

IN THE MATTER OF Applications by the Christchurch City Council to the Canterbury Regional Council, CRC150046, CRC150047, CRC150048, CRC150049, CRC150050 and CRC152814 for a water permit to take groundwater for dewatering, a coastal permit to disturb the seabed and foreshore and place structures in the coastal marine area, a coastal permit to occupy seabed and to discharge treated wastewater into the coastal marine area, a discharge permit to discharge contaminants to air, a land use consent to use land to store effluent, and a discharge permit to discharge stormwater to water, together with an application to the Christchurch City Council (as consent authority) for land use consent (RMA92026256) for various works making up the Akaroa Wastewater Scheme upgrade.

DECISION OF HEARINGS COMMISSIONERS

DAVID W COLLINS AND HOANI LANGSBURY

9th July 2015

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ABBREVIATIONS

"CCC" and "the applicant" - Christchurch City Council

"CMA" - Coastal Marine Area (as defined in the Act)

"CRC" - Canterbury Regional Council (Environment Canterbury)

"ECan" - Canterbury Regional Council (Environment Canterbury)

"L/s" - litres per second

"RMA" and "the Act" - Resource Management Act 1991

"TCMA" - temporary construction management area

"TPS" - terminal pump station

"WWTP" - wastewater treatment plant

INTRODUCTION

1. We have been jointly appointed by the Canterbury Regional Council (CRC) and the Christchurch City Council (CCC) to hear and determine a suite of applications to enable a major upgrade of the wastewater system for the town of Akaroa. The City Council, as both applicant and one of the consent authorities, is in a position of potential conflict of interest and in this situation it is normal practice to appoint independent commissioners. It is also usual practice when applications for the same project are made to more than one consent authority, for them to be heard and determined jointly.
2. We have considered the extensive documentation making up the application by the CCC, the requests for and provision of further information, and the comprehensive reports provided under section 42A of the Act by officers of the two consent authorities. Much of the information and assessment in those reports is uncontested and it will be convenient and efficient to incorporate parts of those reports in this decision.
3. A hearing was convened in Akaroa on the 26th, 27th and 28th of May 2015. The following people contributed:

Christchurch City Council (as applicant)

Mr Brent Pizzey - Counsel

Mr Michael Bourke - City Council Engineer

Mr Gregory Offer - Technical Director Engineering, Beca Ltd

Mr Wade Robertson - Landscape Architect and Design Practice Manager, Beca Ltd

Mr Ian Goss - Senior Engineer, OCEL Consultants Ltd

Mr Matthew Noonan - Senior Air Quality Consultant, Beca Ltd

Mr Graham McBride - Principal Scientist, National Institute of Water and Atmospheric Research

Mr Ross Sneddon - Environmental Scientist, Cawthron Institute

Mr Paul Whyte - Senior Planner (Associate), Beca Ltd

Christchurch City Council (as consent authority)

Mr Kent Wilson - CCC Senior Planner

Ms Jennifer Moore - CCC Senior Landscape Architect

Canterbury Regional Council

Ms Adele Dawson - Senior Consents Planner, CRC

Dr Lesley Bolton-Richie - Senior Scientist Coastal, CRC

Mr Robert Potts - Senior Environmental Engineer, Lowe Environmental Impact Ltd

(Reports also provided by other CRC officers: Mr Miles McCauley - Principal Consents Planner, Mr Jim Dilley - Harbourmaster, and Mr Justin Cope - Team Leader Hazards and Coastal Environmental Science and Hazards.)

Ngāi Tahu (Ōnuku Rūnanga, Wairewa Rūnanga, Te Rūnanga o Ngāi Tahu and the Akaroa Taiāpure Management Committee)

Ms Ngaire Tainui - Ōnuku Rūnanga representative on Board of Te Rūnanga o Ngāi Tahu

Mr Wi Tainui - kaumātua (Ōnuku)

Mr Iaeen Cranwell - member of Akaroa Taiāpure Committee and other roles

Mr Nigel Scott - Principal Advisor, Mahinga Kai, Te Rūnanga o Ngāi Tahu

Ms Philippa Lynch - Senior Environmental Advisor, Te Rūnanga o Ngāi Tahu

Mr Darren Rainbird - proprietor of Akaroa Mini Golf

Dr Mark Ellis - consulting engineer, for Mr and Mrs Graham and Cynthia Ellis

Mr James Crossland - for the Akaroa Recreational Fishing Club Inc. (Vice President)

THE PROPOSAL

4. The Christchurch City Council has applied for a suite of consents to upgrade the existing Akaroa Waste Water treatment and disposal system. The main impetus for the upgrade is the ongoing concern about the existing harbour discharge by the local community, including the cultural offensiveness of the current activity by both Ōnuku and Wairewa Rūnanga. The Rūnanga also have a longstanding concern about the occupancy by the treatment plant of the historic Takapūneke village site.
5. The main features of the proposal are summarized below, and are shown on the plan following:

- Redirecting the flow in the pressure sewer line running along the coastline through the town to flow from south to north, away from the existing treatment plant.
- Installing new pipework in the existing pipes by slip lining or pipe bursting the existing lines.
- Construction of a new "Terminal Pumping Station" (TPS) in the Akaroa Domain.
- Construction of new pipelines to the TPS across part of the Akaroa Domain.
- Construction of a new rising main pipe from the TPS across the foreshore area, through the boat park area and up Old Coach Road.
- Construction of a new Wastewater Treatment Plant (WWTP) at 80 Old Coach Road (near the intersection of Old Coach Road and the State Highway).
- Construction of an outfall pipeline down Old Coach Road from the plant to the foreshore in the vicinity of Childrens Bay.
- Construction of a de-aeration chamber in the coastal margin in the vicinity of Childrens Bay.
- Construction of a 2.5 kilometre long buried outfall pipeline and outfall disperser within Akaroa Harbour.
- Use of the Duvauchelle A and P grounds as a Temporary Construction Management Area for pipe assembly and conveyance of pipes to the harbour where they would be towed into position.
- Use of the paved area around the TPS site and the area around the Wastewater Treatment Plan site as Temporary Construction Management Areas.
- Construction is proposed to take about 18 months and is proposed to be completed by mid-2019 prior to the existing discharge consent expiring in 2020.

(See Figure 1 at the end of this section).

6. Consents are required for the following activities and structures:

Construction consents to:

- a. Take water for dewatering purposes (CRC150046);
- b. To disturb the foreshore and seabed and place the outfall pipeline (CRC150047); and

- c. To discharge stormwater during construction (CRC152814).

Operational consents to:

- a. To occupy the seabed and foreshore (CRC150048);
- b. To discharge treated wastewater (CRC150048);
- c. To discharge contaminants (odour) to air from the new pump stations and de-aeration chamber (CRC150049);
- d. To discharge contaminants to air (odour) from the wastewater plant (CRC150050);
- e. To use land to store wastewater (CRC150050); and
- f. To discharge stormwater to water (CRC152814).

Land use consent:

From the CCC (RMA92026256) for the Terminal Pump Station (TPS) and the Wastewater Treatment Plant (WWTP).

- 7. The applicant proposes to undertake the activities at the following locations:
 - a. The Akaroa Wastewater Treatment Plant (WWTP) would be located at Old Coach Road, Akaroa, legally described as Lot 3 DP 459704.
 - b. The Terminal Pump Station (TPS) would be located at Jubilee Park, Akaroa legally described as Lot 1 DP 79110.
 - c. The outfall pipeline would extend from the Akaroa foreshore at Childrens Bay approximately 2.5 kilometres into Akaroa Harbour.
- 8. The temporary construction management areas would be located at:
 - a. The carpark adjacent to the proposed TPS site, Lot 1 DP 79110;
 - b. At the proposed WWTP site, Lot 3 DP 459704; and
 - c. The Duvauchelle A&P show grounds, Part Lot 14 DP 1887.
- 9. The project has four elements, and the environmental effects and issues relating to each will be discussed separately later in this decision. They are:
 - a. The proposed drainage network changes (pipework and existing pump stations)
 - b. The proposed new Terminal Pump Station (TPS)
 - c. The proposed new Waste Water Treatment Plant (WWTP), and
 - d. The proposed new outfall into the harbour

Consultation

10. The applicant has listed the consultation that has been undertaken in section 6 of the application (Page 93). In summary:

- The proposals for upgrading Akaroa's waste water treatment and disposal system have been widely canvassed with the community.
- The Akaroa Working Party (AWP) was formed under a requirement of the short term consent granted in 2008 for the continued operation of the existing plant (CRC071865). It was tasked with exploring options for wastewater treatment and providing advice on preferred outcomes.
- The applicant has consulted with the local Rūnanga (Te Rūnanga o Ōnuku and Te Rūnanga o Wairewa) and Mahaanui Kurataiao Ltd (Ngāi Tahu resource management advisors). Both Rūnanga held strong views opposing the discharge into the harbour, they were however supportive of the new WWTP and the improved quality of the effluent that would be produced. They also identified a preference for beneficial reuse of greywater and discharge to land.
- Consultation with the wider Akaroa community included an information pamphlet sent to residents and two public information meetings.
- From the community consultation, the Akaroa Working Party provided a number of recommendations to the CCC in July 2011. These included:
 - Constructing a new plant away from Takapūneke Reserve;
 - Building a plant that is designed to achieve the best quality effluent all the time;
 - Constructing a new mid harbour outfall;
 - Future wastewater management options allowing for beneficial re-use of treated wastewater;
 - Trialing land irrigation of wastewater to determine parameters that will enable future decision making about the re-use of wastewater for irrigation; and
 - Wastewater is to pass over or through land before it is discharged into the harbour.

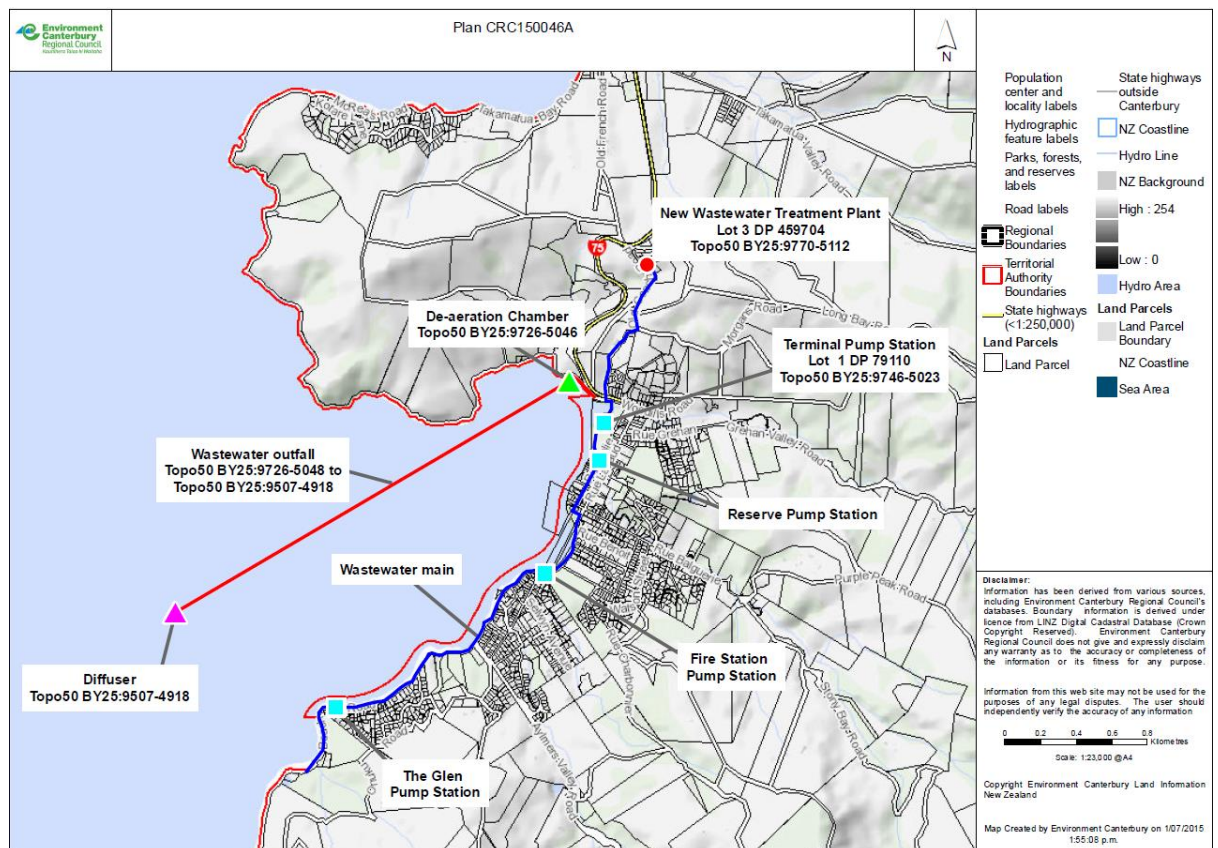


Figure 1: Map of proposed Akaroa Wastewater Network and Facilities

NOTIFICATION AND SUBMISSIONS

11. The applicant requested public notification of the consent applications. The applications were publicly notified in The Press on 5th November 2014, the Star and Akaroa Mail on the 7th of November 2014. A plan was included in the advertisement.

12. The following parties were also served notice and provided with a copy of the application in accordance with Regulation 10 of the Resource Management Act 1991:

Te Rūnanga o Ngāi Tahu;
Te Rūnanga o Ōnuku;
Te Rūnanga o Wairewa;
Minister of Conservation;
Community and Public Health;
Canterbury Network Sea Kayakers;
Canterbury Windsurf Association;
Canterbury Yacht Club;
Maritime New Zealand;
Akaroa Civic Trust;
Friends of Banks Peninsula;
Taiāpure Management Group;
Akaroa Harbour Marine Protection Society;
Akaroa Wairewa Community Board;
Nautical Advisor Safety Management Systems;
NZ Federation of Commercial Fishermen Inc; and
Ministry of Primary Industries.

13. Submissions were lodged by 14 parties, with eight requesting to be heard. In the event only four submitters were represented at the hearing, with eight people providing evidence and submissions. They were:

Dr Mark Ellis, on behalf of his parents Mr Graham Ellis and Mrs Cynthia Ellis

Mr James Crossland, on behalf of the Akaroa Harbour Recreational Fishing Club (Vice President)

Ms Ngaire Tainui, on behalf of Ōnuku and Wairewa Rūnanga, Te Rūnanga o Ngāi Tahu, Akaroa Taiāpure Komiti

Mr Wi Tainui, on behalf of Ōnuku and Wairewa Rūnanga, Te Rūnanga o Ngāi Tahu, Akaroa Taiāpure Komiti

Mr Iaeen Cranwell, on behalf of Ōnuku and Wairewa Rūnanga, Te Rūnanga o Ngāi Tahu, Akaroa Taiāpure Komiti

Mr Nigel Scott, on behalf of Ōnuku and Wairewa Rūnanga, Te Rūnanga o Ngāi Tahu, Akaroa Taiāpure Komiti

Ms Philippa Lynch, on behalf of Ōnuku and Wairewa Rūnanga, Te Rūnanga o Ngāi Tahu, Akaroa Taiāpure Komiti

Mr Darin Rainbird, who operates Akaroa Mini Golf

14. We note that Dr Ellis gave evidence on behalf of his parents, who are submitters. Counsel for the applicant, Mr Pizzey, raised concern about this at the hearing and in exercising his right of reply in writing Mr Pizzey submitted:

"Dr Ellis presented submissions on a matter in which he has a personal connection. It was not independent expert evidence, as was apparent when he submitted on traffic and planning matters." Mr Pizzey submitted that *"little weight"* can be given to Dr Ellis' evidence.

