

BEFORE THE CANTERBURY REGIONAL COUNCIL (CRC)

IN THE MATTER OF: the Resource Management Act 1991("the RMA")

And: A resource consent application by Oceania Dairy Limited under s88 of the RMA for the construction of a 7.5 kilometre pipeline and discharge of treated wastewater from a milk-processing factory situated at 30 Cooney's Road, Glenavy, into the Coastal Marine Area.

CRC201187, CRC201188, CRC201190, CRC201191, CRC201192, CRC201194

Addendum 2 to CRC Reporting Officer s42A reports

Response of CRC Reporting Officer to
"Commissioner's Questions for Applicant and s42A report writers
-20 May 2020".
Incorporating advice from Experts.

25 May 2020

Earthworks and dewatering Para 66	<i>Please explain why the dewatering plan to be prepared after consent is granted, rather than prior?</i>	The Reporting Officer notes that it is due to uncertainty in the method and locations of dewatering. It is noted dewatering cannot be carried out until the Dewatering Plan has been approved by CRC, see conditions 5 and 7 of CRC201187. The Reporting Officer also notes this is standard practice for Dewatering take consents.
	<i>Proposed condition 6 requires an assessment of the dewatering against Schedule 12 at that time. Why is this required after granting consent, rather than prior?</i>	The Reporting Officer refers the Commissioners to the answer above.
	<i>What is the proposed course of action if proposed dewatering is not acceptable in terms of Schedule 12 at that time?</i>	The Reporting Officer presumes that in terms of the Schedule 12 assessment written approval would need to be provided by owners of potentially affected wells, or the applicant will need to adjust the maximum rate and volume of the take, such that effect on nearby wells is acceptable in terms of Schedule 12. If the Commissioners prefer, wording could be added to CRC2011891, Condition 7.a requiring the applicant to show the well interference assessment is acceptable in terms of Schedule 12 prior to certifying the dewatering management plan.
Para 84	<i>The CIA recommended that the Lizard Management Plan is written in consultation with Te Rūnanga o Waihao. However, proposed condition 8 of CRC201187 does not require this. Is this appropriate?</i>	The Reporting Office notes that the CIA was received by CRC on 13 March 2020, as the s42A report was in the final review stages. No response to proposed mitigation in the CIA was received until the final report was sent to the Hearings Officer. Therefore no changes were made to conditions. The Reporting Officer agrees it is appropriate that the Runanga is consulted during writing of the LMP, and that this should be added to the condition in both CRC201187 and CRC201188.
Coastal Para 98	<i>Dr Bolton Ritchie's recommendations in regards to monitoring total suspended solids or turbidity, and the requirements for an Environment Management Plan, do not appear to be reflected in the proposed</i>	The Reporting Officer notes that condition 10 of CRC201190 requires the applicant to carry out continuous monitoring of turbidity if the dredging method is used, as suggested by Dr. Bolton-Ritchie.

