

**BEFORE THE CANTERBURY REGIONAL COUNCIL**

<p><b>IN THE MATTER OF AND IN THE MATTER OF</b></p>	<p>the Resource Management Act 1991</p> <p>Six resource consent applications filed by <b>Oceania Dairy Limited</b> under section 88 of the RMA in relation to the construction and operation of an ocean outfall to discharge treated wastewater from the Oceania Dairy processing plant at Glenavy into the Coastal Marine Area</p>
	<p><b>CRC201187 to undertake earthworks and installation of a pipeline</b></p> <p><b>CRC201191 to take groundwater for dewatering</b></p> <p><b>CRC201192 to discharge of dewatering water to land or water</b></p> <p><b>CRC201188 to use land for erection and placement of structures in the coastal hazard zones</b></p> <p><b>CRC201190 to disturb and deposit material to the foreshore or seabed, to erect and place structures and to occupy the coastal marine area</b></p> <p><b>CRC201194 to discharge treated wastewater into the coastal marine area</b></p>

**REPORT AND DECISION OF HEARING COMMISSIONERS  
PAUL ROGERS (CHAIR), EMMA CHRISTMAS AND HOANI LANGSBURY  
Dated 8 September 2020**

## Contents

1. INTRODUCTION.....	3
2. BACKGROUND.....	3
3. SECTION 42A REPORTS, AEE AND SUBMISSIONS .....	4
4. THE HEARING .....	4
5. DECISION OUTCOME .....	6
6. PRELIMINARY ISSUES INCLUDING PROCEDURAL AND LEGAL ISSUES.....	6
7. DESCRIPTION OF THE PROPOSAL AND RESOURCE CONSENT APPLICATIONS.....	8
8. THE EXISTING ENVIRONMENT AND SITE VISIT .....	11
9. STATUTORY PLANNING FRAMEWORK.....	14
10. PRINCIPAL ISSUES IN CONTENTION.....	15
11. CONSIDERATION OF ALTERNATIVES – SECTION 105 AND SCHEDULE 4 .....	33
12. SECTION 107 RESTRICTIONS ON GRANT OF CERTAIN DISCHARGE PERMITS.....	34
13. ASSESSMENT AGAINST POLICY STATEMENTS AND PLANS.....	34
14. PART 2 RMA .....	35
15. LAPSING AND DURATION OF CONSENTS .....	39
16. DECISION.....	41

### Appendices:

Appendix 1	A list of acronyms and abbreviations used in this decision
Appendix 2	Conditions for CRC201187
Appendix 3	Conditions for CRC201191
Appendix 4	Conditions for CRC201192
Appendix 5	Conditions for CRC201188
Appendix 6	Conditions for CRC201190
Appendix 7	Conditions for CRC201194

## 1. INTRODUCTION

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1. Paul Rogers (Chair), Emma Christmas and Hoani Langsbury were appointed as independent hearing commissioners by the Canterbury Regional Council (CRC) under section 34A (1) of the Resource Management Act 1991 (RMA) to decide on multiple applications by Oceania Dairy Limited (the Applicant). This decision sets out our findings on the applications, focusing on the principal issues in contention and the reasons for our decision.

## 2. BACKGROUND

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2. The Applicant is a wholly-owned subsidiary of Mongolia Yili Industrial Group Company Limited. Yili Group produces and distributes dairy products and mixed foodstuffs.
3. To meet the increasing demand for production of milk powder, the Applicant proposes to expand the processing capacity of a milk-processing factory at 30 Cooneys Road, Glenavy, in Stage 3 expansion, which will substantially increase the total processing capacity and therefore the amount of factory wastewater created.
4. The Glenavy factory currently includes a single boiler and dryer, which on average produces 1,740 cubic metres of factory wastewater per day. Stage three of the planned expansion includes a second boiler and dryer, which will result in approximately 4,000 cubic metres of factory wastewater being produced each day. However, to allow for future growth, Oceania is seeking consent to discharge up to 10,000 cubic metres of wastewater per day.
5. The factory currently holds consents CRC164414 and CRC174198 to discharge all factory wastewater to 404 hectares of surrounding farmland via irrigation. The Applicant states they only have access to 278 of the approved 404 hectares and that it has been difficult to satisfy best irrigation practice discharge to land consent due to:
  - a. ponding occurring in the winter due to waterlogged soils; and
  - b. in the spring and autumn there is insufficient freshwater to flush the irrigation lines, creating odour when the wastewater is discharged to land.
6. The above problems have caused challenges for the Applicant, therefore they are seeking an additional and alternative method of discharge.
7. Within the AEE, Oceania details that the current factory discharge to land consents CRC164414 and CRC174198 will not be surrendered but used as a backup discharge location if the outfall is not in operation, or when ground conditions are suitable for wastewater discharge.
8. During processing the Applicant changed this stance to one where the coastal outfall will be used when discharge to land under CRC164414 and CRC174198 is not possible for a range of reasons. That is, discharge to land will occur in preference to the coastal discharge subject to conditions being suitable.
9. The overall development for stage three requires a number of resource consents from the Canterbury Regional Council (CRC), relating to the construction of, and discharge of wastewater from, a coastal outfall.

### 3. SECTION 42A REPORTS, AEE AND SUBMISSIONS

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10. We record that we have all read and taken full account of the application documents, including the Assessment of Environmental Effects (AEE) that forms part of the applications. We note that the AEE was a comprehensive document including expert assessments on water quality, design and construction methodology of the pipeline, outfall dispersion modelling, assessments of ecological effects of the discharge within the coastal water, effects on marine mammals, herpetofauna assessments, coastal hazard assessments, coastal bird assessments, assessment in terms of recreational effects, and finally microbial risk assessment reports and cultural impact assessments.
11. 127 submissions were lodged as a result of the notification process. Those submissions were from both individuals and a range of groups or companies including KiwiRail Holdings Limited, Morven Glenavy Ikawai Irrigation Company (MGI), Royal Forest and Bird Protection Society Incorporated, and Te Runanga o Arowhenua.
12. Of the notified neighbours, submissions were received from Mr Peter Francis and Cantley Developments Limited. 119 submitters opposed the grant of the consents, five supported and three were neutral. 11 submitters in opposition wished to be heard, while three in support and two who were neutral also wished to be heard.
13. Full details of the matters raised in the opposing submissions is contained within the section 42A reports. The main issue raised concerned the effects on the environment of the discharge of wastewater into the coastal area. Effects on cultural values also figured prominently. Those in support noted beneficial effects such as employment and considered that the status quo of discharging factory wastewater to land was not appropriate and the alternative of discharging to coastal waters was preferred.

### 4. THE HEARING

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14. Prior to the hearing, which was held at Waimate between 20 and 23 July 2020, the panel issued a number of questions primarily to the Applicant and the section 42A reporting officers. We issued those questions to help streamline the hearing process and also to respond to the COVID 19 lockdown. We have taken all of those question responses into account in reaching our decision.
15. The Applicant presented a fulsome case at the hearing utilising summaries of pre-circulated evidence. We heard from a number of submitters raising points in opposition or points of concern. Some submitters attended the hearing via video links. The section 42A officer group were available throughout the course of the hearing.
16. For the Applicant we heard from:
  - a. Ewan Chapman - legal submissions;
  - b. Shane Lodge - operations and background of Oceania Dairy Limited, including wastewater report inclusive of farm plan;
  - c. Annabelle Coates – ecology;
  - d. Gregory Clarkson - drone footage;
  - e. Nathaniel Wilson - environmental management;

- f. Paul Duder - engineering design;
- g. Rebecca Stott - human health;
- h. Suman Khareedi - wastewater infrastructure;
- i. Rob Greenaway - coastal recreation;
- j. Sukhi Singh –planning;
- k. Lobo Coutinho - environmental engineering;
- l. Simon West - marine ecology; and
- m. Matthew Savage - wastewater treatment plant design.

17. Submitters who appeared were:

- a. Waitaha Tai Whenua o Waitaki Trust – Anne Te Maiharoa-Dodds;
- b. Craig Evans – Morven Glenavy Ikawai Irrigation Company;
- c. Chris Bathurst – Solray Systems;
- d. Royal Forest & Bird – Nickie Snoyink (video link);
- e. Waitaki irrigators - Fraser Mckenzie;
- f. Martin Mehrtens;
- g. Rachel Robilliard - Legal, Te Rūnanga o Arowhenua & Waihao and Ngai Tahu;
- h. Kylie Hall - Planning, Te Rūnanga o Arowhenua & Waihao and Ngai Tahu;
- i. Tewera King – Cultural, Te Runanga o Arowhenua;
- j. Peter Francis;
- k. Sean McGeown;
- l. Jenny Campbell (video link);
- m. Action Station Aotearoa Ltd - Ruby Hazeen (video link);
- n. Murphy Farms – Bruce and Robin Murphy;

18. The section 42A officers who appeared were:

- o. Kelly Walker;
- p. Deepani Seneviratna; and
- q. Lesley Bolton-Ritchie.

19. The section 42A reports included expert written advice from Dr Leslie Bolton-Richie on coastal water quality effects, Mr Bruce Gabites on coastal hazards, Ms Jean Jack on herpetofauna effects, Dr Simon Childerhouse on marine mammals, Dr Leigh Bull on coastal birds and finally Mr Cannon Andrews on dispersion modelling.
20. Although not every witness and submitter is referred to in our decision, this does not mean that their submissions have not been read and considered. Simply that we have endeavoured to focus on issues we have identified as “key” and, where possible, avoid repetition in our decision. The section 42A reports record full details of submissions received and summarises the submission points.
21. In accordance with section 113(3) RMA, we have cross-referenced and adopted parts of the AEE, the section 42A Reports and written evidence throughout this decision as appropriate.

## **5. DECISION OUTCOME**

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22. For reasons contained in this decision we have decided to GRANT consents for the Oceania proposal, subject to the conditions discussed throughout this decision and attached as Appendix 2 to 7 of this decision.

## **6. PRELIMINARY ISSUES INCLUDING PROCEDURAL AND LEGAL ISSUES**

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### **Late submission**

23. Lesley Te Maiharoa- Sykes provided a letter dated 31 May 2020 on behalf of the Waitaha Taiwhenua o Waitaki Trust. We treated the letter as a late submission. We heard from both Ms Sykes and the Applicant on how we should treat the letter.
24. The Applicant had no issues with treating the letter as a late submission. After listening to the parties we allowed, by consent of all parties the late submission to be heard, recording the submission being made in the name of the Trust as described above.

### **Preliminary and Legal Issues**

25. A number of legal issues arose which we address now. Inevitably these issues required consideration against a factual context. We consider it helpful to address and resolve these issues as preliminary matters rather than deal with them later within the decision.

#### Evidence required to demonstrate / establish presence/existence of cultural values / concerns

26. In his opening legal submissions Mr Chapman carefully addressed and explored the issues of where the evidential onus of establishing effects on cultural values and what evidence would be sufficiently probative to make findings in relation to effects of activities on cultural values.
27. Referring to a number of court decisions Mr Chapman first noted that even if there was evidence of probative value of establishing effects of an activity on cultural values, that circumstance does not create a right of veto in favour of those parties advancing a cultural effects argument.
28. Mr Chapman also submitted that an honest belief in relation to the existence of cultural values and effects on those values does not establish the existence of a fact. Mr Chapman noted it was not appropriate for a party advancing a cultural effect proposition to assert a belief and then require an Applicant to disprove it. The onus was on the party advancing the proposition to lead evidence to establish the proposition.

29. Mr Chapman drew attention to the expert evidence and assessments the Applicant had provided, noting the Applicant had called a number of scientific experts to support the position that the actual and potential effects of the discharges have been assessed as being minor.
30. We agree with Mr Chapman. We have endeavoured to approach and assess the effects on cultural values in the manner as set out in his legal submissions. So in short we have looked to the party advancing the argument to first identify the cultural value and provide details, then to provide evidence of the effects of the proposed activities on that or those cultural values, allowing for consideration of proposed resource consent conditions.

#### Weight given to Iwi Management plans

31. During the hearing we became aware of what appeared to be a conflict between iwi management plans (IMP), in particular the Waitaki Iwi Management Plan (2019) (Waitaki IMP) and the New Zealand Coastal Policy Statement (NZCPS), in particular Policy 23.
32. Ms Hall and Ms Rachael Robillard for Te Rūnanga o Arowhenua and Te Rūnanga o Waihao and Ngai Tahu placed heavy reliance on the Waitaki IMP to support their submissions that the application should be declined. This was because the Waitaki IMP suggests that all coastal discharges of wastewater to sea should cease.
33. While that may be so, Mr Chapman submitted that it is not the legal position that an IMP can effectively impose a higher duty on us when making our decision than the higher order planning documents such as the NZCPS and the Canterbury Regional Coastal Environment Plan (RCEP).
34. Ms Walker, in her supplementary report presented at the conclusion of the hearing, advised us that under section 104 of the RMA we are obliged, subject to Part 2, to have regard to any other matter we consider relevant and reasonably necessary to determine the application. This is where and how an IMP could be considered. She agreed the weight given to an IMP was a matter for us to decide.
35. Ms Walker also detailed for us sections 61 and 66 of the RMA, noting that when preparing or changing a regional policy statement or regional plan, a council is required to take into account any planning document recognised by an iwi authority that is lodged with the council, to the extent their content has a bearing on the resource management issues of the region.
36. We agree with Mr Chapman that the higher order documents, namely the NZCPS and RCEP are deserving of, and should be given greater weight, than the IMP relied on by the submitters.
37. We note the higher order documents contain particular provisions which are detailed and directly applicable to the issues that this application gives rise to. In contrast, the IMPs have broad provisions which, as Ms Hall herself noted, are not based on resource management principles but reflect a statement of “desire”.
38. So taking into account the competing views as to weighting of IMPs in relation to the high order documents we prefer the position advanced by both Mr Chapman and Ms Walker. Accordingly in this decision we place greater weight on the higher order documents such as the NZCPS and RECP than the IMPs in relation to the discharge of waste water to the coastal marine area and the occupation of that area by the pipeline infrastructure.

#### Weight to be given to South-East Marine Protection Forum’s proposed Type 2 marine protected area

39. The discharge point is located within a proposed Type 2 Marine Protected Area (MPA). What weight to be given to the proposed MPA in this particular case arose as an issue. Mr Chapman

detailed for us the South-Eastern Marine Protected Areas (SEMPA) process to date. We understood from him that the SEMPA is at a very early stage of its development. A consultation and submission process has been undertaken (the most recent submission round closed on 3 August), but no decisions have been made at this point in time.

40. Consequently, the MPA is not in yet in effect, and there is no certainty when it will be, or what conditions it will impose. We note that Ms Kelly within her supplementary report, agreed that we could consider the MPA under s104(c), but for the above reasons that it could be given little weight.
41. Mr Chapman also advised us that the recommendation to government was to ban 'bottom disturbance', but there are no draft regulations or implementation plan in the proposal subject to submissions, and no clear picture as to whether the proposed ban applies beyond mineral exploration and extraction.
42. For these reasons, we concluded that the proposed MPA was not a matter that we should place any weight upon.

## **7. DESCRIPTION OF THE PROPOSAL AND RESOURCE CONSENT APPLICATIONS**

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43. The notified proposal seeks six resource consents from CRC. The resource consents seek to authorise the entire proposal. Oceania has provided a detailed description of the proposal within the Application. Essentially the six resource consents relate to the construction of a 7.5 kilometre pipeline and discharge of treated wastewater from the Oceania milk-processing factory situated at 30 Cooneys Road, Glenavy, into the Coastal Marine Area. We are dealing with all six resource consents as being part of a single proposal.
44. Three of the consents, CRC201187 – earthworks to install a pipeline, CRC201191 - take groundwater from dewatering and CRC201192 - discharge groundwater from dewatering, relate to the installation of the pipeline across land. The location and route of this part of the pipeline is identified on Figure 1 found on page 2 of Ms Walker's section 42A report, being the land located between the two red arrows on Figure 1 (Oceania proposed a duration of 10 years for each of these three consents). We describe this part of the proposal as the Terrestrial Part.
45. The remaining three resource consents, CRC201188 - To use land for the erection and placement of structures in the coastal hazard zones, CRC201190 - To disturb and deposit material on the foreshore or seabed, to erect structures and to occupy the coastal marine area, and CRC201194 - To discharge contaminants to coastal marine area, relate to works and the ongoing discharge in the coastal marine area and coastal hazard zones. We describe this part of the proposal as being the Coastal Part.
46. Oceania proposed a duration of 35 years for CRC201190 and CRC201194, with a 10 year lapse period. A duration of 10 years is sought for CRC201188.

### **Terrestrial Part**

47. Earthworks will be undertaken to install a 300-450 millimetre diameter pipeline approximately 7,500 metres in length, and associated structures, in the road reserve between the milk processing factory at 30 Cooneys Road, and Archibalds Road.
48. The pipeline will be at depths between one and three metres below ground level and will be constructed using either trenchless methods (e.g. micro tunnelling) or conventional trenching. Excavations will be no deeper than five metres below ground level.

49. The proposed pipeline will pass under two MGI irrigation pipelines. It also crosses beneath the main south line of the South Island Main Trunk Railway, and Morven-Glenavy Road. Works will also occur underneath Transpower's Glenavy – Timaru power transmission line.
50. Micro-tunnelling will be used to pass beneath the railway line. During the hearing, the Applicant confirmed its preferred method of installing the pipeline under the MGI pipelines was ring trenching, rather than micro-tunnelling.. However the proposed conditions allow for either method, subject to there being no damage to the irrigation infrastructure. Micro-tunnelling involves the wastewater pipeline being encased in a larger concrete or steel casing pipe of approximately 600 millimetres in diameter. The pipeline in this instance will be constructed with a jacking pit on one side and a receiving pit on the other side. The casing pipe will be thrust progressively into place.
51. Dewatering water will be taken from the trench as required, during construction, either by well-pointing or open sump pumping. The rate and timeframe of dewatering will be determined by the contractor at the commencement of work to meet on site conditions.
52. The Applicant will prepare a Dewatering Management Plan (DMP) prior to commencing dewatering activities. The DMP will include the following:
  - a. the methodology for dewatering including location and type of take points;
  - b. a description of how the pump rate will be monitored;
  - c. a programme of works including an indicative timeframe; and
  - d. a well interference assessment against Schedule 12 of the Land and Water Regional Plan.
53. Dewatering water will be discharged either to land or to nearby irrigation channels. The dewatering water will be initially discharged to settlement tanks to remove sediment prior to discharge. If the discharge is to the irrigation channels, conditions limit the concentration of suspended solids to a maximum of 100 grams per cubic metre.

### **Coastal Part**

54. Construction works within the coastal hazard zones and the coastal marine area will be undertaken via micro-tunnelling. The Applicant originally stated it is likely the contractor will use a surge tank as the jacking pit to construct the coastal section. However at the hearing the surge tank was replaced by a manhole. This change is reflected within conditions.
55. The proposed micro-tunnelling approach will mean that the only above ground disturbance in the coastal hazard zones is the construction of an access/ inspection man hole structure.
56. The proposed works in the coastal part will take approximately three months.
57. The Applicant notes that it is currently planned that the micro-tunnelling operation will terminate 100 metres offshore at an approximate depth of seawater of eight metres, approximately 1.5 metres below the seabed. However it is possible that the entire offshore section will also be undertaken using micro-tunnelling.
58. Extraction of the micro tunnelling machine will be from a barge-mounted dredger, and will require the disturbance of an area of seabed of approximately 30 square metres.