15. Dr Ellis is a highly qualified and experienced expert in the design and operation of sewage treatment systems so we are reluctant to exclude his contribution. The effect of that contribution will be discussed later. He prefaced his written statement by noting that he had read and complied with the Environment Court's Practice Note on the conduct of expert witnesses, thus indicating that he intended his statement to be expert evidence, not submissions. There is a longstanding convention that expert witnesses do not give evidence in their own cause and giving evidence on behalf of close family or friends comes close to that.
16. Dr Ellis' evidence was however expressed in the sort of language and manner expected of an expert witness and the content when he was dealing with his area of expertise did not give us any cause to think that his opinions were biased because of his relationship to the submitters he was appearing for. Our only criticism of him as a professional witness in the RMA system would be that he should have discussed the questions he raised in his evidence with the applicant's team before preparing his evidence. There is a responsibility on an expert witness to assist the hearing panel or court, which should override the temptation to "ambush" colleagues.
17. We do not accept Mr Pizzey's suggestion that Dr Ellis' comments about traffic and planning matters show he was not acting with the independence expected of an expert witness. Those comments were by way of submission - he clearly indicated that he had no expertise in those areas.
18. The submissions in opposition raised the following concerns. These matters are not listed in any particular order:
- Potential impacts on mussel farming in the harbour;
 - Effects of construction on recreational activities;

- Impacts of odour on amenity, tourism and recreation;
- Negative visual impact of the WWTP;
- Increase of sedimentation from the discharge and subsequent impact on shellfish;
- Proximity of discharge to pāua beds;
- Impact of odour on neighbouring landowners and land value;
- No evidence biofilters will function adequately;
- Discharging wastewater into water without making contact with Papatūānuku (passing over or through land) is culturally offensive to Ngāi Tahu;
- There is no firm proposal to reduce the volume of wastewater discharged into the harbour as land based discharge options become available;
- Length of consent duration sought does not allow for modernisation in future; and
- Properties downwind of the treatment plant may be affected by virus and bacteria aerosols through the oxygenation process.

19. The submissions in support noted:

- Health risks to people and mammals will decrease;
- Mitigation proposed is suitable; and
- The proposal will ensure that good water quality outcomes continue to be achieved.

20. Some submissions were neutral in the sense of not indicating a request that the applications are granted or declined, however these submissions mostly raised the same concerns as submissions in opposition, so can be taken as expressions of concern.

ASSESSMENT FRAMEWORK

21. The following discussion of the relevant provisions of the Resource Management Act and plans and policy statements produced under that Act is taken largely from the officers' section 42A reports, and is not contested. Note that the status of various components of the proposal discussed below is the status under the relevant plans of components in isolation - the important matter of "bundling" of applications for the various components is discussed at the end of this section of the decision.

The Resource Management Act 1991 (RMA)

22. Section 9 of the Act states:

“Restrictions on use of land

- (1) No person may use land in a manner that contravenes a national environmental standard unless the use—
- (a) is expressly allowed by a resource consent; or
 - (b) is allowed by [section 10](#); or
 - (c) is an activity allowed by [section 10A](#); or
 - (d) is an activity allowed by [section 20A](#).
- (2) No person may use land in a manner that contravenes a regional rule unless the use—
- (a) is expressly allowed by a resource consent; or
 - (b) is an activity allowed by [section 20A](#).
- (3) No person may use land in a manner that contravenes a district rule unless the use—
- (a) is expressly allowed by a resource consent; or
 - (b) is allowed by [section 10](#); or
 - (c) is an activity allowed by [section 10A](#).
- (4) No person may contravene [section 176](#), [178](#), [193](#), or [194](#) unless the person obtains the prior written consent of the requiring authority or the heritage protection authority.
- (5) This section applies to overflying by aircraft only to the extent to which noise emission controls for airports have been prescribed by a national environmental standard or set by a territorial authority.
- (6) This section does not apply to use of the coastal marine area.”

23. There are rules relevant to the proposed earthworks in the regional plans. These rules are assessed below. Section 12 of the Act states:

“Restrictions on use of coastal marine area

- (1) No person may, in the coastal marine area,—
- (a) reclaim or drain any foreshore or seabed; or
 - (b) erect, reconstruct, place, alter, extend, remove, or demolish any structure or any part of a structure that is fixed in, on, under, or over any foreshore or seabed; or
 - (c) disturb any foreshore or seabed (including by excavating, drilling, or tunnelling) in a manner that has or is likely to have an adverse effect on the foreshore or seabed (other than for the purpose of lawfully harvesting any plant or animal); or

- (d) deposit in, on, or under any foreshore or seabed any substance in a manner that has or is likely to have an adverse effect on the foreshore or seabed; or
- (e) destroy, damage, or disturb any foreshore or seabed (other than for the purpose of lawfully harvesting any plant or animal) in a manner that has or is likely to have an adverse effect on plants or animals or their habitat; or
- (f) introduce or plant any exotic or introduced plant in, on, or under the foreshore or seabed; or
- (g) destroy, damage, or disturb any foreshore or seabed (other than for the purpose of lawfully harvesting any plant or animal) in a manner that has or is likely to have an adverse effect on historic heritage—

unless expressly allowed by a national environmental standard, a rule in a regional coastal plan as well as a rule in a proposed regional coastal plan for the same region (if there is one), or a resource consent.

(2) No person may, unless expressly allowed by a national environmental standard, a rule in a regional coastal plan or in any proposed regional coastal plan for the same region, or a resource consent,—

- (a) occupy any part of the common marine and coastal area; or
- (b) remove any sand, shingle, shell, or other natural material from that area.

(3) Without limiting subsection (1), no person may carry out any activity—

- (a) in, on, under, or over any coastal marine area; or
- (b) in relation to any natural and physical resources contained within any coastal marine area,—

in a manner that contravenes a national environmental standard, a rule in a regional coastal plan, or a rule in a proposed regional coastal plan for the same region (if there is one) unless the activity is expressly allowed by a resource consent or allowed by [section 20A](#) (certain existing lawful activities allowed).

(4) In this Act,—

- (a) [Repealed]
- (b) **remove any sand, shingle, shell, or other natural material** means to take any of that material in such quantities or in such circumstances that, but for the national environmental standard or the rule in the regional coastal plan or the holding of a resource consent, a licence or profit à prendre to do so would be necessary.

(5) This section applies to overflying by aircraft only to the extent to which noise emission controls for airports within the coastal marine area have been prescribed by a national environmental standard or set by a regional council.

(6) This section shall not apply to anything to which [section 15A](#) or [15B](#) applies.”

24. The proposed activities do not comply with all of the relevant regional rules and there are no national environmental standards that apply. Therefore, resource consent is required, further discussion of the rules that will not be met is provided below.
25. Section 13 of the Act states:

“Restriction on certain uses of beds of lakes and rivers

(1) No person may, in relation to the bed of any lake or river,—

- (a) use, erect, reconstruct, place, alter, extend, remove, or demolish any structure or part of any structure in, on, under, or over the bed; or

- (b) excavate, drill, tunnel, or otherwise disturb the bed; or
- (c) introduce or plant any plant or any part of any plant (whether exotic or indigenous) in, on, or under the bed; or
- (d) deposit any substance in, on, or under the bed; or
- (e) reclaim or drain the bed—

unless expressly allowed by a national environmental standard, a rule in a regional plan as well as a rule in a proposed regional plan for the same region (if there is one), or a resource consent.

(2) No person may do an activity described in subsection (2A) in a manner that contravenes a national environmental standard or a regional rule unless the activity—

- (a) is expressly allowed by a resource consent; or
- (b) is an activity allowed by [section 20A](#).

(2A) The activities are—

- (a) to enter onto or pass across the bed of a lake or river:
- (b) to damage, destroy, disturb, or remove a plant or a part of a plant, whether exotic or indigenous, in, on, or under the bed of a lake or river:
- (c) to damage, destroy, disturb, or remove the habitats of plants or parts of plants, whether exotic or indigenous, in, on, or under the bed of a lake or river:
- (d) to damage, destroy, disturb, or remove the habitats of animals in, on, or under the bed of a lake or river.

(3) This section does not apply to any use of land in the coastal marine area.

(4) Nothing in this section limits [section 9](#).”

26. The proposed activities can comply with the relevant regional rules and there is no applicable national environmental standard.

27. Section 14 of the Act states:

“Restrictions relating to water

(1) No person may take, use, dam, or divert any open coastal water, or take or use any heat or energy from any open coastal water, in a manner that contravenes a national environmental standard or a regional rule unless the activity—

- (a) is expressly allowed by a resource consent; or
- (b) is an activity allowed by [section 20A](#).

(2) No person may take, use, dam, or divert any of the following, unless the taking, using, damming, or diverting is allowed by subsection (3):

- (a) water other than open coastal water; or
- (b) heat or energy from water other than open coastal water; or
- (c) heat or energy from the material surrounding geothermal water.

(3) A person is not prohibited by subsection (2) from taking, using, damming, or diverting any water, heat, or energy if—

- (a) the taking, using, damming, or diverting is expressly allowed by a national environmental standard, a rule in a regional plan as well as a rule in a proposed regional plan for the same region (if there is one), or a resource consent; or
- (b) in the case of fresh water, the water, heat, or energy is required to be taken or used for—
 - (i) an individual's reasonable domestic needs; or
 - (ii) the reasonable needs of an individual's animals for drinking water,—

and the taking or use does not, or is not likely to, have an adverse effect on the environment; or

(c) in the case of geothermal water, the water, heat, or energy is taken or used in accordance with tikanga Māori for the communal benefit of the tangata whenua of the area and does not have an adverse effect on the environment; or

(d) in the case of coastal water (other than open coastal water), the water, heat, or energy is required for an individual's reasonable domestic or recreational needs and the taking, use, or diversion does not, or is not likely to, have an adverse effect on the environment; or

(e) the water is required to be taken or used for firefighting purposes.”

28. The proposed dewatering take does not meet the relevant regional rules therefore a water permit is required. An assessment of the regional rules is provided below.
29. Section 15 of the Act states:

“Discharge of contaminants into environment

- (1) No person may discharge any—*
- (a) contaminant or water into water; or*
 - (b) contaminant onto or into land in circumstances which may result in that contaminant (or any other contaminant emanating as a result of natural processes from that contaminant) entering water; or*
 - (c) contaminant from any industrial or trade premises into air; or*
 - (d) contaminant from any industrial or trade premises onto or into land—*
- unless the discharge is expressly allowed by a national environmental standard or other regulations, a rule in a regional plan as well as a rule in a proposed regional plan for the same region (if there is one), or a resource consent.*
- (2) No person may discharge a contaminant into the air, or into or onto land, from a place or any other source, whether moveable or not, in a manner that contravenes a national environmental standard unless the discharge—*
- (a) is expressly allowed by other regulations; or*
 - (b) is expressly allowed by a resource consent; or*
 - (c) is an activity allowed by [section 20A](#).*
- (2A) No person may discharge a contaminant into the air, or into or onto land, from a place or any other source, whether moveable or not, in a manner that contravenes a regional rule unless the discharge—*
- (a) is expressly allowed by a national environmental standard or other regulations; or*
 - (b) is expressly allowed by a resource consent; or*
 - (c) is an activity allowed by [section 20A](#).*
- (3) This section shall not apply to anything to which [section 15A](#) or [section 15B](#) applies.”*

30. The discharge of stormwater and treated effluent does not comply with the relevant regional rules and is not authorised by a national environmental standard.

Natural Resources Regional Plan

31. The Natural Resources Regional Plan (NRRP) regulates sustainable management of natural resources in Canterbury. The plan was made fully operative in June 2011 and covers all of Canterbury except where specific catchment plans are in place.

Pipelines from the existing WWTP site to the new site and to the coast

32. The slip lining and trenching to install the new pipeline does not require resource consent. The rule relevant for earthworks is Rule WQL36 which relates to excavations over the unconfined gravel aquifer system and the unconfined gravel aquifer system. There is no aquifer mapped in Akaroa and based on the borelogs available, there does not appear to be an unconfined aquifer as defined by the NRRP (See Appendix E). The earthworks for the pipelines do not therefore require consent under section 9 of the RMA.
33. A new pipeline will be installed via directional drilling or trenching from the Reserve Pump Station to the WWTP site in close proximity to Grehan Stream. The applicant has provided additional information to show that the volume triggers of the rule will not be exceeded and therefore the earthworks within the riparian zone are a **permitted activity** under Rule WQL30.
34. The installation of pipelines in the seal of the bridges crossing the streams is a **permitted activity** as all of the conditions listed in BLR4 can be met.
35. The take of dewatering water during any trenching and the construction of the TPS have been assessed under Rule WQN12. In the section 92 response, the applicant has stated that the installation of the other sections of the pipe will not require dewatering. No assessment of stream depletion or the effects on any wells has been provided. The applicant considers the dewatering will meet these rules. We consider that the dewatering take may have a moderate, high or direct connection with Grehan Stream due to the proximity of the trenching and therefore we consider Condition 4 is unlikely to be met. We consider the take of dewatering water is a **restricted discretionary activity**.
36. The discharge of construction phase stormwater from the trenching will be via the CCC reticulated stormwater network or directly into waterbodies. The discharge of construction phase stormwater is assessed under WQL7 in those areas where the discharge will enter the streams. The applicant does not hold consent for the discharge of stormwater and consent has not been lodged. We consider that resource consent is required for the discharge of sediment laden water into the network where it discharges into streams as Condition 8 that requires total suspended solids (TSS) to be less than 50 grams per cubic metre may not be met. As Rule WQL7 cannot be met, the discharge must then be considered under Rule WQL48. We consider that the applicant should be able to meet the relevant water quality standards and therefore the discharge is a **discretionary activity**.
37. The applicant has stated that dewatering is only required on the site of the TPS. As this is a potentially contaminated site, the applicant proposes to discharge dewatering water to the existing CCC wastewater system. We consider that the conditions of the

existing wastewater discharge consent CRC133179 do not restrict the discharge of this dewatering water.

38. As the area to be disturbed is relatively small, we consider that the applicant will meet the condition of AQL38 relating to dust discharges and will therefore be a **permitted activity**.

Pump stations

39. The excavations required for the TPS, adjacent to Grehan Stream do not require resource consent as the volume of material that will be excavated does not exceed the limits specified in Condition 1 of WQL30. All other conditions of the rule can be met; therefore we consider the earthworks in the riparian zone are a **permitted activity**.
40. As outlined above, we also consider that Rule WQL36 does not apply to these excavations.
41. The air discharges from the existing pump stations are **permitted activities** under Rule AQL63 as resource consent was not required prior to 1 June 2002. We understand that the odour from the existing pump stations did not require consent the Transitional Regional Plan.
42. The air discharge (odour) from the new TPS requires consent under Rule AQL69 as a **discretionary activity** as the discharge is not permitted under Rules AQL63-67.
43. The applicant has also noted that a new pump station is required to serve the dwelling at 281 Beach Road and the de-aeration may have discharges of odour. The applicant considers that the effects of these potential discharges are de minimis. We consider that consent is still required under Rule AQL69 as the activity cannot meet the permitted rules under AQL63-67. The new pump station and de-aeration chamber will be a **discretionary activity**.
44. The discharge to air from the diesel generator at the TPS is classified as a **permitted activity** under Rule AQL25 as the conditions of the rule can be met.
45. Regarding dust discharges, a small area will be disturbed during the installation of the TPS. We consider that the applicant will meet the condition of AQL38 and therefore any discharge will be a **permitted activity**.
46. The dewatering take required to install the underground components of the TPS is a **restricted discretionary activity** under Rule WQN12 as condition 4 is unlikely to be met due to the potential stream depletion.
47. The discharge of construction phase stormwater from the TPS site will be discharged via the CCC reticulated stormwater network or directly into Grehan Stream. As above, the discharge of construction phase stormwater is assessed under WQL7. The conditions of the rule cannot be met and therefore must be assessed under Rule WQL48. As above, we consider that the discharge should meet the relevant water quality standards and this is therefore a **discretionary activity**.

48. The discharge of developed phase stormwater from the TPS site will be roof stormwater only and will discharge directly to Grehan Stream. As the site is potentially contaminated and included on the CRC Listed Land Use Register as 'not investigated', condition 3 of Rule WQL7 cannot be met. We consider that the water quality limits of Rule WQL48 can be met and therefore the discharge is a **discretionary activity**.

Wastewater Treatment Plant

49. The use of land to store sewage is classified as a **permitted activity** under Rule WQL26 as the volume stored will not exceed 1,500 cubic metres and all other conditions can be met.
50. The discharge of construction phase stormwater during construction may not meet Condition 8 of WQL7 because of the concentration of TSS. We consider that it will meet the water quality standards of Rule WQL48 and therefore the construction phase discharge of stormwater is a **discretionary activity**.
51. The discharge of developed phase stormwater also cannot meet Rule WQL7 as the discharge will be from a site where an activity listed in Schedule WQL9 is occurring. Ms Dawson advised that the site will be listed on the Listed Land Use Register as 'not investigated' and therefore Condition 3 cannot be met (See Appendix F). We accept however that the water quality standards and conditions of Rule WQL48 will be complied with and that the discharge of developed phase stormwater will be a **discretionary activity**.
52. The air discharge (odour) from the plant requires consent under Rule AQL69 as a **discretionary activity** as the discharge is not permitted under Rules AQL63-67.
53. The discharge to air from the diesel generator at the plant is classified as a **permitted activity** under Rule AQL25 as the conditions of the rule can be met.
54. As for the TPS, we accept that the applicant will meet the condition of AQL38 and any dust discharges will therefore be a **permitted activity**.