	<p><i>conditions of CRC201190. Please discuss.</i></p>	<p>The Reporting Officer notes that the Environmental Management Plan forms part of the Construction Management Plan, rather than a separate Plan requirement. See Condition 6.e of CRC201190 for the objectives and Condition 7.k for the requirements.</p>																							
<p>Para 188</p>	<p><i>What status do the ANZG Guidelines 2018 for water quality have in relation to this application?</i></p>	<p>The Reporting Officer notes that in Dr. Bolton-Ritchie’s s42A report, it was stated “That is, in terms of using ANZG (2018) water quality guideline values for toxicants the guideline value protecting 99% of species must apply.’ Dr. Bolton-Ritchie has further responded to this question, that these values can be applied to dissolved metal concentrations in seawater. The concentration for ammonia (0.5 mg/L) is not applied to this consent as there is a locally derived trigger value for ammoniacal nitrogen. This locally derived trigger value is the one that should apply beyond the zone of reasonable mixing, given the water should be maintained at the reference condition beyond this zone.</p> <p>There are no ANZG trigger values for other coastal water quality parameters for New Zealand coastal water. Rather the guidelines recommend the use of the guideline values for the coastal waters of South-east Australia. A comparison of the S-E Australia ANZG trigger values for nutrients to those from derived from local data are provided in the table below. It is well recognised that the ANZG guideline values for S-E Australia, particularly for nitrogen are not suitable to use for Canterbury coastal waters.</p> <p>Table: Comparison of ANZG to locally derived trigger values</p> <table border="1" data-bbox="1122 956 1924 1382"> <thead> <tr> <th rowspan="2">Parameter</th> <th colspan="2">Trigger value (mg/L)</th> </tr> <tr> <th>Locally derived</th> <th>ANZG</th> </tr> </thead> <tbody> <tr> <td>Ammoniacal nitrogen</td> <td>0.016</td> <td>0.015</td> </tr> <tr> <td>Nitrate + nitrite nitrogen</td> <td>0.07</td> <td>0.005</td> </tr> <tr> <td>Dissolved inorganic nitrogen</td> <td>0.083</td> <td></td> </tr> <tr> <td>Total nitrogen</td> <td>0.25</td> <td>0.12</td> </tr> <tr> <td>Dissolved reactive phosphorus</td> <td>0.0091</td> <td>0.01</td> </tr> <tr> <td>Total phosphorus</td> <td>0.032</td> <td>0.025</td> </tr> </tbody> </table>	Parameter	Trigger value (mg/L)		Locally derived	ANZG	Ammoniacal nitrogen	0.016	0.015	Nitrate + nitrite nitrogen	0.07	0.005	Dissolved inorganic nitrogen	0.083		Total nitrogen	0.25	0.12	Dissolved reactive phosphorus	0.0091	0.01	Total phosphorus	0.032	0.025
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Para 316	<i>Please comment in more detail on whether the application is consistent with NZCPS Policy 11, including which criteria in (a) and (b) are relevant, and the conclusions in relation to the effects on those criteria.</i>	Policy 11 of NZCPS seeks to protect indigenous biological diversity in the coastal environment, the environment in this area does not include any of the habitats listed in b.i of this policy. Native lizards in the gully area, which are of high cultural value to Ngai Tahu, are protected by the proposed lizard management plan conditions in CRC201187 and CRC201188. If the applicant complies with the proposed conditions, the activity can be considered compliant with this policy.
Para 364	<i>Policy 8.3.7 applies where degraded water quality has significant adverse effects on natural, cultural, amenity and recreational values. Is this currently the case here?</i>	The Reporting Officer notes that given the available information, the water quality in the area is not currently considered degraded and therefore there are no <u>current</u> effects on these values in this area.
Para 382	<i>This para state: "in relation to the matters in Policy 6.1(a)(ii), CRC needs to be satisfied there is a need for the activity or development to be in that part of the CMA...". Given the policy wording, presumably this would only be the case of the activity had the potential to have significant adverse effects on the matters listed in the bullet points? Is it your conclusion that effects on those matters will be significant?</i>	The Reporting Officer notes that it is unclear whether the level of treatment proposed by the applicant will result in significant adverse effects on coastal ecosystems, e.g. by creating algal blooms in the area. Therefore, it is unclear whether the proposal is in line with this policy.
Para 386	<i>Please confirm what the relevant water classification is and water quality standards that apply to this section for the coast, for the</i>	The Reporting Officer notes there is no water quality standards for this area and that the coastal water quality and environment should be considered in a natural state and therefore of high conservation and ecological value, as outlined in paragraph 184.c. of the Coastal s42A.

	<i>purposes of interpreting Policy 7.4?</i>	
Para 397	<i>This policy applies to areas of Banks Peninsula and Areas of Significant Natural Value. Please confirm whether this policy is relevant to this application.</i>	The Reporting Officer notes that the policy does not apply as the area is not listed specifically as an Area of Significant Natural Value.
Conditions CRC201188 #2	<i>Please advise whether it would be appropriate or helpful to link the activities in this consent to discharge consent CRC201194.</i>	The Reporting Officer agrees and proposes wording could be changed (in bold) to: The erection and placement of structures authorised under condition (1) above shall be limited to: a. the structures required for the operation of the outfall pipeline and surge tank, used for the discharge of treated factory wastewater under CRC201194 or any subsequent variations. b. any temporary structures required during the construction period.
#11	<i>How important is the need for plantings to be of ecosourced native plant material? Should this requirement be a condition (and also defined)?</i>	In the Reporting Officer's opinion this is best placed as an advice note, rather than a condition as it is advice, not a requirement.
#12	<i>Should there be a condition in relation to the lizard management plan that is similar to conditions 8 and 15, whereby the plan is certified as meeting the requirements in condition 11?</i>	The Reporting Officer checked with Ms Jack, who responded that the following (in bold) could be added to the Lizard Management Plan condition in both CRC201187 (Condition 8) and CRC201188 (Condition 10): Prior to the commencement of any removal/disturbance works authorised under Condition (1) of this consent, the Consent Holder shall submit and have certified by the Regional Leader-