59. If micro tunnelling is not used for the full length of offshore pipeline, the pipeline will be installed by either dredging or using a self-sinking anchor.
60. There are several methods of dredging that could be used by the Applicant, including barge-mounted dredger, backhoe, section dredgers, and water injection dredgers or jetting. Dredged material will be placed adjacent to the underwater trench until the pipeline is installed, and then the trench back-filled. The Applicant estimates the total volume of dredged material will be up to 1,000 cubic metres.
61. If the self-sinking anchor method is used, the pipe will be floated out to sea and sunk by filling with water. Once the pipe is on the seabed, anchors holding the pipe will sink into the seabed, burying the pipeline over a short period of time.
62. The Applicant proposes to occupy the coastal marine area with the following structures:
  - a. a man hole;
  - b. a below-seabed wastewater pipeline of approximately 300 metres in length; and
  - c. three exposed diffusers 50-100 metres in length.
63. The Applicant proposes to discharge a maximum daily volume of treated wastewater of 10,000 cubic metres. The ocean outfall discharge design flow rate will be a maximum of 116 Litres per second (L/s). The outfall diffuser will be designed to discharge treated wastewater into the marine environment to achieve a minimum dilution of 300:1 within 50 metres of the discharge point (the mixing zone).
64. The wastewater generated on-site will include mainly milk processing waters and also will include tanker clean-in-place (CIP) wash water and water used to wash the tankers that deliver the milk. This includes the chemical cleaning of stainless steel dairy equipment such as milk dryers and silos.
65. An inventory of the main cleaning agents and chemical additives used at the facility is included as Appendix 2, attached to the section 42A report.
66. There will be no discharge of human effluent wastewater to the ocean outfall. Human wastewater from the factory (staff and visitor facilities) will be treated separately in an on-site, upgraded package treatment system and land disposal field and discharged under existing consent CRC171312. The Applicant has a domestic wastewater consent CRC201122 in process, which takes into account an increased volume from the current and proposed factory expansion.
67. There will be no discharge of stormwater to the ocean outfall. Stormwater consents for the proposed Stage 3 expansion will be applied for at a later stage if this proposal is granted.
68. As noted earlier, the Applicant proposes to continue using their current consents CRC164414 and CRC174198 to discharge treated factory wastewater to surrounding farmland, up to the maximum combined consented daily volume of 2,650 cubic metres per day, when conditions to discharge to land are favourable.
69. Insofar as the wastewater discharge is concerned, the Applicant proposes to:
  - a. treat the wastewater in a treatment system which includes:
    - i. dissolved air flotation (DAF) to remove fat and suspended matter;

- ii. secondary treatment with biological reactor tanks to remove organic and nutrient constituents; and
  - iii. UV treatment for reduction of pathogens.
- b. transfer the treated wastewater to holding tanks.
- c. have a regulatory mixing zone of 50 metres in all directions from each of the three outfall diffuser sections.
70. The Applicant proposes to meet the following wastewater discharge quality concentrations after treatment at the factory, shown in the table below:

Parameter	Expected concentration	95%ile concentration
Temperature	30-40 °C at factory, ambient at discharge	
pH	7-9	
Chemical oxygen demand	150 g O <sub>2</sub> /m <sup>3</sup>	300 g O <sub>2</sub> /m <sup>3</sup>
5-day biochemical oxygen demand	30 g O <sub>2</sub> /m <sup>3</sup>	50 g O <sub>2</sub> /m <sup>3</sup>
Total suspended solids	50 g/m <sup>3</sup>	70 g/m <sup>3</sup>
Ammoniacal nitrogen	2 g N/m <sup>3</sup>	4 g N/m <sup>3</sup>
Nitrate + nitrite	10 g N/m <sup>3</sup>	15 g N/m <sup>3</sup>
Dissolved inorganic nitrogen	12 g N/m <sup>3</sup>	15 g N/m <sup>3</sup>
Total nitrogen	15 g N/m <sup>3</sup>	20 g N/m <sup>3</sup>
Dissolved reactive phosphorus	2 g P/m <sup>3</sup>	4 g P/m <sup>3</sup>
Total phosphorus	2 g P/m <sup>3</sup>	4 g P/m <sup>3</sup>
Faecal coliforms & Enterococci	<100	
Arsenic	<50 mg/m <sup>3</sup>	
Cadmium	<2 mg/m <sup>3</sup>	
Chromium	<50 mg/m <sup>3</sup>	
Copper	<10 mg/m <sup>3</sup>	
Lead	<5 mg/m <sup>3</sup>	
Nickel	<15 mg/m <sup>3</sup>	
Zinc	<100 mg/m <sup>3</sup>	

## 8. THE EXISTING ENVIRONMENT AND SITE VISIT

71. The existing environment is described in the AEE at section 5, page 18, and in the supporting technical reports, with additional information provided in the section 42A report. There was no dispute between the Applicant or Council witnesses as to the extent, or state, of the existing environment.

## **Terrestrial environment**

72. The pipeline is proposed to run through a predominantly rural setting and will be situated in a road reserve. The route along the road reserve is flat.
73. The land is zoned Rural in the Waimate District Plan.
74. The factory is located in the Lower Waitaki catchment, forming part of the Northern Fan Freshwater Management Unit and the Whitney's Creek groundwater allocation zone in the Canterbury Land and Water Regional Plan.
75. There are no heritage features, outstanding natural landscape or outstanding natural features along the pipeline route.
76. The geology is described as rounded gravels and sands with occasional boulders.
77. The site is located within the Morven Drain catchment. Groundwater levels are estimated to be between one and 3.5 metres below ground level. The site is located over a semi-confined or unconfined aquifer. The site is not located within a community drinking water protection zone. The closest community drinking water protection zone is located over five kilometres away.
78. According to S-maps, soil in the area is moderately well-drained Darnley stony silty loam and Darnley shallow silty loam and well-drained Balmoral very stony silty loam.
79. The closest natural surface water bodies are Whitney's Creek, the mouth of which is located over one kilometre to the south, and the Waitaki River, the mouth of which is located seven kilometres to the south of the proposed outfall.
80. The proposed pipeline route is not listed on Canterbury Regional Council's Listed Land Use Register as a contaminated site.
81. We understood there are limited number of Waimate District Council services in proximity to the proposed pipeline route. We note the Applicant consulted with the Waimate District Council Roding Manager, Mr Robert Moffatt. We were provided with an email from Mr Moffatt intimating that Council agreed in principle to the pipeline being located within roadway reserve. The Applicant noted formal written approval from the Waimate District Council would be required prior to works commencing.
82. The proposed pipeline route is located within the rohe of both Te Rūnanga o Waihao and Te Rūnanga o Arowhenua. Additional comments on the cultural landscape follow below.
83. No indigenous flora were identified for us as part of the receiving environment potentially affected by this part of the proposal. However in terms of fauna, while no signs of lizards were present, potential lizard habitat existed in the form of large parcels of logs and branches under trees and piles of broken concrete slabs and the like in paddocks surrounding the road reserve.
84. The gully area, which is addressed when we consider the existing environment for the second part of the proposal, was identified as favourable and/or likely habitat for lizards.

## **Coastal environment**

85. The pipeline passes from the end of Archibalds Road through a large gully, which is believed to have been created by discharge from the outfall of the MGI irrigation overflow channel. This overflow has recently been capped and no longer flows. The gully has steep, partly vegetated

sides, with an overgrown path to the beach on the southern side. An ecological survey revealed McCann's skink in this area. This species is not threatened. The application notes that a number of other species have been recorded within 50km of the site, and some could potentially also be present.

86. The discharge point is in a relatively remote part of the South Canterbury coast between the Waitaki and Waihao rivers. Sheer cliffs are fronted with a narrow beach of cobbles, coarse gravel and sand. The coastal area is a very dynamic, exposed, high energy environment, influenced by northward flows from the Waitaki River, and the Southland Current. The cliffs are subject to frequent erosion, averaging about 0.5m loss of land per year. As a consequence, the coastal strip is classified in the RCEP as Coastal Hazard Zone 1 (to approximately 75m inland from the current coastline) and Coastal Hazard Zone 2 (to approximately 128m inland from the current coastline).
87. Water quality in the area is very high, and was classed by Dr Wilson as being 'pristine' or 'undisturbed' using ANZECC (2000) and ANZG (2018) guidance. There is a low level of primary production and the water meets contact recreation guidelines for faecal bacteria. Water clarity is poor due to fine sediments naturally dispersed from the Waitaki River.
88. The benthic environment at the point of discharge is predominantly fine sand and silt/clay. There is a relatively low density of benthic fauna, and relatively low species diversity. Fauna comprises common, tolerant species, particularly polychaete worms, which are able to rapidly recolonise areas of disturbance. The benthic community does not provide significant food for the fish community. There are no shellfish due to the lack of hard substrates.
89. Fish likely to be present in the area are species common in the Canterbury Bight. There is virtually no commercial fishing in the area due to restrictions limiting fishing. Both benthic and fish communities were considered by Ms Coates to be of low ecological value.
90. The wider area (within 50km north and south and up to 25 nautical miles offshore from the discharge point) provides habitat for Hector's dolphin (nationally vulnerable) and New Zealand fur seals. These species are likely to be frequently present in the immediate vicinity of the outfall. Southern right whale, orca, common dolphin, dusky dolphin and leopard seals could also be present on an occasional basis, although their presence around the outfall is likely to be highly infrequent and transitory. As some of these species are nationally threatened, the marine mammal community was assessed by Ms Coates as being of very high ecological value.
91. The area provides habitat for a large variety of coastal and sea birds. Surveying at the site by the Applicant's consultants recorded 17 species of seabirds, including a number of threatened and at risk species. Most of the sightings were of birds flying through the area, with some resting on the water or shore, with a small number actively feeding. Penguins may use the area for feeding, but are considered unlikely to nest in the area.
92. The bird community was again assessed by the Applicant as having very high ecological value.

### **Cultural Landscape**

93. The history of Kāti Huirapa with the land goes back more than 70 generations when, according to tradition, Rākaihautū came to Te Wai Pounamu from Hawaiki in the canoe Uruao. The canoe landed at the boulder bank at Whakatū (Nelson). While his son Te Rakihouia took some of the party down the east coast, Rākaihautū led the remainder through the interior to Te Ara a Kiwa (Foveaux Strait). With his ko (digging stick) Rākaihautū dug Te Kari O Rākaihautū (the southern lakes).

94. The takiwā of Te Rūnanga o Waihao centres on Wainono and extends inland to Omarama and the Main Divide. Mana whenua whakapapa to Waitaha, Kāti Mamoe and Kāi Tahu (Kāi Tahu).
95. The name Waihao refers to the hao eel, an important food resource obtained from the Waihao River. The hao eel was and still is a delicacy to whānau who gather mahika kai from the Wainono Lagoon and the Waihao River.
96. Te Rūnanga o Arowhenua submitted that between the Waitaki River and the Washdyke Lagoon north of Timaru, there are a number of culturally significant sites (burial sites, food gathering sites, settlement sites) and waterways containing mahinga kai species.
97. MsWalker advised that the terrestrial part of pipeline route is not located within a Rūnanga Sensitive Area, Silent File or Statutory Acknowledgement Area. The marine section of the pipe is located in a Rūnanga Sensitive (wāhi taonga) area, which covers the Canterbury coast between the Rakaia and Waitaki rivers. This is discussed later in the decision.

#### **Other discharges**

98. There are two other consented discharges to the coastal marine area in the vicinity of the proposed discharge. These are:
  - a. the Fonterra milk processing factory at Studholme, which holds consent to discharge up to 24,000m<sup>2</sup> of treated wastewater per day. This is located 14 km north of the proposed Oceania discharge; and
  - b. Silver Fern Farms discharge of effluent from its meat processing works, 40 km north of Pareora. The consent allows the discharge of 12,000 cubic meters of effluent per day.

#### **Site Visit**

99. We did not need to undertake a site visit because, due to the COVID 19 restrictions, the Applicant made available to all participants drone footage of the factory and the entire pipeline route, including that part located in the sea off the coast. That drone footage was presented during the hearing with commentary from Mr Lodge. We asked a number of questions about the site. We were well satisfied that a site visit was not required because of presentation before and during the hearing of the drone footage and commentary.

### **9. STATUTORY PLANNING FRAMEWORK**

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100. Consents are required under two regional plans: the Canterbury Regional Coastal Environment Plan (RCEP) and the Canterbury Land and Water Regional Plan (LWRP).
101. The resource consents required are outlined in both the AEE and the section 42A report. There was no dispute between parties on this matter. The consents required are summarised in the table below. The only matter for discussion was whether all consents should be bundled together as part of one proposal (the Applicant's position) or whether the landward consents should be bundled separately from the coastal consents (Ms Walker's position). We see no benefit from the consents being in two bundles - they are clearly all part of one proposal. Given this, the overall activity status is discretionary.

<b>Consent number</b>	<b>Activities requiring consent</b>	<b>Rule</b>	<b>Activity status</b>
CRC201187	Land Use Consent (s9) to use land for earthworks for installation of a pipeline	Rule 5.176 of the LWRP	Restricted discretionary
CRC201191	Water permit (s14) to take groundwater for de-watering)	Rule 5.120 of the LWRP	Restricted discretionary
CRC201192	Discharge Permit (s15) to discharge dewatering water to land or water	Rule 5.120 of the LWRP	Restricted discretionary
CRC201188	Land Use Consent (s9) to use land for erection and placement of structures in the Coastal Hazard Zones	Rule 9.2(a) & (f) of the RCEP	Restricted discretionary
CRC201190	Coastal Permit (s12) to disturb and deposit material to the foreshore or seabed, to erect and place structures and to occupy CMA	Rules 8.2, 8.3(c) 8.7, 8.12 and Rule 8.23 of the RCEP	Discretionary
CRC201194	Discharge Permit (s15) to discharge treated wastewater into CMA	Rule 7.2 of the RCEP	Discretionary

102. We observe, for completeness, some of the activities within the terrestrial part such as discharge of construction phase stormwater, discharge of construction dust and storage of hazardous materials during construction are all permitted activities. This is because the evidence demonstrated the Applicant could meet all conditions of the relevant rules namely respectively Rule 5.94A of the LWRP, Rule 7.32 of the Canterbury Air Regional Plan and Rule 5.179 of the LWRP.

## **10. PRINCIPAL ISSUES IN CONTENTION**

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### **Terrestrial Part**

103. The principal issues in contention for this part of the proposal were:
- a. potential effects on groundwater quality and quantity;
  - b. potential conflicts with existing infrastructure services;
  - c. potential effects on significant habitats of indigenous fauna;
  - d. potential effects on shelterbelt trees on Mr Francis's land; and
  - e. effects on Cultural Values
-

104. The section 42A Report identified a number of other effects, effects on surface water quality, and effects on land stability We agree with Ms Kelly's assessment as to these effects in that provided conditions are complied with these effects are accepted as being no more than minor. We note that no other submitters who appeared took issue with Ms Kelly's assessments and findings on the level of these effects.

#### **Effects on groundwater quality and quantity**

105. On the issue potential adverse effects on groundwater quality, we agree with Ms Walker's assessment and evaluation inclusive of recommended conditions in her paragraphs 45 through 57, and we accept the evidence put forward by the Applicant relating to potential adverse effects on groundwater quality.
106. Particularly we note that Mr Peter Francis, a submitter in opposition who owns and operates a dairy farm immediately to the north of the pipeline, was particularly concerned that taking groundwater as a result of dewatering during excavations could affect his property by reducing his ability to take water. He was also concerned about groundwater quality, given the proposed discharge of dewatering water to land.
107. Mr Coutinho's evidence was that as the aquifer is shallow, unconfined and highly permeable, and any groundwater removed will be returned to the aquifer very rapidly. Any effects are likely to be minimal, and confined to the area immediately around the dewatering site. There would also be no expected effects from the discharge of water on water quality, as any sediment will be removed in the settling tanks and further through filtration through the soil,.
108. Ms Walker recommended that the Applicant provide a dewatering management plan, which would be submitted to CRC prior to commencing any dewatering. That plan would cover the rate of take, as well as including an assessment under Schedule 12 of the Land and Water Regional Plan (concerned with well interference effects).
109. It was Ms Walker's view, and we agree with her, that the potential adverse effects on both groundwater quantity and quality are likely to be less than minor and in any event could be mitigated through these proposed conditions.

#### **Potential conflicts with existing infrastructure services**

110. To deal with and manage possible conflicts with other service providers, the Applicant proposed that design and construction works would be carried out with the guidelines based on both the National Code of Practice for Utility Operators Access to Transport Corridors and the Guide for Safety with Underground Services.
111. KiwiRail, Transpower and MGI Irrigation Company submitted either in support or in a neutral stance, providing that their particular infrastructure was protected. For example KiwiRail, in its submission, noted that provided future approvals are obtained to legally install the pipe within railway land then there would not be issues of concern.
112. MGI Irrigation Company appeared at the hearing and provided evidence supporting its concern that the irrigation infrastructure was properly protected when the Applicant was undertaking pipeline construction works.
113. Ms Walker and the Applicant, along with some of the submitters, supported the inclusion of consent conditions to provide for managing and avoiding conflict with existing services. We agree with that approach and have adopted it within conditions.

### **Potential effects on significant habitats of indigenous fauna**

114. As identified above, the gully area through which the pipeline passes, contains lizard habitat. While the one species of lizard identified as being present is not an at risk species, the Applicant proposes to prepare, in consultation with Rūnanga, a lizard management plan.
115. The aim of the plan is to protect any species of indigenous lizard present where habitat disturbance is proposed, and rehabilitate and enhance the habitat, to help ensure that any long-term impact is a positive impact.
116. We are satisfied that this approach is an appropriate means of dealing with any threat that the construction activity may cause to any lizard population, and will ensure any effects on lizards and lizard habitat are minor. We have adopted this approach in conditions.

### **Potential effects on shelterbelt trees on Mr Francis's land**

117. Mr Peter Francis who owns and operates a farm on a neighbouring site, expressed concern that the construction works for the pipeline could detrimentally affect an existing shelterbelt located on his property. The Applicant proposed that a condition be included within CRC201187 requiring an arborist to ensure that the proposed works do not impact on the root zone of the trees. We agree with this approach.

### **Potential effects on cultural values**

118. Te Rūnanga o Arowhenua and Te Rūnanga o Waihao identified impacts on indigenous flora and fauna, specifically lizard habitat. This is expanded on further in the section addressing Effects on Cultural Values. We agree with the requirement to develop a Lizard Management Plan and are satisfied that this approach is an appropriate means of dealing with any threat that the construction activity may cause to any lizard population.

### **Relevant policy considerations**

119. There was no conflict between the expert planning witnesses relating to the identification of the relevant objectives and policies within the planning documents. These are:
  - a. the National Policy Statement on Electricity Transmission 2008,
  - b. the Canterbury Regional Policy Statement (RPS) - Chapter 5 Land use and infrastructure, Chapter 7 Freshwater, Chapter 15 Soils, Chapter 17 Contaminated land; and
  - c. the Land and Water Regional Plan (the LWRP).
120. Ms Walker, in her section 42 report on the Terrestrial Part of the proposal, from paragraph 104 through to paragraph 137, identifies all of the relevant objectives and policies and assesses the proposal against them. There was no dispute between the witnesses that the terrestrial part of the proposal was consistent with the relevant objectives and policies of the relevant documents.
121. We agree that Ms Walker and Ms Singh have identified all of the relevant objectives and policies from the relevant planning documents and we agree and adopt their conclusion that the proposal is consistent with the relevant policies and objectives of these planning documents.

### **Coastal Part**

122. For the coastal part of the proposal the following were the principal issues in contention:
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- a. effect of discharge of wastewater on coastal water quality;
- b. effects of construction of the pipeline on coastal water;
- c. effects on marine ecosystems;
- d. effects on coastal hazards; and
- e. cultural values; and
- f. recreational and amenity values.

123. Other effects were identified by the Applicant in its AEE, within expert evidence we received and by Ms Walker in the section 42A Report. These include effects on freshwater habitat, public health, landscape and visual values, and on navigation safety. We accept and adopt those assessments. After assessing the relevant evidence and the conditions proffered, we conclude that the effects are likely to be less than minor during both the construction phase and operation/ occupation phase of the pipeline.

#### **Effect of discharge of wastewater on coastal water quality**

124. As noted earlier, the water quality in the area is very high. The discharge of contaminants into such an environment was of significant concern to submitters. Evidence on the effects on water quality was primarily provided by Dr Wilson and Dr Bolton-Ritchie. No submitters provided expert evidence on this issue.
125. The Applicant proposes to treat its wastewater to a very high standard, nonetheless, the discharge will contain nutrients (nitrogen and phosphorus), metals, and trace amounts of cleaning chemicals, suspended sediment, and organic material (biochemical oxygen demand).

#### Relevant policy considerations

126. The New Zealand Coastal Policy Statement (NZCPS) seeks to maintain coastal water quality, or enhance it where it has deteriorated from its natural condition (Objective 1). As discussed below, it was common ground that the water quality in the area is very high, and is not degraded. Policy 23 lists a number of factors to which regard must be had in managing discharges. These are:
- a. the sensitivity of the receiving environment;
  - b. the nature of the contaminants to be discharged, the particular concentration of contaminants needed to achieve the required water quality in the receiving environment, and the risks if that concentration of contaminants is exceeded;
  - c. the capacity of the receiving environment to assimilate the contaminants;
  - d. avoiding significant adverse effects on ecosystems and habitats after reasonable mixing;
  - e. using the smallest mixing zone necessary to achieve the required water quality in the receiving environment; and
  - f. minimising adverse effects on the life-supporting capacity of water within a mixing zone.
127. Objective 8.2.6 of the RPS is to protect coastal water quality and the associated values of the coastal environment from significant adverse effects of discharges.

128. The RCEP does not provide a water quality classification for the coastal waters around the proposed outfall. Under the RCEP, that waters are therefore considered to be 'natural state' Policy 7.1 is that:

*In areas where water quality classes for parts of the Coastal Marine Area have not been established in this plan, the granting of a resource consent to discharge a contaminant or water into water, or onto or into land in the Coastal Marine Area:*

- a. shall not unreasonably restrict existing lawful uses of the coastal water; and*
  - b. shall provide that, after reasonable mixing, the discharge shall not have any more than a minor adverse effect on the quality of the water existing prior to the granting of the resource consent.*
129. The RCEP does not contain any relevant water quality standards. Trigger values from various sources were therefore used by the Applicant. Dr Bolton-Ritchie's evidence was that given the open coast location, the presence of high ecological value mammals and birds in the area, the lack of other discharges or activities affecting water quality, the coastal water quality and environment must, with reference to ANZG (2018), be considered of high conservation and ecological value. Agreement was reached between the two experts on the appropriate guideline values to be met following reasonable mixing of the discharge.
130. Policy 7.6 of the RCEP provides guidance on setting the size of the mixing zone. This includes consideration of factors such as the volume of discharge and concentration of contaminants, sea conditions, relevant water quality standards, nearby uses, and the natural values of the receiving environment.
131. The Applicant used dispersion modelling to determine a reasonable mixing zone of 50m. The CRC experts agreed that this was an appropriate zone size, and we are similarly satisfied.