Duvauchelle Temporary Construction Management Area

55. The Duvauchelle A&P Show Grounds are to be used to weld the strings of the outfall pipe together. As no works regarding the disturbance of soil will be undertaken and the applicant has proposed to lay a geotextile membrane on the ground surface to avoid ground disturbance by machinery, we accept that any stormwater discharges to the adjacent stream will likely meet Rule WQL7.
56. Temporary fuel storage is to be managed by the contractor and therefore at this point, no consent for the use of land to store hazardous substances is required.

Proposed Land and Water Regional Plan (Decisions Version)(pLWRP)

57. The pLWRP identifies the resource management outcomes or goals for managing land and water resources in Canterbury to achieve the purpose of the Resource Management Act 1991.

Pipeline from the existing WWTP site to the new site and to the coast

58. As above, the slip lining and trenching works to install the new pipe does not require consent under the pLWRP due to the minimal disturbance that will occur. And as there is no unconfined or semi-confined aquifer present therefore Rule 5.175 does not apply (See Appendix E).
59. The installation of the pipe within the seal of the existing bridges is a **permitted activity** as the conditions of Rule 5.135 will be met.
60. The installation of the new pipeline from the reserve pump station to the WWTP via trenching or directional drilling adjacent to the streams in riparian areas is a **permitted activity** under Rule 5.168 as it is a network utility.
61. The installation of the new pipeline from the reserve pump station to the WWTP in the high soil erosion risk zone is a **permitted activity** under Rule 5.170 as all conditions of the rule can be met. We accept that the loss of sediment during dry conditions will not exceed Condition 4.
62. During rainfall events, sediment may become entrained in stormwater. The discharge of stormwater into the CCC network is classified as a **permitted activity** under Rule 5.95 as the discharge will meet condition 1. If stormwater is discharged directly into waterbodies, the discharge limits of 5.95 may not be met and the discharge is therefore a **non-complying activity** under Rule 5.97 as the site is within the boundary of Christchurch City.
63. The take of dewatering water during the installation of the new pipeline and TPS is classified under Rule 5.120 as a **restricted discretionary activity** as the take is from a site where an activity listed in Schedule 3 has occurred. We accept that Condition 4 may not be met as the take may have a moderate, high or direct stream depletion effect and the water is not being discharged into the waterbody.
64. As above, the discharge of dewatering water will be into the CCC wastewater system therefore the pLWRP rules do not apply.

Pump stations

65. The excavations required for the TPS do not require resource consent as the proposal can meet Rule 5.168 relating to earthworks in riparian zones. As noted above, the rules regarding earthworks over aquifers does not apply. We accept that all earthworks required for the construction of the TPS are a **permitted activity**.
66. The earthworks to construct the Reserve pump station to the plant in the high soil erosion risk zone is a **permitted activity** under Rule 5.170 as all conditions of the rule can be met.

67. As above, the discharge of construction phase stormwater and developed phase stormwater (where the discharge is into a stream) does not require consent if the discharge will be into a reticulated network. If the discharge is directly into the stream, the discharge will be a **non-complying activity** under Rule 5.97 as the discharge will be from a site that is potentially contaminated.

Wastewater Treatment Plant

68. The use of land to store sewage is classified as a **discretionary activity** under Rule 5.84.
69. The discharge of stormwater during construction and post-development is a **permitted activity** under Rule 5.95 as the discharge is to a reticulated network along Old Coach Road.
70. Rule 5.170 relevant to earthworks in the high soil erosion risk zone does not apply as the WWTP will be subject to building consent.

Duvauchelle Temporary Construction Management Area

71. As above, as no works regarding the disturbance of soil will be undertaken and the applicant has proposed to lay a geotextile membrane on the ground surface to avoid ground disturbance by machinery, we accept that any stormwater discharges to the adjacent stream will likely meet Rule 5.95 and are a **permitted activity**.
72. Temporary fuel storage is to be managed by the contractor and therefore at this point, no consent for the use of land to store hazardous substances is required.

Regional Coastal Environment Plan

73. The Regional Coastal Environment Plan (RCEP) aims to promote the sustainable management of the natural and physical resources of the Canterbury coastal environment. The RCEP was made operative in November 2005 with changes operative in June 2011.

Construction-disturbance, deposition and excavation

74. The disturbance, excavation and deposition in the coastal marine area (CMA) to construct the outfall pipeline and ancillary structures is classified under Rule 8.6 as a **permitted activity** as the disturbance (including the excavation, tunnelling) is associated with a resource consent in accordance with Rules 8.2-8.5.

Construction Discharges

75. The discharge of sediment already present in the coastal marine area is a **permitted activity** under Rule 7.1 as it will be related to works that require consent under Rules 8.2-8.5.
76. The applicant states in the first section 92 response that no construction stormwater will be directly discharged to the CMA and that any discharge will be via streams. We

accept that any small discharge of construction stormwater discharged to the CMA during the works near Childrens Bay would be within the limits in Rule 7.1 and therefore a **permitted activity**.

Placement of structures

77. The placement of a structure (de-aeration chamber, outfall pipeline and diffuser) within the CMA is a **non-complying activity** under Rule 8.4 as the structures will be located within an area listed in Schedule 5.13. It is a little uncertain whether Rule 8.4 or Rule 8.5 apply but we consider that Rule 8.5(c)(i) does not apply as the pipeline will be submarine/sub-aqueous and will not present a significant barrier to water or sediment.

Noise

78. The applicant states the construction works within the CMA will comply with Rule 8.21(c) and therefore the emission of noise is a **permitted activity**.

Treated effluent discharge

79. The discharge of treated wastewater into the coastal marine area is a **discretionary activity** under Rule 7.3 as the sewage has not passed through soil or a wetland and the water quality outcomes specified in the standards of Rule 7.3 can be met.

Occupation of coastal marine area

80. The occupation of the CMA post-construction (outfall pipeline) is a **discretionary activity** under Rule 8.23 as the conditions of Rule 8.22 cannot be met.

Regional Consents Summary

81. A summary of the classification of each activity requiring consent from Environment Canterbury is provided in Table 1 below.

Table 1: Activity Status Classification			
Activity	Regional Plan		
	<i>NRRP</i>	<i>pLWRP</i>	<i>RCEP</i>
<i>Pipeline installation/replacement</i>			
Earthworks over aquifer	Authorised-section 9 RMA	Authorised-section 9 RMA	N/A
Excavation in riparian margin	Permitted- WQL30	Permitted-5.168	N/A
Earthworks in high soil erosion risk area	N/A	Permitted- 5.170	N/A
Pipeline over bridge	Permitted- BLR4	Permitted- 5.135	N/A
Dewatering take	Restricted discretionary-WQN12	Restricted discretionary-5.120	N/A
Construction phase stormwater discharge	Discretionary- WQL48	Non-complying- 5.97	N/A
Discharge of fugitive dust	Permitted- AQL38	N/A	N/A

<u>Pump stations</u>			
Excavation in riparian margin	Permitted- WQL30	Permitted-5.168	N/A
Earthworks over aquifer	Authorised-section 9 RMA	Authorised-section 9 RMA	N/A
Dewatering take	Restricted discretionary-WQN12	Restricted discretionary-5.120	N/A
Air discharge from existing pump stations	Permitted- AQL63	N/A	N/A
Air discharge from small new pump station	Discretionary- AQL69	N/A	N/A
Discharge of odour	Discretionary- AQL69	N/A	N/A
Construction phase stormwater discharge	Discretionary- WQL48	Non-complying- 5.97	N/A
Developed phase stormwater discharge	Discretionary- WQL48	Non-complying- 5.97	N/A
Discharge of fugitive dust	Permitted- AQL38	N/A	N/A
<u>Wastewater treatment plant</u>			
Use of land to store sewage	Permitted - WQL26	Discretionary- Rule 5.84	N/A
Construction phase stormwater discharge	Discretionary- WQL48	Permitted- 5.95	N/A
Developed phase stormwater discharge	Discretionary- WQL48	Permitted- 5.95	N/A
Discharge of odour	Discretionary- AQL69	N/A	N/A
Discharge from diesel generator	Permitted- AQL25	N/A	N/A
Discharge of fugitive dust	Permitted- AQL38	N/A	N/A
<u>Duvauchelle Temporary Management Area</u>			
Construction phase stormwater discharge	Permitted- WQL7	Permitted- 5.95	N/A
<u>Outfall pipeline and discharge</u>			
Disturbance, deposition and excavation	N/A	N/A	*Permitted- 8.6
Construction discharges	N/A	N/A	*Permitted- 7.1
Placement of structures	N/A	N/A	Non-complying- 8.4
Noise	N/A	N/A	Permitted- 8.21
Treated effluent discharge	N/A	N/A	Discretionary- 7.3
Occupation of CMA	N/A	N/A	Discretionary- 8.23

City Council Land Use Application

82. Stage 1 of the Proposed Christchurch Replacement District Plan (Proposed Plan) was notified on 27 August 2014. The Independent Hearings Panel's decisions on 'Strategic Directions and Strategic Outcomes' (Decision 1) and three other priority chapters were notified on 5 March 2015. None of these decisions contain any rules that are relevant to this application, although regard must be had to any relevant objectives and policies of the Proposed Plan.
83. Stage 2 of the Proposed Plan has also now been notified, the notification taking place on the 2nd of May, 2015. None of the rules will have effect until such time as decisions have been released, but as with Stage 1 of the Plan regard must be had to relevant objectives and policies.

Banks Peninsula District Plan

84. The following assessment is based on Mr Wilson's section 42A report and was not contested in any significant way. It discusses the planning framework for each of the on land components of the project. These are:

- The new pipework,
- Upgrading to existing pumping stations,
- Pipework crossing the Beach Road bridge,
- The Terminal Pumping Station (TPS),
- The Waste Water Treatment Plant (WWTP),
- The Duvauchelle Temporary Construction Management Area,
- Noise and hazardous substances.

The New Pipework

85. We accept that trenching and associated works required to install new pipework is likely to be a Permitted Activity, as the new pipes will be "utilities" for the purposes of the District Plan. These works need only comply with the conditions for trenching contained in Rule 2.1(c) on page 313 of the Plan, which stipulates requirements for making safe by way of backfilling. We do not anticipate that the applicant will have any difficulty in meeting those conditions.

Upgrading of Existing Pump Stations

86. As the existing pump stations are "utilities" under the Plan, and given that utilities are provided for throughout the district (subject to specified restrictions) we are satisfied that the upgrading of these stations by the replacement of pumps and other equipment within each station is a permitted activity.

Pipework crossing the Beach Road bridge

87. New pipework is required to be installed in the Beach Road bridge, which crosses Bruce Stream. That bridge is listed as a Protected Building under the Plan, with a Category II listing with Heritage New Zealand. As described by the applicant, the pipeline is to be buried in the pavement on the bridge and will not be visible. The applicant states that as it is not an "Above Ground Utility" it is a permitted activity, even though it is within a Heritage Item. We accept that. We are also satisfied that the activity is permitted under the Rules contained in Chapter 14 (Cultural Heritage) since the laying of the pipeline within the pavement will not alter or damage the bridge itself for the purposes of Rule 3(a) of that chapter.

The Terminal Pumping Station (TPS)

88. The TPS is to be located within the Recreational Reserve Zone of the operative plan and within the Open Space Community Parks zone under the Proposed Plan. The application suggests that the proposal will fail to meet standards for the zone in relation to earthworks and maximum height, and that the proposed works are therefore a Restricted Discretionary Activity. Mr Wilson contended that the proposal

is a fully Discretionary Activity, as Rule 5 a) on the Page 316 of the Plan specifies that "Above Ground Utilities" within a Recreational Reserve Zone are to be considered as Discretionary Activities. That appears to be correct. There is no dispute that the proposed building would be in breach of the 6.0 metre height limit for the zone by 1 metre.

The Waste Water Treatment Plant (WWTP)

89. The Treatment Plant site is within the Rural Amenity Landscape part of the Rural Zone of the operative plan, i.e. all that part of the zone outside of Outstanding Natural Landscape and Coastal Natural Character Landscape Areas, but within the Rural Banks Peninsula Zone under the Proposed Plan. There is no dispute that consent is required, as a Restricted Discretionary Activity in relation to yard setback (from the road boundary), works within a Silent File area, and sight lines for the new access points both along Old Coach Road and in relation to the intersection with Christchurch Akaroa Road.
90. While the application suggested the proposal is also in breach of the earthworks and height standards, we accept Mr Wilson's view that this is not the case. Taking the earthworks standards first, it is stated in the application that earth works standards will be breached, in relation to both the WWTP and the TPS. However, the Plan states, as part of the definition of earthworks (Page 347), that earthworks do not include *"Earthworks associated with the construction of any approved building;"*. The intention behind this exemption is to prevent doubling up of consents, i.e. both a resource consent and a building consent, both addressing earthworks, and that where earthworks will be dealt with through a building consent process they should not require a resource consent. We are satisfied that the earthworks standards are not relevant in relation to the WWTP or the TPS, since both will be buildings subject to authorisation under the Building Act 2004.
91. With respect to the height standard, it is to be measured from the original ground level, not the finished site levels. That being the case none of the buildings would be in excess of 5.8 metres in height and would therefore comply with the 7.5 maximum height for the zone.
92. In relation to the Main Ridgeline provisions of the Plan, Rule 5 a) of Chapter 36 (Utilities - Page 316) specifies that "Above Ground Utilities" within a Main Ridgeline shall be a Discretionary Activity, hence potentially the proposal could fall to be considered as such.
93. There is some doubt about what the Rule means by *"within"* a defined Main Ridgeline because these are defined on the planning maps simply by dotted lines about double the width of the road corridors shown on the maps. We appreciate that the intent of this rule is to ensure that buildings are set back off ridges to reduce visual conspicuousness, so the desirable setback must depend on the shape of the land, but the width of the lines (about 40 metres) is the only indication of where the rule applies. It would not be appropriate for us to make up some greater restriction area. The proposed structures would be beyond the dotted line shown along the Main Ridge above.

94. We accept that the Treatment Plant proposal is a Restricted Discretionary Activity under the Banks Peninsula section of the City Plan, but only in relation to the breach of the yard setback, access sight distances and setbacks for the new entranceway, and in relation to works within Silent File 027.

The Duvauchelle Temporary Construction Management Area

95. A request for further information dated the 4th of August, 2014 was sent to the applicant seeking clarification and further details about, among other things, about the proposed TCMA in Duvauchelle. This site is zoned Recreational Reserve / OCP Zone, and Archaeological Site No. 97 is located around 90 metres away on the foreshore. Above ground Utilities within this zone are a Discretionary Activity, while works within 100 metres of an archaeological site are a Restricted Discretionary Activity, although we note in the response from the applicant that the proposed works could, if necessary, be moved to be further than 100 metres from the site.

Noise and Hazardous Substances

96. The application states that the proposal will comply with the relevant noise standards for the Rural and Recreational Reserve Zone for the construction phase of the works, given that the proposed works will comply with New Zealand Standard (NZS) 6803:1999 Acoustic - Construction Noise. Mr Wilson noted that the applicable standard for compliance specified in the Plan is the earlier NZS 6803P:1984. He advised however that in the opinion of Council Senior Environmental Health Officer Mr Tony Dowson, compliance with the later standard (being the successor document) would also achieve compliance with the former.
97. Ms Isobel Stout, another Council Senior Environmental Health Officer, who reviewed the application, raised no concerns about compliance with the construction noise standards or the likelihood of compliance with the standards for operational noise. All machinery is to be located within buildings and these types of facility are generally quiet. In the case of the Waste Water Treatment Plant noise standards are measured in relation to the notional boundary of dwellings. The nearest dwelling is over 200 metres away, hence there should be no difficulty complying with the standards. They are:
- At night time 40 dBA(L10)
 70 dBA(Lmax)
 - At all other times 50 dBA(L10)
98. In relation to the Terminal Pumping Station (TPS) the applicable standards are the same as above except that they shall not be exceeded at any point outside the site boundary. The nearest site boundary (legal title boundary) is 62 metres away to the east at Rue Jolie. Pump stations are designed to meet the acoustic standards of the City Council by use of solid walls and roof and acoustic rated doors, windows and other openings.
99. The application also states that the standards for use and storage of hazardous substances will be complied with, although no specific quantities are provided in the application. Mr Wilson reported on discussions with Mr Mike Bourke (Council Senior

Technician Water and Waste) who is part of the applicant's Project Team, who indicated that about 1,000 litres of diesel would be on each of the sites, i.e. the WWTP, the TPS and the Duvauchelle Temporary Construction Management Area sites, during the construction phase. During the operational phase he advised that less than a 1,000 litres of diesel would be at the WWTP to run the generator and about 500 litres on the TPS site for the same purpose.