		Monitoring and Compliance , a Lizard Management Plan (LMP) prepared by a suitably qualified and experienced ecologist/herpetologist for approval.
Conditions CRC201190 #2	<i>Are there other permanent structures other than the pipeline and diffusers? This condition implies there is. Please explain.</i>	The Reporting Officer notes that if the applicant goes ahead with the self-sinking anchor method, the anchors can be considered structures.
#10	<i>How are the trigger values in the water quality monitoring plan to be set? Should these be set as part of the consent conditions when (if) consent is granted rather, than in the future, post-decision?</i>	Dr. Bolton-Ritchie responded that the trigger values will be calculated by a detailed statistical analysis of the data collected in the three months prior to construction. A good example of the use of turbidity loggers and trigger values (which includes turbidity values and time components) was the capital dredging programme (CRC172522) in Whakaraupō/Lyttleton Harbour. The trigger values would have to be set post decision. Another condition should be added that they need to submit a monitoring plan that details everything about the turbidity monitoring: location of sites, equipment used, data collection, data evaluation, trigger values and reporting of exceedances etc.
#16	<i>Condition 16 requires regular inspections for beach weakness and washout, but it is not clear what action must be taken if these are observed.</i>	The Reporting Officer discussed this condition with Mr. Bruce Gabites. The reason for this condition was primarily to ensure that the applicant undertakes regular visual assessments of the beach above and around the area where the pipeline is to be laid to visually monitor for any effects on the coast from the pipeline that may arise, particularly following any large storms or significant overtopping events. Such a condition could be worthwhile to inform or alleviate any concerns the landowner on the north side of the gully may have had with regard to erosion of his property, so a secondary reason for including this condition was to make sure that the applicants keep CRC informed of the results of the regular visual assessment, and the timing and scale of any changes that occur to this piece of the coast. The Reporting Officer notes that reporting requirements are outlined in Condition (18) of CRC201190, drawing commissioners attention particularly to 18 c: “ <i>should there be any evidence of beach weakness or gravel washout, these shall be repaired or removed by the consent holder to the satisfaction of the Southern Area Engineer within one month of the weakness or washout being identified</i> ”.

<p>Conditions CRC201194 #11, 12</p>	<p><i>These conditions refer to discharge 'to the outfall pipeline'. Please explain what is meant by this.</i></p>	<p>The Reporting Office notes that discharge into the pipeline is to be measured at the factory when exiting the treatment plant prior to entering the pipeline to be discharged, in terms of both volume and treatment parameters.</p>
<p>#14</p>	<p><i>Discharge must cease if trigger levels have been exceeded for more than 30 weeks. What is the basis for 30 weeks – this seems like a very long period of time to exceed trigger values without action?</i></p>	<p>The Reporting Officer notes this condition was developed in conjunction with Dr. Bolton-Ritchie and that the reason for the 30 week period is firstly to identify the problem, and give the applicant time to investigate and make changes and because of the rolling basis for the median it could take some time to clear the values, having a significant influence on the median even after they had made changes.</p>
<p>#14</p>	<p><i>Discharge may start again when daily monitoring shows trigger levels are not exceed for 10 days. What is being monitored, as there would be no discharge occurring?</i></p>	<p>The Reporting Officer notes that wastewater will be being monitored at the end of the treatment plant. It will either need to be stored, discharged to land under the applicant's other consents, or removed from the site until the trigger levels can be met, it is up to the applicant how they meet this condition.</p>
<p>#20</p>	<p><i>Please explain why monitoring of pathogens for 6 months every 5 years is sufficient to be sure that exceedances in wastewater quality parameters will not occur, or if they do occur, will be acceptable, particularly given that other parameters are to be monitored weekly for the duration of the consent (condition 12)?</i></p>	<p>The Reporting Officer notes that this is the same condition for Fonterra-Studholme's current discharge consent. After discussion with Dr. Bolton-Ritchie, the Reporting Officer considers that this condition could be changed, so that fortnightly monitoring continues, as per the Interim Period.</p>

