

No.	Applicants proposed Condition	Horizons Condition and Comment						
	<b>Discharge to land where may enter water</b>							
	<p><i>Definitions:</i></p> <p>In the following Conditions:</p> <table border="1" data-bbox="231 325 1264 556"> <tr> <td data-bbox="231 325 409 394">The activity</td> <td data-bbox="421 325 1264 394">Means the activity authorised by this Discharge Permit and described in Condition 2.</td> </tr> <tr> <td data-bbox="231 394 409 464">Ponds</td> <td data-bbox="421 394 1264 464">Means the ponds for wastewater treatment and storage at the AFFCO New Zealand Manawatu plant.</td> </tr> <tr> <td data-bbox="231 464 409 556">Wastewater</td> <td data-bbox="421 464 1264 556">Means the wastewater discharged to, treated in and discharged from the Permit Holder's Manawatu Processing plant's wastewater treatment and storage ponds.</td> </tr> </table>	The activity	Means the activity authorised by this Discharge Permit and described in Condition 2.	Ponds	Means the ponds for wastewater treatment and storage at the AFFCO New Zealand Manawatu plant.	Wastewater	Means the wastewater discharged to, treated in and discharged from the Permit Holder's Manawatu Processing plant's wastewater treatment and storage ponds.	
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1	<p><b>Consent Duration</b></p> <p>Discharge Permit Number shall expire on 1 July 2049.</p>							
2	<p><b>Authorised Discharge Activities</b></p> <p>The activity authorised by this Discharge Permit is restricted to:</p> <ol style="list-style-type: none"> <li>a. The discharge of wastewater components by seepage into land in the vicinity of the ponds identified on Plan Number attached to and forming part of this consent; and</li> <li>b. Any discharge undertaken in accordance with this Discharge Permit must occur on land legally described as: Lot 3, DP 89045 (16.7295 ha).</li> </ol>	<p>This consent authorises the discharge into land of wastewater for the purpose of storing and treating wastewater in ponds and to land via seepage from the ponds on property legally described as Lot 3, DP 89045 (hereafter referred to as the property) at approximate map reference BM34 205 432.</p> <p><b>Comment</b> – <i>standard wording to be consistent with other recently granted consents for similar activity.</i></p>						
3	<p><b>General Requirements</b></p> <p>The Permit Holder must undertake the activities in general accordance with the information supplied in the consent application, the Assessment of Environmental Effects dated 31 March 2015 including all concepts, parameters, drawings, activity specifications, proposed mitigation measures, methods concerning how the activity will be conducted and the scale, character and intensity of effects. Where the information is inconsistent with the requirements of specific consent conditions, the conditions prevail.</p> <p><b>Advice Note:</b> <i>Any change from the location, design concepts and parameters, implementation and/or operation may require a new resource consent or a change of consent conditions pursuant to section 127 of the Act.</i></p>	<p>The Consent Holder must undertake the activities in general accordance with the information supplied in the consent application, the Assessment of Environmental Effects dated 31 March 2015 including all concepts, parameters, drawings, activity specifications, proposed mitigation measures, methods concerning how the activity will be conducted and the scale, character and intensity of effects. Where there are any inconsistencies between the information provided by the applicant and conditions of the resource consent, the conditions of the resource consent will apply.</p> <p><b>Advice Note:</b> <i>Any change from the location, design concepts and parameters, implementation and/or operation may require a new resource consent or a change of consent conditions pursuant to section 127 of the Resource Management Act.</i></p> <p><b>Comment</b> – <i>minor wording changes</i></p>						
4	<p><b>Management</b></p> <p>No later than 3 months following the granting of this permit, the Permit Holder must submit to the Manawatu-Whanganui Regional Council's Regulatory Manager for technical certification an Operation and Management Plan detailing (but not limited to) the following items:</p> <ol style="list-style-type: none"> <li>a. A description of the ponds (wastewater treatment and storage system), including a site map identifying the location ponds and monitoring sites;</li> <li>b. Monitoring procedures covering all aspects of this Discharge Permit to demonstrate compliance with these Conditions;</li> <li>c. A methodology for desludging the ponds and procedures for avoiding damage of the existing clay liner; and</li> <li>d. Procedures to ensure that reporting requirements are met</li> </ol>							
5	The Permit Holder must annually review the Operation and Management Plan by 31 October of each year,							

	commencing October 2016, to incorporate any proposed changes to the management of the activities. Following each review, the Operation and Management Plan, including any proposed changes must be submitted to the Manawatu-Whanganui Regional Council's Regulatory Manager for technical re-certification before 30 November of the same year.	