100. The permitted standard for diesel is 3,000 litres for each of these sites. The applicant will have to comply with the Dangerous Goods provisions in the Hazardous Substances and New Organisms Act 1996, which will ensure the safe handling and use of the diesel, thus complying with Rule 1 (Containment) from Chapter 37 (Waste Management and Hazardous Substances) of the District Plan.

Proposed Christchurch Replacement District Plan

101. The Treatment Plant site at 80 Old Coach Road is zoned Rural Banks Peninsula under Phase 2 of the District Plan Review, and is shown within the "Remainder of Port Hills and Banks Peninsula Slope Instability Management Area". No decisions have been released with respect to the Management Area or zone provisions hence any rules do not have effect, but any relevant objectives and policies must be considered. These seek to ensure that the zone continues to be used by activities with a functional need to locate in a rural area, that rural amenities values are maintained including that buildings are not visually dominant and do not detract from views of natural landforms and features.
102. The TCMA site at Duvauchelle is zoned Open Space Community Parks and as with the Treatment Plan site is also within the "Remainder of Port Hills and Banks Peninsula Slope Instability Management Area". In summary the zone anticipates multifunctional use of reserves at varying scales depending on the type of reserve involved, but only to the extent that uses are compatible with the maintenance of the open space amenity values of the reserves and are compatible with surrounding uses.
103. The TPS site at 28 Rue Jolie is within the OCP zone, but is also shown within a natural hazards area, "Liquefaction Assessment Area 1". Again, there are no rules in relation to this that have effect, but relevant objectives and policies must be considered. The general natural hazards policies seek to adopt a precautionary approach to development, to avoid worsening a hazard by inappropriately located development and to avoid development in areas where there is an intolerable risk to human life.

National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NES)

104. These standards became operative on 1 January 2012 and seek to ensure that land affected by contaminants in soil is appropriately identified and assessed before it is

developed and if necessary the land is remediated or contaminants contained to make the land safe for human use.

105. The NES controls soil disturbance on land where an activity on the Hazardous Activities and Industries List (HAIL) is being carried out, has been carried out, or is more likely than not to have been carried out. The application site for the TPS is identified as HAIL land, being listed in ECan's Listed Land Use Register (LLUR) as the former Akaroa Landfill. According to details provided in the application (Appendix D) this was in use up to 1978. Parts of the reserve were also subject to reclamation, principally the Recreation Ground in 1886 and 1887, and the area north of Grehan Stream from 1925 onwards. The application identifies both the reclamation and landfill areas. The latter comprises most of the sealed area of the domain, including the boat compound, and the TPS site.
106. A Preliminary Site Investigation has been undertaken at the location of the TPS by CH2M Beca Ltd. That investigation identified the following:
 - No contaminants above the adopted human health criteria for recreational land use.
 - Concentrations of arsenic and zinc in two samples exceeding environmental standards.
 - Hydrocarbons and heavy metals at above background concentrations.
107. The applicant has not provided a Detailed Site Investigation in accordance with the NES. The proposal requires consent under the NES as it breaches the following regulations:
 - **Regulation 8(3)(c)** – the volume of soil disturbance will exceed 25m³ per 500m² (approximately 365m³ proposed).
 - **Regulation 8(3)(d)(ii)** - the volume of soil to be removed from the site will exceed 5m³ per 500m² (Assumed to be greater than 15 m³ proposed).
108. The proposal is a **Discretionary Activity** under **Regulation 11** given the absence of the Detailed Site Investigation.
109. The application also states that some dewatering may be required from the excavations for the TPS and pipeline as it crosses the HAIL site. It indicates that the Council has agreed to accept the potentially contaminated stormwater into the Council waste water system, however we understand this will require a discharge consent from Environment Canterbury.

Bundling of Activities and Structures

110. Mr Pizzey's submissions discussed the issue of whether, and to what extent, the various consents sought should be "bundled" so that the most stringent status is applied to "bundles" of activities and structures. The key consideration is whether consents sought relate to *"one dominant use or purpose"* (KB Furniture v Tauranga

District Council (1993) 2NZRMA 291 at 299 (HC), and *Giles v Christchurch City Council*, EnvC, Christchurch, A92/2000.)

111. We have considered whether that means all consents sought should be bundled because they all relate to the overall proposal for upgrading the Akaroa wastewater scheme. We have rejected that (as Mr Pizzey submitted we should) for two reasons. Firstly, the activities and structures relate to four distinct locations and therefore have environmental effects relating to four distinct receiving environments. Secondly, the proposals for each of these four components could be altered without compromising the whole scheme. For example, the TPS could be relocated without negating its function, or the final disposal to the harbour proposal could be replaced by land disposal.
112. We do not accept Mr Pizzey's submission that the regional and city applications should not be bundled in this case. Where they relate to the same activity and structure we consider they should be. However, in assessing each of the four components we have had regard to the status the various consents sought would have if they were stand-alone projects, as discussed above. In particular, we have noted that the WWTP has restricted discretionary activity status under the Banks Peninsula Plan meaning that it is an activity anticipated to require scrutiny only in relation to (in this case) boundary setbacks, works within a Silent File area, and the access point.
113. We note that the Terminal Pumping Station under this approach has non-complying status because of the proposed discharge of stormwater is from a potentially contaminated site. While we accept that is significant during the construction phase, it will become a technicality once the stormwater is just a discharge from the roof and totally sealed surfaces.
114. In our assessment the overall proposal should be bundled and assessed as follows:
 - a. The proposed drainage network changes (pipework and existing pump stations): **discretionary**
 - b. The proposed new Terminal Pump Station (TPS): **non-complying**
 - c. The proposed new Waste Water Treatment Plant (WWTP): **discretionary**
 - d. The proposed new outfall into the harbour (including the Duvauchelle temporary construction management area): **non-complying**
115. These "bundling" groupings are significant for two reasons. Firstly, they are to be considered separately so consent can be granted for any or all of these bundles. Secondly, the bundles determine the overall status of each group of activities and structures.
116. While decisions about bundling have to be guided by legal principles, the application of those principles depends on assessments of how various activities and structures would actually operate and how that relates to the receiving environment or environments. We asked the four planning witnesses for their assessments, in the

light of discussion about bundling at the hearing, particularly their assessment about bundling the elements relating to the discharge to the harbour.

117. Ms Dawson's position at the time of writing her report was that all the applications to Environment Canterbury should be bundled, with resulting non-complying status for the whole project. When asked at the hearing about the pipe and the discharge, she indicated her view that those cannot be unbundled. Mr Wilson expressed the view that the TPS, the Duvauchelle Temporary Construction Area and the WWTP could be assessed separately and the applications relating to each bundled. In his view the pipeline and the discharge are "*closely related*".
118. Mr Whyte agreed with Mr Wilson's bundling of applications to separate the TPS, the Duvauchelle Temporary Construction Area and the WWTP. He indicated that he had erred on the side of caution and assessed all the regional council applications as non-complying. Ms Lynch (Ngāi Tahu) indicated in her evidence that she sees the applications for the discharge structure and the discharge itself as linked.
119. As will be discussed below, the most significant implication of our analysis of what is appropriate "bundling" of applications in this case is that the non-complying status of the pipeline into the harbour should also apply to the discharge of effluent through that pipeline. We believe it would be artificial to separate these; it is difficult to imagine more closely related activities and structures than a discharge and a pipe that carries it.

Mahaanui Iwi Management Plan 2013

120. The Mahaanui Iwi Management Plan 2013 defines "Silent File" areas which are larger than those shown in the District Plan and include the areas around the terminal pumping station site, the treatment plant site, and the Duvauchelle Temporary Construction Area. This is a matter to consider under section 104(1)(c) of the Act, although we note that no concern was raised by Iwi representatives about the proposed activities and structures proposed for specific sites within those silent file areas.
121. It should also be noted that the Coastal Marine Area (CMA) of Banks Peninsula is subject to a Statutory Acknowledgement, this being one of the key elements deriving from the Deed of Settlement between the Crown and Te Rūnanga o Ngāi Tahu. The Ngāi Tahu Claims Settlement Act 1998, which gives effect to the settlement, provides for Statutory Acknowledgements as one of the instruments in that Act.
122. Statutory Acknowledgements identify places of importance to Ngāi Tahu and provide a statutory mechanism under the Resource Management Act 1991 for Ngāi Tahu to become involved in the resource consent process and district plan preparation. The Acknowledgement is relevant for activities within the CMA, but also for activities on land adjoining that may affect the CMA. In particular, we note that a consent authority must have regard to the Acknowledgement in forming an opinion as to whether Ngāi Tahu are an affected party for the purpose of any resource consent.

RMA Assessment Framework

123. These applications have to be considered under sections 104, 104B and 104D of the Resource Management Act 1991. Section 104 requires us to have regard to the actual and potential effects on the environment of allowing the activity, and the relevant provisions of plans and policy statements prepared under the Act. In this case the most relevant plans and policy statements are the New Zealand Coastal Policy Statement 2010, the Canterbury Regional Policy Statement 2013, the Regional Coastal Environment Plan 2005, the Natural Resources Regional Plan 2011 and the Banks Peninsula Section of the Christchurch City District Plan.
124. Section 104B provides that consent may be granted, refused, or granted with conditions imposed under section 108.
125. Section 104D provides that consent for a non-complying activity can be granted only if an application can pass one or both of the "threshold tests": the adverse effects on the environment would be minor, and/or the proposal is not contrary to the objectives and policies of the relevant plan.
126. Consideration under section 104 is "*subject to Part 2*", which sets out the purpose and principles of the RMA. Relevant Part 2 (sections 5 to 8) matters in this case are as follows.
127. Section 5 sets out the sustainable management purpose of the Act, which is broadly enabling but subject to provisos about sustainability and avoiding, remedying or mitigating adverse effects on the environment.
128. Section 6 requires that in assessing applications we are to "*recognise and provide for*" a list of "*Matters of National Importance*". Relevant section 6 matters in this case are:
- "6(a) The preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development."*
- "6(e) The relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga."*
- "6(g) The protection of protected customary rights"*
129. Section 6(b), which relates to outstanding natural features and landscapes, and section 6(d), which relates to the maintenance of public access to and along the coastal marine area, are also potentially relevant. In relation to section 6(b), as noted above in the discussion about elements requiring consent under the Banks Peninsula section of the City Plan, we accept Mr Wilson's interpretation of the Plan which places the proposed WWTP outside the area of prominent ridge identified in the plan. In relation to section 6(d), we accept that none of the proposed works or structures would impede access to or around the coast.

130. Discharges into water also have to be assessed against some criteria in section 107 of the Act. The relevant matters in this case are whether the discharge would produce any "*conspicuous oil or grease scums or foams, or floatable or suspended materials*" or would result in a "*conspicuous change in colour or clarity*", or "*significant adverse effects on aquatic life*".
131. We accept that the proposed discharge would not result in either of the first two of these, and would probably not result in "*significant adverse effects on aquatic life*". We acknowledge however that whether there would be an adverse effect on aquatic life, specifically seafood, is disputed and if we had otherwise been satisfied that consent should be granted for the discharge we would have sought further assessment of this. There is no doubt that the proposed discharge would be much less likely to adversely affect kai moana than the present discharge, which is of a lower standard and nearer the coast, but as discussed further later in this decision, a comparison with the present discharge is not the test.

DRAINAGE NETWORK CHANGES

The Proposal

132. This is the first of the four "bundles" of activities and structures we have identified, that together make up the Akaroa waste water upgrade proposals.
133. As the new Waste Water Treatment Plant (WWTP) site is located to the north of the Akaroa Township rather than the south as at present, wastewater flows need to be reversed. The existing pump stations would pump wastewater in the opposite direction to the new Terminal Pumping Station (TPS) which would pump wastewater to the new WWTP. Wastewater would flow via gravity from the WWTP to the new outfall. See Figure 1, page 8 above for a map of the proposed network and facilities.
134. The new pipeline would for the most part be slip lined or pipe burst through the existing pipeline which would reduce ground disturbance. The application outlines that the new pipeline from the Reserve Pump Station to the TPS and then on to the WWTP would be installed by conventional trenching or directional drilling. Trenching works may also be required from the Fire Station Pump Station to the Reserve Pump Station and dewatering of these trenches may be required.
135. Dewatering water from Jubilee Park, where the TPS is located would be discharged to the existing wastewater network. If trenching works are undertaken between the Fire Station Pump Station and the Reserve Pump Station and the take and discharge does not comply with the relevant regional rules the applicant has stated they will apply for separate consents. We consider this approach is appropriate as the applicant had stated dewatering in this area would not be necessary and we have assessed the applications on that basis. In addition, the applicant has not finalised the construction methodology, which could result in dewatering not being undertaken.
136. During construction stormwater would be discharged via the CCC reticulated network that discharges to streams and coastal water or directly into streams.
137. New air filters are to be installed at The Glen Pump Station and the Fire Station Pump Station. We understand consents are not required for the discharge to air from these pump stations.
138. The application described the occurrence of the overflows when the capacity of the network is overwhelmed. These would continue in the event of mechanical failure or extreme weather via the existing overflow pipes although the upgrades should reduce the frequency of overflows. Reversing the direction of flow would mean lower volumes pumped through The Glen and Fire Station pump stations.

Environmental Effects

139. Dr Mark Ellis, giving expert evidence on behalf of submitters Mr and Mrs Graham and Cynthia Ellis, raised concerns about the likely retention time of sewage in sewer mains, while being pumped to the TPS. The increase in retention time of the sewage in parts of the pipe network can be expected to increase septicity with increased sulphides and the potential for release of objectionable odour, particularly at the Fire Station Pump Station, where odours are already noticeable at times.
140. Dr Ellis noted that the applicant has assumed that Rule AQL63 in the Natural Resources Regional Plan would be met. That rule provides for waste water management processes existing at 1 June 2002 to be a permitted activity provided they do not produce offensive or objectionable odour or particulate matter effects beyond the boundary. He noted that there have been odour complaints registered with the City Council in relation to the Fire Station Pump Station, and he provided calculations, and assumptions used in those calculations, which have led him to the conclusion that the proposed 2.5m x 2.5m biofilter would not be adequate.
141. It is not our role to determine whether the existing system is currently complying with Rule AQL63. Our concern is whether a further consent is required for the system as it would be following the proposed upgrade. Mr Bourke acknowledged that there are existing problems at the Fire Station Pump Station but emphasized that the proposed new biofilter is expected to resolve the problem.
142. We have different opinions from highly qualified and experienced engineers. Fortunately we consider there is no need for us to favour one view over the other. As Mr Bourke confirmed when we asked him about the implications of Dr Ellis being right, the biofilters at the Fire Station Pump Station and elsewhere in the system could be replaced by bigger ones if that proved necessary.
143. In engineering design there is a balance to be struck between cost and the probability of meeting required performance standards, in terms of both functionality and environmental effects. Our concern is with the latter, and given the doubts raised by Dr Ellis, the environmental standards to be achieved are important.
144. The situation with the proposed upgrading of the sewerage network and existing pumps is different in this regard from the other bundles of activities and structures we are assessing because the applicant's case is that they do not need consent in relation to potential odour. We are satisfied that if that proves not to be the case, there are solutions to deal with it.

Assessment

145. We have reviewed the assessments of relevant objectives and policies in the district and regional plans provided in the officers' reports. The objectives and policies are directed mostly towards achieving the good environmental outcomes the applicant is trying to achieve, so to the extent that those would be met, as discussed above, the proposal would support the relevant objectives and policies.

146. Overall, we are satisfied that with appropriate conditions the proposals for the sewerage network would support the sustainable management of resources purpose of the Act.

