

20 June 19

Sally Mckinnon
Senior Contaminated Land and Ground Water Scientist
Gisborne District Council
15 Fitzherbert Street,
PO Box 747
Gisborne 4010

By e-mail: Sally.McKinnon@gdc.govt.nz

Dear Sally,

Re: Matawhero Logyard Consent DW-2014-106195-00/WI-2014-106213-00: Annual Report for 2019

This report is submitted on behalf of Eastland Port Limited (Hereafter, Eastland Port).

Condition 8 of the resource consent states:

'The Consent Holder shall keep a record of all monitoring analyses and inspections results undertaken in accordance with the conditions of this consent and shall submit these records to the Council annually and also immediately upon written request. The Consent Holder shall immediately notify the consent authority in writing of any non-compliance with any condition of this Consent and shall keep a record of this and the action(s) taken to address the matter of non-compliance. These records shall be submitted to the Council annually and also immediately upon written request.'

The consent holder shall produce a report annually by the 30 of June each year for the previous calendar year to the satisfaction of the Environmental Services Manager. The report shall include:

- *Annual volume of cargo entering and leaving the facility*
- *A description of any modifications to the operation of the site.*
- *Non compliances with consent conditions and action taken*
- *Complaints and action*
- *Monitoring inspections and outcome*
- *Water quality monitoring results and an interpretive summary of results and any recommendations.'*

Eastland Port have continued to monitor the yard routinely as required by the consent. A summary of the information specified by the consent is provided below.

1 ANNUAL VOLUME OF CARGO ENTERING AND LEAVING THE FACILITY

Over the 2018/19 year (01 April 2018 – 31 March 2019) the volume of cargo that entered the facility was 84,894.00 JAS m³ and the volume of cargo that left the facility was 68,167.34 JAS m³.

2 DESCRIPTION OF MODIFICATIONS TO THE OPERATION OF THE SITE

There have been no modifications to the operation of the site over the 2018/19 year, excluding the consented development of cell 3.

3 NON-COMPLIANCES WITH CONSENT CONDITIONS AND ACTION TAKEN

A summary of non-compliance with consent conditions and actions taken over the 2018/19 year are presented in *Table 1* below.

Table 1: Non-compliance and actions taken over the 2018/19 year

Date	Non-compliance	Action taken
05/06/2018	Total nitrogen, soluble inorganic nitrogen, dissolved reactive phosphorus and dissolved copper all exceeded consent trigger limits at the downstream compliance point. However, the upstream (background) values were similar to the downstream compliance point values, albeit slightly lower	Re-testing for the failed test parameters was completed 06/08/2018.
06/09/2018	Total nitrogen, soluble inorganic nitrogen and dissolved reactive phosphorus exceeded the consent trigger limits at the down-current compliance point. However, the levels of all these parameters were much higher in the Awapuni Drain up-current than at the pond discharge.	Given background conditions, as well as the small-scale intermittent nature of the discharge, nutrient contribution from the discharge was deemed to be of minor ecological or water quality significance in the Awapuni Drain. As such, no further actions were justified. A meeting was held with the Gisborne District Council (GDC) on 25/09/2018 and it was agreed that a variation to consent conditions would be an appropriate course of action to resolve the re-testing requirements that would otherwise be imposed by a strict interpretation of the consent.

4 COMPLAINTS AND ACTION

No complaints were recorded over the 2018/19 year.

5 MONITORING INSPECTIONS AND OUTCOME

A summary of the monitoring inspections and outcomes over the 2018/19 year are presented in *Table 2* below.

Table 2: Monitoring inspections and outcomes over the 2018/19 year

Date	Inspection notes	Outcome
05/06/2018	Quarterly water quality monitoring	Complete water quality sampling completed
06/08/2018	Water quality re-testing	Re-testing of suite of surface water quality parameters completed
06/09/2018	Quarterly water quality monitoring	Complete water quality sampling completed

6 WATER QUALITY MONITORING RESULTS

A summary of the surface water monitoring results (*Table 3*) and groundwater results (*Table 4*) for the 2018/19 year are presented below. Sampling was not undertaken in Quarter 4 2018 or Quarter 1 2019 as there were no discharge events during these periods.

Table 3: summary of surface water monitoring results for the 2018/19 year. Consent trigger limit exceedances at site 2 and 3 are highlighted purple.