#### Evidence on effects

132. The Applicant proposes to continuously monitor the concentration of the various parameters in the effluent at the point of discharge from the treatment system into the discharge pipe (i.e. at the factory). This allows close control over management of the treatment system and the quality of the effluent.
133. Appropriate trigger value concentrations were agreed between Dr Wilson and Dr Bolton-Ritchie for various parameters, including nutrients, metals, bacteria and pathogens. Proposed conditions provide that results are to be reported weekly, and if the values are exceeded sampling must increase and investigations be undertaken into the cause and solution to prevent a recurrence. If an exceedance persists for more than 30 weeks, the discharge shall cease until daily monitoring shows that the trigger levels are not exceeded for 10 consecutive days.
134. Monitoring will also occur at the discharge point, immediately adjacent to the 50m mixing zone. A second set of water quality standards for this location was also agreed between the two experts.
135. Dr Wilson's evidence was as follows:
- a. the impact of contaminants was assessed at 'expected' concentrations, that is, under normal factory operating conditions; and the '95%ile concentrations', that is, what might be expected if the treatment system encountered problems;
  - b. the most significant toxic component of the discharge is ammoniacal nitrogen. The trigger value for further investigation of possible effects for ammoniacal nitrogen in marine environments (160 mg/m<sup>3</sup>) will be met, under normal operating conditions, with a 15 fold

dilution of the discharge. Therefore, outside the mixing zone the discharge will not cause eco-toxicological effects. Within the mixing zone, risks will be low due to the discharge plume rising away from the seabed, resulting in additional dilution;

- c. most of the cleaning products used by the Applicant will rapidly degrade to non-toxic products such as oxygen and chloride. Given the dilution within the mixing zone, remaining chemicals will be at trace levels ( $< 1\text{ mg/m}^3$ ). Such trace amounts of cleaning products in the discharge will be too low to significantly bio accumulate or otherwise act as bio toxins in the receiving environment;
  - d. the pH of the discharge will be between 7 and 9. Seawater buffering will limit pH changes to  $< 0.2$  units;
  - e. the concentration of suspended solids in the discharge is less than half the reference guideline values;
  - f. biochemical oxygen demand will meet the guideline value with a 25 fold dilution. The risks associated with oxygen depletion are very low within the mixing zone and negligible outside it;
  - g. in calm conditions, concentrations of dissolved inorganic nitrogen (DIN) and dissolved reactive phosphorus (DRP) will exceed the guideline values (1% over for DIN and 20% over for DRP). During 'normal' sea conditions, the values will not be exceeded. The potential effects of this are discussed below;
  - h. considering contaminants at the 95<sup>th</sup> percentile concentration, nutrient concentrations will exceed guidelines in both calm and normal conditions. The ANZG guidelines do not preclude exceedances under infrequent events; and
  - i. Dr Wilson's overall conclusion was that beyond the reasonable zone, effects on water quality will be less than minor, even in calm conditions. Within the reasonable mixing zone, adverse effects are very unlikely.
136. Ms Stott's evidence was that bacterial pathogens in the wastewater occur in concentrations sufficiently low to be unlikely to cause a public health risk following discharge (that is, would be unlikely to exceed a dose required to have a 1% infection risk in an exposed population). This assessment was made without considering the proposed UV treatment of the discharge, and so is highly conservative.
137. The main point of contention between Dr Wilson and Dr Bolton-Ritchie was the impact of nutrients on water quality. The potential effect of concern is an increase in the number and duration of algal blooms. Algal blooms are rapid population growths of plankton species, and are natural phenomena. While they are more common in shallower, sheltered water such as estuaries, they can occur in marine environments, including the Canterbury Bight. They tend to be limited by micro-nutrients, such as iron, rather than macro-nutrients (N and P) in the open ocean. They require stable conditions to develop and persist (weeks to months), and warm temperatures can also influence their development. Some blooms can be toxic.
138. Dr Coutinho's evidence was that calm conditions occur for only 2% of the time, and generally for short durations (less than 3 hours). Given this, Dr Wilson considered that the likelihood of an increase in algal blooms was less than minor.
139. Dr Bolton Ritchie accepted that the risk of algal blooms from the exceedance of nutrient levels above the guideline values was not of concern, as this would happen only very occasionally, in

calm conditions. She also noted that the purpose of the ANZG guideline values were as a trigger for further investigation, not a fixed limit which must not be exceeded. However, she was concerned about the total quantum of additional nutrients entering the marine environment and the potential this would have to contribute to algal blooms in the wider area, cumulatively with other nutrient inputs.

140. Phytoplankton blooms are known to occur along the Canterbury coast, although these are not formally monitored. Consequently, it was impossible to say what impact the extra nutrients may have. Blooms to date had not been of toxic species, but this may change in the future. Climate change, causing increased sea temperatures, may also increase the risk of blooms. The primary effect of concern of blooms in the open ocean (non-toxic species) was discolouration of the water (primarily an amenity effect).
141. Dr Bolton-Ritchie stated that any reduction in nutrient concentration may reduce the risk of algal blooms. She also agreed that the risk of blooms was likely to be lower when conditions were turbid, and in winter, when temperatures were lower. Reducing nutrient inputs in the summer when risk was higher, would assist.

#### Discussion

142. We accept the evidence of Dr Wilson and Dr Bolton-Ritchie, that, in general, the effect of the discharge on water quality, will be less than minor. We note the conservative nature of the dilution modelling, as outlined by Mr Coutinho. This does not consider any dilution resulting from the plume rising to the sea surface, and assumes a dilution of 300 times, when for the significant majority of time it will be significantly greater.
143. The suite of conditions proposed, including requiring tertiary treatment, setting contaminant limits in the wastewater prior to discharge, continuous monitoring of the wastewater with action to be taken if standards are not met, and monitoring of the receiving water at the edge of the mixing zone, give us confidence that the effects will be as predicted.
144. In relation to the discharge of nutrients to the ocean, and the risk of algal blooms, we are satisfied that the risk of additional or extended algal blooms as a result of adding additional nutrients to the marine environment is low. We acknowledge algal blooms occur within the wider area and that there is uncertainty over the degree of effect additional inputs will have.
145. Algal blooms are not monitored and it is not known what concentration of nutrients causes their formation and persistence, or what effect an increase in point source nutrient discharge would have. However, we also note the evidence of both experts that the formation of algal blooms depends on calm environmental conditions and that these occur infrequently.
146. This fact, coupled with the Applicant's intention to continue to use the land-based discharge when conditions permit (which are likely to generally be during the warmer months when crops are growing), will minimise the discharge of nutrients to the often as far as practicable.
147. There was discussion at the hearing of the likelihood that nutrients from the discharge enter the ocean at present when water is applied at times of soil saturation or when crops are not actively growing; however, we note that this input cannot be quantified, and so we place little weight on it. Overall, we are satisfied that the additional risk of algal blooms as a result of the discharge is sufficiently low as to be acceptable.
148. In conclusion, we are satisfied that the discharge, with the proposed conditions, complies with the relevant policies in both the NZCPS and the RCEP, in particular that adverse effects on the life-

supporting capacity of water will be minimised (Policy 23(b) NZCPS), and that the discharge will not have more than a minor adverse effect on the existing quality of the water (RCEP Policy 7.1).

### **Effects of construction of the pipeline on coastal water quality**

149. The construction of the pipeline has the potential to result in significant discharge of sediment, particularly if dredging methods are used over a long period. This can result in both visual and ecological impacts.

#### Relevant policy considerations

150. Policy 13 of the NZCPS requires the preservation of natural character of the coastal environment. While the discharge site has not been specifically identified in any planning documents as having high natural character, its naturalness, high water quality and marine life, mean that for the purposes of assessing this application, we have considered the site has natural character.
151. Policy 22(2) requires that use and development will not result in a significant increase in sedimentation in the coastal marine area. Policy 11 requires the protection of indigenous biological diversity, including avoiding adverse effects on threatened species, species and habitats that are naturally rare, and avoiding significant adverse effects, and avoiding, remedying or mitigating other adverse effects, on various indigenous habitats, ecosystems and species.
152. Objective 8.2.4 and Policy 8.3.4 of the RPS are to preserve the natural character of the coastal environment, including by protecting and enhancing indigenous ecosystems and ecological processes. Objective 8.1 of the RCEP enables the use of the coastal marine area, while avoiding, remedying or mitigating effects on natural character (and other) values. This is reflected in policies 8.3 and 8.5, which require consideration of various factors including preservation of the natural character, the need to protect characteristics of the coastal environment of special value to tangata whenua, and effects on public use and enjoyment of the coast.

#### Evidence on effects

153. The impact of construction works on turbidity in the local area was a point of contention between Dr Wilson and Dr Bolton-Ritchie. The Applicant's evidence was that the coastal environment was naturally turbid in this location, due to the sediment on the sea floor, and strong wave action. Ms Coates described very poor visibility experienced by divers undertaking benthic sampling during calm conditions at the sea surface.
154. The Applicant initially proposed a turbidity monitoring condition, requiring continuous, telemetered monitoring for 3 months prior to and during construction, with trigger values (not yet determined) to be met within 250m of the pipeline. It later withdrew this condition, on the grounds that it was not justified by an environmental effect.
155. Dr Bolton-Ritchie was concerned about the removal of this condition due to the unknown, but potentially long, timeframe for installation of the pipeline, and so the potential for repeated dredging. In response to the Applicant's evidence that the conditions were often turbid, she noted her observation that the sea along this stretch of the coastline was often not visibly discoloured more than 50m or so offshore.
156. Mr Chapman's response in closing was that there is a strong financial incentive to minimise installation time, and the condition did not manage an environmental effect, as the water is naturally turbid. He also noted that sediment controls are required under the construction management plan.

## Discussion

157. The main point of disagreement between the parties was whether the existing environment was so turbid that additional sediment release from construction activities would make little difference to the marine ecosystem and amenity values. High turbidity can damage ecosystem health and reduce the high natural character and amenity values.
158. Observational evidence on turbidity was provided by both Dr Bolton-Ritchie and Ms Coates. It appears to us that there may be a difference in turbidity at the sea floor, as experienced by Ms Coates' divers, and at the sea surface, as typically observed on a fine, calm day.
159. In relation to ecosystem health the species present, as discussed below, are either tolerant of turbid condition (benthic fauna) or able to move away if necessary (fish and marine mammals). In relation to effects on natural character and amenity values, the construction area is not readily visible to many (there is limited access to the coast and the sea is not visible from SH1), and any visual impact of a sediment plume is likely to affect only a small number of people accessing the beach or on the land immediately adjacent.
160. The Applicant proposes to prepare a construction management plan, to be certified by CRC. One of the objectives of this plan is to minimise the release of sediment during construction activities, and the plan must also identify sediment control measures.
161. Given this, we consider that the continuous monitoring originally proposed by the Applicant is not justified by the degree of effect that may result. We consider that the management plan's requirement to minimise sediment release and identify control measures, together with the Applicant's stated incentive to minimise construction time, will ensure that the effects arising from the release of sediment will be acceptable.
162. However, as an extra safeguard, we have added an additional requirement to the construction management plan such that the total duration of works must be minimised as far as practicable.
163. With these conditions in place, we consider that effects on both ecological communities, and natural character, amenity values and public enjoyment of the coastal environment, will be minor. We are likewise satisfied that the relevant policies have been appropriately considered, and the proposal is consistent with them.

## **Effects on marine ecosystems**

### Relevant policy considerations

164. The NZCPS Objective 1(a) and (b) is that natural biological processes are maintained or enhanced, representative and significant natural ecosystems, and sites of biological importance are protected, and the diversity of New Zealand's indigenous coastal flora and fauna is maintained.
165. As noted earlier, Policy 11 of the NZCPS, mirrored by Policy 8.3.4 of the RPS, requires the protection of indigenous biological diversity, including avoiding adverse effects on threatened species.
166. Policy 6.1 of the RCEP broadly requires that CRC will control activities to remedy or mitigate adverse effects on coastal ecosystems and processes and natural character in areas where it predominates. Significant adverse effects should be avoided, unless there are special or extraordinary reasons why this is not possible.

167. Policy 7.8 of the RCEP requires that a discharge should not, after reasonable mixing, give rise to significant adverse effects on habitats of indigenous fauna or on aquatic ecosystems, or have acute or chronic toxic effects on fish.

#### Evidence on effects

168. Effects on marine ecosystems were addressed by a number of experts in the application, but summarised in evidence at the hearing by Ms Coates. Likewise, the application was reviewed by a number of ecological experts for CRC, but none appeared at the hearing.
169. The evidence on effects on marine ecosystems, together with proposed conditions of consent, was accepted by CRC. As water quality beyond the mixing zone (300m) will be generally indistinguishable from the existing water quality, in our view, effects are limited to those resulting from the outfall construction, effects from the structures themselves, and effects resulting from the discharge within the mixing zone.
170. The evidence presented considered effects on benthic biota, fish, birds and marine mammals. The potential effects are summarised briefly below.

#### Benthic biota

171. The benthic biota is characterised by opportunistic taxa, capable of rapidly recolonising the mobile substrate, and is patchy and relatively sparse, given the mobile sediment on the seabed. Construction will result in loss disturbance of this community and loss of individuals; however, fairly rapid recolonisation is expected. This will minimise the loss of food resources for predators.
172. As the effluent plume will rise upwards due to its lower salinity, and the rapid dilution of the effluent, the area of any effects of the discharge will be limited. Ms Coates' evidence was that some changes in community structure may occur, but the community is regularly re-establishing itself due to the dynamic environment. Monitoring around other ocean outfalls has shown minor changes in community composition unrelated to the discharge. She anticipated a similar response in relation to this discharge.
173. To ensure that there are no or minimal effects, as predicted, beyond the mixing zone, a condition of consent required monitoring of benthic biota prior to commissioning the outfall, and then at five yearly intervals, immediately outside the mixing zone, and at control sites 600 - 1,000m away. The results of this monitoring must be reported to the CRC.

#### Fish communities

174. Fish are present in the area; however, given their mobile nature effects are anticipated to be minor, as they can avoid the area immediately adjacent to the outfall diffusers, and during the construction period, if conditions there are unsuitable (for example reduced salinity levels or elevated sediment levels).

#### Birds

175. Again, as birds are highly mobile, areas where conditions are unsuitable, either through a change in water quality, absence of fish or disturbance from construction operations, can be avoided. Consequently, effects are likely to be negligible.
176. The gully and beach in the area of pipeline construction was assessed for suitable penguin habitat and considered to be unlikely to provide habitat, due to the nature of the cliff material. However, the Applicant has proposed a consent condition requiring the gully be checked for

penguins prior to work commencing, and the construction management plan must include measures to avoid adverse effects on penguins during construction.

#### Marine mammals

177. There is a potential risk of boat strike on marine mammals during construction activity. Ms Coates assessed the risk of this as low, due to the small size of boats to be used, the low speed they will be travelling, the lack of large whale species in the areas, and the agile nature of species most likely to be present (dolphins and seals).
178. There will be no pile driving or use of explosives, operational noise will be similar to dredging occurring in many other locations, the construction period will be short. Increased turbidity may affect foraging ability. However, marine mammals are also highly mobile and can easily move away from an area. Overall, Ms Coates concluded that effects would be negligible.
179. In terms of the effects of the discharge, the only effect is likely to be potential displacement from the mixing zone. Given the size of the habitats, this impact would be negligible.
180. CRC reviewed and agreed with this assessment.
181. We accept the finding of the various ecological experts in relation to effects on the marine ecosystem, and agree that effects will be no more than minor. Consequently, we are satisfied that the relevant planning policies, in particular Policy 11 of the NZCPS, protection of indigenous biological diversity, and policies 6.1 and 7.8, of the RCEP, avoiding significant adverse effects, are met.

#### **Effect on coastal hazards**

182. The pipeline passes through coastal hazard zones 1 and 2 before entering the coastal marine area. Erosion of the cliffs and sea water inundation were identified in the s42A report as two natural hazards along the coast. Assessment of risks from coastal hazards must take account of climate change.

#### Relevant policy considerations

183. NZCPS Policy 25 requires that increasing the risk of coastal hazards must be avoided. Policy 11.3.5 of the RPS requires that activities are avoided if the risk of natural hazards is unacceptable. Policy 11.3.8 requires that the effects of climate change are considered when determining if activities are sustainable in relation to natural hazards.
184. Policy 9.1 of the RCEP requires that new development should be designed or located such that the need for coastal protection works is minimised.

#### Evidence on effects

185. Mr Coutinho's evidence was that the pipeline will be installed through the coastal hazard zones via micro-tunnelling, and to such a depth that it will not be exposed through expected coastal erosion processes over the next 100 years. Its alignment allows for over 320m of cliff top retreat and 250m of beach retreat, compared to the predicted 130m retreat over 100 years, considering climate change impacts on sea level rise and increased coastal erosion. As the pipeline is below the ground / sea bed, it will not cause any changes to longshore drift or natural coastal processes as a result of the pipeline.

186. Mr Gabites initially had concerns that building the access road through the gully to facilitate pipeline installation could cause erosion within the gully. He subsequently advised that since the MGI Irrigation Company had recently capped the overflow race that flowed through the gully, erosion would be significantly less likely. He recommended a condition that if during regular inspections of the gully evidence of significant short-term or ongoing erosion is found to have occurred within the past six months, then stabilisation measures would be required to be undertaken.
187. Mr Khareedi's evidence was that disturbance due to construction could reduce the shear strength of the soil and cliff wall in the gully, but vehicles would be limited to one digger accessing the beach, a single crane and some utility vehicles. Consequently he considered there was a low risk of erosion, and if any occurred, it would be easily mitigatable with Reno mattresses or similar.

#### Discussion

188. The conditions require preparation of a construction management plan, with one objective of avoiding adverse effects or ensuring appropriate mitigation or remediation is undertaken. The plan must detail the best practicable measures that will be adopted to avoid, remedy or mitigate construction effects within the coastal hazard zones.
189. With these conditions in place, and given the evidence of experts for both CRC and the Applicant, we are satisfied that the risk of erosion in the gully as a result of construction activities is low, and that the pipeline and associated structures will not exacerbate the risk of coastal hazards. The proposal is therefore consistent with the relevant policy framework.

#### **Effects on Cultural Values**

##### Relevant policy considerations

190. The NZCPS Objective 2 and Policy 2 require that we take into account the principles of the Treaty of Waitangi, and kaitiakitanga, in relation to the coastal environment. In particular, to recognise the traditional and continuing relationships mana whenua hold with areas of the coastal environment and to take into account any relevant iwi management plans.
191. Objective 7.1 of the RCEP enables use of the coastal environment, providing, amongst other things, that wāhi tapu and wāhi taonga of value to tangata whenua are protected. Policy 7.7 is to ensure that discharges into the coastal marine area avoid significant adverse effects on cultural or spiritual values associated with sites, (e.g. areas covered by controls such as Taiāpure or mahinga Mātaitai), of special significance to the Tāngata whenua.
192. The LWRP Objective 3.1 seeks to recognise and enable Ngai Tahu culture, traditions, customary uses and relationships with land and water. We also note Objective 3.2, which seeks to apply Ki Utah Ki tai to the management of water, recognising the connectivity between surface water, groundwater, freshwater, land and the coast.
193. We also note Policy 4.14B requires us to have regard to Ngai Tahu values expressed within an IMP. We have discussed the weight to be given to IMPs earlier in this decision. While we acknowledge the policies within the IMPs, particularly in relation to avoiding discharges to the coastal marine area, where there is conflict with the NZCPS or RCEP, greater weight has been given to those higher order documents.
194. Ms Hall identified two relevant iwi management plans: the Iwi Management Plan of Kati Harappa (1992) and the Waitaki Iwi Management Plan 2019. She also noted Te Whakatau Kaupapa Ngai

Tahu Resource Management Strategy for the Canterbury Region (1990); however, the status of this document was not made clear.

195. Iwi Management Plan of Kati Huirapa. Policy 1 specifically states that the dumping of wastes and contaminants in coastal waters should be avoided and all waste discharges shall not be discharged into rivers. Lakes, seal and natural waters.
196. The Waitaki Iwi Management Plan policies relevant to this activity are:
  - a. water quality: Policy 12, Better integrate the consenting process for water allocation and nitrate discharge. Policy 14, Encourage a process of continuous improvement, particularly in the worst impacted catchments; and
  - b. discharges: Objective 1, The direct discharge to waterways and moana of contaminants, nutrients and wastewater is avoided. Policy 1, Require the phasing out of existing direct discharges to water. Policy 3. Encourage the discharge to land of treated wastewater.