TERMINAL PUMP STATION

The Proposal

147. The Terminal Pump Station (TPS) would include:
- (a) A new pump building;
 - (b) Three pumps (duty/assist/standby);
 - (c) A wet well;
 - (d) A grit trap;
 - (e) A valve chamber; and
 - (f) A 160kVA generator to provide alternative power supply.
148. An emergency screened overflow pipe into Grehan Stream would be installed in case of failure. A non-return valve would be installed to prevent flows into the pump station and the escape of odour. Overflows would only occur when flows exceed 65 L/s as this is the capacity of the TPS. The 65 L/s takes into account expected wet weather flows during a typical 1 in 2 year recurrence rainfall event.
149. Covers are to be placed over odour generating equipment and odorous air would be extracted from equipment and passed through a bark biofilter, before discharging to air.
150. The site is located near the foreshore which could be affected by sea level rise. The floor of the TPS building would be constructed 800mm above existing ground level to account for future sea level rise.
151. Stormwater from the site would be discharged into the CCC reticulated system or directly into the Grehan Stream. If directly into the stream, consent is required as a non-complying activity because the site is potentially contaminated. We see this as only a technical non-compliance because the stormwater would be runoff from the roof of the pump house and other sealed surfaces, not from potentially contaminated ground.

Environmental Effects

152. Several submitters raised concerns about the TPS. The Akaroa Croquet Club, Mr Darin Rainbird, Mr Niall Holland and Ms Jan Whyte questioned the suitability of the site within a public place and adjacent to areas used for various recreation activities. The main concern is the potential for odour.
153. Dr Mark Ellis' evidence (on behalf of submitters Mr and Mrs Graham and Cynthia Ellis) suggested that the screening of the particulate matter prior to pumping was effectively primary treatment so the TPS should be considered to be a wastewater treatment plant. This led him to question the assertion in the application that a buffer distance of 32 metres to sensitive activities would comply with the State of

Victoria Environmental Protection Agency guideline 2013. Dr Ellis suggested the guideline would require a separation distance of 160 metres.

154. We consider that the removal of large particulate matter to enable the efficient operation of the positive displacement pumps, does not constitute primary treatment. In any case we see generic guidelines like this as planning tools, for example triggering the need for consents, rather than useful indications of what is needed for specific proposals like what is before us.
155. There is no dispute however that the TPS has the potential for the discharge of odour. The applicant's air quality witness, Mr Matthew Noonan, based his assessment of likely odour generated on the technical specifications for the TPS provided to him by the leader of the Beca consultants design team, Mr Gregory Offer, who also presented evidence at the hearing. Potential sources of odour within the TPS are to be fully enclosed, kept under negative pressure, and ventilated through a 10m x 5m bark biofilter.
156. As with the Fire Station Pump Station, Dr Ellis provided calculations underlying his assertion that a much larger biofilter or biofilters (12m x12m x1.2m) would be needed. In his opinion best practice would be to have one biofilter to treat the low volumes of highly odorous airflows and another to deal with bulk building air (required to maintain negative pressure).
157. Mr Offer's statement of evidence filed as part of the applicant's right of reply included a revised layout of the TPS with a larger biofilter. He indicated that this is the result of further design work. He explained his calculations, and expressed his view that Dr Ellis' calculations did not allow for removal and treatment of hydrogen sulphide (H₂S) at the upstream pumping stations.
158. We accept that the revised layout with a larger biofilter is "within scope" of the application notified because it is in response to submissions and is unlikely to create any greater adverse environmental effect. We do not consider it is necessary to adjudicate on whether Mr Offer or Dr Ellis is right; if the biofilter now proposed proves insufficient to meet the standards required by the conditions, there is plenty of space for a larger one.
159. A particular issue at the TPS is the need to remove particulate matter - grit and screenings - on a regular basis. Mr Offer indicated that grit and screenings would be stored in sealed bins within the building and collected at intervals of 13 to 18 days. This would necessitate opening of the roller door for a few minutes, with loss of negative pressure and potential for release of odour.
160. Mr Darin Rainbird told us that this is of particular concern to him. If the collection could be prior to 10am on any day, that would remove his concerns. Mr Bourke indicated that the collection contract could require this to be done before 10am. We have included that as a condition.
161. Mr Noonan's evidence was that while he *"would not expect odours from a biofilter to be discernible beyond a distance of at most 10 metres during normal operation"* and he was confident the condition recommended by Ms Dawson would be met

during normal operation, he sought a concession in the condition to recognize these maintenance times.

162. We consider that is reasonable. As Mr Bourke commented, it is often the case in engineering that achieving 100% of some standard all the time can be very expensive, and we would add - for sometimes very limited benefit. People can accept occasional disruption for maintenance activities and in this case it would be obvious to anyone in the vicinity at a collection time that any unusual odour was caused by the collection.
163. We asked Mr Noonan whether, given that his evidence was that during normal operation he would not expect odour to be discernible beyond 10 metres from the TPS building, a condition to that effect would be appropriate. Ms Dawson's recommended condition used the standard "offensive or objectionable" test. Mr Noonan was resistant to this, and Ms Dawson also indicated a preference for a test that has been well used.
164. We are not convinced that an "offensive or objectionable" standard is sufficient here. As Mr Noonan's evidence noted, *"Odours from well-designed and maintained biofilters are slightly musty in character and not offensive."* That means that there would be no control over the sort of odour expected from the TPS during normal operation. But Mr Noonan, Ms Dawson, and Mr Myles McCauley, (Environment Canterbury Principal Consents Planner who provided a s42 A report on odour issues) all noted that this site within a public area used for various kinds of recreation is a sensitive receiving environment.
165. An "offensive or objectionable" test condition is necessary to control gross variance from what is predicted, but in addition we consider that in this particular receiving environment there should also be a condition controlling any kind of odour. Odour would not have to be offensive to draw attention to the TPS. The applicant is commendably proposing to make the building and landscaping fit into the setting and be as inconspicuous as possible, and that would be undermined if noticeable odour was produced, even of a "slightly musty" character.
166. Mr Noonan predicted odour would not be discernible beyond 10 metres from the TPS building during normal operation. We have added some "headroom" and imposed a condition applying at 25 metres from the building. We have applied a test of *"readily discernible to the general public"* to indicate the condition would not be breached by odour being detectable by someone with a particularly good sense of smell. This is similar to the way the "offensive or objectionable" test is applied: some people might find even a "slightly musty" odour objectionable in this situation but that test would be assessed by Ecan officers with training and experience in what is generally regarded as objectionable.
167. Mr Rainbird also raised concern about the potential for odour to be released during construction excavation, given that the site was previously the county council tip site. Construction would take nine months but we understand the greatest potential for odour would be only for a two week period when the ground is initially disturbed.

Mr Bourke indicated that period could be scheduled to be outside the peak summer season for the Mini Golf operation.

168. The other matter discussed by Mr Rainbird at the hearing was the proximity of the TPS structure to the Mini Golf Course and the shading and amenity effects it would have on that site. The proposal put forward by the applicant at the hearing was that the building would be five metres further back from the Mini Golf Course. Again, we accept that this amendment is "within scope" of the proposal notified.
169. We visited the Mini Golf Course during the hearing and accept that this would substantially reduce shading. The applicant's landscape architect, Mr Robertson, described the landscape effect of the now proposed five metre setback in his supplementary evidence filed as part of the applicant's reply. He envisages a five metres deep densely vegetated buffer, with only the top one or two metres of the TPS building visible from the Mini Golf Course.

Assessment

170. We have reviewed the assessments of relevant objectives and policies in the district and regional plans provided in the officers' reports. The objectives and policies are directed mostly towards achieving the good environmental outcomes the applicant is trying to achieve, so to the extent that those would be met, as discussed above, the proposal would support the relevant objectives and policies.
171. Overall, we are satisfied that with appropriate conditions the proposals for the Terminal Pump Station would support the sustainable management of resources purpose of the Act.

WASTEWATER TREATMENT PLANT

The Proposal

172. The new WWTP has been designed to treat wastewater generated by the 2041 Akaroa population estimate of up to 3,542 people in summer. The WWTP will however be capable of treating effluent from approximately 4,044 people.
173. The estimated peak design flows are an annual average of 357m³/day with peak loads on a summer day of 1,011 m³/day. The applicant has specified the estimated influent contaminant concentrations in Table 4-3 of the application.
174. Wastewater is to be treated via biological nitrogen reduction (BNR) with membrane filtration. The particular BNR process chosen will be up to the contractor, one option is to use Modified Ludzak-Ettinger (MLE) reactors which is considered a conventional process for BNR. If MLE is not used, other processes include:
 - a. Sequence batch reactors;
 - b. Oxidation ditch;
 - c. Mixed bed biofilm reactor; and
 - d. Integrated Fixed Film Activated sludge.
175. The MLE process reduces contaminant concentrations by treating wastewater in anoxic conditions followed by an aerobic system, then recycling effluent from the aerobic zone to the anoxic zone to reduce nitrogen concentrations by denitrification. This recycling is combined with Return Activated Sludge (RAS) from the membranes to provide microorganisms to treat wastewater. Carbon (acetic acid) and alkalinity (bicarbonate) is added to wastewater as it enters the reactors to avoid biological inhibition.
176. Assuming an MLE process, wastewater treatment would occur as follows:
 - a. Screening and grit removal at the TPS;
 - b. Flow enters the WWTP via a balance tank which would capture peak flows and smooth diurnal patterns;
 - c. Normal flows of 14 L/s receive full treatment using BNR. Flows greater than 14 L/s would bypass BNR and receive Ultra-Violet (UV) disinfection before combining with fully treated wastewater prior to being discharged. The 0.5mm-1mm aperture screen at the TPS is sufficient to allow UV disinfection without further pre-treatment. Further discussion about the sizing of the aperture screen is provided below.
 - d. Effluent would be treated using the MLE process circulating wastewater from anoxic to aerobic conditions and recycling effluent back to the anoxic zone.
 - e. Wastewater from the MLE reactors would then be treated using membrane filtration to remove suspended solids and pathogens. The

membranes will most likely be low pressure hollow fibre membranes located in a separate membrane building.

- f. Waste Activated Sludge (WAS) would be periodically removed from the membrane tanks and thickened using a gravity belt thickener and stored in an enclosed tank. Sludge from the tank will be removed weekly and tankered to the Christchurch WWTP for processing into bio solids.
 - g. The sludge reactors and membrane filters have been sized for duty/assist operation. The assist reactor would be started up prior to the peak load and may be used during the off season to maximise treatment during wet weather but would also require servicing during this time.
 - h. Blowers and pumps required for operation would be sized for duty/standby operation allowing the process to continue if individual items fail.
 - i. Major odour generating equipment would be enclosed and air would be treated in a bark biofilter. Ventilation of the blower, laboratory and control room will be discharged directly to the atmosphere.
 - j. A standby generator would be provided at the treatment plant. Preliminary sizing is 160k VA. Fuel for 72 hours would be stored on site.
177. Stormwater is to be treated via a proprietary sump and discharged to the Old Coach Road drainage system which would be upgraded.
178. During construction of the WWTP, erosion and sediment control measures would be installed to reduce sediment loss from the site. These would be designed and installed in accordance with Environment Canterbury's Erosion and Sediment Control Guidelines.
179. The Council has recently obtained resource consent (number RMA92025135) for a water reservoir at the 80 Old Coach Road site. This reservoir has been built and is shown on the current application plans, along with landscape plantings required by that consent. Specifically, those plantings and the reservoir are shown on Sheet 10 of Appendix 3 contained within the landscape and visual assessment included in the application.
180. A revised layout of the WWTP has been put forward as part of the applicant's right of reply. That plan is shown below. The amendments will be discussed in the context of concerns raised by submitters, but it can be noted here that we are satisfied that they would not create any significant adverse effects and so are "within scope" of the proposal publicly notified.

Environmental Effects

181. The WWTP proposal attracted several submissions raising concerns. The location of the plant in relation to those submitter's properties and other development in the area is shown on the plan below.

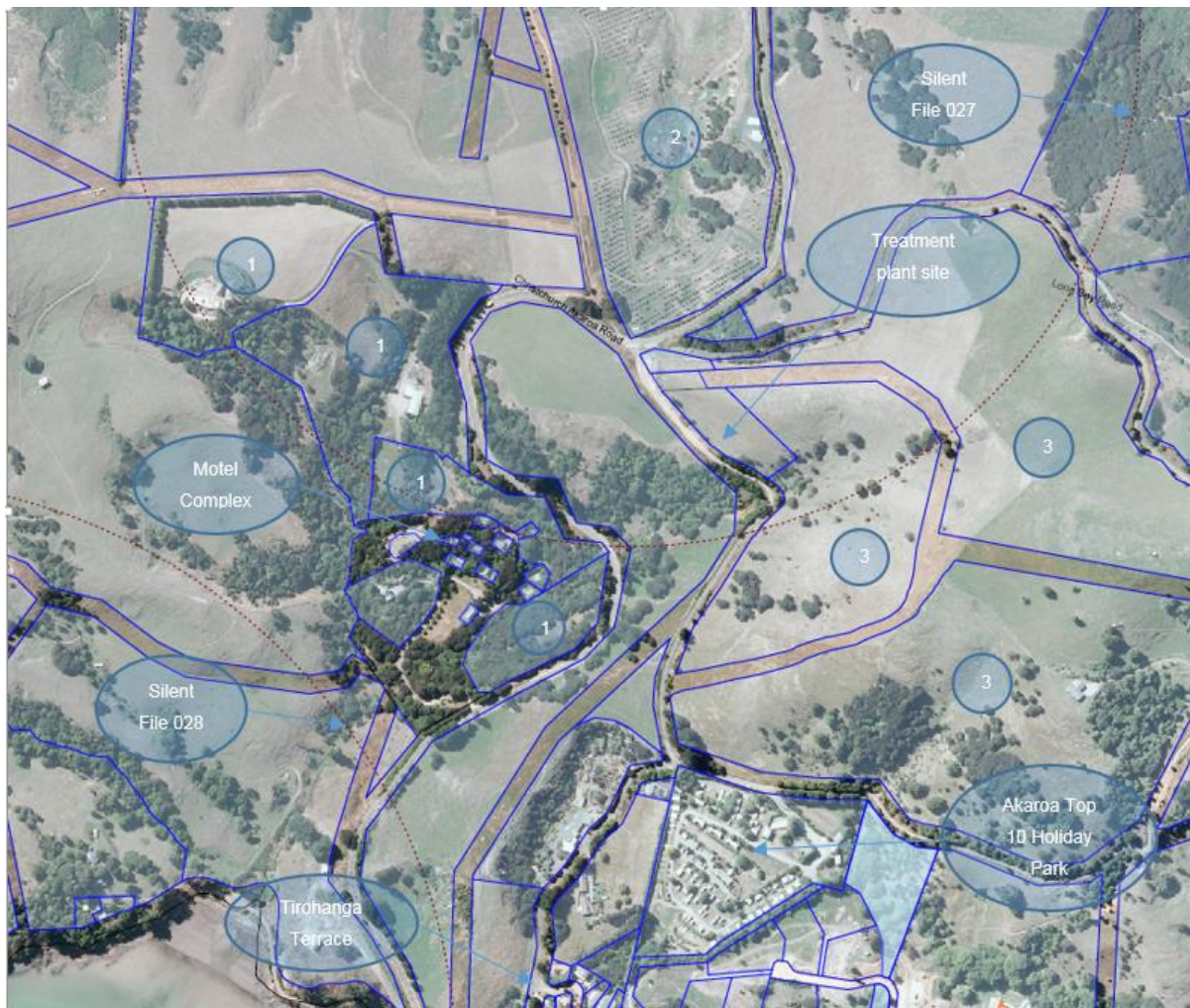


Figure 3: Waste Water Treatment Plant site and locale. Submitters are denoted by circled numbers. 1 = D Kingan, 2 = N Holland and J Whyte, 3 = P McFaul (Mont. Cooke Ltd).

(See if Kent can put the numbers etc back on this plan)

182. Mr David Kingan and Mr and Mrs Graham and Cynthia Ellis raised concerns about the traffic hazard that could be caused by vehicles associated with the WWTP. There is concern about both the construction and operation periods, a particular concern about heavy vehicles, and concern about traffic effects on the safety and amenity of pedestrians.
183. In response to these concerns Mr Bourke acknowledged in his evidence that *"...there will be disruption during the construction period."* That is the case to

some extent with any major construction project. Mr Bourke also acknowledged that the recent construction of the water reservoir disrupted access to the Kingan property and *"This needs to be better managed for the WWTP construction..."* The mechanism proposed is a construction management plan, subject to certification by the City Council as regulator. We accept that this is a common way of dealing with the detail of traffic controls, time of work etc and that we can have reasonable confidence that the inevitable disruption of traffic during construction would be minimised.

