	4.970	4.640	3.360	3.330	3.856	0.793	2.980	4.970
Total Kjeldahl Nitrogen (mg/L)	0.49	0.73	1.14	0.82	0.41	0.72	0.26	0.41	1.14
Total Nitrogen (mg/L)	3.47	5.70	5.78	4.18	3.74	4.57	0.98	3.47	5.78
Organic Nitrogen (mg/L)	0.33	0.61	0.95	0.33	0.26	0.50	0.26	0.26	0.95
Ortho Phosphate (mg P/L)	0.031	0.052	0.137	0.103	0.032	0.071	0.042	0.031	0.137
Total Dissolved Phosphate (mg P/L)	0.064	0.058	0.142	0.106	0.035	0.081	0.038	0.035	0.142
Total Phosphorus (mg P/L)	0.091	0.168	0.308	0.132	0.096	0.159	0.080	0.091	0.308
Chloride (mg/L)		17.0	10.0			13.5	3.5	10.0	17.0
Oil & Grease (mg/L)		< 1.0	< 1.0			< 1.0		< 1.0	< 1.0

* Samples also collected for Total Metals Analysis

Note: Average Faecal Coliforms & pH = geometric mean (GM)