#### Evidence on effects

197. Te Rūnanga o Ngāi Tahu, Te Rūnanga o Arowhenua and Te Rūnanga o Waihao submitted and presented at the hearing as mana whenua opposing the entire proposal.
198. Mr Tewera King, Upoko Rūnaka Waihao, advised that in environmental management, Kāti Huirapa practice ki uta ki tai. The cumulative effects of pollution and lack of access to the coastal marine area have been a matter of concern to Kāti Huirapa for many generations now.
199. The concerns of mana whenua and their cultural opposition were based on a holistic approach to the environment. The Rūnanga are fundamentally opposed to discharges to the marine environment and they should not be allowed. Both Rūnanga identified concerns with cumulative effects from similar discharges within their respective coastal takiwa. Mr King spoke to the potential of the discharge to cause significant adverse effects on mahinga kai practices, the biodiversity of the coastal marine environment and significant waterways, and the whakapapa of Arowhenua.
200. While the submissions, iwi management plans and Mr King's evidence outlined nearby areas of cultural significance, the site of the discharge was not identified as a site of significance. Ms Walker identified the area (as part of the wider coastal area) being part of a 'Rūnanga sensitive area (wāhi taonga)'. It is not clear what this status means, and there is no further discussion of this in the section 42A Report and no mention of it in the cultural impact assessment.
201. Instead, both Mr King and Ms Hall's evidence notes that whanau were not limited to a discrete number of mahinga kai areas. There has been a continuous relationship with the area surrounding the discharge site for many, many generations and it remains significant for Kāti Huirapa. Mr King disagreed with the Applicant's comments in the consent application that "we are of the understanding that the immediate foreshore area has no particular significance to local iwi as a food source." He stated that if and when mana whenua can exercise customary rights to collect mahinga kai in the areas is not a question of significance, it is far more complex. He stated that mahinga kai are not limited to sites shown on maps - historical documents may limit to sites to those used preferentially in times of plenty,
202. Mahinga kai that remain today are under increasing environmental pressure and so have become increasingly important. The Rūnanga seek to protect what remains from cumulative effects of pollution and 'an exhausted whenua'. Pollution had been an ongoing problem for decades, and

affects all aspects of cultural identify. Mr King's focus was on working to reduce pollution and restore the mauri of coastal areas.

203. The issue of the adequacy of consultation between the Applicant and mana whenua, was highlighted in Mr Kings evidence. The Applicant, through Babbage Consultants, consulted Waihao via their Executive, with the Executive contracting the environmental consultancy Aukaha to work on behalf of the Rūnanga. However, Mr King who provided evidence at the hearing on behalf of Te Rūnanga o Arowhenua and Te Rūnanga o Waihao, was not party to those discussions or the CIA as he is not an executive member of Waihao.
204. Aukaha prepared a CIA in February 2020 and noted the lack of detailed information in the AEE from which to undertake its assessment. The CIA also said that 'this report should not be seen as all the consultation required with Te Rūnanga o Waihao but as a basis for ongoing consultation and discussion between Oceania Dairy and Te Rūnanga o Waihao.
205. Te Rūnanga o Arowhenua engaged Aoraki Environmental Consultancy (AEC) to provide them with expert advice and prepare their evidence for the hearing. The level of engagement the Applicant had with AEC and Arowhenua is where the concern for the adequacy of consultation arises.
206. Mr King's evidence was that Arowhenua, in forming a position on the application, considered whether it is better to discharge to water or land. He noted that this was a very difficult question, but overall the Rūnanga regard the proposal to discharge to sea as a mitigation, not an enhancement of the existing situation.
207. Ms Hall agreed that the RMA and the RCEP provide the statutory framework under which the Oceania application needs to be processed. However she concluded, at paragraph 131, that as a result of the significant issues raised by Ngāi Tahu regarding the assessment of the physical effects on water quality and mahinga kai, there is too much uncertainty to conclude that the application is generally consistent with the relevant policy framework, the Waihao and Arowhenua Iwi Management Plans or with Part 2 of the RMA.
208. Ms Te Maiharoa-Sykes, presented evidence solely on behalf of Waitaha, separate to the representations of Ngai Tahu whanui.
209. She stated that water means eternal life to Waitaha. To be culturally healthy for Maori, water needs to be safely swimmable in by both fish, seals, penguins and people. She was particularly concerned that in an emergency, unpermitted waste will be disposed of via the pipeline. She considered it better to not have a pipeline, and plan on other alternative emergency disposal plans.

#### Discussion

210. There was considerable evidence presented by the submitters on their concerns regarding the impact of the discharge on cultural values. This stems from their role as kaitiaki of the natural environment, their philosophy of ki uta ki tai, and their consequent concern that discharge of any waste products in to the ocean will have adverse effects on ocean communities and the mauri of the water.
211. The evidence from the submitters was that there is a close association between the health of water and the health of overall iwi values, In freshwater terms, the National Policy Statement on Freshwater Management (although not directly relevant to this application) describes this as Te Mana o te Wai. We understand and acknowledge that similar views are held about marine water quality.

212. The discharge location, and the marine environment nearby, form part of a wider area used for food gathering and as a travel route up and down the coast, and we accept the historical and ongoing connection with the coast in this regard. However, no particular significance appears to attach to this part of the coast, compared to other areas,
213. We were interested in whether there were values or areas of significance to which we should have particular regard in assessing the impact of the pipeline. However, none of the sites of cultural significance identified to us, in written submissions, evidence, iwi management plans and in the verbal evidence of Mr King, included the part of the coast where the discharge will occur.
214. There was no evidence of particular mahinga kai gathering in the area; no evidence of shellfish beds or highly valued fishing locations. There are no protected customary rights in the area, or identified wāhi tapu. As noted earlier, the area was identified by Ms Walker as a 'runanga sensitive area' but we are not clear what this provides.
215. The concerns raised by mana whenua were therefore not site-specific, but applied to the coastline and marine environment generally. These concerns are understandable and shared equally by many non-Maori submitters.
216. However, the evidence before us was that the effects of the discharge on the marine environment (and the effects of the installation and occupation of the pipeline on both terrestrial and marine environments) will be minor. This included consideration of cumulative effects with other existing and proposed ocean outfalls along the South Canterbury coastline between Timaru and the Waitaki River.
217. So we find that the fears and concerns of effects on water quality, ecological communities, human health, taonga species, are unfounded. While we acknowledge that the thought of wastewater being discharged to the coastal environment is 'abhorrent', the evidence is that within 50m of the discharge points, the water quality will be virtually indistinguishable.
218. There was discussion with the Applicant, mana whenua and experts about only using the coastal discharge when it was not possible to discharge to land. The Applicant does not intend to surrender their current resource consents to discharge to land; instead, to discharge to land whenever it is practicable. This allows the cultural concerns of discharge to ocean to be addressed in part because preference will be given to land discharge over coastal discharge subject to conditions effecting that land discharge.
219. We also agree with Ms Walker that recommended conditions on erosion and sediment control measures, a lizard management plan, and accidental discovery protocol for archaeological finds will help mitigate any effects on Ngai Tahu values.
220. In relation to the concerns over full engagement with Rūnanga, we understand that the Applicant understood that it should consult with Te Rūnanga o Waihao as the papatipu Rūnanga. There is clearly some confusion about the overlapping rohe of the two Rūnanga.
221. However, Te Rūnanga o Arowhenua was able to be involved in the process through the submission process and have had the opportunity for their views to be heard. In terms of their ongoing role as kaitiaki, the conditions provide for a role for both Rūnanga to be engaged in preparation of the lizard management plan and lizard monitoring, and the Community Liaison Group,
222. In relation to Ms Hall's assertion of the importance of the iwi management plans, and in particular policies to avoid discharges to the coastal marine environment, we have noted earlier our view on

the weighting to be given to these plans, compared to the higher order NZCPS, RPS and RCEP.

223. We note that the regional documents were prepared having regard to the iwi management plans in force at the time and have decided, all matters considered, that it is appropriate to provide for discharges to the marine environment. There is an acknowledgement in these documents that provided effects are managed appropriately, the coastal environment is a resource that can be used, including for discharges.
224. This does not provide for, of course, discharges or other activities that have effects, including on cultural values that are deemed unacceptable. However here we find that, due to the nature of the discharge, the less than minor effects predicted to occur, and the position of the Applicant that it will use the land based discharge as the priority method of disposing of wastewater, that effects on cultural values are also minor. Furthermore, given that the two methods of discharge can be used complementarily, there may even be an improvement in terms of overall environmental effects over the current situation.
225. In conclusion, we consider that the effects on cultural values are minor and that while the application is not consistent with the preferred management of resources outlined in the iwi management plans, it is consistent with the relevant objectives and policies of the statutory documents outlined above.

### **Effects on Recreational and Amenity Values**

#### Relevant policy considerations

226. The Department of Conservation CMS for Canterbury (DOC 2016) locates the study area within the Coastal Land and Marine / Ki Tai Place. The only conservation site near the study area within the Coastal Land and Marine / Ki Tai Place is at Wainono Lagoon.
227. The CMS notes:
  - a. All public conservation lands within the Coastal Land and Marine Place are being protected, restored and often managed in conjunction with adjoining lands as the last remnants of the indigenous lowland coastal ecosystems of Canterbury.
  - b. Coastal recreational use is increasing in ways that enhance public understanding and appreciation of coastal ecosystems and species and their vulnerabilities within Canterbury, and avoids adverse effects on those ecosystems and species. Any vehicle use avoids wildlife disturbance, vulnerable ecosystems and historic sites.
228. The Regional Coastal Environment Plan (RCEP) for the Canterbury Region (2005 amended 20 Sept 2012) identifies the Wainono to Waihao River Mouth area and the coast between the Waitaki River mouth and Carrolls Road (200m from MHWS) (Figure 18) as Significant Natural Areas, but does not describe those coastal settings as areas with minimum water quality class management requirements for contact recreation or for shellfish gathering (Schedules 4 and 5 of the RCEP) (the nearest Water Quality Areas are just south of Timaru at Tuhawaiki Point and Normanby). Water quality classes are established to “set water quality standards and control the discharge of contaminants and water within the parts of the Coastal Marine Area defined in Schedule 5 that contain areas of degraded water quality or which need classifications to reflect existing or potential uses of the areas” (Policy 7.2).
229. The Waimate District Sport and Recreation Plan (WDC 2006) identified ‘key initiatives’ for increasing physical activity levels. One of these was ‘investigation into the development of rural

walkways and mountain bike trails'. A network of nine walking and cycling tracks have been developed and/or promoted, with none being in the area of the activity. Evidence on effects

230. Mr Greenaway, recreation effects expert for the Applicant, identified the following effects on recreation:
- a. potential adverse health effects resulting from direct exposure to contaminants and pathogens in the discharge via windborne sea spray or direct contact;
  - b. potential adverse health effects from consumption of fish which have been exposed to contaminants and pathogens in the discharge;
  - c. effects of the discharge on the availability of fish species targeted for recreation (marine ecology);
  - d. interference with access and activity due to the location of new infrastructure in the recreation setting; and
  - e. temporary disruption of recreation activities during the construction period.
231. His conclusion was that effects on recreation would be minor.
232. In terms of the coastal environment, we are aware that there is significant recreational activity at Wainono and the mouth of the Waitaki. Both of which are 15 kilometres from the proposed activity. We confirmed Mr Greenaway's views on the low recreational use of the area through questions to various local submitters.
233. Mr Mehrtens, a local resident, spoke of recreational fishing at the Waitaki Mouth and nearby at the Waihao Box coastline, Hook Beach and Otaio. He commented that there are oyster beds offshore, resulting from oyster sprats being tossed overboard from trawlers returning from Bluff going back to Timaru. The oyster beds were said to be the equivalent of Bluff oysters, except for contamination from septic tank leachate along the South Canterbury Coastline. In his view, the proposed discharge would add to the problem.
234. Mr Easterbrook, another local resident, was concerned about the effects on recreational fishing at the Waihao Box. .
235. Mr Boyce, of Christchurch, submitted that he and his family use the ocean for recreational purposes in areas affected by the outfall. No clarification was provided on the type of recreation.
236. Mr Francis, whose farm adjoins the proposed pipeline route, noted that his family have fished and whitebaited in this area for five generations, and his children are of Ngai Tahu descent and can trace their whakapapa for 800 years of settlement in the South Island. His family gathers kaimoana from the beach and sea immediately off the eastern boundary of his property as part of his customary fishing rights under the Fisheries (South Island Customary Fishing) Regulations 1999. Furthermore, his staff, many of whom are of Filipino descent, also fish in this area. This is an important part of their culture and provides for their families. He was concerned that the discharge will alter the salinity of the area, driving the fish away and removing the opportunity to fish here for recreation.
237. For Mr Francis, fishing on the shingle beach was a weekly activity whilst his children were young. The catch was typically red cod, elephant fish and blue cod. He noted that there was no guarantee of catching anything; however, there is no competition from other fishers. On rare occasions, he advised a boat is seen from the beach.

## Discussion

238. We accept Mr Greenaway's evidence that recreational use of the coastal environment in this area is low. While people do use the beach, in particular locals, such as Mr Francis, his family and his staff, there are more readily accessible places, and areas with a higher likelihood of successful fishing, relatively close nearby.
239. We have discussed amenity effects to some extent earlier, in relation to construction of the proposed pipeline. In terms of ongoing effects from the discharge and the structures in place, we consider effects on amenity values to be will be restricted to the mixing zone and, as a result of conditions on the quality of the discharge, to be less than minor. Occupation by the structure will not in our view create any issues as the structure is to be buried. The only visible part will be the undersea diffusers.
240. Consent conditions will ensure that there is signage alerting recreational users of the beach of the outfall pipe and discharge, and, if required, signage to alert those using the coastal marine area. Signage must also be erected during the construction period.
241. Overall we consider that the effects on recreational and amenity values to be less than minor, and the proposal to be consistent with the relevant objectives and policies.

## **Positive Effects**

242. The Applicant, within the AEE at section 7.1 and its evidence, demonstrated a number of positive effects of the proposal. Those effects can be categorised as economic, social and resource use benefits.
243. The existing developments on site, inclusive of what is proposed, have a dollar value of approximately \$650 million. Currently Oceania employs approximately 315 staff and it processes more than 650 million litres of milk from local farm suppliers. We were also told that Oceania make a significant contributions to local community activities via its role as a responsible employer and a good citizen.
244. The continuation of the factory, along with the construction works here proposed, will retain and increase economic activity and possibly populations in Glenavy, Morven, Waimate and Timaru. These populations and services will be involved in supplying the proposal with goods and services. The proposal will lead to job opportunities for these locations both during the construction phase and during the operation of the Oceania factory.
245. Other positive benefits include creating greater employment choice for local residents. A possible benefit would be attracting persons to settle in the district, and a consequent broadening of the rating base for the local councils.
246. Once operative, the coastal marine outfall will provide an alternative option to the current means of disposing factory wastewater to land. The evidence we heard particularly from local farmers was that the land based wastewater application is not regulated with the same constraints that farm irrigation is. Local farmers were concerned their reputations as good farmers were under challenge because at times Oceania's irrigation to land caused both ponding of water and odour management issues, particularly in summer.
247. The coastal marine outfall will avoid the issues described above that are associated with the existing land based disposal. Having the ability to discharge the wastewater to the ocean at times when it is not best practice to discharge to land (for example when the ground is saturated, when

crops are not actively growing, or when there is bare soil), should provide significant positive effects on loss of nutrients to groundwater.

248. While Dr Wilson was unable to quantify the loss of nutrients to groundwater, as this would involve a significant modelling exercise, he was clear that it occurs at the times outlined above, and contributes to a reduction in groundwater quality. The ocean outfall will mean that discharges of wastewater at such times will be reduced or avoided. In our view that will be a positive outcome of the proposal.

## **11. CONSIDERATION OF ALTERNATIVES – SECTION 105 AND SCHEDULE 4**

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249. Schedule 4 RMA requires an Applicant, within its AEE, to consider and describe any possible alternative locations or methods for undertaking the activity if it is likely that the activity will result in any significant adverse effects on the environment. Section 105 requires us to have regard to the nature of the discharge, the sensitivity of the receiving environment, the Applicant's reasons for the proposed choice, any possible alternative methods of discharge, including discharge into any other receiving environment.
250. Some submitters, in their presentations to us at the hearing, were critical of the Applicant's level of detailed assessments on alternatives under both Schedule 4 and section 105.
251. In her supplementary report, Ms Walker was of the view, and we agree, that the Applicant provided sufficient information to enable an appropriate assessment of alternatives to be undertaken. Ms Walker noted that this original assessment was supplemented by evidence at the hearing from both Mr Lodge and Mr Duder. Ms Walker was satisfied, as we are, that the Applicant had met the requirements of Schedule 4 in terms of alternative locations.
252. Mr Chapman, in his closing, referred us to a number of court decisions and also referenced some decisions referred to by Ngai Tahu submitting in opposition. Those decisions provide guidance on the application of section 105.
253. We take from those decisions that where appropriate conditions are imposed such that any adverse effects of the discharge on the environment would be prevented, it is not necessary to consider alternative methods of discharge any further. Those decisions also note that provided the intended discharge was designed specifically to recognise and provide for the relationship of iwi with the relevant environment and their kaitiakitanga, then considerations of alternatives are not required.
254. We are mindful that we also need to consider section 107, which relevantly provides for restrictions on the grant of certain discharge permits. A discharge of a contaminant or water into water is not to be granted if, after reasonable mixing, the contaminant or water discharged either by itself or in combination with the same, similar or other contaminants or water is likely to give rise to a number of described effects on the receiving water.
255. Those effects include the production of any conspicuous oil or grease films, scum or foam or other floatable or suspended materials, conspicuous changes in the colour or visual clarity of the water, any emission of objectionable odour, and finally any significant adverse effect on aquatic life.
256. The receiving environment for the discharge, namely the coastal waters, has been described as pristine. The Applicant's evidence detailed a very high level of treatment of the wastewater before discharge. The Applicant and its experts contended that this proposal involved a standard of treatment of the wastewater which was uncommon for the nature of this discharge and its location.

257. The experts accepted that the 50 m mixing zone is appropriate as we do and that the level of dilution at the edge of the mixing zone will be at least 300 times. So the Applicant contended that the pristine nature of the water quality beyond the mixing zone was retained. We accept this point.
258. In any event, the Applicant did consider and assess land-based alternative locations for the disposal of the dairy factory's wastewater. Based on the evidence we heard we were satisfied there were no other available practicable land-based options for the factory's wastewater disposal.
259. So we agree with Ms Walker and Mr Chapman that the Applicant has appropriately assessed alternatives to the coastal marine area for the disposal of wastewater, to the extent required.
260. Moreover, the Applicant's evidence, particularly as it related to the problems caused by the current land-based disposal provided us, we consider, with adequate reasons to support its choice to seek consent to dispose wastewater into the coastal marine area.

## **12. SECTION 107 RESTRICTIONS ON GRANT OF CERTAIN DISCHARGE PERMITS**

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261. We have already paraphrased section 107 above. Essentially, after allowing for reasonable mixing, we are only able to grant consent for a discharge permit or for a coastal permit provided that certain effects do not occur in the receiving waters.
262. Because the discharge is from three discharge points, the possibility of a conspicuous change in the colour or visual clarity of the water was again, based on the evidence we heard and accepted, is extremely remote.
263. On the issue of visual clarity one of the characteristics of receiving environment was the relatively high level of turbidity. Wave wind and tide action ensured fine sediments were continually in motion affecting water clarity. We were satisfied that the discharge issue would not cause a visual clarity concern.
264. There may be a visible sediment plume if the pipeline is installed by means of dredging. However, this effect will be temporary in nature, and therefore not contrary to section 107. We accept such matters are capable of being controlled by management plans.
265. Because the points of discharge are to be located on the sea floor and the discharged wastewater will travel to the sea surface we accepted the expert advice and evidence that there would not be emissions of objectionable odour.
266. We were well satisfied on the basis of evidence we have already assessed, noted above, that there would not be any significant adverse effects on aquatic life.
267. For all of these reasons we were satisfied that the restrictions described in section 107 were able to be met by the Applicant's proposal, taking into account proffered conditions of consent.

## **13. ASSESSMENT AGAINST POLICY STATEMENTS AND PLANS**

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268. The relevant policy documents were outlined in the AEE and s42A report. They are, for the activities in the coastal hazard zones and coastal marine area: the NZCPS and RCEP) and for the land based activity, the LWRP. The Canterbury Regional Policy Statement (RPS) is relevant for all activities.
269. The most relevant policies in the various policy documents have been discussed above.

270. There was significant opposition to the discharge from a large number of submitters, who would prefer that the discharge did not occur. However, our role is consider the effects of the proposal and determine if they are acceptable against the relevant policy framework. We think it important to note that there no prohibition on activities, including discharges, in the coastal environment. Instead, relevant objectives and policies are enabling of activities, provided effects are appropriately managed.
271. For example, Policy 23 of the NZCPS, in its initial wording 'Manage discharges to water...' anticipates that discharges will occur. This reflects Objective 6, which enables people and communities to provide for their wellbeing through use and development of the coastal environment. Contaminants may be discharged, but must be managed, having regard to particular factors and avoiding particular outcomes.
272. Policy 8.3.3 of the RPS also explicitly provides for use and development of the coastal marine area, while avoiding or otherwise remedying or mitigating effects on identified coastal values. A similar approach is taken in the RCEP Objective 7.1, which enables people to gain economic (and other) benefits from the water, while maintaining or safeguarding critical aspects of the coastal environment. Many policies under Objective 7.1 clearly anticipate discharges will occur (e.g. 7.1, 7.2, 7.4).
273. We also make comment on the precautionary approach outlined in Policy 3 of the NZCPS, to which a number of submitters referred. This is to adopt a precautionary approach towards proposed activities whose effects on the coastal environment are uncertain, unknown, or little understood, but potentially significantly adverse.
274. In this instance we consider that the effects are neither unknown nor uncertain. There is high degree of conservatism in the assessment of impacts on water quality (and consequently on ecological systems, cultural values and other uses that depend on maintaining high water quality).
275. Our finding is that the potential effects are not significantly adverse. This, coupled with the regular monitoring of both discharge and receiving water quality, and impacts on benthic fauna, give us a high degree of confidence in terms of the degree of effect and, importantly, the ability to manage the activity to ensure the effects are no greater than predicted.
276. Overall, we consider that the application is consistent with the relevant policy framework.

