

Attachment 8F2

Water Quality Predictions for Christine Lake

DRAFT



Tables

Table 8F2-1	Water Quality Predictions for Christine Lake, Assuming Free Lynx Overspill 1
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Units of Measure

Unit	Definition
mg/L	milligrams per litre
mg N/L	milligrams nitrogen per litre
mg P/L	milligrams phosphorus per litre

Table 8F2-1 Water Quality Predictions for Christine Lake, Assuming Free Lynx Overspill

Month	Ammonia (mg N/L)	Nitrate (mg N/L)	Phosphorus (mg P/L)	Chloride (mg/L)	Sulphate (mg/L)	Aluminium (mg/L)	Arsenic (mg/L)	Copper (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Strontium (mg/L)	Uranium (mg/L)	Lead (mg/L)
January 2014	0.0064	0.00025	0.0053	1.0	1.2	0.0065	0.00039	0.00055	0.000091	0.00063	0.48	0.019	0.000018	0.000005
February 2014	0.0054	0.00025	0.005	1.0	1.2	0.0065	0.00039	0.00055	0.000091	0.00063	0.48	0.019	0.000018	0.000005
March 2014	0.0046	0.00025	0.0047	1.0	1.2	0.0065	0.00039	0.00055	0.000091	0.00063	0.48	0.019	0.000018	0.000005
April 2014	0.0039	0.00025	0.0044	1.0	1.2	0.0065	0.00039	0.00055	0.000091	0.00063	0.48	0.019	0.000018	0.000005
May 2014	0.0034	0.00034	0.0042	0.98	1.2	0.0076	0.00038	0.00055	0.00009	0.00063	0.48	0.019	0.000019	0.0000057
June 2014	0.0038	0.0013	0.0044	0.85	1.9	0.015	0.00035	0.00056	0.00014	0.00066	0.58	0.017	0.000033	0.00001
July 2014	0.004	0.016	0.0046	0.89	5.2	0.022	0.00035	0.00058	0.00061	0.00085	1.0	0.02	0.00011	0.000015
August 2014	0.0037	0.092	0.0045	1.1	12	0.023	0.00044	0.00059	0.0023	0.0015	1.8	0.033	0.00036	0.000017
September 2014	0.0033	0.12	0.0044	1.1	13	0.024	0.00047	0.00059	0.0029	0.0017	2.1	0.037	0.00044	0.000018
October 2014	0.0029	0.13	0.0042	1.1	14	0.025	0.00047	0.00059	0.0031	0.0018	2.1	0.038	0.00048	0.000019
November 2014	0.0025	0.13	0.0039	1.1	14	0.025	0.00048	0.00059	0.0031	0.0018	2.2	0.038	0.00049	0.000019
December 2014	0.0021	0.13	0.0037	1.1	14	0.025	0.00048	0.00059	0.0031	0.0018	2.2	0.038	0.00049	0.000019
January 2015	0.0018	0.13	0.0035	1.1	14	0.025	0.00048	0.00059	0.0031	0.0018	2.2	0.038	0.00049	0.000019
February 2015	0.0015	0.13	0.0033	1.1	14	0.025	0.00048	0.00059	0.0031	0.0018	2.2	0.038	0.00049	0.000019
March 2015	0.0013	0.13	0.0031	1.1	14	0.025	0.00048	0.00059	0.0031	0.0018	2.2	0.038	0.00049	0.000019
April 2015	0.0011	0.13	0.0029	1.1	14	0.025	0.00048	0.00059	0.0031	0.0018	2.2	0.038	0.00049	0.000019
May 2015	0.0011	0.15	0.0028	1.1	15	0.025	0.00049	0.0006	0.0034	0.0019	2.2	0.04	0.00052	0.000019
June 2015	0.005	0.25	0.0033	1.1	19	0.028	0.00055	0.00061	0.0051	0.0026	2.8	0.05	0.00085	0.000022
July 2015	0.027	0.52	0.0039	1.3	28	0.03	0.00069	0.00064	0.0087	0.0039	3.9	0.071	0.0019	0.000025
August 2015	0.044	0.72	0.004	1.4	33	0.031	0.00078	0.00067	0.011	0.0048	4.5	0.083	0.0028	0.000026
September 2015	0.042	0.76	0.004	1.4	33	0.031	0.00079	0.00067	0.011	0.0049	4.5	0.084	0.003	0.000027
October 2015	0.038	0.78	0.0038	1.3	33	0.031	0.00078	0.00068	0.011	0.0049	4.5	0.084	0.0031	0.000027
November 2015	0.033	0.78	0.0036	1.3	33	0.032	0.00079	0.00068	0.011	0.005	4.5	0.084	0.0031	0.000027
December 2015	0.028	0.78	0.0034	1.3	33	0.032	0.00079	0.00068	0.011	0.005	4.5	0.084	0.0031	0.000027
January 2016	0.023	0.78	0.0032	1.3	33	0.032	0.00079	0.00068	0.011	0.005	4.5	0.084	0.0031	0.000027
February 2016	0.02	0.78	0.003	1.3	33	0.032	0.00079	0.00068	0.011	0.005	4.5	0.084	0.0031	0.000027
March 2016	0.017	0.78	0.0028	1.3	33	0.032	0.00079	0.00068	0.011	0.005	4.5	0.084	0.0031	0.000027
April 2016	0.014	0.78	0.0026	1.3	33	0.032	0.00079	0.00068	0.011	0.005	4.5	0.084	0.0031	0.000027
May 2016	0.013	0.8	0.0026	1.3	33	0.032	0.00079	0.00068	0.011	0.005	4.5	0.085	0.0032	0.000027
June 2016	0.024	0.94	0.0033	1.3	33	0.033	0.00078	0.0007	0.012	0.0053	4.4	0.085	0.0039	0.000028
July 2016	0.051	1.1	0.004	1.3	32	0.034	0.00076	0.00073	0.012	0.0054	4.3	0.083	0.0047	0.000029
August 2016	0.058	1.2	0.0041	1.3	31	0.035	0.00074	0.00074	0.012	0.0054	4.2	0.081	0.0049	0.000029
September 2016	0.061	1.3	0.0041	1.3	31	0.035	0.00074	0.00075	0.013	0.0055	4.2	0.082	0.0052	0.000029
October 2016	0.057	1.3	0.004	1.3	32	0.035	0.00074	0.00076	0.013	0.0056	4.2	0.083	0.0054	0.00003
November 2016	0.05	1.3	0.0037	1.3	32	0.035	0.00075	0.00076	0.013	0.0056	4.3	0.083	0.0054	0.00003
December 2016	0.042	1.3	0.0035	1.3	32	0.035	0.00075	0.00076	0.013	0.0056	4.3	0.083	0.0054	0.00003
January 2017	0.036	1.3	0.0033	1.3	32	0.035	0.00075	0.00076	0.013	0.0056	4.3	0.083	0.0054	0.00003
February 2017	0.03	1.3	0.0031	1.3	32	0.035	0.00075	0.00076	0.013	0.0056	4.3	0.083	0.0054	0.00003
March 2017	0.026	1.3	0.0029	1.3	32	0.035	0.00075	0.00076	0.013	0.0056	4.3	0.083	0.0054	0.00003