184. Turning to the traffic effects during normal operation, there was no specialist traffic engineering evidence presented in the application or at the hearing, although Mr Wilson's s 42A report discussed a conversation he had had with a City Council traffic engineer, Mr Mike Calvert, where Mr Calvert advised that given the low traffic volumes required to service the plant and the low speed nature of the nearby intersections, traffic conflicts are not a great concern.
185. Dr Ellis (on behalf of submitters Mr and Mrs Graham and Cynthia Ellis) submitted that there is the potential for traffic conflicts at the egress of the WWTP, compounded by the effect the proposed plantings to screen the area would have on visibility. This issue was put to the applicant's witnesses and reporting officers at the hearing and we were assured that the screening foliage would be kept at appropriate heights and distances to ensure there is sufficient visibility for vehicles to exit the site safely. Mr Offer's evidence in reply noted that he had been advised by another City Council traffic engineer, Mr WengKei Chen, that he was comfortable with the proposed planting within the road reserve.
186. We note that the plant is designed to have allow one-way flow, in one gate and out the other, to avoid the need for reversing out onto the road.
187. We accept Dr Ellis' point however that the proposed perimeter planting (mostly within the road reserve) would tend to force pedestrians to the other side of the road. Our impression from visiting the site is that there is a very wide, level, verge on the other side so we do not see that as more than a minor inconvenience for pedestrians.
188. The other major concern raised by submitters was the potential for odour. This was raised by Mr Kingan, Mr and Mrs Ellis, Mr Niall Holland and Ms Jan Whyte, and Mr Peter McFaull - all owners of properties in the vicinity of the WWTP site. While there is always potential for mechanical failure of complex equipment, the evidence was that the WWTP has been designed with considerable redundancy to minimize the likelihood of a failure creating problems beyond the site. The question is whether we can have reasonable confidence that the plant would normally operate as predicted by the applicant's designers.
189. As in the case of the Fire Station Pump Station and the Terminal Pump Station, Dr Ellis provided detailed evidence explaining why he considers the WWTP would need significantly larger biofilters to dealt with odour adequately. Mr Offer's evidence filed as part of the applicant's right of reply included the revised plan

reproduced above which provides for a conventionally shaped biofilter 30m² in bed area (40m² in total area) relocated to the north end of the site.

190. If the size of the biofilter was critical to our decision we would require caucusing and further reporting on the matter, but it seems to us that what is important is firstly, that there is room on the site to add another biofilter if that proved necessary, and secondly, that there are conditions in place to ensure that odour would have to be adequately controlled.
191. As with the Terminal Pump Station, we are not convinced that the proposed "objectionable or offensive" test is sufficient. It is a useful standard for gross non-compliance, but it cannot give any guarantee that anything like the standard predicted by the applicant's witnesses would have to be achieved. From visiting the vicinity of the plant and identifying the submitters' properties and noting the environment they enjoy, it does not seem unreasonable to us to set a compliance condition that odour is not be readily discernible at their homes. Mr Noonan's evidence (end of his reply statement) was that:
- "...I do not expect any odours emitted (are) likely to be noticeable beyond about 20 m from the plant during normal operation and worst case meteorological conditions."*
192. The submitters' homes are an order of magnitude further from the plant than this so there should be no difficulty meeting the standard we intend to require. As with the Terminal Pump Station, it is important to note that our concern is with normal operation; some odour may have to be tolerated during regular maintenance and in emergency situations.
193. We have noted Mr Noonan's discussion in his reply statement about the "no discernible odour" condition applied at the Moa Point Treatment Plant in Wellington. If it was impractical to achieve there, the situation must be different from the situation we are considering here, where the evidence is (at least from the applicant) that the odour will not be noticeable beyond about 20 metres. The condition we have set allows considerable "headroom" beyond that.
194. Ngāi Tahu submitted in support of the new WWTP in the proposed location, however the primary driver for this was the proposed decommissioning of the current plant at the Takapūneke village site, a site of significant importance to manawhenua. While the application does include decommissioning the existing plant, there does not appear to be a firm proposal to demolish the plant or a proposal to return the site to local Iwi. We have considered whether we could require demolition of the old plant as a condition of consent for the new one, but concluded that is probably not legally possible.
195. Ngāi Tahu witnesses expressed support for the proposed high quality of effluent that would be produced at the new WWTP, however they were clear about their wish to see beneficial re-use and land based disposal as part of the Akaroa wastewater upgrade proposal. We will deal with the discharge issue identified, in the outfall section to follow.

Assessment

196. We have reviewed the assessments of relevant objectives and policies in the district and regional plans provided in the officers' reports. The objectives and policies are directed mostly towards achieving the good environmental outcomes the applicant is trying to achieve, so to the extent that those would be met, as discussed above, the proposal would support the relevant objectives and policies.
197. Overall, we are satisfied that with appropriate conditions the proposals for the Wastewater Treatment Plant would support the sustainable management of resources purpose of the Act.

OUTFALL INTO AKAROA HARBOUR

The Proposal

198. The outfall pipeline would consist of welded polyethylene pipe, with a de-aeration chamber at the shore end and a diffuser at the end of the pipe. It would be 3,727 metres from the treatment plant to the diffuser. The outfall pipeline would carry treated effluent and, during periods of sustained wet weather, screened and ultra violet disinfected effluent.
199. The pipeline has been located to provide satisfactory dilution and to avoid designated cruise ship anchorages with at least 1m cover to the pipe beneath the seabed. The pipeline would run down Old Coach Road, across SH75 and down Childrens Bay Road to the north end of Childrens Bay, then 2.5 km out into the harbour.
200. Dispersion modelling of the discharge plume has been undertaken by the National Institute of Water and Atmospheric Research Ltd based on tidal and wind influences at 1 hour intervals and over a year. Swimming and shellfish gathering sites in the vicinity of the outfall were chosen as receptors. The results have shown that near field dilution would be a minimum of 76 times with a median of 1,480 times. Further dilution would occur beyond 50 metres of the diffuser providing a further 2-3 times dilution. The maximum design flow is 65 L/s and the minimum flow is 0.5 L/s.
201. A de-aeration chamber would be installed to remove air from the pipeline at the shore end. It would be installed to a level that allows the invert of the pipe to be buried at 2.6 metres below ground level. Sheet piling is likely to be required for this installation.
202. The diffuser would include three risers at five metre centres each discharging to two horizontally opposed ports located 300-500mm above the seabed. The risers and discharge heads would be protected by structures designed to prevent damage from anchor cables, fishing lines and to withstand propeller wash from cruise ships.
203. The applicant has considered two construction methodologies to install the pipeline, horizontal directional drilling and conventional pipeline trenching. The specific construction methodology would be determined by the contractor, but the applicant considers that due to the length of the pipeline it will more likely be installed by conventional trenching.
204. Beyond low water, excavation would likely be carried out from a barge. Prefabricated lengths of pipe would be prepared at the temporary construction management area in Duvauchelle and then floated to the construction site where they would be lifted into the trench. The trench would then backfill naturally over time; excavated sediment would be placed next to the trench to facilitate this.
205. Construction is anticipated to commence in 2017 and would be carried out in several phases over a two year period. The construction of the outfall pipeline is

anticipated to take 6 to 9 months. Some phases could be completed simultaneously

206. Consents are also sought to use part of the Duvauchelle A and P Grounds as a "Temporary Construction Management Area" for assembling sections of the outfall pipe. A detailed proposal is set out in the application. Some concerns about this are raised in a submission from the Grounds Committee of the Duvauchelle Show and the Banks Peninsula Pony Club.
207. Mr Bourke discussed these concerns at the hearing. It appears that while the submitters could be accommodated to some extent, assembly of the pipes could not be restricted to the periods sought. The adverse effect on the users of the reserve would be temporary however and the evidence was that the areas used would be protected from damage as much as practicable and restored after use. In our assessment this element of the disposal outfall proposal should be approved if the outfall and discharge themselves are consented, however there would be no point in consenting the Temporary Construction Management Area by itself.

Environmental Effects

208. Several submissions addressed the proposal for disposal of the treated effluent into Akaroa harbour.
209. The submission from the Public Health Physician, Canterbury District Health Board, supported the overall scheme as a means of improving public health, but also supported "... *continued investigation into land based irrigation trials with an aim for this becoming a viable option in the future.*"
210. The submission filed by the Director General of Conservation indicated a "*neutral*" stance on whether consents should be granted, but set out a number of matters the Director General requested us to consider in relation to the proposed discharge to the harbour, including the adequacy of consideration of alternatives and the Maahannui Iwi Management Plan.
211. The submission from Mr James Crossland on behalf of the Akaroa Harbour Recreation Fishers requested a land based disposal solution, or an outfall outside of the harbour heads. Mr Crossland attended the hearing to further explain the submission and described the Council's proposal to continue to dispose of the effluent in effectively the same area as "*yesterday's solution*". A reuse or land based disposal solution would meet the concerns of this group.
212. The Paua 3 Industry Association submission expressed opposition to all but application CRC150046 (water take) and the land use application RMA92026256. Concerns relate to the potential adverse effects of a discharge to the marine environment on paua populations. Should the discharge be approved they would like to ensure that there is an appropriate level of monitoring to ensure compliance and minimise impacts on their fishery.

213. A submission from Mr Dean Higgins of Kono Seafood noted that the company harvests green shell mussels in Akaroa Harbour and is concerned about any potential effects on this activity. However the submission does not oppose or support any of the applications.
214. A joint submission was lodged by Ōnuku and Wairewa Rūnanga, Te Rūnanga o Ngāi Tahu, and the Akaroa Taiāpure Komiti. It focussed primarily on the proposed discharge to the harbour, and sought that this application (CRC150048) is refused. All the other consents sought are supported *"subject to appropriate mitigation conditions"*.
215. We will refer to the submitter groups collectively as "Ngāi Tahu" or "iwi". They were represented at the hearing by:
- Ms Ngaire Tainui, who represents the Ōnuku Rūnanga on the Board of Te Rūnanga o Ngāi Tahu,
- Mr Wi Tainui, who is a former Chairperson of the Ōnuku Rūnanga,
- Mr Iaeen Cranwell, who is a member of the Akaroa Taiāpure Committee and has other iwi roles,
- Mr Nigel Scott, Principal Advisor - Mahinga Kai, Te Rūnanga o Ngāi Tahu, and
- Ms Philippa Lynch - Senior Environmental Advisor, Te Rūnanga o Ngāi Tahu.
216. The Ngāi Tahu speakers expressed strong opposition to the continuation of discharges of human effluent directly to the marine environment via the proposed outfall. Beneficial reuse and land disposal are the two options for the effluent post treatment that would meet the cultural needs of local Iwi. We accept that a system of beneficial reuse, referred to at the hearing as a "purple pipe network" and/or a land disposal scheme could be planned constructed within the proposed timeframe for decommissioning of the current plant in 2020.
217. Ms Ngaire Tainui's statement appended the text of the Crown apology to Ngāi Tahu over past grievances, given by the Hon. Jenny Shipley at Ōnuku Marae, overlooking the Akaroa Harbour in 1998. The text recognised the Treaty principles of partnership, active participation in decision-making, active protection and rangatiratanga. The apology committed to a *"new age of co-operation"* between Ngāi Tahu and the Crown. In this instance the Christchurch City Council is effectively the Crown agency responsible for the design and proposed operation of an activity that is clearly abhorrent to local Ngāi Tahu. Ms Tainui spoke of her *"dismay and frustration by the continued lack of effort on the part of the Crown agencies, regional and district councils to ensure the cultural health of Akaroa Harbour"*.
218. The Ngāi Tahu speakers stated that they were initially optimistic about the progress the working party process had made towards developing land based options for disposal of the effluent from the Akaroa Township. However, now finding themselves at a hearing where there is no commitment to land based technologies,

they stated that they were “*Sad of Heart*”. With the passing of kaumātua recently the challenge and responsibility of achieving the cessation of the harbour discharge has passed to the next generation.

219. They noted that the extension of the last consent to seven years by the Environment Court, from the five years granted by the Hearing Commissioners, was to enable consideration of all the options, including land based disposal. They believed the applicant was going to in good faith investigate alternative disposal, and although Mr Bourke's frequent consultation with iwi was acknowledged and appreciated, they do not now feel that the investigation of land disposal was adequate. We will discuss this below under the heading of Consideration of Alternatives.
220. It was noted by iwi representatives that the location of the WWTP 110 metres above sea level would provide the opportunity to dispose of effluent to the valley to the north east of the plant. Ngāi Tahu suggested that overland flow could be included in the evaluated land based methodologies. They would support the planting of a wetland at the base of a disposal area to provide some additional polishing of any flows that filtered through. Given that the effluent is proposed to be treated to a very high standard, iwi representatives considered that a discharge to land would meet the cultural and spiritual needs of local Iwi.
221. We agree that the high quality of the effluent to be produced from the WWTP would make land disposal more acceptable to the whole community, and more practical than would be the case with a lower quality of treatment. We wonder whether landowners who were approached as part of the investigation of disposal options discussed below, and refused access to their land for investigation, appreciated the level of treatment planned.
222. Ms Ngaire Tainui discussed how the kaimoana of the harbour is the mana kai of the many hapū of Ōnuku. They no longer provide from the food basket at their front door and have to bring in seafood from outside of the area. The continued disposal of human effluent to the harbour, with no plan for alternative disposal, could constitute a “*further grievance*” stated Ms Tainui.
223. To the Ngāi Tahu submitters, the continuation of discharge to the marine environment at any quantity would be culturally offensive. There was discussion at the hearing about the possibility discussed by Mr Bourke of progressive removal of part of the discharge over time through land disposal and/or provision of a “purple pipe network”. Iwi speakers indicated that the cultural impacts of the discharge would not be satisfied until all the effluent made contact with Papatūānuku (land) before entering any water body.
224. Ngāi Tahu also advocated on behalf of the mauri (life essence) of the Akaroa Harbour. Discharge of sewage into Akaroa Harbour is seen as degrading the mauri of the coastal environment, which is linked to the health and accessibility of their local food resource.
225. Although the applicant's case was there is some urgency to complete design and construct the scheme, we are inclined to agree with the Ngāi Tahu view expressed

at the hearing that there is time for alternative disposal options for all of the effluent to be investigated, and a system designed and constructed, without delaying construction of the rest of the Akaroa waste water upgrade, to allow for implementation of the whole scheme by 2020.

226. Ms Lynch noted that there would be no point in granting CRC 150047 for the placement of the outfall if we were to decline CRC 150048 for the discharge. We have discussed that under the heading of "Bundling of Activities and Structures" in the section titled "Assessment Framework" above and also concluded they are inseparable.
227. There was discussion about the Deed of Agreement in the settlement of appeal ENV-2013-CHC-308-000014 Akaroa Wastewater Discharge Consent. It includes the following:
- "Section 6 The purpose of the engagement is;*
- (a) 6.1 to discuss the possibilities and planning for alternative wastewater discharge options and / or wastewater reuse in respect of the Akaroa treatment plant."*
228. The Ngāi Tahu submitters who represented three of the parties who signed the Deed of Settlement are not satisfied that the Christchurch City Council has met this requirement of the agreement. As discussed below under the heading of Consideration of Alternatives, we acknowledge that the Council did commission a further report on alternatives but the Council and consultant engineers appear to have simply misunderstood the cultural dimension of the issue.

Consideration of Alternatives

229. Section 105(1) of the RMA requires that in considering an application to discharge a contaminant into water, decision makers must have regard to several matters including:
- "(c) any possible alternative methods of discharge, including discharge into any other receiving environment."*
230. The applicant's case is that there has been a *"robust consideration of alternatives"* to harbour disposal (Mr Pizzey's submissions, paragraph 63). Mr Bourke's evidence described the process and we questioned him about it. The application summarised the findings of a report titled "Wastewater Options and Risk Analysis Report" February 2010 by a team of Council consultants. We asked for full copies of this report and have considered it carefully.
231. The report covers a number of matters such as alternative treatment plant locations, alternative outfall options, and options for the quality of treatment, as well as the issue of land disposal.
232. After setting out some background to land disposal of treated effluent (starting at page 20) the report describes an "Irrigation Desktop Study" which evaluated *"possible sites and areas where the irrigation of treated effluent could be technically performed with minimum social, cultural and environmental impacts and risks, as*

well as maximum benefits." Criteria used for selecting sites included: "Land owners' willingness to allow access for site and soil assessment..."