#### **14. PART 2 RMA**

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277. Section 104(1) RMA states that the matters which we have discussed above are subject to the purpose and principles in Part 2 RMA. We discuss below the purpose and principles of the RMA and sections 6 to 8, and return to the overriding sustainable management purpose of the RMA (section 5) in our overall evaluation of the proposal.
278. Following recent decisions, primarily from the Supreme Court and High Court, there is some limited debate on whether or not the previous broad overall judgement approach is still required absent in the invalidity, incomplete coverage, or uncertainty of meaning within the relevant statutory planning instruments.
279. No expert planner appearing before us identified any instances of invalidity, incomplete coverage or uncertainty of meaning in the relevant planning instruments so following these recent court authorities we do not need to consider Part 2.

280. We note that the RCEP was prepared prior to the NZCPS; however, there was no evidence from any planning witness that it was inconsistent with that document. We have found it to be considered document, whose policy approach as it applies to this application closely matches that of the NZCPS. We have also found that this proposal inclusive of conditions is consistent with the objectives and policies of the relevant planning instruments. So this outcome does relieve us of the need to undertake Part 2 considerations.
281. Nevertheless out of an abundance of caution consistent with common practice we will adopt the approach of discussing the proposal in the light of Part 2. We have approached that exercise in the normal way treating the principles contained in sections 6, 7 and 8 as being subordinate to the purpose of the RMA as set out in section 5.

### **Section 6 matters of national importance**

282. Sections 6 RMA identifies matters of national importance that we must “recognise and provide for” when making our decision.
283. We consider subsection (a) is, given the location of the discharge, the most significant sub paragraph. An issue for the sub paragraph is whether or not what is here proposed is inappropriate within those areas, particularly within the coastal marine area.
284. Other than fixed term and short duration construction effects and some navigational signage, because the pipeline is underground and under the seabed there will be no change to the natural character of the coastal environment. We mean change in the sense of visible change.
285. We accept that the discharge into the mixing zone will have a limited environmental effect on natural character in particular water quality. However we note the level of treatment to the waste water provided by the Applicant. We note the expert evidence was consistent that the modelled dilution even within the mixing zone was likely to be conservative and beyond the mixing zone the effect of the discharge on water quality was no more than minor.
286. . Given a discharge such as this is provided for albeit provided a number of factors to have regard to in managing discharges are satisfied under the planning instruments and conditions are satisfied in terms of section 105 and section 107 we conclude that the natural character of the coastal environment particularly beyond the mixing zone will be both recognised and provided for.
287. We also note the main contentious point related to the impact of nutrients on water quality leading to possible algal blooms. We accepted such blooms are a possible consequence of the activity, noting also they occur now. But given sea conditions, we concluded if they did occur they are unlikely to be of lengthy duration. Also we found in the main because blooms caused water discoloration they were primarily an amenity effect.
288. Given the pre discharge treatment, the limited mixing zone and the monitoring conditions proposed, we accept the development proposed is not inappropriate for the coastal marine area.
289. Section 6(d) relates to recognising and providing for the maintenance and enhancement of public access to and along the coastal marine area. Given that the wastewater pipeline is buried, this proposal, in particular the occupation of the coastal marine area will have no effect on existing public access to and along the coastal marine area following construction completion. In any event, the evidence before us was to the effect that access to this section of coastline is difficult to gain. That will not change.

290. Public access to and along the coastal marine area, will be affected during construction, with the effects being less than minor. Access via the gully that will be used during construction will be usable at the completion of construction. Public movement along the beach will only incur limited restrictions affecting walkers or quadbike users, as micro-tunnelling is likely to be the method used for pipe installation in this area
291. Also the evidence we received from Mr Greenaway confirmed that this area is not highly valued for its recreational values. So, excepting little or no change following construction and operation, we consider that section 6(d) matters are recognised and provided for.
292. When considering section 6(e) and seeking to understand the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu and other taonga, we concluded that there were no direct associations between those matters and the subject site. Food gathering sites camping sites and settlement sites were detailed for us as existing in the broader locality but not near to the proposed pipeline.
293. We accept and understand that the relationship of Maori with land and water involves and includes stewardship. We are satisfied that the Applicant did endeavor to undertake pre-application consultation and did engage with the available Rūnanga following lodgement of the resource consent applications.
294. Further, we are of the view that the conditions we intend to impose including further consultation with iwi over the lizard management plan and enables this ethic of stewardship to be exercised. So in this way we consider that we are recognising and providing for section 6 (e) matters.
295. We also consider, given the conditions that in particular require inspections of changes to the beach area and inspections following events such as earthquakes, the Applicant and the proposal recognises and makes provision for significant risks from natural hazards in terms of section 6(h).

### **Section 7 other matters**

296. We now turn to the relevant matters that we are to have particular regard to under Section 7 RMA, including kaitiakitanga,<sup>1</sup> the efficient use of natural resources, the maintenance and enhancement of amenity values and the quality of the environment, the intrinsic value of ecosystems, and the maintenance and enhancement of the quality of the environment, among other matters.
297. In terms of section 7(a), mana whenua were restricted in their ability to fully give effect to their role as kaitiaki due to the adequacy of consultation prior to the hearing as described. During the period when the consents are active, mana whenua will have the opportunity to participate as kaitiaki through involvement with the lizard management plans, Community Liaison and monitoring activities as defined in conditions. The conditions we have imposed also include an accidental discovery protocol for cultural artefacts or koiwi tangata. The conditions also enable open dialogue with Rūnanga o Waihao and Te Rūnanga o Arowhenua during the construction period.
298. So to this extent we consider section 7 (a a) is being provided for.

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<sup>1</sup> Guardianship, stewardship, trustee (<http://www.maoridictionary.co.nz>).

299. In relation to 7(c), given our findings that the construction effects and the effects on the receiving environment of the discharge will be no more than minor, considering proposed conditions and appropriate monitoring, we are satisfied that we have given particular regard to the maintenance and enhancement of amenity values, the quality of the environment, and the intrinsic values of ecosystems. We reach this view primarily because the pipeline is in a remote location that is difficult to access and accessed by few people. Also the pipeline will, for its full length within the terrestrial and coastal part, be fully buried or submerged, thus there will be no permanent visual impact.
300. In terms of providing for climate change, in terms of section 7(i) we accepted the expert evidence that the proposed pipeline alignment, particularly through the coastal hazard area, recognises and provides for over 100 years of expected coastline retreat. Built into that expectation of retreat are increased erosion rates caused by a combination of factors such as climate change and sea level rise.

### **Section 8 Treaty of Waitangi**

301. Finally, Section 8 RMA requires that we shall take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi). Section 8 recognises the relationship of tangata whenua with natural and physical resources and encourages active participation of, and consultation with, tangata whenua in resource management decision-making.
302. As a result of undertaking a cultural impact assessment, the Applicant has made itself aware of Section 8 issues and has endeavoured to take them into account, encouraging active participation and consultation throughout.
303. We consider, given the requirements for ongoing engagement with iwi provided for in the consent conditions, that the Treaty of Waitangi principles are provided for.

### **Section 5 The Purpose of the RMA**

304. The purpose of the RMA is to promote the sustainable management of natural and physical resources. That is, the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while:
- a. sustaining the potential of natural and physical resources to meet the reasonably foreseeable needs of future generations; and
  - b. safeguarding the life supporting capacity of air, water, soil, and ecosystems; and
  - c. avoiding, remedying, or mitigating any adverse effects of activities on the environment.
305. In considering whether the proposal will achieve the purpose of the RMA we have:
- a. taken into account all the relevant matters identified under s 104 RMA;
  - b. avoided consideration of any irrelevant matters;
  - c. given different weight to the matters identified under s 104 RMA, depending on our opinion as to how they are affected by the application of ss 5(2)(a), (b), and (c) RMA and ss 6-8 RMA— to the particular facts of the case, and then in light of the above;
  - d. allow for significance or proportion in the final outcome.

306. We conclude that granting consent with conditions best meets the purpose of the RMA. Granting the consent subject to conditions enables the expansion of the Applicant's plant leading to economic and social wellbeing and also provides, through conditions, for the health and safety of people and communities.
307. We conclude that cultural wellbeing will be provided because the conditions of consent provide for ongoing involvement of iwi, enabling input through various management plans and community liaison committees and accidental discovery protocols..
308. The effects of the discharge on water quality was the pivotal issue. Overall we conclude that the discharge beyond the mixing zone will have, no more than minor effects.
309. Imposing conditions on the quality and quantity of the discharge, and monitoring of the same will, we consider, sustain the potential of the natural and physical resources to meet the reasonably foreseeable needs of future generations and will safeguard the life supporting capacity of the coastal marine area.
310. We have also found that granting consent to this proposal subject to conditions is consistent with the objectives and policies expressed within the relevant planning instruments.

## **15. LAPSING AND DURATION OF CONSENTS**

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311. The Applicant seeks a duration of 35 years for CRC20119 and CRC201194 with a lapse date of 10 years and a 10 year duration for all other applications.
312. Ms Walker set out a range of factors developed through case law that are relevant to the determination of the duration of a resource consent. These include:
- a. the duration of a resource consent should be decided in a manner which meets the purpose of the RMA, namely sustainable management;
  - b. whether adverse effects will be likely to increase or vary during the term of the consent;
  - c. whether there is an expectation that new information regarding mitigation would become available during the term of the consent;
  - d. whether the impact of the duration could hinder implementation of an integrated management plan (including a new plan);
  - e. that conditions may be imposed requiring adoption of the best practicable option, requiring supply of information relating to the exercise the consent, and requiring observance of minimum standards of quality and the receiving environment;
  - f. whether review conditions are able to control adverse effects (the extent of the review condition proposed is also relevant, bearing in mind that the power to impose them is not unlimited);
  - g. whether the relevant plan addresses the question of the duration of a consent;
  - h. the life expectancy of the asset for which consents are sought;
  - i. whether there was/is significant capital investment in the activity/asset; and
  - j. whether a particular period of duration would better achieve administrative efficiency.

313. After considering these factors, Ms Walker recommended a duration of 10 years is suitable for CRC201187 CRC 201188, CRC 201191 and CRC 201192.
314. We agree and accept her reasoning.
315. Several submitters opposed the requested 35 year duration for CRC201190 and CRC201194. Some of the submitters proposed a duration of 10 years, thus enabling the Applicant to consider alternative discharge options and to then cease discharge to the ocean. Forest and Bird proposed a 10 year duration, stating that a 35 year duration constrains opportunities to direct consent holder is to adopt new technology or respond to new information as it becomes available. Other submitters considered the duration was too long because insufficient information on effects had been provided by the Applicant.
316. There is no doubt that building the pipeline will require significant infrastructure investment. The Applicant has requested the inclusion of conditions allowing the Canterbury Regional Council to review these consents.
317. We agree with Ms Walker when she expressed the view that provided review conditions are included then the matters raised by submitters in relation to duration would be addressed. Again, we adopt Ms Walker's reasoning.
318. Accordingly we consider the appropriate duration for CRC201190 and CRC201194 is a period of 35 years.

## 16. DECISION

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319. Pursuant to the powers delegated to us by the CRC and for all of the above reasons and pursuant to sections 104, 104B, 105, 107 and section 108 of the Resource Management Act 1991, we GRANT to Oceania Dairy Limited the following consents subject to the conditions specified above and as set out at Appendices 2 to 7 of this decision, which conditions form part of this decision and consent.

**DECISION DATED AT CHRISTCHURCH THIS 8<sup>th</sup> DAY OF SEPTEMBER 2020**

Signed by:

Paul Rogers (Chair) for and on behalf of the Panel	
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APPENDIX 1

LIST OF ACRONYMS AND ABBREVIATIONS USED IN THIS DECISION

Full text	Acronym/Abbreviation
Aoraki Environmental Consultancy Limited	AEC
Assessment of Environmental Effects	AEE
Australian and New Zealand Guidelines for Fresh and Marine Water Quality	ANZG
Australian and New Zealand Environment and Conservation Council	ANZECC
clean-in-place	CIP
Canterbury Land and Water Regional Plan	LWRP
Canterbury Regional Coastal Environment Plan	RCEP
Canterbury Regional Council	CRC
Canterbury Regional Policy Statement	RPS
Dissolved air flotation	DAF
dissolved inorganic nitrogen	DIN
Dewatering Management Plan	DMP
dissolved reactive phosphorus	DRP
Iwi Management Plan	IMP
Morven-Glenavy-Ikawai Irrigation	MGI
Marine Protected Area	MPA
New Zealand Coastal Policy Statement	NZCPS
Oceania Dairy Limited	Applicant
Resource Management Act 1991	RMA
South-Eastern Marine Protected Areas	SEMPA

## CONDITIONS FOR CRC201187

**Conditions for Consent Application: CRC201187****Land Use Consent (s9) to use land for earthworks for installation of a pipeline****Site Location: MORVEN ROAD & ARCHIBALDS ROAD, GLENAVY****Duration: 10 years****Limits**

1. The works authorised under this consent shall be limited to:
  - a. earthworks associated with the installation and maintenance of the wastewater pipeline and associated infrastructure; and
  - b. earthworks adjacent to the pipeline corridor to accommodate ancillary activities such as construction access, erosion and sediment controls, dewatering controls and laydown areas for equipment and spoil.
2. The works carried out in accordance with Condition 1 shall be located within the area of land identified on the accompanying Plan CRC201187 which forms part of this consent. Adjacent lot numbers are shown on Schedule CRC201187, attached to and forming part of this consent.
3. Excavations shall not exceed a maximum depth of five metres below existing ground level.
4. The works shall be limited to the excavation of 30,000 cubic metres of material, and installation of pipes and associated structures.
5. The Canterbury Regional Council, Attention: Regional Leader – Monitoring and Compliance shall be notified:
  - a. at least seven working days prior to the commencement of the works; and
  - b. within seven working days after the completion of the works.

**Prior to works**

6. Prior to the commencement of the works described in Condition 1 of this resource consent, all persons undertaking works shall be made aware of, and have access to the contents of:
  - a. this resource consent document; and
  - b. the Erosion and Sediment Control Plan required under Condition 11 of this resource consent.

7. The consent holder shall consult with the following parties with the details of the design plans and drawings at least 7 days prior to commencement of the authorised works under Condition 1:
  - a. KiwiRail;
  - b. Transpower;
  - c. Morven-Glenavy Ikawai Irrigation Company(MGI) to protect their infrastructure;
  - d. Waimate District Council;
  - e. Owners and occupiers of neighbouring lots, as shown in Schedule CRC201187, attached to and forming part of this consent;
  - f. The consent holder shall ensure that consultation with MGI Irrigation Company results in a construction methodology that MGI Irrigation Company agrees adequately protects the existing irrigation infrastructure;
  - g. The consent holder shall provide a copy of such consultations to the Canterbury Regional Council on request; and
  - h. Prior to the commencement of any removal/disturbance works authorised under Condition 1 of this consent, the Consent Holder shall submit to Canterbury Regional Council, Regional Leader-Monitoring and Compliance, a Lizard Management Plan (LMP) prepared by a suitably qualified and experienced ecologist/herpetologist and prepared in consultation with Te Rūnanga o Waihao Te Rūnanga o Arowhenua. The LMP Plan shall be designed to achieve the following objective:
    - i. Protect each species of indigenous lizard present on the site at which habitat clearance is to occur and rehabilitate and enhance the habitat of each species, either on the same site or at an appropriate alternative site to help ensure that any long-term impact is a positive impact.
9. The LMP shall address the following (where relevant):
  - a. credentials and contact details of the ecologist/herpetologist who will implement the plan;
  - b. timing of the implementation of the LMP;
  - c. a full description on the effects of the development on lizard values/habitat (species-by-species) at the site;
  - d. a description of all lizard impact management proposed including:
    - i. identification of habitat areas where disturbance/clearance is to be avoided or minimised;
    - ii. restoration of an amount of native vegetation habitat comparable to any cleared;
    - iii. maintenance provisions for any planted vegetation to ensure plant establishment.
    - iv. rock-cairn (or other 'surrogate habitat') indigenous lizard habitat creation; and
    - v. any further impact management actions agreed to with the Department of Conservation as part of any requirements under a Wildlife Act authorisation (i.e. salvage);
  - e. Canterbury Regional Council shall have 10 working days to confirm that the LMP is prepared in general accordance with the requirements of Condition 11. If the Canterbury

Regional Council fails to provide a response to the consent holder within 10 working days, then the LMP shall be deemed to be confirmed.

**Advice note:** *The LMP should align with any guidelines produced by the Department of Conservation's (DOC's) Lizard Technical Advisory Group (TAG).*

- f. lizard monitoring to determine habitat-use/colonisation of all remediated/created habitat within two years of the completion of the vegetation clearance activities (methods such as systematic search or a simple index count sufficient);
- g. any further monitoring measures agreed to following consultation with Te Rūnanga o Waihao; and
- h. contingency provisions.

**Advice note:** *Any plantings should use eco sourced native plant material.*

10. Reporting of LMP to Canterbury Regional Council:

- a. a suitably qualified and experienced ecologist/herpetologist approved to oversee the implementation of the Lizard Management Plan (LMP) shall certify and report to Council that the lizard habitat related works have been carried out/initiated according to the certified LMP within one year of the completion of the vegetation clearance activities;
- b. a report shall be prepared, following the completion of monitoring required by Condition 9, that details the methods used and results of the monitoring, including recommendations for future habitat remediation/creation in similar environments;
- c. if the findings of the ecologist/herpetologist are that changes to the LMP is required; and
- d. to achieve its objective, including any additional measures or actions, they shall make recommendations to the consent holder as to the changes and/or additional measures or actions that are required.

11. The consent holder shall commission a report from an arborist in order to ensure that the proposed works do not impact on the root zone of the trees identified on Plan CRC201187.

**Erosion and Sediment Controls**

12. Prior to the commencement of works the works authorised under Condition 1 of this resource consent shall occur in accordance with an Erosion and Sediment Control Plan (ESCP). The ESCP shall:
- a. detail best practicable sediment control measures that will be taken to ensure compliance with this consent; and
  - b. be prepared in accordance with Environment Canterbury's "Erosion and Sediment Control Toolbox for the Canterbury Region" (ESCT), which can be accessed at <http://esc Canterbury.co.nz/>.

13. The ESCP shall include:

- a. a map showing the location of all works;
- b. detailed plans showing the location of sediment control measures, on-site catchment boundaries, and sources of runoff;
- c. drawings and specifications of designated sediment control measures;
- d. a programme of works, which includes but is not limited to, a proposed timeframe for the works;
- e. inspection and maintenance of the sediment control measures;
- f. the methodology for stabilising the site if works are abandoned; and
- g. the methodology for stabilising the site and decommissioning erosion and sediment control measures after works have been completed.

14. The ESCP shall be submitted to the Canterbury Regional Council, Attention: Regional Leader –Monitoring and Compliance at least 2 months prior to the works described in Condition 1 commencing, for certification that it complies with the ESCT, and the conditions of this consent.

- a. the earthworks shall not commence until the consent holder has received the certification from the Canterbury Regional Council; and
- b. notwithstanding Condition 14.a., if the consent holder has not received the certification within 2 months of the Regional Manager, RMA Monitoring and Compliance receiving the ESCP, the discharge may commence.

15. Any subsequent amendment to the ESCP shall require certification from the Canterbury Regional Council in accordance with the procedure outlined in Conditions 12 to 14 (as if the reference to the ESCP were references to the amendment).

#### **Accidental Discovery**

16. In the event of any discovery of archaeological material:

- a. the consent holder shall immediately:
  - i. cease earthmoving operations in the affected area and mark off the affected area; and
  - ii. advise the Canterbury Regional Council of the disturbance; and
  - iii. advise Heritage New Zealand Pouhere Taonga of the disturbance;
- b. if the archaeological material is determined to be Koiwi Tangata (human bones) or taonga (treasured artefacts) by Heritage New Zealand Pouhere Taonga, the consent holder shall immediately advise the office of the appropriate Rūnanga (office contact information can be obtained from the Canterbury Regional Council) of the discovery.

- c. if the archaeological material is determined to be Kōiwi Tangata (human bones) by Heritage New Zealand Pouhere Taonga, the consent holder shall immediately advise the New Zealand Police of the disturbance; and
- d. work may recommence if Heritage New Zealand Pouhere Taonga Trust (following consultation with Rūnanga if the site is of Māori origin) provides a statement in writing to the Canterbury Regional Council, Attention: Regional Leader - Monitoring and Compliance that appropriate action has been undertaken in relation to the archaeological material discovered. The Canterbury Regional Council shall advise the consent holder on written receipt from Heritage New Zealand Pouhere Taonga that work can recommence.