<p>#22</p>	<p><i>Please explain what is intended by this condition. How can the consent holder ensure there is no statistically significant differences between sites prior to undertaking the sampling?</i></p>	<p>Dr. Bolton-Ritchie notes that the applicant cannot ensure there are no statistically significant differences in the presence and abundance of biota between sites prior to undertaking the sampling. The statistical analysis of the baseline data (that is statistically robust due to a suitable number of replicate samples being collected) will provide the information about the sites and their similarities in terms of the presence and abundance of the biota.</p> <p>The actual statistical design is BACI – before, after, control, impact.</p> <p>Dr. Bolton-Ritchie also notes there is an error in this condition, which should be corrected as follows: No statistically significant difference in the presence and absence abundance of the benthic biota just beyond the edge of the mixing zone and at control sites.</p>		
<p>#22</p>	<p><i>What is meant by 'the direction of change' of biota over time? How will the consent holder ensure this?</i></p>	<p>Dr. Bolton-Ritchie has proposed changing Conditions 22 and 23 of CRC201194 to the following, to be more specific on changes:</p> <table border="1" data-bbox="824 801 2033 1391"> <tr> <td data-bbox="824 801 1014 1391"> <p>22</p> </td> <td data-bbox="1014 801 2033 1391"> <p>a. At least two months prior to the commissioning of the outfall, and thereafter at five yearly intervals, the consent holder shall undertake a benthic monitoring survey to determine the infauna/epifauna species composition and abundance (core/grab samples only), at three sites just outside the mixing zone to the north, south and east, and at three control sites, 1,000 metres to the north and south of the outfall and 600 metres to the east of the outfall.</p> <p>b. At least two months prior to the commissioning of the outfall, and thereafter at five yearly intervals, the applicant shall sample seabed sediment, at the same locations as benthic biota monitoring is carried out as per Condition (22), for the following parameters:</p> <ul style="list-style-type: none"> i. Arsenic; ii. Cadmium; iii. Chromium; iv. Copper; v. Lead; vi. Nickel; </td> </tr> </table>	<p>22</p>	<p>a. At least two months prior to the commissioning of the outfall, and thereafter at five yearly intervals, the consent holder shall undertake a benthic monitoring survey to determine the infauna/epifauna species composition and abundance (core/grab samples only), at three sites just outside the mixing zone to the north, south and east, and at three control sites, 1,000 metres to the north and south of the outfall and 600 metres to the east of the outfall.</p> <p>b. At least two months prior to the commissioning of the outfall, and thereafter at five yearly intervals, the applicant shall sample seabed sediment, at the same locations as benthic biota monitoring is carried out as per Condition (22), for the following parameters:</p> <ul style="list-style-type: none"> i. Arsenic; ii. Cadmium; iii. Chromium; iv. Copper; v. Lead; vi. Nickel;
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			<ul style="list-style-type: none"> vii. Zinc; viii. Total organic carbon; ix. Organic matter content; x. Total nitrogen; xi. Total reactive phosphorus; and xii. Grain size distribution (wet sieving, 7 size fractions) <p>At each site, three replicate sediment samples shall be collected and analysed by an IANZ accredited laboratory.</p> <ul style="list-style-type: none"> c. On each sampling occasion the collected data shall be analysed and presented in a report provided to the Canterbury Regional Council within three months of monitoring occurring. d. This monitoring programme shall be reviewed after two rounds of monitoring. This review shall be used to determine the frequency of future monitoring.
		23	<p>The consent holder shall provide to Canterbury Regional Council: Attn. Regional Leader-Monitoring and Compliance, a report including the mitigation actions they will put in place if the following occurs:</p> <ul style="list-style-type: none"> a. Depth of the oxygenated layer in the sediment is five centimetres or less in three or more samples at sites just beyond the edge of mixing zone but not at control sites; b. The TOC (Total organic carbon) concentration is greater than 0.16 g/100g dry weight, in three or more samples at sites just beyond the edge of mixing zone sites but not in the samples at the control sites. c. The copper concentration is greater than 6 mg/kg, in three or more samples at sites just beyond the edge of mixing zone sites but not in the samples at control sites.

			<ul style="list-style-type: none"> d. The zinc concentration is greater than 50 mg/kg, in three or more samples from sites just beyond the edge of mixing zone but not in the samples at control sites. e. The arsenic, cadmium, chromium, lead and nickel concentrations in three or more samples from sites just beyond the edge of the mixing zone sites are two time greater than the average concentration at the control sites. f. The mean number of taxa, mean number of individuals and mean species diversity (Shannon-Weiner) at sites just beyond the edge of the mixing zone are not significantly different to those at the control sites; g. The AMBI (AZTI marine biotic index) and mABMI (multivariate AMBI) scores at sites just beyond the edge of the mixing zone are not significantly different to those at the control sites; h. The direction of change in the biota over time (as shown on a multi-dimensional scaling plot nMDS or similar) at sites just beyond the edge of the mixing zone should be comparable to that at control sites.
#23	<p><i>Please explain why is there no baseline monitoring of sediment for the parameters listed in this condition.</i></p>	<p>In the Reporting Officer's opinion, this condition can be changed to be similar to (current) Condition 22 adding "At least two months prior to commissioning", This has been added to Dr. Bolton-Ritchie's proposed changes to conditions above.</p>	
#25	<p><i>Discharge is proposed to increase over time from 4,000 to 10,000m3. Please explain how we can be certain that effects on water quality will be acceptable as the discharge volume increases, if monitoring occurs only every 10 years?</i></p>	<p>The Reporting Officer notes that the assessment of effects including dispersion modelling were based on the maximum volume of 10,000 cubic metres per day. The expectation is that the application will comply with the trigger levels of the discharge from the wastewater treatment plant at all times over the duration of the consent.</p>	

<p>#32, 33</p>	<p><i>A community liaison group must be formulated within one month of commencing construction works. As the purpose of the group includes construction management issues, please comment whether these conditions should also be attached to consent CRC 201190 (coastal construction), and whether it would be preferable that formulation occurs prior to construction commencing, rather than after?</i></p>	<p>The Reporting Officer agrees that these conditions should be added to CRC201190 and that it would be preferable to change the condition to read “Six months prior to construction commencing”</p>
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