233. As a result of this methodology, the study then focussed in detail on some small areas, and the potential difficulties of applying effluent at intensive rates. The conclusions (pages 30 and 31) were that 32 hectares of irrigable land identified on the peninsula between Children's Bay and Takamatua would be *"...sufficient for all irrigation options considered including all year round DWF irrigation."*
234. "DWF" means dry weather flow. At page 26 of the report it is asserted that:
- "Since the soil in the area is slow draining and the hydraulic capacity will be greatly reduced during wet weather events, the required irrigation area or storage volume would be very large and uneconomic."*
235. The report then considers four options for various levels of discharge into the harbour, depending on the length of periods when the effluent could be disposed of to the 32 hectares land disposal site identified.
236. In our assessment this illustrates a misunderstanding of the cultural issue underlying the investigation. As explained by iwi representatives at the hearing, it is not a question of reducing discharges into the harbour with proportionate appeasement of the cultural concern. Any discharge of human effluent into the harbour is offensive.
237. The detailed evaluation of standards and methods of land treatment in the report also seem to us to be almost beside the point. If the purpose of land disposal is to address the cultural concern, it is not necessary to ensure that every litre of effluent is contained within the land disposal area. The important thing is that even the highly treated effluent from the proposed WWTP passes through land and is symbolically (and actually) further purified. If it then filters through to some sort of wetland draining into a watercourse and then to the harbour, the cultural concern would still be met.
238. The application and the applicant's evidence discussed the following alternatives:
- (a) Trucking of the untreated sewage to the Christchurch Waste Water Treatment Plant at Bromley at an annual estimated cost of \$3.5 million. Stormwater inundation and increased flows during periods of wet weather might increase the logistical difficulties and costs of this alternative.
 - (b) Discharging on outgoing tides. This would not address the issue of the discharging of treated human waste into the marine environment.
 - (c) Discharging through a much longer outfall pipe, reaching out beyond the heads. This is estimated to be prohibitively expensive.
 - (c) Application of effluent on the Council owned golf course at Duvauchelle. This might be a feasible option to replace the harbour discharge from the Duvauchelle treatment plant when the consent for that discharge expires in eight years' time, but the golf course probably does not have sufficient area to take the Akaroa wastewater at well.
 - (d) Irrigation to the 32 hectares of irrigable land identified in the options report discussed above, or to similar land.

239. In relation to this last option, Ms Lynch noted at the hearing that in her opinion the land based options presented by the applicant are *“a snap-shot in time and may not give a true indication of the potentially suitable land area for irrigation at the two sites studied”*. We agree. While it is not our role to suggest or evaluate other alternatives, we can observe that within a radius of the WWTP the same as the length of the proposed outfall pipe (3.7 kilometres) there are over two thousand hectares of land. Until a wider investigation is undertaken it cannot be said that land disposal has been investigated and is not feasible or economic. Options might include buying a farm, installing a low density effluent disposal system over a large area, and re-selling the farm with appropriate easements and caveats.

Objectives and Policies in Statutory Documents

New Zealand Coastal Policy Statement (NZCPS)

240. The NZCPS sets out policies to address use and development within the Coastal Marine Area. Section 104 requires us to *“have regard to”* the NZCPS when determining resource consent applications.
241. Objective 1 of the NZCPS seeks to *‘safeguard the integrity, form, functioning and resilience of the coastal environment and sustain its ecosystems, including marine and intertidal areas, estuaries, dunes and land by:*
- (a) *Maintaining or enhancing natural biological and physical processes in the coastal environment recognising their dynamic, complex and interdependent nature;*
 - (b) *Protecting representative or significant natural ecosystems and sites of biological importance and maintaining the diversity of New Zealand’s indigenous coastal flora and fauna; and*
 - (c) *Maintaining coastal water quality and enhancing it where it has deteriorated from what would otherwise be its natural condition, with significant adverse effects on ecology and habitat, because of discharges associated with human activity.’*
242. In our assessment (c) is most relevant here. Water quality in Akaroa Harbour, although generally good, has deteriorated from its natural condition so the NZCPS promotes enhancing it. The proposal before us would enhance water quality, although arguably because the objective relates to the future the comparison should not be present water quality but the quality after the existing short term discharge consent expires. The proposal is not expected to conflict with (a) or (b).
243. Objective 3 of the NZCPS states *‘to take account of the principles of the Treaty of Waitangi, recognise the role of tangata whenua as kaitiaki and provide for tangata whenua involvement in management of the coastal environment by:*
- (a) *Recognising the ongoing and enduring relationship of tangata whenua over their lands, rohe and resources;*
 - (b) *Promoting meaningful relationships and interactions between tangata whenua and persons exercising functions and powers under the Act;*

- (c) *Incorporating mātauranga Māori into sustainable management practise; and*
 - (d) *Recognising and protecting characteristics of the coastal environment that are of special value to tangata whenua.'*
244. Policy 2 under this objective elaborates by stating: *'in taking account of the principles of the Treaty of Waitangi (Te Tiriti of Waitangi), and kaitiakitanga, in relation to the coastal environment:*
- (a) *Recognise that tangata whenua have traditional and continuing cultural relationships with areas of the coastal environment, including places where they lived and fished for generations;...*
 - (c) *With the consent of tangata whenua and as far as practicable in accordance with tikanga Māori, incorporate mātauranga Māori in... the consideration of applications for resource consents...;*
 - (d) *Provide opportunities in appropriate circumstances for Māori involvement in decision making...*
 - (e) *Take into account any relevant iwi resource management plan and any other relevant planning document recognised by the appropriate iwi authority or hapū...;*
 - (f) *Provide for opportunities for tangata whenua to exercise kaitiakitanga over waters, forests, lands and fisheries in the coastal environment...;*
245. We consider that the applicant has recognised the role of Ngāi Tahu as kaitiaki, and the principles of the Treaty of Waitangi through their work with the Akaroa Community Working Party, the consultation undertaken prior to lodging the consent, and the assessment of the potential effects of the proposal on cultural values. The applicant has recognised the importance of the Akaroa Harbour to Ngāi Tahu and have taken into account the MIMP (although dismissing the thrust of the MIMP against harbour outfalls because *"...there are no realistic or viable land based options"* - see Appendix K to the application).
246. The question though is whether consultation and acknowledgement is sufficient to fulfil the intentions of Objective 3 of the NZCPS and Policy 2 under that Objective. The applicant's case is that the acknowledged adverse cultural effect of discharging into the harbour *"...cannot currently be reasonably avoided, remedied or mitigated any more than what is proposed in the application."* In our assessment the evidence does not prove that, because as discussed above the Council's investigation of land disposal was constrained from the start by the chosen assumptions. The only evidence about the feasibility of land disposal we have relates to a small area. There may be other options for land disposal and until those are investigated we consider the proposal has to be regarded as possibly in conflict with Objective 3 of the NZCPS and Policy 2 under that Objective.
247. Objective 4 of the NZCPS relates to public access to the Coastal Marine Area. The outfall pipe and discharge are not expected to interfere with public access except that fishing and bathing would be discouraged in the mixing zone near the outfall.
248. Objective 6 of the NZCPS recognises the CMA is a resource. Clause (b) recognises:

- (b) *Some uses and developments which depend upon the use of natural and physical resources in the coastal environment are important to the social, economic and cultural wellbeing of people and communities;*
249. Water bodies have traditionally been used for disposal of effluent, and this clause can be viewed as providing some support to this application.
250. Policy 8 of the NZCPS concerns aquaculture, it states '*recognise the significant existing and potential contribution of aquaculture to the social, economic and cultural wellbeing of people and communities by...*':
251. Although the application assessment of environmental effects stated that that the proposed discharge would not adversely affect aquaculture (or any other kind of fishing), submissions were received from Mr Higgins of Kono Seafoods and the Pāua 3 Industry Association expressing concerns about the impacts of the discharge on aquaculture. Ms Dawson recommended a condition that requires the applicant to notify the marine farm operator at Mat Wight Bay when bypass flows occur based on the advice from Dr McBride and Dr Bolton-Ritchie that some risk to human health from consuming raw shellfish exists at a site three kilometres from the discharge point.
252. Policy 13 of the NZCPS is "*to preserve the natural character of the coastal environment and to protect it from inappropriate subdivision, use and development*" Although the structures required for the outfall would not be conspicuous, signage that might be required at boat ramps would draw attention to something that would undermine the natural character of the Akaroa harbour.
253. Policy 21 of the NZCPS states '*where the quality of water in the coastal environment has deteriorated so that it is having a significant adverse effect on ecosystems, natural habitats, or water based recreational activities, or is restricting existing uses, such as aquaculture, shellfish gathering, and cultural activities, give priority to improving quality by...*
- c) where practicable, restoring water quality to at least a state that can support such activities and ecosystems and natural habitats;..."*
- The existing outfall has reduced water quality in the vicinity of the outfall, so improving that water quality would support this policy.
254. Policy 23(1) of the NZCPS states '*in managing discharges to water in the coastal environment, have particular regard to:*
- a) *the sensitivity of the receiving environment; and*
 - 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; and*
 - c) *the capacity of the receiving environment to assimilate the contaminants; and*
 - d) *avoid significant adverse effects on ecosystems and habitats are reasonable mixing; and*

- e) *use the smallest mixing zone necessary to achieve the required water quality in the receiving environment; and*
 - f) *minimise adverse effects on the life-supporting capacity of water.'*
255. The applicant has had regard to these considerations.
256. Policy 23(2) of the NZCPS states '*In managing the discharge of human sewage, do not allow:*
- a) *discharge of human sewage directly to water in the coastal environment without treatment; and*
 - b) *the discharge of treated human sewage to water in the coastal environment, unless:*
 - i) *there has been adequate consideration of alternative methods, sites and route for undertaking the discharge; and*
 - ii) *informed by an understanding of tangata whenua values and the effects on them.*
257. This is a clear direction that discharge of human waste into the CMA is appropriate only where there has been adequate consideration of alternatives, and by implication there are reasons for those alternatives being rejected. As discussed above under the heading of Consideration of Alternatives, we are not satisfied that the alternative of land disposal has been adequately assessed, so we consider the proposal is contrary to this policy.

Canterbury Regional Policy Statement 2013

258. The Canterbury Regional Policy Statement 2013 (RPS) provides an overview of the significant resource management issues facing the Canterbury Region. Its purpose is to set out objectives, policies and methods to resolve those resource management issues and to achieve integrated management of the natural and physical resources of Canterbury.

Chapter 5: Land-use and infrastructure

259. Policy 5.3.6 states:
- 'Within the wider region:...*
- (2) Enable sewerage, stormwater and potable water infrastructure to be developed and used, provided that, as a result of its location and design:*
- (a) the adverse effects on significant natural and physical resources are avoided, or where this is not practicable, mitigated; and*
 - (b) other adverse effects on the environment are appropriately controlled...*
260. At first sight this policy supports the application, but the provisos clearly indicate that adverse effects have to be avoided, and if this is not practicable, mitigated. There is no dispute that the proposed outfall would have a significant adverse effect

on the harbour, as that resource is perceived by local iwi. Again, the question is whether alternatives have been shown to be not practical.

Chapter 8: The coastal environment

261. Objective 8.2.4 seeks to preserve, protect or enhance the coastal environment:

'In relation to the coastal environment:

(1) Its natural character is preserved and protected from inappropriate subdivision, use and development; and

(2) Its natural, ecological, cultural, amenity, recreational and historic heritage values are restored or enhanced.

Policy 8.3.4 states:

'to preserve and restore the natural character of the coastal environment by:

262. As discussed above in relation to similar concerns in the New Zealand Coastal Policy Statement, an outfall structure and a discharge of effluent could only undermine the natural character of the harbour, although that effect would be mitigated by the structure not being obvious. We see the proposal as in conflict with the objective of restoring and enhancing cultural values associated with this area of coastal environment.

263. Objective 8.2.5 seeks to provide access:

'Maintenance and enhancement of appropriate public and Ngāi Tahu access to and along the coastal marine area to enhance recreational opportunities and to enhance the ability of Ngāi Tahu as tāngata whenua to access kaimoana and exercise tikanga Māori.'

Policy 8.3.5 states:

'To maintain and enhance public and Ngāi Tahu access to and along the coastal marine area, subject to:

(1) protecting public health and safety....'

264. If this objective is referring only to physical access, the proposal would create no conflict because physical access would be impeded only during the construction phase. If the intent is to encompass the cultural dimension of access to kaimoana and the exercise of tikanga Māori however, there would be a direct conflict created by disposing of human effluent into a water body of particular significance.

265. Objective 8.2.6 seeks to protect and improve coastal water:

'Protection of coastal water quality and associated values of the coastal environment, from significant adverse effects of the point and non-point discharge of contaminants; and enhancement of coastal water quality where it has been degraded.'

Policy 8.3.7 states:

'To improve the quality of Canterbury's coastal waters in area where degraded water quality has significant adverse effects on natural, cultural, amenity and recreational values'.

Policy 8.3.9 states:

'To ensure that human sewage is not discharged directly into the coastal marine area without treatment and where:

(1) alternative methods, sites and route for undertaking the discharges have been considered; and

(2) There has been consultation with Ngāi Tahu as tāngata whenua and particular regard had for their value and the effect of discharges on those values;

The human sewage is treated in a manner appropriate to the receiving environment.

266. In our assessment the outfall proposal is in direct conflict with this objective and parts of these policies. The coastal water concerned would not be protected from a significant adverse effect. Again, there is a clear directive to properly investigate alternatives to disposing of effluent into coastal water.

Regional Coastal Environment Plan

267. The purpose of the Regional Coastal Environment Plan is to *'promote the sustainable management of the natural and physical resources of the Coastal Marine Area and the coastal environment and to promote the integrated management of that environment. In particular, the Plan sets out the issues relating to:*

(i) protection and enhancement of the coast;

(ii) water quality;

(iii) controls on activities and structures; and

(iv) coastal hazards'

Chapter 6: Natural Character and Appropriate Use of the Coastal Environment

268. Objective 6.1 seeks to protect and where appropriate enhance areas, sites and habitats of high natural, physical, heritage or cultural value. The many components of the objective, and the associated policies are wide-ranging and general. We accept that although the proposed outfall could not promote natural character, any conflicts with the matters listed would be minor.

Chapter 7: Coastal Water Quality

269. Objective 7.1 seeks to enable present and future generations to gain cultural, social, recreational, economic, health and other benefits from the quality of water in the Coastal Marine Area, while:

'(a) Maintaining the overall existing high natural water quality of coastal waters;

(b) Safeguarding the life-supporting capacity of the water, including its associated: aquatic ecosystems, significant habitats of indigenous fauna and areas of significant indigenous vegetation;

(c) Safeguarding, and where appropriate, enhancing its value for providing mahinga kai for Tangata Whenua;

(d) Protecting wāhi tapu and wāhi taonga of value to Tangata Whenua; and

(g) Recognising the intrinsic values of ecosystems and any finite characteristics of the coastal environment.'

270. The outfall proposal would be in direct conflict with (c) and (d) above.

271. Policy 7.2 states:

'Establish water quality classes, 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:..

(b) The water quality in the following areas will be classified as water managed for contact recreation and for the maintenance of aquatic ecosystems, and the water quality maintained and where necessary improved for these purposes:...

(vi) Childrens Bay, Takamatua Bay, Robinsons Bay, Duvauchelle Bay, Barrys Bay and French Farm Bay in Akaroa Harbour;...

(c) The water quality in the following areas will be classified as water managed for shellfish gathering, for contact recreation and for the maintenance of aquatic ecosystems, and the water quality maintained and where necessary improved for these purposes:...