**Advice Note:**

*This may be in addition to any agreements that are in place between the consent holder and the Papatipu Rūnanga. (Cultural Site Accidental Discovery Protocol).*

**Advice Note:**

*Under the Heritage New Zealand Pouhere Taonga Act 2014 an archaeological site is defined as any place associated with pre-1900 human activity, where there is material evidence relating to the history of New Zealand. For sites solely of Māori origin, this evidence may be in the form of accumulations of shell, bone, charcoal, burnt stones, etc. In later sites, artefacts such as bottles or broken glass, ceramics, metals, etc, may be found or evidence of old foundations, wells, drains, tailings, races or other structures. Human remains/kōiwi may date to any historic period.*

*It is unlawful for any person to destroy, damage, or modify the whole or any part of an archaeological site without the prior authority of Heritage New Zealand Pouhere Taonga. This is the case regardless of the legal status of the land on which the site is located, whether the activity is permitted under the District or Regional Plan or whether a resource or building consent has been granted. The Heritage New Zealand Pouhere Taonga Act 2014 provides for substantial penalties for unauthorised damage or destruction.*

**During Works**

17.

- a. During construction, the consent holder shall take all practicable measures to prevent spills of fuel or any other hazardous substances within the site.
- b. The consent holder shall maintain spill kits capable of containing or absorbing any hazardous substance used on the site.
- c. In the event of a spill of fuel or any other hazardous substance, the consent holder shall clean up the spill as soon as practicable, inspect and take measures to prevent a recurrence.
- d. The consent holder shall inform the Canterbury Regional Council, Attention: Regional Leader - Monitoring and Compliance, within 24 hours of a spill event, and shall provide the following information:
  - i. the date, time, location and estimated volume of the spill;
  - ii. the cause of the spill;
  - iii. the type of contaminant spilled;
  - iv. clean up procedures undertaken;

- v. details of the steps taken to control and remediate the effects of the spill on the receiving environment;
  - vi. an assessment of any potential effects of the spill; and
  - vii. measures to be undertaken to prevent an occurrence.
18. All practicable measures shall be undertaken to prevent oil and fuel leaks from vehicles and machinery. The protocol for managing hazardous substances on site shall include but not be limited to:
- a. no refuelling or maintenance of vehicles or machinery to occur within 20 metres of an excavation;
  - b. no storage of fuel or lubricants, refuelling, or lubrication of vehicles and machinery is to occur within 20 metres any surface waterway or exposed groundwater; and
  - c. any fuel at the site shall be stored securely or removed from the site overnight.
19. On the completion of works:
- a. all disturbed areas shall be stabilised and/or revegetated; and
  - b. all spoil and other waste material from the works shall be removed from site.

**Advice Note:** *for the purposes of this consent "Stabilised" means an area inherently resistant to erosion such as rock (excluding sedimentary rocks), or rendered resistant to erosion by the application of aggregate, geotextile, vegetation or mulch. Where vegetation is to be used on a surface that is not otherwise resistant to erosion, the surface is considered stabilised once 80 percent vegetation cover has been established.*

### **Complaints Register**

20. The consent holder shall maintain a Complaints Register for the purpose of recording and dealing with any complaints that are received by the consent holder in relation to the exercise of this resource consent. The Complaints Register shall record, where this information is available:
- a. the date, time and duration of the incident that has resulted in a complaint;
  - b. the location of the complainant at the time of the incident; and
  - c. any corrective action undertaken by the consent holder in response to the complaint, including timing of that corrective action.
21. The Complaints Register shall be made available to the Canterbury Regional Council at all reasonable times on request. Complaints relating to the conditions of this resource consent shall be forwarded to the appropriate Council within 48 hours of the complaint being received.

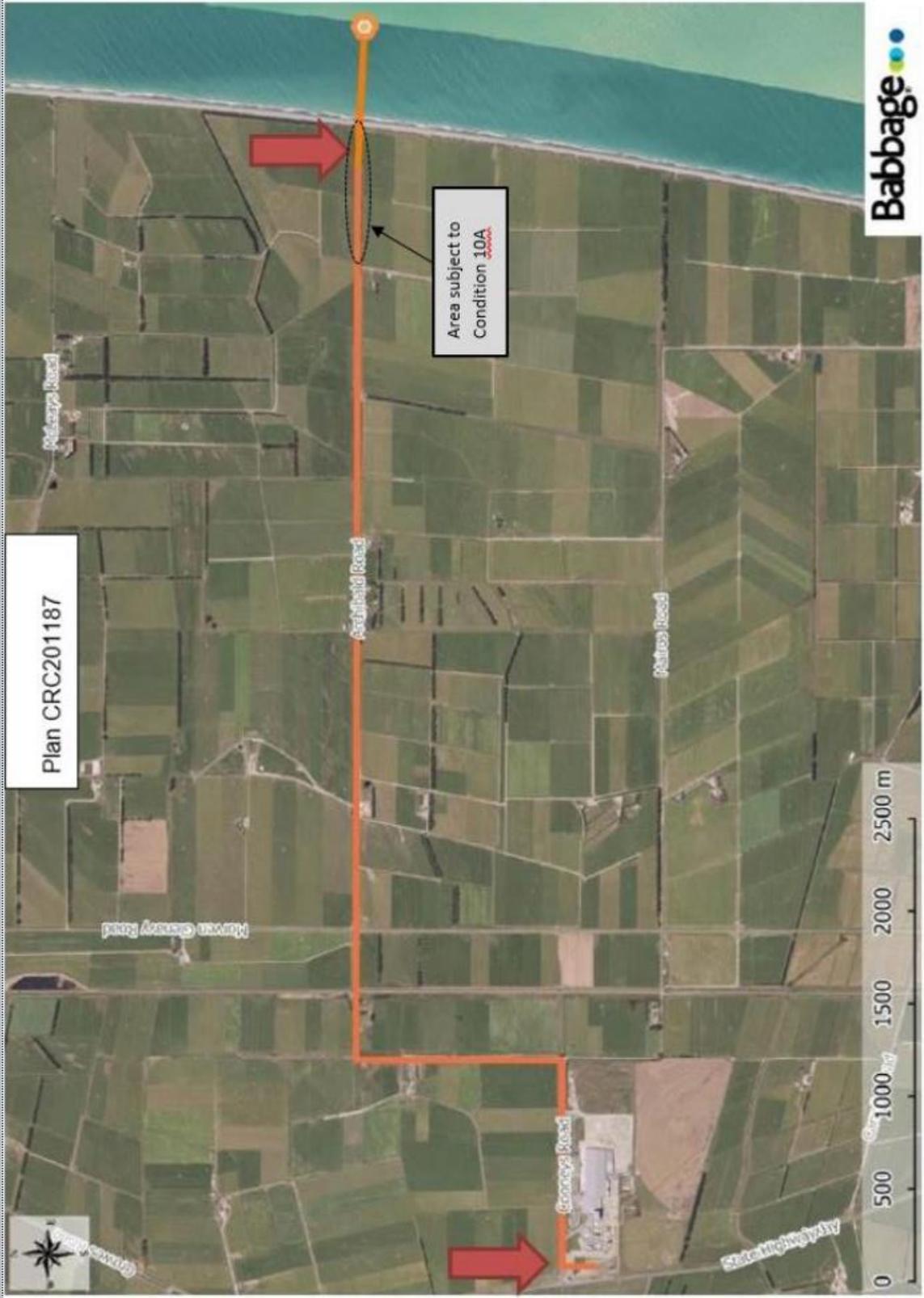
### **Review**

22. The Canterbury Regional Council may, once per year, on any of the last five working days of May or November, serve notice of its intention to review the conditions of this consent for the purposes of:

- a. dealing with any adverse effect on the environment that may arise from the exercise of the consent; or
  - b. requiring the adoption of the best practicable option to remove or reduce any adverse effect on the environment; or
  - c. requiring monitoring in addition to, or instead of, that required by the consent.
23. This consent shall lapse ten years after the commencement date, unless the consent is exercised before that lapsing date in accordance with section 125 of the Resource Management Act 1991.

**Advice note:**

*'Exercised' is defined as implementing any requirements to operate this consent and undertaking the activity as described in these conditions and/or application documents.*



Schedule CRC201187: Lot numbers legal descriptions adjacent to proposed pipeline.

Lot 2 DP 484323

Section 3 Reserve 1815

Section 4 Reserve 1815

Section 5 Reserve 1815

RS 35317

RS 31776

RS 35823

Section 5 Reserve 1816

RS 31034

RS 32728

Lot 1 DP 4369

Part RS 31796

Lot 1 DP 300901

Lot 2 DP 42589

Lot 2 DP 69022

RS 35637

## CONDITIONS FOR CRC201191

**Conditions for Consent Application CRC201191****Activity: Water Permit (s14) to take groundwater for dewatering****Site Location: MORVEN ROAD & ARCHIBALDS ROAD, GLENAVY****Consent Duration: 10 years**

1. The activity authorised by this resource consent shall be only the abstraction of groundwater for dewatering purposes during earthworks authorised under resource consent CRC201187.

***Advice Note:** Dewatering water shall be discharged in accordance with the conditions of resource consent CRC201192.*

2. The take of groundwater for dewatering purposes shall only occur from excavation areas located within the area shown on Plan CRC201191, attached to and forming part of these conditions.
3. Dewatering shall be carried out using sump-pumping or well-pointing as required.
4. The dewatering during each stage of the project shall only occur for the time required to carry out the works within the stage.
5. The dewatering operation shall not, in combination with other groundwater takes, cause ground subsidence on adjacent properties. If any ground subsidence occurs on an adjacent property:
  - a. the dewatering water take shall cease immediately, and the Canterbury Regional Council, Attention: Regional Leader – Monitoring and Compliance shall be notified within 24 hours; and
  - b. the dewatering activity may only recommence once:
    - i. the construction methodology has been reconsidered and revised to prevent any further ground subsidence from occurring; and
    - ii. confirmation for the recommencement of the dewatering activity has been received from the Canterbury Regional Council.
6. If the consent holder determines that dewatering is necessary, then at least one month prior to commencing site construction, the consent holder shall submit a Dewatering Management Plan (DMP) to the Canterbury Regional Council, Attention: Regional Leader – Monitoring and Compliance.

The DMP shall contain the following:

- a. the methodology for dewatering, including:
  - i. a map showing the location of any wells, sumps or well pointing equipment; and

- ii. a description of how the pump rate will be monitored; and
  - b. a programme of works, including an indicative timeframe.
  - c. an assessment establishing compliance with the Schedule 12 of the Land and Water Regional Plan.
7. Dewatering shall not commence until:
- a. the Canterbury Regional Council has certified that the DMP includes the matters described in Condition 6; or
  - b. if the Canterbury Regional Council confirms receipt but then fails to provide any further response to the consent holder within a period of 1 month then the DMP shall be deemed to be certified.
8. Any subsequent amendment to the DMP shall require certification from the Canterbury Regional Council in accordance with the procedure outlined in Conditions 6 and 7 (as if the references to the DMP were references to the amendment).
9. The dewatering operation shall be limited to that reasonably necessary to lower and sustain the level of groundwater to no more than 0.5 metres below the deepest excavation
10. At least five working days prior to the commencement of dewatering, the Consent Holder shall inform the Canterbury Regional Council, Attention: Regional Leader – Monitoring and Compliance in writing, of the start date of works.
11. Prior to the commencement of dewatering operations, sediment and erosion control measures shall be installed, as required by Consent CRC201187.

### **Complaints register**

12. The consent holder shall ensure that all personnel undertaking dewatering on site are made aware of and have access to the contents of this consent document and associated plans, including the DMP.
13. The consent holder shall maintain a Complaints Register for the purpose of recording and dealing with any complaints that are received by the consent holder in relation to the exercise of this resource consent. The Complaints Register shall record, where this information is available:
- a. the date, time and duration of the incident that has resulted in a complaint;
  - b. the location of the complainant at the time of the incident; and
  - c. any corrective action undertaken by the consent holder in response to the complaint, including timing of that corrective action.
14. The Complaints Register shall be made available to the Canterbury Regional Council at all reasonable times on request. Complaints relating to the conditions of this resource consent shall be forwarded to the appropriate Council within 48 hours of the complaint being received.

### **Review**

15. The Canterbury Regional Council may, once per year, on any of the last five working days of May or November, serve notice of its intention to review the conditions of this consent for the purposes of:

- a. dealing with any adverse effect on the environment that may arise from the exercise of the consent; or
- b. requiring the adoption of the best practicable option to remove or reduce any adverse effect on the environment; or
- c. requiring monitoring in addition to, or instead of, that required by the consent.

**Lapsing**

16. This consent shall lapse ten years after the commencement date, unless the consent is exercised before that lapsing date in accordance with section 125 of the Resource Management Act 1991.

***Advice note:***

*'Exercised' is defined as implementing any requirements to operate this consent and undertaking the activity as described in these conditions and/or application documents.*



## CONDITIONS FOR CRC201192

**Conditions for Consent Application CRC201192****Activity: Discharge Permit (s15) to discharge dewatering water to land or water****Site Location: MORVEN ROAD & ARCHIBALDS ROAD, GLENAVY****Consent Duration: 10 years**

1. This consent shall authorise the discharge of groundwater from site dewatering to land parcels shown on Plan CRC201192 (attached to and forming part of these conditions) and/or adjacent irrigation channels in connection with the earthworks authorized under CRC201187.
2. Groundwater shall be discharged into settling tanks for removal of sediment prior to discharge.
3. If discharge of groundwater occurs to irrigation channels, the consent holder shall ensure:
  - a. that the concentration of total suspended solids in the discharge does not exceed 100g/m<sup>3</sup>;
  - b. that the rate of flow in the irrigation channel is at least five times the rate of the discharge; and
  - c. that the discharge shall not cause erosion or scouring to the banks or bed.
4. If discharge of dewatering water occurs to land, the consent holder shall monitor the discharging quantities to ensure that no ponding of groundwater on the land surface occurs.

**Complaints register**

5. The consent holder shall maintain a Complaints Register for the purpose of recording and dealing with any complaints that are received by the consent holder in relation to the exercise of this resource consent. The Complaints Register shall record, where this information is available:
  - a. the date, time and duration of the incident that has resulted in a complaint;
  - b. the location of the complainant at the time of the incident; and
  - c. any corrective action undertaken by the consent holder in response to the complaint, including timing of that corrective action.

The Complaints Register shall be made available to the Canterbury Regional Council (and the Waimate District Council) at all reasonable times on request. Complaints relating to the conditions of this resource consent shall be forwarded to the appropriate Council within 48 hours of the complaint being received.

**Review**

6. The Canterbury Regional Council may, once per year, on any of the last five working days of May or November, serve notice of its intention to review the conditions of this consent for the

purposes of:

- a. dealing with any adverse effect on the environment that may arise from the exercise of the consent; or
- b. requiring the adoption of the best practicable option to remove or reduce any adverse effect on the environment; or
- c. requiring monitoring in addition to, or instead of, that required by the consent.

**Lapse date**

7. This consent shall lapse ten years after the commencement date, unless the consent is exercised before that lapsing date in accordance with section 125 of the Resource Management Act 1991.

**Advice note:**

*'Exercised' is defined as implementing any requirements to operate this consent and undertaking the activity as described in these conditions and/or application documents.*

Information has been derived from various organisations, including Environment Canterbury and the Canterbury Water Caretaker. Boundary information is derived from the New Zealand Digital Cadastral and geospatial information systems and is not guaranteed to be accurate or complete. The information is provided for your reference only. The Council is not responsible for any errors or omissions. The user should independently verify the accuracy of any information used, taking any action to resolve errors if necessary.



## CONDITIONS FOR CRC201188

**Resource Consent Number: CRC201188****Activity: Land Use Consent (s9) to use land for erection and placement of structures in the Coastal Hazard Zones****Consent Duration: 10 years**

1. The activity shall be limited to the erection and placement of structures within Coastal Hazard Zones 1 and 2 used for the discharge of treated factory wastewater authorised under CRC201194 or any subsequent variations.
2. 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 man-hole.
  - b. any temporary structures required during the construction period.
3. The structures referred to in Condition 2 shall be located within the area labelled as "location of structures" on Plan CRC201188, which forms part of this resource consent.

**Prior to works**

4. The consent holder shall notify the Canterbury Regional Council, Attention Regional Leader - Monitoring and Compliance, at least seven working days prior to the commencement of the authorised works under Condition 1 and within seven working days after the completion of the works.
5. Prior to the commencement of the works described in Condition 1 of this resource consent, all persons undertaking works shall be made aware of, and have access to the contents of:
  - a. this resource consent document; and
  - b. the Construction Management Plan required under Condition 6 of this resource consent.

**Construction Management Plan**

6. No later than two months prior to the commencement of the construction works authorised by this consent, the consent holder shall prepare and submit to the Canterbury Regional Council, Attention: Regional Leader - Monitoring and Compliance, a Construction Management Plan.

The objectives of the Construction Management Plan shall be:

- a. to ensure that the construction activities achieve compliance with the conditions of this resource consent;

- b. to avoid, where practicable, adverse environmental effects and, where not practicable, to ensure appropriate mitigation or appropriate remediation is undertaken;
  - c. to minimise the release of sediment, either to water or to air, during construction activities;
  - d. to provide methods to ensure that persons under its control respect and apply the Construction Management Plan; and
  - e. to integrate good environmental practice into construction activities.
7. In achieving the objectives described in Condition 6, the Construction Management Plan shall be prepared in consultation with the Canterbury Regional Council and shall include, but not be limited to, the following:
- a. a description of the location and extent of the works;
  - b. the best practicable measures that will be adopted during construction to avoid, remedy or mitigate construction effects within the coastal hazard zones;
  - c. the contact details of the lead contractor;
  - d. the timing and duration of each phase, including the working hours within which works will be undertaken;
  - e. the construction method(s) to be adopted including but not limited to dust and sediment control.
  - f. public access and pipeline signage during the construction period;
  - g. measures to avoid adverse effects on penguins during construction;
  - h. a description of the use and details as to volumes of any hazardous chemicals, including fuels and oils, stored or used and their storage requirements; and
  - i. emergency procedures.
8. Construction Works shall not commence until:
- a. the Canterbury Regional Council has certified that the Construction Management Plan meets the objectives described in Condition 6 and includes the matters described in Condition 7; or
  - b. if the Canterbury Regional Council confirms receipt but then fails to provide any further response to the consent holder within a period of 1 month then the Construction Management Plan shall be deemed to be certified.
9. Any subsequent amendment to the Construction Management Plan shall require certification from the Canterbury Regional Council in accordance with the procedure outlined in Conditions 6 to 8 (as if the references to the Construction Management Plan were references to the amendment).

## **Lizard Management Plan**

10. Prior to the commencement of any removal/disturbance works the Consent Holder shall submit to Canterbury Regional Council Attention Regional Leader - Monitoring and Compliance, a Lizard Management Plan (**LMP**) prepared by a suitably qualified and experienced ecologist/herpetologist. The LMP Plan shall be prepared in consultation with Te Rūnanga o Waihao and Te Rūnanga o Arowhenua, and shall be designed to achieve the following objective:
- a. protect each species of indigenous lizard present on the site and where habitat clearance is to occur then rehabilitate and enhance the habitat of each species to be maintained or enhanced, either on the same site or at an appropriate alternative site to help ensure that any long-term impact is a positive impact; and
  - b. the Canterbury Regional Council shall have 10 working days to confirm that the LMP is prepared in general accordance with the requirements of Condition 11. If the Canterbury Regional Council fails to provide a response to the consent holder within 10 working days, then the LMP shall be deemed to be confirmed.

**Advice note:** *The LMP should align with any guidelines produced by the Department of Conservation's (DOC's) Lizard Technical Advisory Group (TAG).*

11. The LMP shall address the following (where relevant):
- a. credentials and contact details of the ecologist/herpetologist who will implement the plan;
  - b. timing of the implementation of the LMP;
  - c. a full description on the effects of the development on lizard values/habitat (species-by-species) at the site;
  - d. a description of all lizard impact management proposed including:
    - i. identification of habitat areas where disturbance/clearance is to be avoided or minimised;
    - ii. rehabilitation, restoration and enhancement of an amount of native vegetation habitat comparable and commensurate to any cleared;
    - iii. maintenance provisions for any planted vegetation to ensure plant establishment;
    - iv. rock-cairn (or other 'surrogate habitat') indigenous lizard habitat creation;
    - v. any further impact management actions agreed to with the Department of Conservation as part of any requirements under a Wildlife Act authorisation (i.e. salvage);
  - e. lizard monitoring to determine habitat-use/colonisation of all remediated/created habitat within two years of the completion of the vegetation clearance activities (methods such as systematic search or a simple index count sufficient);
  - f. any further monitoring measures agreed to following consultation with Te Rūnanga o Waihao and Te Rūnanga o Arowhenua; and

g. contingency provisions.

