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MLAK:MEVA

27 November 2020

Kaipara District Council
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Dear Sir/Madam

MONITORING REPORT FOR RESOURCE CONSENT – MANGAWHAI WASTEWATER TREATMENT PLANT

An officer of the Northland Regional Council inspected the above wastewater treatment plant on Thursday 29 October 2020 to assess compliance with resource consents AUT.014969.01.02 and AUT.014969.04.02.

The monitoring inspection (report **attached**) assessed the following:

- Disinfection;
- Land application system; and
- Data supply.

The results indicate a moderate non-compliance with the October 2020 monitoring inspection.

An invoice which covers council's travel, fieldwork and administration costs for the inspection will follow shortly.

Please do not hesitate to contact me if you have any queries regarding the monitoring report.

Yours sincerely



Melissa Lakin
Environmental Monitoring Officer
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A1382311

Condition 2	Compliant	Reason
The quantity of wastewater received at the treatment plant shall not exceed 5,500 cubic metres in any 24-hour period, as measured between 9.00 a.m. on one day and 9.00 a.m. on the following day. For compliance purposes, this condition shall be monitored in accordance with Schedule 1.	Full compliance	The annual report showed that wastewater received at the treatment plant was well within consent limits.
Condition 4	Compliant	Reason
Treated effluent quality shall be monitored in accordance with Schedule 2. The results from the analysis of samples collected in accordance with Schedule 2 shall be no greater than the performance requirements listed in Table 1 .	Moderate non-compliance	Self-monitoring is being undertaken in accordance with consent requirements. The annual report showed that the average TDS levels exceeded consent limits for the period of February – June 2020. The average TSS levels were slightly exceeded during the month of June.
Condition 7	Compliant	Reason
The outside edge of any spray irrigation arc shall not be within the following buffer areas: (a) All land within 20 metres of any water body, as defined by the Resource Management Act 1991; and (b) All land within 30 metres of the legal boundary of the properties listed in Table 2 and any other adjacent legal property except for Lot 3 DP 209183 (the “bush block”); and (c) All land within 50 metres of any dwelling. In addition to the above buffer areas, no treated effluent shall be spray irrigated to land that has a fall greater than 3 metres over any 10 metres measured horizontally.	Full compliance	No issues observed at the time of the inspection.
Condition 8	Compliant	Reason
The rate at which treated wastewater is irrigated to land shall not exceed an annual application rate of 5,000 cubic metres per hectare between 1 July and 30 June the following year.	Full compliance	The annual application rate was calculated to be 4,063.4 cum/ha.
Condition 9	Compliant	Reason
Notwithstanding Condition 8, the instantaneous irrigation rate shall not result in any overland flow of treated effluent beyond the irrigation area into any buffer area, as defined by Condition 7.	Full compliance	No ponding or run-off observed during the time of inspection.

Condition 10	Compliant	Reason
A grab sample(s) of the treated effluent from the storage dam shall be collected and analysed in accordance with Schedule 3 from a point adjacent to where it is drawn into the irrigation system.	Full compliance	E.coli concentration levels were well within trigger levels. Table 2 shows NRC sample results collected at the time of inspection.
Condition 13	Compliant	Reason
To enable the collection of treated effluent samples prior to it being irrigated to land, the Consent Holder shall provide and maintain easy and safe access to a sampling point either adjacent to where the treated effluent is taken from the dam for irrigation or at some other point prior to the treated effluent actually entering the spray irrigation system.	Full compliance	No issues with access to sampling points.
Condition 14	Compliant	Reason
For each day that the irrigation system is operating, the Consent Holder shall keep a written log of the volume of treated effluent discharged to land and the area, in hectares, over which it was irrigated. A copy of these records shall be reported in accordance with Schedule 4. These records shall be used to monitor compliance with Condition 8 of this consent.	Full compliance	Irrigated volume records are recorded and reported in accordance with consent requirements.
Condition 26	Compliant	Reason
The Consent Holder's operations shall not give rise to any discharge of contaminants, at or beyond the "Wastewater Treatment Plant Odour Boundary", which is deemed by a suitably trained and experienced Enforcement Officer of the Regional Council to be noxious, dangerous, offensive or objectionable to such an extent that it has, or is likely to have, an adverse effect on the environment.	Full compliance	No odour detected beyond the property boundary at the time of the inspection.
Condition 29	Compliant	Reason
The Consent Holder's operations shall not give rise to any discharge of contaminants, at or beyond the "Irrigation Area Odour Boundary", which is deemed by a suitably trained and experienced Enforcement Officer of the Regional Council to be noxious, dangerous, offensive or objectionable to such an extent that it has, or is likely to have, an adverse effect on the environment.	Full compliance	No odour was detected at the time of inspection.

Table 1: Treated Effluent Quality

Parameter	Units	Performance Requirements		
		Median ^a	Average ^b	90 th percentile ^c
Group A Parameters (weekly sampling)				
E. coli	MPN	10	-	100
Group B Parameters (15 day sampling)				
Total Dissolved Solids	mg / L	-	500	-
Total Nitrogen	mg / L	-	30	-
Phosphorous	mg / L	-	15	-
Total Suspended Solids	mg / L	-	10	-
Carbonaceous Biochemical Oxygen Demand	mg / L	-	10	-

“The Consent Holder shall notify the Regional Council within five days of receiving the results of the sample analysis if any performance requirement specified in Table 1 is exceeded.”

Table 2. NRC results from day of site inspection – 29 October 2020

	109894	109895
Determinands	Mangawhai community wastewater treated effluent at irrigation dam	Mangawhai community wastewater treated effluent at plant effluent
Chlorine (g/m3)	<0.5	
Escherichia coli (MPN/100ml)	180	<10
Total Coliforms (MPN/100ml)	>24000	<10