NORTHLAND REGIONAL COUNCIL

Report for Field Sheet Number 20230888

Lake Manuwai at Surface intake

Report generated 07/12/23 02:08

Sample ID = 20234404	**Date Collected 19/09/2023**	**Time 12:45**		
Site 101985	**Lake Manuwai at Surface intake**			
Measurement	**Method**	**Value**	**Units**	
Ammoniacal Nitrogen	Ammonia by DA	0.005	g/m3-N	
Chlorophyll a	Chlorophyll by UVVIS	0.0066	g/m3	
Conductivity at 25 deg C (uS/cm)	SPC (field meter)	49.2	us/cm	
Dissolved Oxygen	ODO	9.73	mg/L	
Dissolved Oxygen Percent Saturation	ODO %	101.4	% Sat	
Dissolved Reactive Phosphorus	Dissolved Reactive Phosphorus by DA	0.002	g/m3-P	
Faecal Coliforms (presumptive)	Faecal coliforms by Membrane Filtration	1.6	CFU/100ml	
Iron Total	Iron (Total) by ICP-MS	0.36	g/m3	
Manganese Total	Manganese (Total) by ICP-MS	0.026	g/m3	
Nitrite/nitrate nitrogen	NO3NO2 by FA	0.0563	g/m3-N	
pH	pH (field meter)	6.52	pH	
Secchi Depth - with viewer	Secchi with viewer	3.6	m	
Temperature	Temperature - YSI	17.326	degC	
Total Kjeldahl Nitrogen	TKN by DA_TKN	0.46	g/m3	
Total Nitrogen	TN by Calculation	0.52	g/m3-N	
Total Phosphorus	TP by DA	0.004	g/m3-P	
Total Suspended Solids	Suspended Solids by Gravimetry	4.4	g/m3	

Sample ID = 20234405	**Date Collected 19/09/2023**	**Time 12:40**		
Site 101986	**Lake Manuwai at Bottom (13 m) intake**			
Measurement	**Method**	**Value**	**Units**	

Ammoniacal Nitrogen	Ammonia by DA	0.102	g/m3-N	
Conductivity at 25 deg C (uS/cm)	SPC (field meter)	50.1	us/cm	
Dissolved Oxygen	ODO	6.94	mg/L	
Dissolved Oxygen Percent Saturation	ODO %	65.7	% Sat	
Dissolved Reactive Phosphorus	Dissolved Reactive Phosphorus by DA	0.002	g/m3-P	
Iron Total	Iron (Total) by ICP-MS	0.48	g/m3	
Manganese Total	Manganese (Total) by ICP-MS	0.078	g/m3	
Nitrite/nitrate nitrogen	NO3NO2 by FA	0.063	g/m3-N	
pH	pH (field meter)	5.94	pH	
Temperature	Temperature - YSI	12.892	degC	
Total Kjeldahl Nitrogen	TKN by DA_TKN	0.473	g/m3	
Total Nitrogen	TN by Calculation	0.54	g/m3-N	
Total Phosphorus	TP by DA	0.005	g/m3-P	
Total Suspended Solids	Suspended Solids by Gravimetry	3	g/m3	

Sample ID = 20234406	**Date Collected 19/09/2023**	**Time 11:50**		
Site 327834	**Lake Manuwai Weir at Ironbark Road**			
Measurement	**Method**	**Value**	**Units**	
Ammoniacal Nitrogen	Ammonia by DA	0.011	g/m3-N	
Chlorophyll a	Chlorophyll by UVVIS	0.0014	g/m3	
Conductivity at 25 deg C (uS/cm)	SPC (field meter)	63.9	us/cm	
Dissolved Oxygen	ODO	8.95	mg/L	
Dissolved Oxygen Percent Saturation	ODO %	92.9	% Sat	
Dissolved Reactive Phosphorus	Dissolved Reactive Phosphorus by DA	0.004	g/m3-P	
Faecal Coliforms (presumptive)	Faecal coliforms by Membrane Filtration	230	CFU/100ml	
Iron Total	Iron (Total) by ICP-MS	0.62	g/m3	
Manganese Total	Manganese (Total) by ICP-MS	0.0087	g/m3	
Nitrite/nitrate nitrogen	NO3NO2 by FA	0.139	g/m3-N	
pH	pH (field meter)	6.19	pH	
Temperature	Temperature - YSI	17.141	degC	

Total Kjeldahl Nitrogen	TKN by DA_TKN	0.136	g/m3	
Total Nitrogen	TN by Calculation	0.27	g/m3-N	
Total Phosphorus	TP by DA	0.005	g/m3-P	
Total Suspended Solids	Suspended Solids by Gravimetry	1.2	g/m3	

Sample ID = 20234409	**Date Collected 19/09/2023**	**Time 11:30**		
Site 327836	**Lake Manuwai Weir at Onekura Road**			
Measurement	**Method**	**Value**	**Units**	
Ammoniacal Nitrogen	Ammonia by DA	0.015	g/m3-N	
Chlorophyll a	Chlorophyll by UVVIS	0.00096	g/m3	
Conductivity at 25 deg C (uS/cm)	SPC (field meter)	61.6	us/cm	
Dissolved Oxygen	ODO	9.14	mg/L	
Dissolved Oxygen Percent Saturation	ODO %	89.4	% Sat	
Dissolved Reactive Phosphorus	Dissolved Reactive Phosphorus by DA	0.004	g/m3-P	
Faecal Coliforms (presumptive)	Faecal coliforms by Membrane Filtration	34	CFU/100ml	
Iron Total	Iron (Total) by ICP-MS	0.35	g/m3	
Manganese Total	Manganese (Total) by ICP-MS	0.0098	g/m3	
Nitrite/nitrate nitrogen	NO3NO2 by FA	0.107	g/m3-N	
pH	pH (field meter)	6.06	pH	
Temperature	Temperature - YSI	14.346	degC	
Total Kjeldahl Nitrogen	TKN by DA_TKN	0.104	g/m3	
Total Nitrogen	TN by Calculation	0.21	g/m3-N	
Total Phosphorus	TP by DA	0.009	g/m3-P	
Total Suspended Solids	Suspended Solids by Gravimetry	2	g/m3	

Methods used: Standard Methods for the Examination of Water and Waste Water. APHA, AWWA, WEF, 1998 20th edition