**Advice note:** *Any plantings should use eco sourced native plant material.*

12. Reporting of LMP to Canterbury Regional Council:

- a. a suitably qualified and experienced ecologist/herpetologist approved to oversee the implementation of the Lizard Management Plan (LMP) shall certify and report to Canterbury Regional Council that the lizard habitat related works have been carried out/initiated according to the certified LMP within one year of the completion of the vegetation clearance activities;
- b. a report shall be prepared, following the completion of monitoring required, that details the methods used and results of the monitoring, including recommendations for future habitat remediation/creation in similar environments; and
- c. if the findings of the ecologist/herpetologist are that changes to the LMP are required to achieve its objective, including any additional measures or actions, they shall make recommendations to the consent holder as to the changes and/or additional measures or actions that are required.

**Erosion and Sediment Controls**

13. The works authorised under Condition 1 of this resource consent shall occur in accordance with an Erosion and Sediment Control Plan (**ESCP**). The ESCP shall:

- a. detail best practicable sediment control measures that will be taken to ensure compliance with this consent; and
- b. be prepared in accordance with Environment Canterbury's current "Erosion and Sediment Control Toolbox for the Canterbury Region" (**ESCT**), which can be accessed at <http://esc Canterbury.co.nz/>.

14. The ESCP shall include:

- a. a map showing the location of all works;
- b. detailed plans showing the location of sediment control measures, on-site catchment boundaries, and sources of runoff;
- c. drawings and specifications of designated sediment control measures;
- d. a programme of works, which includes but is not limited to, a proposed timeframe for the works;
- e. inspection and maintenance of the sediment control measures;
- f. any monitoring requirements for sediment plumes in the coastal waters of the immediate vicinity of the works. Recording of such observations (photos if possible) and reporting programme to the Canterbury Regional Council;
- g. the methodology for stabilising the site if works are abandoned;
- h. the methodology for stabilising the site and decommissioning erosion and sediment control measures after works have been completed;

- i. details of the timing of inspections of the gully for evidence of significant, short term or ongoing erosion caused by the works, and if found, details of stabilisation measures and the timing of the same.
15. The ESCP shall be submitted to the Canterbury Regional Council, Attention Regional Leader - Monitoring and Compliance at least 2 months prior to the works described in Condition 1 commencing, for certification that it complies with the ESCT, and the conditions of this consent.
    - a. The earthworks shall not commence until the consent holder has received the certification.
    - b. Notwithstanding Condition 15.a., if the consent holder has not received the certification within 2 months of the Regional Leader - Monitoring and Compliance receiving the ESCP, the discharge may commence.

### **During Works**

16. Prior to construction commencing, a suitably qualified and experienced ornithologist shall check the gully located at the seaward end of Archibalds legal but unformed road for penguin presence. If penguins are observed, the consent holder shall implement the penguin management measures specified in the Construction Management Plan.
17. All practicable measures shall be undertaken to prevent oil and fuel leaks from vehicles and machinery, including, but not limited to:
  - a. ensuring that there is no storage of fuel or refuelling of vehicles and machinery within 20 metres of the coastal marine area; and
  - b. ensuring that fuel is stored securely or removed from the site overnight.

### **Certification**

18.
  - a. At least two months prior to the commencement of construction of the ocean outfall and associated works, the consent holder shall submit to the Canterbury Regional Council, Attention Regional Leader - Monitoring and Compliance, all design plans and certification for the outfall pipeline and associated works.
  - b. The certificate shall be signed by a suitably qualified and experienced Engineer, certifying that the design plans comply with, or enable compliance with all the conditions of this consent. The certificate shall include sufficient technical information to demonstrate the basis for the certification.
19. Within two months of completion of construction of the ocean outfall, a certificate signed by a suitably qualified and experienced Engineer, certifying that the systems have been constructed in full accordance with the design, and installation specifications submitted in accordance with Condition 18 of this consent, shall be submitted to the Canterbury Regional Council, Attention Regional Leader - Monitoring and Compliance. This engineer shall also sign a statement confirming that they are competent to certify the engineering work

## **Archaeological discovery**

20. In the event of any discovery of archaeological material:

- a. the consent holder shall immediately:
  - i. cease earthmoving operations in the affected area and mark off the affected area; and
  - ii. advise the Canterbury Regional Council of the disturbance; and
  - iii. advise Heritage New Zealand Pouhere Taonga of the disturbance;
- b. if the archaeological material is determined to be Koiwi Tangata (human bones) or taonga (treasured artefacts) by Heritage New Zealand Pouhere Taonga, the consent holder shall immediately advise the office of the appropriate Rūnanga (office contact information can be obtained from the Canterbury Regional Council) of the discovery;
- c. if the archaeological material is determined to be Koiwi Tangata (human bones) by Heritage New Zealand Pouhere Taonga, the consent holder shall immediately advise the New Zealand Police of the disturbance; and
- d. work may recommence if Heritage New Zealand Pouhere Taonga Trust (following consultation with Rūnanga if the site is of Maori origin) provides a statement in writing to the Canterbury Regional Council, Attention: Regional Leader - Monitoring and Compliance that appropriate action has been undertaken in relation to the archaeological material discovered. The Canterbury Regional Council shall advise the consent holder on written receipt from Heritage New Zealand Pouhere Taonga that work can recommence.

### **Advice Note:**

*This may be in addition to any agreements that are in place between the consent holder and the Papatipu **Rūnanga**. (Cultural Site Accidental Discovery Protocol).*

### **Advice Note:**

*Under the Heritage New Zealand Pouhere Taonga Act 2014 an archaeological site is defined as any place associated with pre-1900 human activity, where there is material evidence relating to the history of New Zealand. For sites solely of Maori origin, this evidence may be in the form of accumulations of shell, bone, charcoal, burnt stones, etc. In later sites, artefacts such as bottles or broken glass, ceramics, metals, etc, may be found or evidence of old foundations, wells, drains, tailings, races or other structures. Human remains/koiwi may date to any historic period.*

*It is unlawful for any person to destroy, damage, or modify the whole or any part of an archaeological site without the prior authority of Heritage New Zealand Pouhere Taonga. This is the case regardless of the legal status of the land on which the site is located, whether the activity is permitted under the District or Regional Plan or whether a resource or building consent has been granted.*

*The Heritage New Zealand Pouhere Taonga Act 2014 provides for substantial penalties for unauthorised damage or destruction.*

## **Review**

21. The Canterbury Regional Council may, once per year, on any of the last five working days of May or November, serve notice of its intention to review the conditions of this consent for the purposes of:
- a. dealing with any adverse effect on the environment that may arise from the exercise of the consent; or
  - b. requiring the adoption of the best practicable option to remove or reduce any adverse effect on the environment.
22. This consent shall lapse ten years after the commencement date, unless the consent is before that lapsing date in accordance with section 125 of the Resource Management Act 1991.

**Advice note:** *'Exercised' is defined as implementing any requirements to operate this consent and undertaking the activity as described in these conditions and/or application documents.*

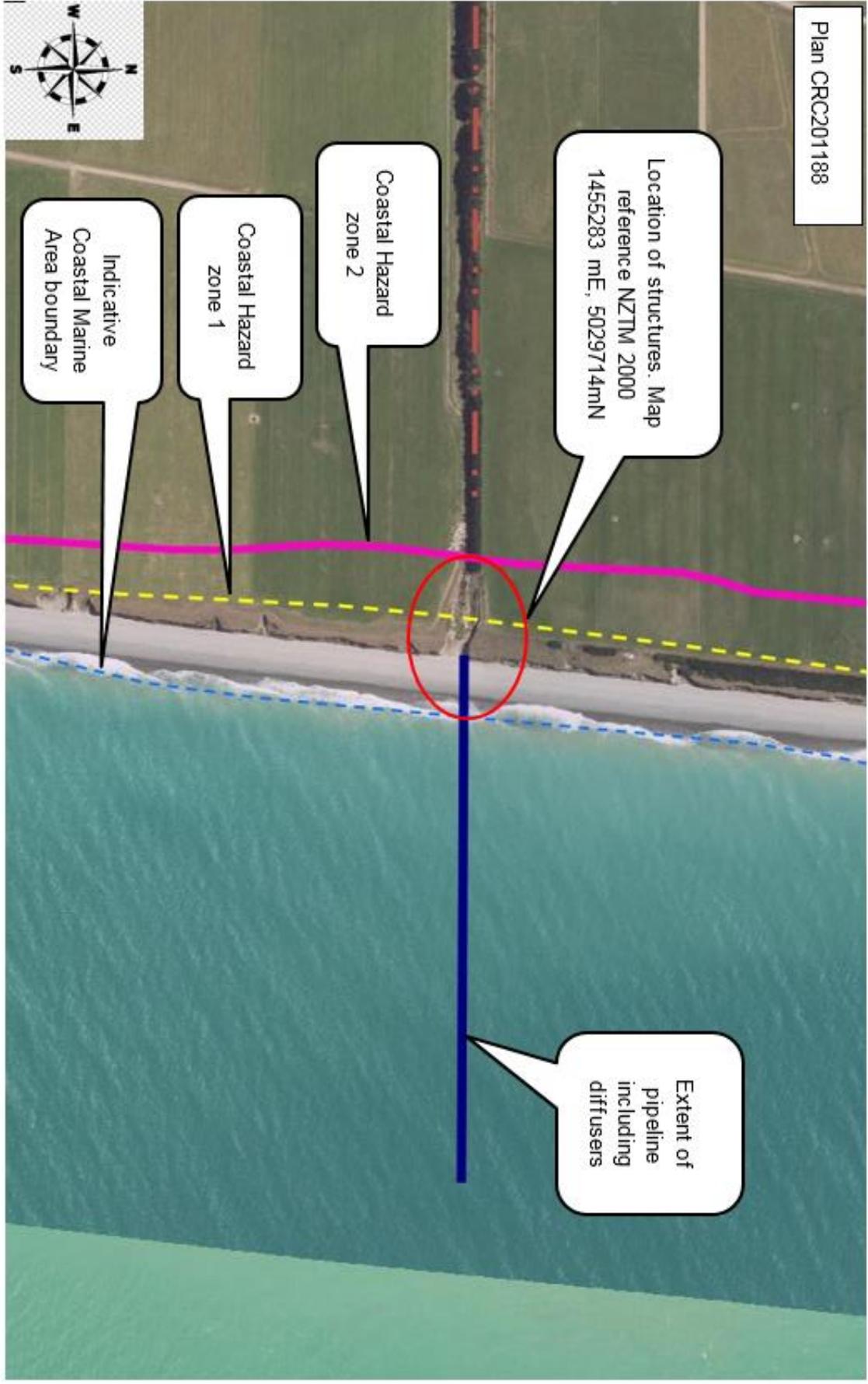
Location of structures. Map reference NZTM 2000 1455283 mE, 5029714mN

Extent of pipeline including diffusers

Coastal Hazard zone 2

Coastal Hazard zone 1

Indicative Coastal Marine Area boundary



## CONDITIONS FOR CRC201190

**Resource Consent Number: CRC201190**

**Activity: Coastal Permit (s12) to disturb and deposit material to the foreshore or seabed, to erect and place structures and to occupy CMA**

**Consent Duration: 35 years**

**General**

1. The activity shall be limited to:
  - a. the disturbance and deposition of material on the foreshore and seabed;
  - b. erection and placement of structures in the Coastal Marine Area; and
  - c. the permanent occupation of the Coastal Marine Area by structures.

associated with the discharge of treated factory wastewater authorised under CRC201194 or any subsequent variations.
2. The permanent occupation of the Coastal Marine Area shall be limited to the structures required for the operation of the outfall pipeline and outfall diffusers, located between the Coastal Marine Area boundary, and the end of the furthestmost diffuser as shown on Plan CRC201190 which forms part of this resource consent.
3. The structures referred to in Condition 2 shall be located within the area shown on Plan CRC201190.

**Prior to Works**

4. The consent holder shall notify the Canterbury Regional Council, : Attention Regional Leader - Monitoring and Compliance, at least seven working days prior to the commencement of the authorised works under Condition 1 and within seven working days after the completion of the works.
5. Prior to the commencement of the works described in Condition 1 of this resource consent, all persons undertaking works shall be made aware of, and have access to the contents of:
  - a. this resource consent document; and
  - b. the Construction Management Plan required under Condition 6 of this resource consent.

**Construction Management Plan**

6. No later than two months prior to the commencement of the construction works authorised by this consent, the consent holder shall prepare and submit to the Canterbury Regional Council, Attention: Regional Leader - Monitoring and Compliance, a Construction Management Plan.

The objectives of the Construction Management Plan shall be:

- a. to ensure that the construction activities achieve compliance with the conditions of this resource consent;
  - b. to avoid, where practicable, adverse environmental effects and, where not practicable, to ensure appropriate mitigation or appropriate remediation is undertaken;
  - c. to minimise the release of sediment to water during construction activities;
  - d. to provide methods to ensure that persons under its control respect and apply the Construction Management Plan;
  - e. where dredging methods are employed to minimise the total duration of the works; and
  - f. to integrate good environmental practice into construction activities.
7. In achieving the objectives described in Condition 6, the Construction Management Plan shall be prepared in consultation with the Canterbury Regional Council and shall include, but not be limited to, the following:
- a. a description of the location and extent of the works;
  - b. the best practicable measures that will be adopted during construction to avoid, remedy or mitigate construction effects within the coastal marine area;
  - c. confirming that the duration of works, including details of how the construction period is to be minimised as far as practicable;
  - d. the contact details of the lead contractor;
  - e. the timing and duration of each phase, including the working hours within which works will be undertaken;
  - f. the construction method(s) to be adopted including but not limited to sediment control.
  - g. public access and pipeline signage during the construction period;
  - h. details of all Maritime Safety Authority permits and notices to mariners that have been obtained in relation to the works;
  - i. details of any permanent maritime signage required
  - j. a description of the use of any hazardous chemicals, including fuels and oils, stored or used and their storage requirements;
  - k. emergency procedures;
  - l. an accidental discovery protocol, developed in consultation with the Department of Conservation, Te Rūnanga o Waihao and Te Rūnanga o Arowhenua; and
  - m. an Environmental Management Plan covering an assessment of environmental effects on the following:
    - i. noise;
    - ii. lights on vessels;

- iii. marine biosecurity;
  - i. hydrocarbon and other contaminant spills; and
  - ii. environmental monitoring and reporting that will be undertaken during the construction period.
8. Construction Works shall not commence until:
- a. the Canterbury Regional Council has certified that the Construction Management Plan meets the objectives described in Condition 6 and includes the matters described in Condition 7; or
  - b. if the Canterbury Regional Council confirms receipt but then fails to provide any further response to the consent holder within a period of one month then the Construction Management Plan shall be deemed to be certified.
9. Any subsequent amendment to the Construction Management Plan shall require certification from the Canterbury Regional Council in accordance with the procedure outlined in Conditions 6 to 8 (as if the references to the Construction Management Plan were references to the amendment).

#### **Site Remediation**

10. Following the completion of works:
- a. all areas subject to earth working shall be stabilised and reinstated to the natural beach profile of neighbouring adjacent beach areas as soon as practicable;
  - b. material used to reinstate the beach profile shall only be natural excavated beach material, or material of similar type and size consistent with the neighbouring natural beach material; and
  - c. all accumulated debris and other waste material shall be removed from the site.

#### **Beach Signage and Marine Charts**

11. Immediately following construction of the outfall, the consent holder shall:
- a. erect warning signage on the beach, in a position clearly visible from the coastal marine area, if required to do so by the Director of Maritime Safety appointed under the Marine Transport Act 1994 (the DMS), or by Land Information New Zealand (LINZ), as the National Hydrographic Authority for New Zealand;
  - b. ensure the signage includes, for any recreational users of the beach, notice that the outfall for the Oceania Dairy Processing site is located at that location; and
  - c. provide map references of the position of the outfall pipeline and outfall diffuser to the DMS and LINZ.

#### **Certification**

12. At least two months prior to the commencement of construction of the ocean outfall and associated works, the consent holder shall submit to the Canterbury Regional Council, Attention Regional Leader - Monitoring and Compliance, all design plans and certification for the outfall pipeline and associated works.
13. The certificate shall be signed by a suitably qualified and experienced Engineer, certifying that the design plans comply with, or enable compliance with all the conditions of this consent. The certificate shall include sufficient technical information to demonstrate the basis for the certification.

14. Within two months of completion of construction of the ocean outfall, a certificate signed by a suitably qualified and experienced Engineer, certifying that the systems have been constructed in full accordance with the design, and installation specifications submitted in accordance with Condition 13 of this consent, shall be submitted to the Canterbury Regional Council, Attention Regional Leader - Monitoring and Compliance. This engineer shall also sign a statement confirming that they are competent to certify the engineering work.

**Inspection and Maintenance of the outfall pipeline and outfall diffusers**

15. The consent holder shall undertake a visual sea surface inspection of the area in the proximity of the outfall pipeline and outfall diffusers once a year (from the date of commencement of this consent) and after any significant earthquake or tsunami event in the vicinity of the outfall diffusers, to ensure that the structures are working correctly, have not been moved and are maintained in good working order.
16. If no significant movement is detected after five years of annual inspections, the inspection rate shall be changed to every 5 years and after any significant earthquake event.
17. The consent holder shall, within two months of this inspection, submit a report to the Canterbury Regional Council Attention: Regional Leader - Monitoring and Compliance, describing the outcome of the inspection.
18. Following Commencement of this consent for the duration of this consent, the consent holder shall undertake:
  - a. six monthly visual inspections of the beach; and
  - b. where the pipeline has been laid and 100 metres north and south of the beach crossing point.
19. The consent holder shall undertake visual inspection of any exposed pipeline or its components surfaces annually, and clean any surfaces that compromises its operation which show any signs of biofouling.
20. The consent holder shall, within two months of any inspection undertaken in accordance with Condition 14, 15 and 16 above, submit a report to the Canterbury Regional Council Attention: Regional Leader - Monitoring and Compliance, that includes but is not limited to detail on:
  - a. the date and time of the inspection;
  - b. the condition of the outfall pipeline and outfall diffuser; and
  - c. should there be any evidence of beach weakness or gravel washout, this shall be reported to the Canterbury Regional Council together with the remediation to be undertaken (if any) in regards to the pipeline and outfall infrastructure;
  - d. Any cleaning of biofouling undertaken on exposed surfaces of the pipeline or diffusers.

### **Review**

21. The Canterbury Regional Council may, once per year, on any of the last five working days of May or November, serve notice of its intention to review the conditions of this consent for the purposes of:
- a. Dealing with any adverse effect on the environment that may arise from the exercise of the consent or
  - b. Requiring the adoption of the best practicable option to remove or reduce any adverse effect on the environment.

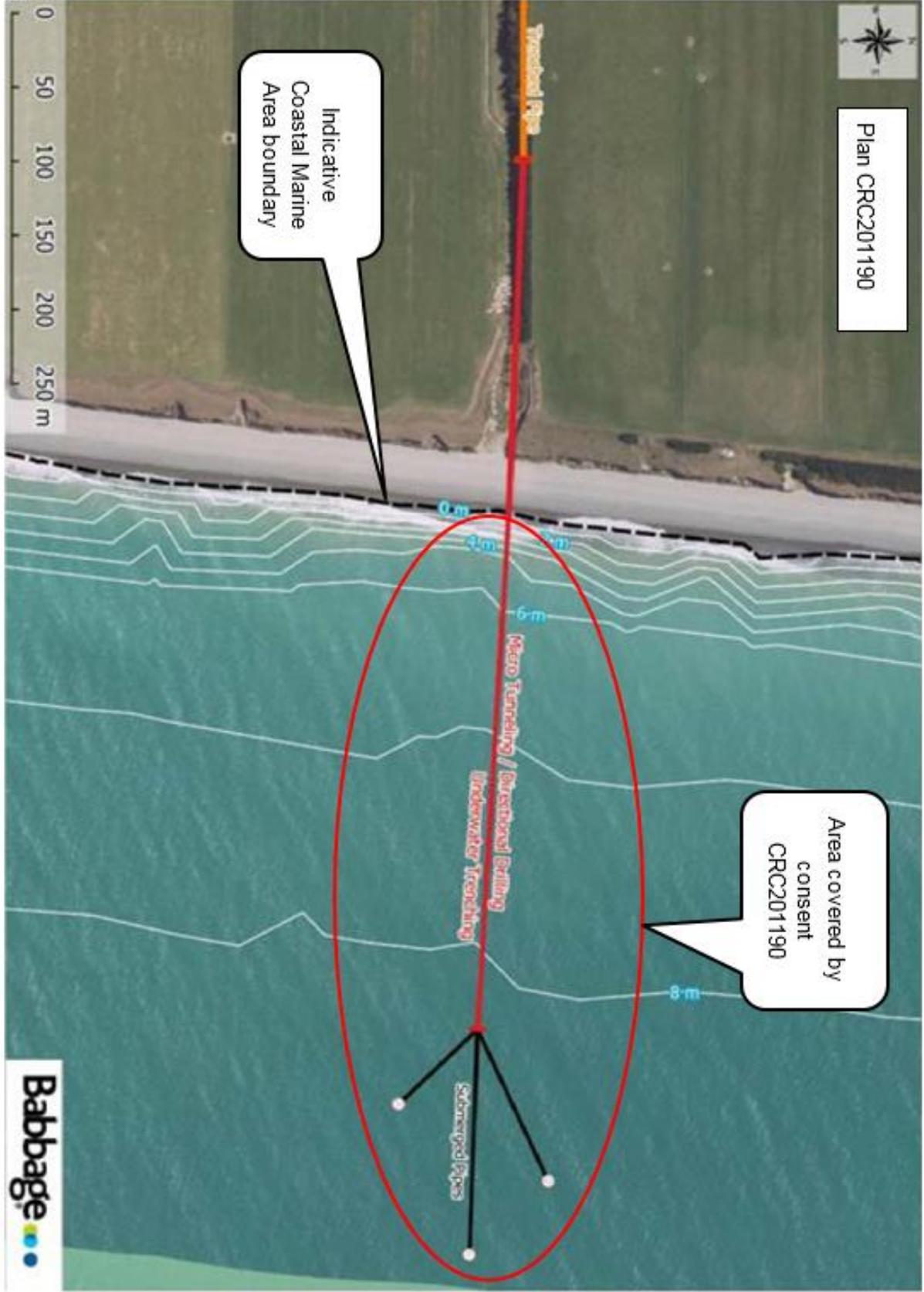
### **Lapsing**

22. This consent shall lapse ten years after the commencement date, unless the consent is exercised before that lapsing date in accordance with section 125 of the Resource Management Act 1991.

