

**Before Independent Commissioners Appointed by the Canterbury
Regional Council**

In the matter of The Resource Management Act 1991

And

In the matter of Applications by **Oceania Dairy Limited** for all
consents necessary 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.

JOINT WITNESS STATEMENT-Coastal water Quality

DATED: 7 July 2020

Introduction

1. This Joint Witness Statement (JWS):
 - a. Relates to the assessment against effects on coastal water quality that may arise from Oceania Dairy Limited's proposal to construct a 7.5 kilometre pipeline and discharge treated wastewater from a milk-processing factory situated at 30 Cooney's Road, Glenavy, into the Coastal Marine Area.
 - b. Reports on the outcome of expert conferencing between the water quality experts who have filed evidence in this matter.
2. The expert conference was held in the afternoon of 8 July 2020, via Skype phone conference. In attendance was Dr. Lesley Bolton-Ritchie (Canterbury Regional Council), Mr. Lobo Coutinho (Babbage Consultants Limited) and Dr. Nathaniel Wilson (Babbage Consultants Limited). Ms. Kelly Walker, Reporting Officer for Canterbury Regional Council, attended to take minutes only.
3.
 - a. The witnesses acknowledge that the JWS is to clearly record the issues agreed and not agreed, between them. Succinct reasons are to be captured in the JWS. This will assist all parties and the decisionmakers in focussing on the matters that remain in dispute and the significance of them;
 - b. Expert conferencing is not a forum in which compromise or a mediated outcome between the experts is anticipated. Unlike mediation, the "aim" is not resolution. Rather, the aim is clear identification of and narrowing of points of difference.

Points discussed (and reference to paragraphs in evidence of Dr. Nathaniel Wilson).

The fraction of metals (and metalloids) to be measured in the discharge (Paragraph 64)

4. It was discussed by the experts whether heavy metals and metalloids should be measured in dissolved or total form.
5. All experts are in support of conditions for CRC201194 requiring dissolved metals in receiving environment monitoring (Condition 24) and total metals in treated wastewater discharge monitoring (Conditions 12 and 13).

The trigger value for chromium in the receiving environment (Paragraph 65-66)

6. Dr. Wilson is supportive of 99th percentile trigger value (or no greater than background concentrations) for chromium in the receiving environment. Dr. Wilson notes the 99th percentile value is for chromium VI which is unlikely to be in the discharge. In the wastewater discharge it is likely to be chromium III due to corrosion in pipes. Given that total chromium is to be measured in the discharged wastewater, further analysis of the type of chromium in the discharge may be required if the trigger value is exceeded.

Trace chemicals (Paragraph 67)

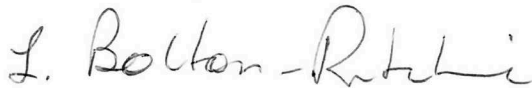
7. Experts agree trace chemicals were not addressed sufficiently in the original application.
8. Presumed levels of these contaminants in the discharge are provided in the evidence of Dr. Wilson. It was noted units in Table B-2 to Dr. Wilson's evidence should be in mg/cubic metre, this was inadvertently left off. All experts are satisfied that the proposed concentrations of these trace chemicals are not likely to have ecotoxicological effects after dilution.

The potential effects of nutrient loading in calm conditions (Paragraph 70)

9. This is a main point of disagreement between the experts as to the level of potential effects and whether the discharge could lead to an increase in phytoplankton blooms in the area from this discharge and cumulative effects.
10. Dr. Wilson does not consider additional treatment necessary as 12 g/m³ dissolved inorganic nitrogen will only cause an occasional spike when conditions are calm and the spike results in values just above the trigger value. Dr. Bolton-Ritchie did not consider that spikes in nutrient concentrations would result in phytoplankton blooms within the mixing zone.
11. Dr. Bolton-Ritchie considers the current proposed levels of dissolved inorganic nitrogen and dissolved reactive phosphorus in the treated wastewater have the potential to meaningfully contribute to cumulative effects beyond the mixing zone. Dr. Wilson and Mr. Coutinho disagree. This matter remains a point of disagreement.
12. Dr. Wilson proposed in his evidence that means were used for the discharge quality rather than medians. Dr. Bolton-Ritchie agrees this would be preferable as more certainly would be provided on the quality of the discharge.

An appropriate condition for receiving water chemistry (Paragraph 74).

13. Experts agree that conditions 24 and 25 of CRC201194 need to be reworded and this can be discussed during the hearing, experts agree to consider proposed wording prior.



Dr. Lesley Bolton-Ritchie



Mr. Lobo Coutinho



Dr. Nathaniel Wilson