6	The Permit Holder must undertake the activities in accordance with the Operation and Management Plan that is most recently certified pursuant to Conditions 4 or 5.  <b>Advice Note:</b> The Regulatory Manager or team representative can be contacted on Freephone 0505 800 800 or by e-mail at <a href="mailto:compliance.shared@horizons.govt.nz">compliance.shared@horizons.govt.nz</a>	
7	The Permit Holder must ensure that the physical infrastructure of the pond system is inspected every month. Any damage to pond embankments, or signs of pond seepage must be identified, noted and fixed as soon as practicably possible.	
8	Records of the inspections carried out in accordance with <b>Condition 7</b> and any resulting system modifications must be kept and made available to the Manawatu-Wanganui Regional Council's Regulatory Manager on request.	Records of the inspections carried out in accordance with <b>Condition 7</b> and any resulting system modifications <u>must be recorded in the annual report as required by Condition 20 of the General Conditions.</u>
9	<b>Monitoring of Wastewater</b> The Permit Holder must establish a site for sampling each of: a. Aerated pond effluent; b. Anaerobic pond effluent; and c. Final (discharged) wastewater.  Each sample location must be representative of that effluent type and be close to the discharge point of that pond	<b>Monitoring of Wastewater and pond solids</b> The Consent Holder must establish a site for sampling each of: a. Aerated pond effluent; b. Anaerobic pond effluent; and c. Final (discharged) wastewater. d. <u>Sludge ponds</u>  Each sample location must be representative of that effluent type and be close to the discharge point of that pond and be recorded in the management plan required by condition 3 on the general conditions
10.	The Permit Holder must ensure that samples of wastewater are taken from the locations described in Condition 9 in the months of January, April, July, and October and tested for:  a. Nitrate/nitrite Nitrogen (NO <sub>x</sub> -N) - (Not required for anaerobic effluent sample); b. Ammoniacal-Nitrogen (NH <sub>4</sub> -N); c. Dissolved Reactive Phosphorus (DRP); d. Acid soluble Sodium (Na); and e. Chloride (Cl <sup>-</sup> )	The Consent Holder must ensure that samples of wastewater are taken from the locations identified from Condition 9 in the months of January, April, July, and October and tested for:  a. Nitrate/nitrite Nitrogen (NO <sub>x</sub> -N) - (Not required for anaerobic effluent sample); b. Ammoniacal-Nitrogen (NH <sub>4</sub> -N); c. Dissolved Reactive Phosphorus (DRP); d. Acid soluble Sodium (Na); and e. Chloride (Cl <sup>-</sup> )  The Consent Holder must ensure that samples of pond solids are taken from the locations described in Condition 9 in the months of January, April, July, and October and tested for:  a. Total Phosphorus (TP); b. Total Nitrogen (T-N); c. Potassium (K)  Comment – pond solids need to be monitored and measured to enable calculation of nutrients being applied to land from this discharge.
11.	<b>Groundwater Monitoring</b>  Groundwater quality must be measured at 5 locations from bores identified on Plan ? attached and forming part of these conditions.	<b>Groundwater Monitoring and Investigations</b>  The Consent Holder shall monitor groundwater quality measured in six locations. Monitoring shall be undertaken from three existing monitoring bores (325273A, 325275B and 325269C) and three new monitoring bores establish in accordance with Condition xx below.  Comment – additional monitoring bores are recommended based on advice of Mr Thomas to better capture potential effects.