**Advice note:** *'Exercised' is defined as implementing any requirements to operate this consent and undertaking the activity as described in these conditions and/or application documents.*



Plan CRC201190



Indicative Coastal Marine Area boundary

Area covered by consent CRC201190

New Trenching / Recutback filling  
Underwater Trenching

Schemaged pipes

CONDITIONS FOR CRC201194

**Resource Consent Number: CRC201194**

**Activity: Discharge Permit (s15) to discharge treated wastewater into CMA**

**Consent Duration: 35 years**

## General

1. The activity shall be limited to the discharge of milk processing waters, including milk processing plant condensate water, tanker clean in place washwater, tanker hoop washwater and factory washwater including diluted cleaning chemicals into the Coastal Marine Area.

**Advice notice:** *for the purpose of this consent, the above types of wastewater discharge shall be referred to collectively as "the wastewater".*

2. The wastewater shall be discharged into the Coastal Marine Area via an outfall pipeline and three ocean outfall diffusers attached to the seabed. The three diffusers shall be located in the area shown on Plan CRC201194, which forms part of this consent. The landward end of the diffusers shall be located not less than 300 metres from the shoreline at mean sea level as shown on Plan CRC201194.
3. Wastewater shall be discharged to the Coastal Marine Area (as set out in conditions 1 and 2 above) provided that it first complies with the following:
  - a. preference shall be given to discharge of wastewater to land approved under any relevant resource consents held by the consent holder that have been given effect to; and
  - b. wastewater shall be discharged to the Coastal Marine Area when discharge to land is not practicable under Condition 3(a);

**Advice note:**

*When determining whether the discharge of wastewater under those consents to land is "Not Practicable", the term "Not Practicable" shall mean and include consideration of the following:*

- *Are the soils approaching soil saturation;*
  - *Is the soils temperature such that it will result in reduced uptake of Nitrogen from pasture/crops;*
  - *Consideration of forecast wet weather conditions before during and following possible applications;*
  - *Consideration of actual and forecast compliance with resource consent conditions;*
  - *Consideration of farming operation conditions (e.g. cultivation, harvesting);*
  - *Allowing for the undertaking of maintenance of irrigation systems; and*
  - *Consideration of volumes of wastewater and production levels from the dairy processing facility.*
- c. Notwithstanding Condition 3(a), preference shall be given to discharge of wastewater to the Coastal Marine Area during the period of 30 May to 30 September in any year; and
  - d. The consent holder shall maintain a written record of detailing the results of the above considerations including the dates and time periods over which condition 3 has been exercised, which record shall be made available to the Canterbury Regional Council on request.

#### **Operation of the wastewater treatment plant and discharge**

4. The wastewater treatment plant shall comprise at a minimum of:
  - a. dissolved air flotation to remove fat and suspended matter;
  - b. secondary treatment with biological reactor tanks to reduce organic and nutrient constituents; and
  - c. UV treatment for reduction of pathogens.

#### **Water Treatment Plant Management Plan**

5. No later than two months prior to the commencement of the discharge authorised by this consent, the consent holder shall prepare and submit to the Canterbury Regional Council, Attention: Regional Leader - Monitoring and Compliance, a Wastewater Treatment Plant Management Plan.

The objectives of the Wastewater Treatment Plant Management Plan shall be:

- a. to ensure that the operation of the future Wastewater Treatment Plant upgrade complies with the conditions of this resource consent;
  - b. to avoid, where practicable, adverse environmental effects and, where not practicable, ensure appropriate mitigation or appropriate remediation is undertaken;
  - c. to provide methods to ensure that persons under its control respect and apply the Wastewater Treatment Plant Management Plan; and
  - d. to integrate good environmental practice into the operation of the Wastewater Treatment Plant and associated discharge activities.
6. In achieving the objectives described in Condition 5, the Wastewater Treatment Plant Management Plan shall include, but not be limited to, the following:
    - a. the management and operational procedures required to comply with the conditions of this resource consent that relate to the operation of the Wastewater Treatment Plant;
    - b. the training for staff to operate the Wastewater Treatment Plant;
    - c. the frequency of monitoring observations and methods to be used (which shall be developed in consultation with the Canterbury Regional Council); and
    - d. the identification of staff and contractor responsibilities.
  7. The wastewater discharge shall not commence until:
    - a. the Canterbury Regional Council has certified that the Wastewater Treatment Plant Management Plan meets the objectives described in Condition 5 and includes the matters described in Condition 6; or
    - b. if the Canterbury Regional Council confirms receipt but then fails to provide any further response to the consent holder within a period of two months then the Wastewater Treatment Plant Management Plan shall be deemed to be certified.
  8. Any subsequent amendment to the Wastewater Treatment Plant Management Plan shall be certified by the Canterbury Regional Council in accordance with the procedure

outlined in Conditions 5 to 7 (as if the references to the Wastewater Treatment Plant Management Plan were references to the amendment).

9. The consent holder shall advise the Canterbury Regional Council Attention: Regional Leader - Monitoring and Compliance, in writing of the date of commencement of the discharge authorised by this consent prior to the first discharge taking place.

#### **Flow Limits and Measurement**

10. The discharge shall not exceed a maximum volume of 10,000 cubic metres per day and a maximum flow rate of 116 litres per second and the consent holder will keep records to confirm volumes and maximum flow rates.
11. A continuous measurement of the flow discharged to the outfall pipeline shall be maintained. Such records shall be retained and made available to the Canterbury Regional Council on request.

#### **Wastewater Monitoring**

12. The wastewater shall be continuously monitored at the end of the treatment plant prior to discharge to the outfall pipeline.
  - a. Analysis shall be undertaken by either:
    - i. laboratory analysis of a physical sample; or
    - ii. by certified online measurement instruments.
  - b. Results of the analysis shall report the Parameter in the Units, at a weekly frequency and for a 24 hour composite sample as listed below:
    - i. chemical oxygen demand (COD) in grams per cubic metre;
    - ii. five day biochemical oxygen demand (BOD) in grams per cubic metre;
    - iii. total suspended solids (TSS) in grams per cubic metre;
    - iv. total nitrogen in grams per cubic metre;
    - v. nitrate nitrogen in grams per cubic metre;
    - vi. dissolved inorganic nitrogen in grams per cubic metre;
    - vii. ammonium-nitrogen in grams per cubic metre;
    - viii. pH;
    - ix. total phosphorus in grams per cubic metre;
    - x. dissolved reactive phosphorus in grams per cubic metre;
    - xi. arsenic in milligrams per cubic metre;
    - xii. cadmium in milligrams per cubic metre;
    - xiii. chromium in milligrams per cubic metre;
    - xiv. copper in milligrams per cubic metre;
    - xv. lead in milligrams per cubic metre;
    - xvi. nickel in milligrams per cubic metre; and
    - xvii. zinc in milligrams per cubic metre.

13. The results of analysis of the wastewater sampled in accordance with Condition 12 shall be compared with the trigger values provided in the below table.

Parameter	Mean	95 percentile
COD	150 g/m <sup>3</sup>	300 g/m <sup>3</sup>
BOD	30 g/m <sup>3</sup>	50 g/m <sup>3</sup>
TSS	50 g/m <sup>3</sup>	70 g/m <sup>3</sup>
Total nitrogen	15 g/m <sup>3</sup>	20 g/m <sup>3</sup>
Nitrate nitrogen	10 g/m <sup>3</sup>	15 g/m <sup>3</sup>
Dissolved inorganic nitrogen	12 g/m <sup>3</sup>	15 g/m <sup>3</sup>
Ammonium nitrate	2 g/m <sup>3</sup>	4 g/m <sup>3</sup>
pH	7-9	
Total phosphorus	2 g/m <sup>3</sup>	4 g/m <sup>3</sup>
Dissolved reactive phosphorus	2 g/m <sup>3</sup>	4 g/m <sup>3</sup>
Arsenic		50mg/m <sup>3</sup>
Cadmium		2 mg/m <sup>3</sup>
Chromium		50 mg/m <sup>3</sup>
Copper		10 mg/m <sup>3</sup>
Lead		5 mg/m <sup>3</sup>
Nickel		15 mg/m <sup>3</sup>
Zinc		100 mg/m <sup>3</sup>

The mean value shall be calculated on a rolling basis from the previous 10 consecutive samples. The 95th percentile value shall be calculated on a rolling basis from the previous 20 consecutive samples.

14. If any of the trigger values identified in Condition 13 are exceeded more than three months after the first discharge( the date of which will be recorded by the consent holder) from the Wastewater Treatment Plant, the consent holder shall:
- a. as soon as possible:
    - i. increase the frequency of wastewater sampling and analysis to one composite sample per day for a period of ten days, for the contaminant for which the exceedance was recorded;
    - ii. advise the Canterbury Regional Council of the trigger value exceedance; and

- iii determine the reason for the exceedance of the trigger value;
  - b. prepare a report on the results of the additional sampling and analysis, and any other investigations carried out, and identify all practicable measures to reduce the concentration of the contaminant in the final discharge to prevent a recurrence of the exceedance. This report shall be prepared by a suitably qualified person and shall include a thorough assessment of the cause of the exceedance and the identified measures are appropriate to prevent a recurrence of the exceedance;
  - c. submit the report and the certification specified to the Canterbury Regional Council within two months of receiving the results of the analysis required for the completion of the report under Condition 14(b); and
  - d. If any trigger values in Condition 13 are exceeded for a period of more than 30 weeks, the discharge via the outfall shall cease and not recommence until daily monitoring shows that trigger levels are not exceeded for a period of at least ten days.
15. The measures identified in the report required under Condition 14(b) shall be implemented as soon as practicable and confirmation of that implementation shall be provided to the Canterbury Regional Council, Attention: RMA Compliance and Monitoring Manager as soon as practicable after completion of the measures.

**Monitoring for indicator bacteria and pathogens**

16. The wastewater shall be sampled prior to the discharge to the outfall pipeline for the parameters and frequencies identified in this condition and these samples shall be analysed for the biological contaminants listed below, with median values shown as trigger levels:

Parameter	Frequency	Interim median trigger value
Enterococci	Fortnightly for 24 months	100 cfu/100ml
Faecal coliforms	Fortnightly for 24 months	100 cfu/100ml
Escherichia coli	Fortnightly for 24 months	100 cfu/100ml
Pseudomonas aeruginosa	Fortnightly for 24 months	100 cfu/100ml
Staphylococcus aureus	Fortnightly for 24 months	
Listeria spp.	Fortnightly for 24 months	

The median value shall be calculated on a rolling basis from the previous 10 consecutive samples.

17. At the end of the two -year initial monitoring period required by Condition 16, the consent holder shall engage a suitably qualified person approved by the Canterbury Regional Council with experience in the operation of Wastewater Treatment Plants to advise on:

- a. the relationship between indicator bacteria and pathogens (from the data collected); and
- b. the need for ongoing future monitoring of pathogens and/or indicator bacteria and the duration of that monitoring; and
- c. the triggers that should apply; and
- d. when further reviews of the monitoring and limits should take place.

This shall be presented in a report (Future Monitoring Report) and be submitted to the Canterbury Regional Council within 2 months after the expiry of the 24 month period.

18. If, during the two-year initial monitoring period required by Condition 16, sampling demonstrates that the wastewater has exceeded the trigger(s) specified, the consent holder shall engage a qualified person approved by the Canterbury Regional Council to prepare a report advising on the possible causes of the exceedance(s), system changes and management techniques to avoid future exceedances (the Exceedance Report):
  - a. the qualified person shall prepare and submit to the Canterbury Regional Council an Exceedance Report within one month of the exceedance; and
  - b. the consent holder shall implement any changes recommended in the report.
19. In the event that:
  - a. the Canterbury Regional Council certifies (and accepts the recommendations (if any) set out in the Future Monitoring Report, the consent holder shall implement the recommendations for ongoing monitoring, limits and monitoring reviews at the time certification is provided; or
  - b. if the Canterbury Regional Council confirms receipt but then fails to provide any further response to the consent holder within a period of two months, then the consent holder shall implement the recommendations for ongoing monitoring, limits and future reviews.
20. In the event that there are no exceedances of the trigger values during the two year initial monitoring period required by Condition 16, then the consent holder may propose a specific UV dose, based on UV and bacterial monitoring records, for approval by the Canterbury Regional Council. . From the date of any approval of a specific UV dose, the consent holder must ensure that transmissivity and flow of the wastewater through the UV system is measured daily (as a minimum), recorded, and logged to enable the UV dose to be calculated and reported, to the satisfaction of the Council.

Dose records shall be presented in a report (Five Year Anniversary Report) and shall be submitted to the Canterbury Regional Council within 2 months after the expiry of each five year period.
21. If a Five Year Anniversary Report shows exceedances of the trigger values for pathogens and faecal indicator bacteria identified in Condition 16, the consent holder shall engage a qualified person approved by the Canterbury Regional Council to prepare a Future Monitoring Report. The Future Monitoring Report shall be prepared in accordance with Condition 17.

### **Benthic Monitoring**

22. a. Biota

At least two months prior to the first use of the outfall, and thereafter at five yearly intervals, between the months of December and March inclusive, the consent holder shall

undertake a benthic monitoring survey to determine the infauna/epifauna species composition and abundance, at three sites just outside the 50m 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.

The number of replicates collected per site is to be determined by technical experts in consultation with Canterbury Regional Council, Regional Leader- Monitoring and Compliance prior to collection of the baseline data.

b. Sediment

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(a), for the following parameters:

- i. arsenic;
- ii. cadmium;
- iii. chromium;
- iv. copper;
- v. lead;
- vi. nickel;
- vii. total organic carbon;
- viii. organic matter content;
- ix. total nitrogen;
- x. total reactive phosphorus; and
- xi. grain size distribution (wet sieving, 7 size fractions).

At each site, three replicate sediment samples shall be collected and analysed by an IANZ accredited laboratory.

23. Analysis and reporting of data

- a. The sediment monitoring data shall be collated into a report and provided to the Canterbury Regional Council within three months of monitoring occurring.
- b. Analysis shall be completed by an appropriately qualified person or persons.
- c. The biota data are to be assessed using biological indices and assessed at the community level. The influence of the measured sediment parameters on the biological community shall be evaluated.
- d. The consent holder shall evaluate the benthic biota data and the sediment data to determine if there is a significant difference between the sites just outside the mixing zone and the control sites that cannot be accounted for by natural variation. Results and discussion shall be reported to the Canterbury Regional Council.
- e. The sediment and biota monitoring programme shall be reviewed after two rounds of monitoring. This review shall be used to determine the frequency of future monitoring.

**Receiving environment water quality monitoring**

24. The consent holder shall carry out monthly sea surface sampling at three edges of

mixing zone sites and two control sites. The edge of mixing zone sites shall be at the northern, southern and eastern edge of the 50 metre mixing zone. The control sites shall be 1,000 metres north and south of the north and south edge of the mixing zone sites. Each sample is to be analysed for the parameters listed below. The results are to be assessed against the relevant guideline values provided in the table below:

Parameter	Guideline value
Water temperature	shall not exceed 25°C and no value > 3°C different to natural conditions
pH	No value > 0.2 units compared to natural conditions
Dissolved oxygen	% saturation value must be >80%
Guideline value (mg/L) (Annual median)	
Ammoniacal nitrogen	0.016
Nitrate + nitrite nitrogen	0.07
Dissolved inorganic nitrogen	0.083
Total nitrogen	0.25
Dissolved reactive phosphorus	0.0091
Total phosphorus	0.032
Total suspended solids	35
Guideline value (mg/L) (Maximum)	
Dissolved cadmium	0.0007
Dissolved chromium	0.00014
Dissolved copper	0.0003
Dissolved lead	0.0022
Dissolved nickel	0.007
Dissolved zinc	0.007

25. At the completion of the first year of discharge the monitoring data collected to address Condition 24 shall be submitted to council and reviewed. If concentrations at the mixing zone sites are within the guideline values, or for parameters with maximum value guidelines, are not statistically significantly different from results at the control sites, then sampling frequency shall decrease to monthly for one year once every fifth year or when further reviews of the monitoring and limits should take place.

This shall be presented in a report (Future Monitoring Report) and be submitted to the Canterbury Regional Council within 2 months after the expiry of the 12 month period.

### **Sampling and analysis**

26. All sampling required under this consent shall be undertaken by a suitably qualified person who has completed appropriate training.
27. Any testing and analysis of samples (water and sediment) required by virtue of the monitoring requirements of this resource consent shall be carried out by a suitably accredited organisation and laboratory for the tests and analyses involved.
28. Notwithstanding any other conditions in this resource consent, the discharge authorised shall not give rise to any of the following effects beyond the mixing zone:
  - a. the production of conspicuous oil or grease films, scums or foams or floatable suspended materials;
  - b. any conspicuous change in the colour or visual clarity;
  - c. any emission of objectionable odour; and
  - d. any significant adverse effects on aquatic life.

### **Annual Environmental Report**

29. The consent holder shall provide an annual report to the Canterbury Regional Council by 30 September each year. The report shall include, but not be limited to:
  - a. a summary and interpretation of the data collected under the conditions of this resource consent and comparison against trigger levels;
  - b. a comparison of the results against results from previous sampling periods;
  - c. an explanation of any operational difficulties, changes or improvements made to the processes that could result in changes in environmental effects;
  - d. if applicable, an outline of any measures undertaken to mitigate any adverse environmental effects to prevent a recurrence and comment on the effectiveness of these measures; and
  - e. a discussion of any practical measures implemented to address standards or trigger value exceedances during the period.

### **Complaints Register**

30. The consent holder shall maintain a Complaints Register for the purpose of recording and dealing with any complaints that are received by the consent holder in relation to the exercise of this resource consent. The Complaints Register shall record, where this information is available:
  - a. the date, time and duration of the incident that has resulted in a complaint;
  - b. the location of the complainant at the time of the incident; and

- c. any corrective action undertaken by the consent holder in response to the complaint, including timing of that corrective action

31. The Complaints Register shall be made available to the Canterbury Regional Council (with a copy being provided to the Waimate District Council) at all reasonable times on request. Complaints relating to the conditions of this resource consent shall be forwarded to the appropriate Council within 48 hours of the complaint being received.

#### **Community Liaison Group**

32. At least three months prior to commencing construction works, the consent holder shall place a public advertisement in the relevant local Waimate Community Newspaper inviting local residents and interested people(as set out below) to attend a meeting to establish a Community Liaison Group (CLG):

- a. the invitation to attend and establish a Community Liaison Group shall be extended to the membership of the CLG shall comprise the following:
  - i. two representatives on behalf of all property owners with boundaries adjoining, or but for the presence of roads and railway lines, immediately next to the site;
  - ii. one representative each on behalf of the Waimate District Council and Canterbury Regional Council;
  - iii. Te Rūnanga o Waihao and Te Rūnanga o Arowhenua.

b. The CLG shall be chaired by a representative of the consent holder ; and

c. the consent holder shall ensure that members of the Community Liaison Group are provided with the opportunity and facilities to meet at least twice per year throughout the duration of this consent.

33. The main purposes of the Community Liaison Group shall be to discuss with the consent holder:

- a. construction management issues;
- b. the results of all monitoring and reporting required under the resource consents relating to the ocean outfall consent; and
- c. any community concerns regarding the effects of the construction and operation of the ocean outfall.

34. Following establishment, the consent holder shall facilitate the continuation of the Community Liaison Group for the term of the consent.

#### **Review**

35. The Canterbury Regional Council may, once per year, on any of the last five working days of May or November, serve notice of its intention to review the conditions of this consent for the purposes of:

- a. dealing with any adverse effect on the environment that may arise from the exercise of the consent; or

- b. requiring the adoption of the best practicable option to remove or reduce any adverse effect on the environment; or
- c. requiring monitoring in addition to, or instead of, that required by the consent.

**Lapsing**

36. This consent shall lapse ten years after the commencement date, unless the consent is exercised before that lapsing date in accordance with section 125 of the Resource Management Act 1991.

***Advice note:***

*'Exercised' is defined as implementing any requirements to operate this consent and undertaking the activity as described in these conditions and/or application documents.*



Plan CRC201194

Mean sea level line

Minimum of 300 metres from shoreline at mean sea level.