Parameter	Units	Consent trigger limits (10m below confluence)	Quarter 2 2018			Quarter 2 - Re-testing			Quarter 3 2018			
			05 June 2018			06 August 2018			06 September 2018			
			Stormwater retention ponds outlet (MLYSW Site 1)	Awapuni Drain 10m downstream (MLYSW Site 2)	Awapuni Drain 10m upstream (MLYSW Site 3)	Stormwater retention ponds outlet (MLYSW Site 1)	Awapuni Drain 10m downstream (MLYSW Site 2)	Awapuni Drain 10m upstream (MLYSW Site 3)	Stormwater retention ponds outlet (MLYSW Site 1)	Awapuni Drain 10m downstream (MLYSW Site 2)	Awapuni Drain 10m upstream (MLYSW Site 3)	Awapuni Drain 20 m downstream/up-current (MLYSW Site 4)
pH	-LOG(H ⁺)	6.5 – 8.5	7.6	7.5	7.5	7.22	7.54	7.75	7.1	7.4	7.8	7.9
Temperature	Celsius	Changed by more than 3°C	14.7	14.8	14.6	12.7	12.7	12.7	12	12.3	12.2	12.4
Total Suspended Solids	g/m ³	100 g/m ³ above background site	104	33	36	16	18	16	107	100	49	48
Volatile Suspended Solids	g/m ³	No limit	34	8	14	n/a	n/a	n/a	15	23	12	9
BOD ₅	g/m ³	20	12 ^{#1}	9	6 ^{#1}	n/a	n/a	n/a	<2	2.55	2.63	2.59

^{#1} During the original analysis of carbonaceous Biochemical Oxygen Demand (cBOD₅) the results obtained for the Quality Control standards were outside the analytical laboratories acceptance limits and so the analysis of cBOD₅ was repeated from the frozen sample.

Parameter	Units	Consent trigger limits (10m below confluence)	Quarter 2 2018			Quarter 2 - Re-testing			Quarter 3 2018			
			05 June 2018			06 August 2018			06 September 2018			
			Stormwater retention ponds outlet (MLYSW Site 1)	Awapuni Drain 10m downstream (MLYSW Site 2)	Awapuni Drain 10m upstream (MLYSW Site 3)	Stormwater retention ponds outlet (MLYSW Site 1)	Awapuni Drain 10m downstream (MLYSW Site 2)	Awapuni Drain 10m upstream (MLYSW Site 3)	Stormwater retention ponds outlet (MLYSW Site 1)	Awapuni Drain 10m downstream (MLYSW Site 2)	Awapuni Drain 10m upstream (MLYSW Site 3)	Awapuni Drain 20 m downstream/up-current (MLYSW Site 4)
Total Petroleum Hydrocarbons	g/m ³	15	< 0.7	< 0.7	< 0.7	n/a	n/a	n/a	< 0.7	< 0.7	< 0.7	< 0.7
Total Tannins	g/m ³	Indicator test only	6.1 ^{#2}	2.2	2.2	n/a	n/a	n/a	1.1 ^{#3}	1.7 ^{#3}	1.3 ^{#3}	1.2 ^{#3}
Total Nitrogen	g/m ³	0.4	0.83	3.7	3	0.41	2.05	1.86	0.72	1.49	2.8	2.8
Soluble Inorganic Nitrogen	g/m ³	0.4	< 0.011	1.75	1.54	0.077	0.64	0.67	0.13	0.96	1.95	1.75
Dissolved Reactive Phosphorus	g/m ³	0.1	0.062	0.31	0.29	0.009	0.2	0.31	0.013	0.086	0.32	0.32
Total Phenols	g/m ³	0.72	< 0.02	< 0.02	< 0.02	n/a	n/a	n/a	< 0.02	< 0.02	< 0.02	< 0.02

^{#2} Severe matrix interferences required that a dilution be performed prior to analysis of sample 1995220/1, resulting in a detection limit higher than that normally achieved for the tannin analysis.

^{#3} Severe matrix interferences required that a dilution be performed prior to analysis, resulting in a detection limit higher than that normally achieved for the Tannin analysis.