		11a. Within six months of the date of commencement of this consent, the consent holder shall install <u>three_new</u> groundwater monitoring wells on the site at or as near as practicable at the locations specified in Appendix 1 and to the following specifications: a) The monitoring wells shall have a diameter of a sufficient size to enable samples to be taken and shall be

		<p>installed at the locations identified in xxxx plan.</p> <ul style="list-style-type: none"> <li>b) The wells shall be drilled to a depth of up to 10 metres below the summer low ground level and/ shall be screened across the full depth of the water table/aquifer, with a screen length of no more than xxx metres.</li> <li>c) The borehole casing shall be constructed of polyvinyl chloride (PVC) or a similar inert material and shall be capped and secured to prevent entry of surface water.</li> <li>d) A concrete pad at least 0.3 metres radius shall be constructed around the bore head of the monitoring well at ground level, to prevent leakage around the casing. The concrete pad shall slope away from the bore.</li> <li>e) The wells shall be installed by a suitable qualified person(s) and constructed in accordance with the New Zealand Standard for Drilling Rock and Soil NZS 4411:2001.</li> </ul> <p><b>Advice Note:</b> Any new bore requires a controlled activity land use consent under Rule 16-14 of the One Plan (2014)</p> <p>11b. The Consent Holder shall notify the Manawatu-Wanganui Regional Council's Consents Monitoring Team of the installation, location and depth of any monitoring well's installed under Condition x.</p> <p><b>Advice Note:</b> The Consents Monitoring Team can be notified via 0508 800 800 or <a href="mailto:compliance.shared@horizons.gov.nz">compliance.shared@horizons.gov.nz</a></p>
12	<p>The Permit Holder must take quarterly groundwater samples in the months of January, April, July, and October in accordance with Condition 12 above and the samples must be analysed for the following:</p> <ul style="list-style-type: none"> <li>a. Nitrate/nitrite Nitrogen (NO<sub>x</sub>-N);</li> <li>b. Ammoniacal-Nitrogen (NH<sub>4</sub>-N);</li> <li>c. Dissolved Reactive Phosphorus (DRP);</li> <li>d. Sodium (Na); and</li> <li>e. Chloride (Cl<sup>-</sup>).</li> </ul>	<p>The Consent Holder shall take samples quarterly from all bores identified in Condition 11 in the months of January, April, July and October in accordance with the MfE Groundwater sampling protocols (2006) or updated document.</p> <p>12a The Consent Holder shall measure and record the static water level in the bore prior to purging and sampling. Samples collected under Condition 12 shall be analysed for the following parameters:</p> <ul style="list-style-type: none"> <li>a. Temperature</li> <li>b. pH</li> <li>c. electrical conductivity</li> <li>d. chloride</li> <li>e. nitrate-nitrogen</li> <li>f. ammonia-nitrogen</li> <li>g. nitrite-nitrogen</li> <li>h. dissolved reactive phosphorus</li> <li>i. E.Coli</li> </ul> <p>12b Results of monitoring collected in accordance with Condition 12a shall be transferred within ten working days of their receipt to the Manawatu-Wanganui Regional Council in a format compatible with the Manawatu-Wanganui Regional Council systems.</p> <p>12c – The Consent Holder must monitor the following parameters in samples of water from the Oroua River at four sampling locations, Oroua River upstream of the land irrigation area, Kiwitea Stream, 200 m upstream of the discharge point, and the second located 200 m downstream of the discharge point:</p> <ul style="list-style-type: none"> <li>pH (field measurement);</li> <li>ii. Temperature (field measurement);</li> <li>iii. Dissolved oxygen (field measurement);</li> <li>iv. Total Suspended Solids;</li> <li>v. scBOD5 (Dissolved carbonaceous biochemical oxygen demand being material passed through a GF/C filter);</li> <li>vi. Total Nitrogen;</li> <li>vii. Nitrate Nitrogen;</li> <li>Ammoniacal Nitrogen;</li> <li>ix. Nitrite-Nitrogen;</li> <li>x. Dissolved Reactive Phosphorus;</li> </ul>

		<p>xi. Total Phosphorus; xii. Particulate Organic Matter; xiii. E.coli</p> <p><u>Sampling must be undertaken monthly</u></p> <p><b>Note:</b> The sample points 200m upstream and 200m downstream of the discharge point are the same as required for sampling under Auth xxxx (Discharge to Water).</p> <p><b>Permeability Investigations</b></p> <p>12f – Within six months of commencement of this Permit the Consent Holder shall submit to the Manawatu-Whanganui Regional Council's Consents Monitoring Team Leader a methodology to investigate the permeability of all the existing treatment ponds. The plan shall include, but not be limited to –</p> <ul style="list-style-type: none"> <li>a. Methodology for a water balance to be undertaken for each of the ponds, as a minimum inflows and outflows from the treatment system shall be recorded over a 24 month period, consideration to be given to measuring pond levels and identify where evaporation rates are to be recorded; or other suitable method to determine permeability of each of the treatment ponds</li> <li>b. The methodology proposed shall be peer reviewed by an independent IPENZ engineer</li> <li>c. Results from the water balance undertaken in accordance with the peer reviewed methodology shall be submitted to the Horizons Regional Councils Consents Monitoring Team Leader by <b>1 November 2019</b>.