Table 8F2-1 Water Quality Predictions for Christine Lake, Assuming Free Lynx Overspill

Month	Ammonia (mg N/L)	Nitrate (mg N/L)	Phosphorus (mg P/L)	Chloride (mg/L)	Sulphate (mg/L)	Aluminium (mg/L)	Arsenic (mg/L)	Copper (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Strontium (mg/L)	Uranium (mg/L)	Lead (mg/L)
April 2017	0.022	1.3	0.0027	1.3	32	0.035	0.00075	0.00076	0.013	0.0056	4.3	0.083	0.0054	0.00003
May 2017	0.02	1.3	0.0027	1.3	32	0.035	0.00075	0.00076	0.013	0.0057	4.3	0.083	0.0055	0.00003
June 2017	0.038	1.6	0.0035	1.4	32	0.036	0.00075	0.0008	0.014	0.006	4.3	0.086	0.0065	0.00003
July 2017	0.065	1.9	0.0042	1.4	32	0.036	0.00074	0.00083	0.015	0.0062	4.3	0.086	0.0073	0.000031
August 2017	0.07	1.9	0.0043	1.5	32	0.036	0.00072	0.00083	0.015	0.0062	4.3	0.085	0.0074	0.000031
September 2017	0.071	2.0	0.0043	1.5	32	0.036	0.00073	0.00085	0.016	0.0063	4.4	0.087	0.0078	0.000031
October 2017	0.066	2.1	0.0041	1.5	33	0.036	0.00073	0.00085	0.016	0.0064	4.4	0.088	0.0079	0.000031
November 2017	0.058	2.1	0.0039	1.5	33	0.036	0.00074	0.00085	0.016	0.0064	4.4	0.088	0.008	0.000031
December 2017	0.049	2.1	0.0037	1.5	33	0.036	0.00074	0.00085	0.016	0.0064	4.4	0.088	0.008	0.000031
January 2018	0.041	2.1	0.0034	1.5	33	0.036	0.00074	0.00085	0.016	0.0064	4.4	0.088	0.008	0.000031
February 2018	0.035	2.1	0.0032	1.5	33	0.036	0.00074	0.00085	0.016	0.0064	4.4	0.088	0.008	0.000031
March 2018	0.03	2.1	0.0031	1.5	33	0.036	0.00074	0.00085	0.016	0.0064	4.4	0.088	0.008	0.000031
April 2018	0.025	2.1	0.0029	1.5	33	0.036	0.00074	0.00085	0.016	0.0064	4.4	0.088	0.008	0.000031
May 2018	0.022	2.1	0.0028	1.5	33	0.036	0.00073	0.00085	0.016	0.0064	4.4	0.088	0.008	0.000031
June 2018	0.026	2.1	0.0034	1.5	31	0.037	0.0007	0.00085	0.016	0.0062	4.2	0.084	0.0079	0.000031
July 2018	0.027	2.0	0.004	1.4	28	0.037	0.00065	0.00084	0.014	0.0058	3.9	0.077	0.0075	0.00003
August 2018	0.024	1.9	0.0041	1.4	27	0.037	0.00062	0.00083	0.014	0.0055	3.7	0.073	0.0071	0.00003
September 2018	0.021	1.9	0.004	1.3	26	0.037	0.00062	0.00083	0.014	0.0055	3.7	0.072	0.0071	0.00003
October 2018	0.018	1.9	0.0038	1.3	26	0.037	0.00061	0.00083	0.014	0.0055	3.6	0.072	0.0071	0.00003
November 2018	0.015	1.9	0.0036	1.3	26	0.037	0.00061	0.00083	0.014	0.0055	3.7	0.072	0.0071	0.00003
December 2018	0.013	1.9	0.0034	1.3	26	0.037	0.00061	0.00083	0.014	0.0055	3.7	0.072	0.0071	0.00003

Source: Robb (2014).
mg/L = milligrams per litre; mg N/L = milligrams nitrogen per litre; mg P/L = milligrams phosphorus per litre.