Parameter	Units	Consent trigger limits (10m below confluence)	Quarter 2 2018			Quarter 2 - Re-testing			Quarter 3 2018			
			05 June 2018			06 August 2018			06 September 2018			
			Stormwater retention ponds outlet (MLYSW Site 1)	Awapuni Drain 10m downstream (MLYSW Site 2)	Awapuni Drain 10m upstream (MLYSW Site 3)	Stormwater retention ponds outlet (MLYSW Site 1)	Awapuni Drain 10m downstream (MLYSW Site 2)	Awapuni Drain 10m upstream (MLYSW Site 3)	Stormwater retention ponds outlet (MLYSW Site 1)	Awapuni Drain 10m downstream (MLYSW Site 2)	Awapuni Drain 10m upstream (MLYSW Site 3)	Awapuni Drain 20 m downstream/up-current (MLYSW Site 4)
Dissolved Oxygen	g/m ³	Not less than 4	4.01	4.01	3.67	5.01	7.49	7.78	6.86	9.22	8.13	9.35
Conductivity	µmhos/cm	Indicator test only	247	2630	2700	573	5570	6130	501	2620	5040	5160
Total Resin Acids	g/m ³	0.06	n.d.	n.d.	n.d.	n/a	n/a	n/a	n.d.	n.d.	n.d.	n.d.
Light Absorbance	AU cm ⁻¹	Indicator test only	0.049	0.03	0.03	n/a	n/a	n/a	0.037	0.022	0.015	0.015
Visual Clarity	Black disc	Indicator test only	Not tested	150	120	n/a	n/a	n/a	-	50	30	50
Dissolved Copper	g/m ³	0.0025	0.0014	0.0026	0.0022	< 0.0005	0.0018	0.0015	0.001	0.0011	0.0016	0.0011
Dissolved Lead	g/m ³	0.0094	< 0.00010	< 0.00010	< 0.00010	n/a	n/a	n/a	< 0.00010	< 0.0003	< 0.0003	< 0.0003
Dissolved Zinc	g/m ³	0.031	< 0.0010	< 0.005	< 0.005	n/a	n/a	n/a	< 0.0010	< 0.005	< 0.005	< 0.005

Table 4: summary of groundwater monitoring results for the 2018/19 year

Parameter	Units	Consent trigger limits (at sump tile drainage outlet)	Limit from background samples at the sump tile drainage outlet	Quarter 2 2018			Quarter 3 2018		
				05 June 2018			06 September 2018		
				MLY GW 01	MLY GW 02	Sump Tile Drainage	MLY GW 01	MLY GW 02	Sump Tile Drainage
Groundwater level	m	No limit	No limit	1.47 below surface	1.35 below surface	n/a	-	-	n/a
pH	-LOG(H ⁺)	6.5 – 8.5	6.5 - 8.5	7.0	7.1	7.4	-	-	7.5
Conductivity	µmho/cm	0.3 above background	866.3	849	943	419	-	-	38.7
Total Petroleum Hydrocarbons	g/m ³	15	15	< 0.7	< 0.7	< 0.7	<0.7	<0.7	<0.7
Total Resin Acids	g/m ³	0.06 above background	n/a	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Total Nitrogen	g/m ³	0.6 above background	1.49	0.35	0.31	0.69	0.39	0.56	0.77

6.1 Summary of water quality results and recommendations

The results of the quarterly water quality monitoring completed of 05/06/2018 showed that total nitrogen, soluble inorganic nitrogen, dissolved reactive phosphorus and dissolved copper exceeded the consent trigger limits at the downstream compliance point. However, the upstream (background) values were similar to the downstream compliance point values, albeit slightly lower. All other parameters were within consent trigger limits. Re-testing for the failed test parameters was completed 06/08/2018, as requested by GDC.

The results of the quarterly water quality monitoring completed of 06/09/2018 showed that total nitrogen, soluble inorganic nitrogen and dissolved reactive phosphorus exceeded the consent trigger limits at the down-current compliance point. However, the levels of all these parameters were much higher in the Awapuni Drain up-current than at the pond discharge. Given background conditions, as well as the small-scale intermittent nature of the discharge, nutrient contribution from the discharge was deemed to be of minor ecological or water quality significance in the Awapuni Drain. As such, no further actions were justified. A meeting was held with GDC on 25/09/2018 and it was agreed that a variation to consent conditions would be an appropriate course of action to resolve the re-testing requirements that would otherwise be imposed by a strict interpretation of the consent. This has now been submitted and we are awaiting a response from Council.

On both the 05/06/2018 and 06/09/2018 sampling rounds all groundwater parameters were compliant with consent trigger limits.

Overall, this annual report confirms that the consent holder is managing the site responsibly and effectively.

Kind Regards,

A handwritten signature in black ink, appearing to read 'Oliver Bone', with a long horizontal flourish extending to the right.

Oliver Bone
Ecology Consultant
4Sight Consulting Ltd