</li> </ul> <p>12g – By <b>1 July 2020</b> the Consent Holder shall submit a report to the Manawatu-Whanganui Regional Council's Consents Monitoring Team Leader, detailing an assessment of environmental effects. The report must be prepared by an independent and suitably experience and qualified water quality scientist(s). The report shall include but not be limited to:</p> <ul style="list-style-type: none"> <li>a. An assessment of the effects on both groundwater and surface water as is able to be determined from the analyses and records collected in accordance with conditions of these Permits</li> <li>b. A comment on the contribution (or not) that the discharge is causing the exceedance of, or adding cumulatively (outside the uncertainty of measurement for the sample) to the exceedance of One Plan Schedule targets</li> <li>c. An assessment of options to mitigate any more than minor adverse effects, including an assessment from an independent IPENZ engineer as to whether relining existing ponds to a permeability standard of <math>1 \times 10^{-9}</math> m/s is practicable (this shall include an economic assessment)</li> </ul>
13.	<p>Groundwater quality must be measured in the following neighbouring bores which are identified on Plan Number attached and forming part of these conditions and monitored for the analytes listed in Condition 13.</p>	<p>Comment – note that this condition has been put forward as a result of consultation with neighbours, it is in effect an Augier condition. But need sampling frequency proposed and a list of what bores propose to monitor. Invite applicant to specify a frequency as was agreed to with neighbours. The bores should be analysed for the same parameters as 12a for consistency and would provide most useful for comparative analysis, however no detail has been given as to what was agreed to be monitored with neighbours.</p> <p>Include as an advice note that this condition in effect is as a result of a side agreement with neighbours. An option to consider could be to include the specified sampling frequency in the management plan and note that sampling frequency could be changed through this rather than a variation to consent provided agreement from neighbours was provided.</p>
14.	<p><b>Review</b></p> <p>The Manawatu-Whanganui Regional Council may, under Section 128 of the Act initiate a review of these conditions every 5 years in the month of July, commencing in July 2018, for the duration of this permit. The review must be for the purposes of avoiding, remedying or mitigating any adverse effects on the environment, which may arise from the exercise of this Discharge Permit.</p> <p>The review must allow for the consideration of the following matters:</p> <ul style="list-style-type: none"> <li>a. The deletion or amendment of these Conditions;</li> <li>b. The modification of the monitoring program required by these Conditions;</li> <li>c. The amendment or addition of new Conditions as necessary to avoid, remedy or mitigate any</li> </ul>	<p><b>Review</b></p> <p>The Manawatu-Whanganui Regional Council may, under Section 128 of the Act initiate a review of these conditions <u>annually</u> in the month of July, commencing in July <u>2019</u>, for the duration of this permit. The review must be for the purposes of avoiding, remedying or mitigating any adverse effects on the environment, which may arise from the exercise of this Discharge Permit.</p> <p>The review must allow for the consideration of the following matters:</p> <ul style="list-style-type: none"> <li>a. The deletion or amendment of these Conditions;</li> <li>b. The modification of the monitoring program required by these Conditions;</li> <li>c. The amendment or addition of new Conditions as necessary to avoid, remedy or mitigate</li> </ul>

	<p>adverse effects on the environment, including but not limited to conditions to mitigate adverse effects attributed to any breach of any conditions; or</p> <p>d. The adoption of Best Practicable Option to prevent or minimise adverse effects from the exercise of this Discharge Permit</p>	<p>any adverse effects on the environment, including but not limited to conditions to mitigate adverse effects attributed to any breach of any conditions; or</p> <p>d. The adoption of Best Practicable Option to prevent or minimise adverse effects from the exercise of this Discharge Permit including any as identified in assessment of effects report required by Condition 12g of this Permit</p>
15.		
16.		