(viii) Akaroa Harbour excluding the Bays in (b) (vi) above...;'

272. The level of treatment proposed has been designed to maintain these standards.

273. Policy 7.5 states:

'Only grant a resource consent to discharge human sewage into water, or onto or into land in the Coastal Marine Area, without it passing through land or a specially constructed wetland outside the Coastal Marine Area, where:

(a) The discharge better meets the purpose of the Act than disposal through land or a wetland outside the Coastal Marine Area; and

(b) There has been consultation by the applicant with Tangata Whenua in accordance with Tikanga Māori and due weight has been given to sections 6, 7 and 8 of the Act; and

(c) There has been consultation by the applicant with the community generally; and

(d) The discharge is not within an Area of Significant Natural Value, unless the applicant satisfies Environment Canterbury that exceptional circumstances justify the discharge in such an area.'

274. This policy specifically recognises the cultural preference that human effluent passes through land (including a constructed wetland) before entering coastal water, and again emphasises the importance of considering alternatives.

275. Policy 7.7 states:

'Ensure that discharges of water or contaminants into water, or onto or into land in 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 mātaītai), of special significance to the Tangata Whenua.'

276. The evidence was that Akaroa Harbour is of special significance to Tangata Whenua and that an outfall would have significant adverse effects on cultural and spiritual values. In these circumstances the policy is that the discharge should be avoided.

Chapter 8: Activities and Occupation in the Coastal Marine Area

277. Objective 8.1 seeks to enable people to use the CMA and its resources while avoiding, remedying or mitigating adverse effects:

'a) of conflicts between these uses and people's well-being, health, safety and amenity; and

b) on natural character, and other (natural, ecological, amenity, Tangata Whenua, historic and cultural) values of the coastal environment...'

278. This objective reiterates the importance of avoiding, remedying or mitigating adverse effects of activities such as the proposed outfall on values such as cultural values.

279. Policy 8.3 states:

'In considering applications for resource consents to undertake activities in the Coastal Marine Area, Environment Canterbury will have regard to:

a) the existing level of use and development in the area and the national priority in the New Zealand Coastal Policy Statement to preserve the natural character of the coastal environment; and

b) the need to protect characteristics of the coastal environment of special value to Tangata Whenua; and

c) effects on the public use and enjoyment of the coast, including public access to and along the Coastal Marine Area, and the contribution of open space to the amenity value of the coast...

280. Policy 8.5 states:

'In considering applications for resource consents to occupy the Coastal Marine Area, Environment Canterbury should:

f) have regard to any adverse effects on the cultural, historic, scenic, amenity, Tangata Whenua, and natural values of the area; and

- g) *have regard to available alternative sites and the reasons for the applicant's choice of the site;*

281. Policy 8.15 states:

'(1) Areas of Banks Peninsula listed in Schedule 5.13 and Areas of Significant Natural Value should be maintained in their present natural states; free of additional structures, including marine farms; unless it can be established for those areas that the structures and their use will have no more than minor adverse effects on:

(a) the natural character of the area including its overall landscape and seascape; and

(b) the marine, foreshore and seabed ecology; and

(c) the water quality; and

(d) the use of enjoyment of the area by recreational, tourist or other users of the marine environment who do not require authorisations for exclusive occupancy.

(2) Exceptions to (1) should only be made for:...

(b) intake or outfall structures;...'

282. Schedule 5.13 maps all of Akaroa Harbour as an area to be maintained in its present natural state, free of additional structures, but the policy makes an exception for intake and outfall structures.

Natural Resources Regional Plan

283. The Natural Resources Regional Plan (NRRP) is the current operative regional plan for Canterbury. The objectives and policies for water quality appear to relate to freshwater, not marine water.

Proposed Land and Water Regional Plan

284. The purpose of the Proposed Land and water Regional Plan is to identify the resource management outcomes or goals for managing land and water resources in Canterbury to achieve the purpose of the Resource Management Act 1991.

285. Objective 3.1 is:

'Land and water are managed as integrated natural resource to recognise and enable Ngāi Tahu culture, traditions, customary uses and relationships with land and water.'

286. Objective 3.2 is:

'Water management applies the ethic of ki uta ki tai-from the mountains to the sea-and land and water are managed as integrated natural resources, recognising the

connectivity between surface water and groundwater, and between fresh water, land and the coast.

Mahaanui Iwi Management Plan

287. Although the Mahaanui Iwi Management Plan is not a statutory document we have had regard to it as an "other matter" under section 104 of the Act. A report forming Appendix K of the application analyses the Plan and comes to the conclusion that the proposed outfall would be contrary to the Plan. We agree - the Plan specifically opposes any discharge of human waste into Akaroa Harbour.

Assessment

288. There is a strong policy theme running through all these statutory documents that disposal of even highly treated human effluent into the Coastal Marine Area is no longer to be regarded as a good option. Rather it is to be regarded as an option that may be necessary in some circumstances after other options have been thoroughly investigated. This theme is firmly based on the imperatives in section 6(e), section 7(a), section 7(aa) and section 8 of the Act, which give specific statutory recognition of Māori cultural concerns
289. The documents provide very little support for disposal of effluent into the marine environment to balance this contrary theme. In some cases the objectives and policies list standards and processes which this application would meet, but that is not the same as providing positive support for an application of this kind.
290. The non-complying status of the outfall proposal in this case also gives reason for caution. There is no dispute that the proposal would have a significant adverse effect on the environment from the perspective of tangata whenua, so we are in no doubt that the outfall component of this proposal cannot pass the first of the threshold tests in section 104D of the Act. We are satisfied however that because the relevant plans for the purpose of section 104D (the Natural Resources Regional Plan and the Proposed Land and Water Regional Plan) cover a wide range of matters, the outfall component of the proposal would not be "contrary to" the objectives and policies of those plans in an overall sense.

DECISIONS AND CONDITIONS

291. We have come to the clear conclusion that consents for the three of the four components of the application should be granted. They are:
the Drainage Network Changes
the Terminal Pump Station, and
the Waste Water Treatment Plant
- In our assessment the benefits of these structures and activities as part of an upgrade of the Akaroa wastewater treatment and disposal system outweigh the adverse environmental effects of these components such as odour, which can be adequately mitigated by the design, reinforced by conditions.
292. In our assessment the fourth component of the application, the Outfall to Akaroa Harbour would not meet the purpose of the Act. As discussed above, the stumbling block for this component is the inadequate consideration of alternatives, which brings it into conflict with several Part 2 of the Act matters, section 105(1)(c) of the Act, and numerous objectives and policies in relevant statutory policy statements and plans.
293. We have not given much weight to the argument that the proposed outfall would be an improvement on what is happening at the moment. Mr Bourke referred to *"taking steps in the right direction"*. That argument assumes the existing treatment plant, and the existing outfall could continue to operate. In fact their consents would have already expired had they not been extended for a few years specifically to allow time for investigation of alternatives. The existing situation does not provide any sort of permitted baseline for comparison.
294. We have also considered whether a short term consent for the outfall would provide an incentive for the consent holder to change to a land disposal option in the medium term. The difficulty with that is the sunk cost of the pipeline. We were not given any estimate of the cost but it must be considerable. Cost represents the use of real resources with alternative uses. In our assessment, efficient use of resources as promoted by section 7(b) of the Act requires an investigation of whether land disposal, possibly involving some sort of wetland, is technically feasible and how the cost would compare to the likely cost of the proposed outfall.
295. The evidence from Mr Offer, Mr Bourke, and others indicated that, as can be expected with a project of this size, there is a considerable amount of further design work to be done. The applicant's project planning allows for that, and construction, before the current consents expire in 2020. We believe there is also time to investigate a land based fourth component for the scheme, and if feasible also construct that before 2020.

For the reasons set out in this decision, consents are hereby granted under sections 104, 104B and 104D of the Act for the three components of the proposal listed above, subject to the conditions set out below, imposed under section 108.



David W. Collins

Hearings Commissioner



Hoani Langsbury

Hearings Commissioner

9 July 2015

CRC150046-A water permit to take groundwater for dewatering purposes during the construction of the Terminal Pump Station and during trenching works to install a new reticulated wastewater pipeline.

LIMITS

1. This consent authorises the taking of groundwater for dewatering purposes during the installation of wastewater mains and construction of the Terminal Pump Station as part of the Akaroa Wastewater Network located at or about map reference Topo50 BY25:9746-5023, Lot 1 DP 79110, Jubilee Park, Akaroa as shown on Plan CRC150046A, which forms part of this consent.

PRIOR TO WORKS

2. At least one month prior to commencing site construction, the Consent Holder shall submit a Construction Management Plan (CMP) for dewatering along with the CMP required by CRC152814 to the Canterbury Regional Council, Attention: RMA Monitoring and Compliance Manager. The CMP shall contain the following:
 - a. The methodology for dewatering, including:
 - i. A map showing the location of any wells 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; and
 - c. A report from a suitably qualified ecologist or surface water scientist that:
 - i. Identifies the minimum flow levels for Grehan Stream North and South Branch that will ensure compliance with Condition 6.b.; and
 - ii. A monitoring programme that specifies how the limit determined in accordance with Condition 2.c.i. will be monitored.
3. The CMP may be amended at any time. Any amendments shall be:
 - a. Only for the purpose of improving the efficacy of dewatering; and
 - b. Consistent with the conditions of this resource consent; and
 - c. Submitted in writing to the Canterbury Regional Council, Attention: RMA Monitoring and Compliance Manager, prior to any amendment being implemented.
4. At least five working days prior to the commencement of dewatering, the Consent Holder shall inform the Canterbury Regional Council, Attention: RMA Monitoring and Compliance Manager, in writing of the start date of works.
5. 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 CMP.

DURING WORKS

6. The dewatering operation shall:

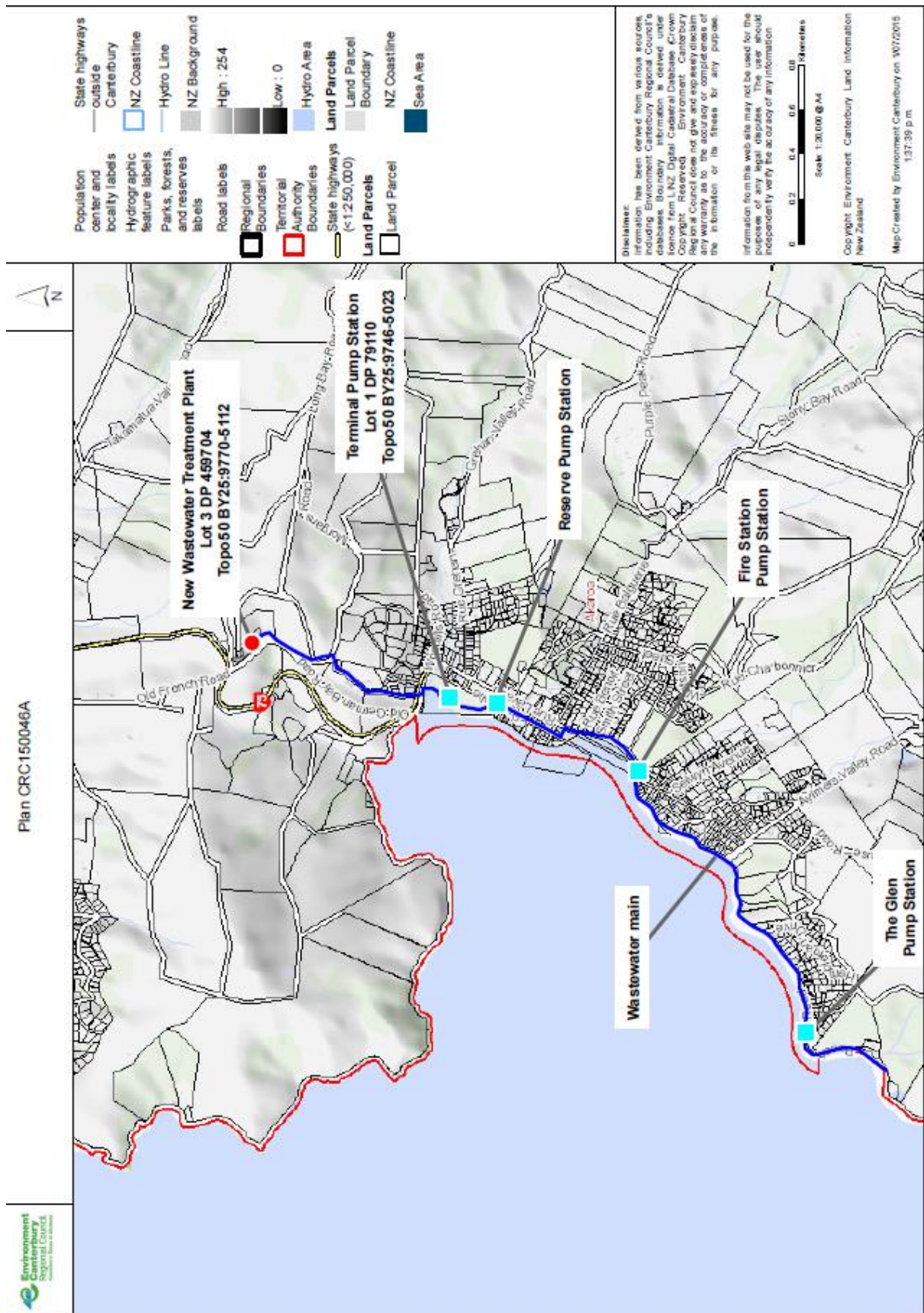
- a. Be limited to that reasonably necessary to lower and sustain the level of groundwater to no more than 0.5 metres below the deepest excavation;
- b. Not restrict fish passage, fish spawning or cause any adverse effects on stream health;
- c. Not reduce stream flow levels below that determined in accordance with Condition 2.c; and
- d. Not, in combination with other takes, cause ground subsidence.

ADMINISTRATION

- 7. The Canterbury Regional Council may, on any of the last five working days of May or November, serve notice pursuant to section 128 of the Resource Management Act 1991 of its intention to review the conditions of this consent for the purpose of:
 - a. Dealing with any adverse effects on the environment which 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 the Consent Holder to carry out monitoring and reporting instead of, or in addition to, that required by the consent; or
 - d. Complying with a relevant rule in an operative regional plan; or
 - e. Taking into account any Act of Parliament, Regulation, National Policy Statement, Regional Policy Statement or relevant regional plan which relates to limiting, record or mitigating the take of water authorised by this consent.
- 8. The lapse date for the purposes of section 125 of the Resource Management Act 1991 shall be 30 September 2020.
- 9. The duration of this consent is five years from the date of commencement.

Advice Note: Dewatering water from Lot 1 DP 79110 shall be discharged to the existing reticulated sewer network.

If dewatering is required along other parts of the pipeline works, a separate consent may be required for the take and discharge of dewatering water or the relevant regional rules must be complied with.



CRC150049- A discharge permit to discharge contaminants (odour) to air from pump stations.

LIMITS

1. The discharge to air shall be only odour associated with:
 - a. The operation of the pump station that serves 281 Beach Road at or about map reference Topo50 BY25:9587-4836; and
 - b. The Terminal Pump Station and associated infrastructure at or about map reference Topo50 BY25:9746-5023;for the Akaroa Wastewater Scheme as shown on Plan CRC150049A and Plan CRC150049B, which form part of this consent.
2. There shall be no discharge of odours as a result of the exercise of this consent that is offensive or objectionable to the extent that it causes an adverse effect beyond the pump station that serves 281 Beach Road.
3. There shall be no discharge of odours from the Terminal Pump Station building and associated biofilter as a result of the exercise of this consent that is readily detectable by the general public at a distance of 25 metres or more from any part of the building or biofilter during normal operation. For the purpose of this condition "normal operation" does not include periods when maintenance is being carried out, in particular the periods when the grit and screenings are being removed.

PRIOR TO DISCHARGE

4. The Consent Holder shall prepare and implement an Odour Management Plan (OMP) for the Terminal Pump Station which shall be incorporated into the Akaroa Wastewater Treatment Plant Operations and Management Manual. The OMP shall outline how the conditions of this consent will be complied with and include, but not be limited to the following:
 - a. A description of odour sources on site;
 - b. A description of the housekeeping procedures to be used at the site;
 - c. The methods for controlling odour at each source;
 - d. A description of the inspection and maintenance procedures for all odour containment and ventilation systems including the biofilter;
 - e. Contingency methods for plant malfunctions;
 - f. Testing and maintenance procedures for the standby generator;
 - g. A description of the odour monitoring requirements;
 - h. A system of training for employees and contractors to make them aware of the requirements of the OMP;
 - i. Identification of staff responsible for implementing and reviewing the OMP; and
 - j. A method for recording and responding to complaints from the public.

5. The OMP shall be provided to the Canterbury Regional Council, Attention: RMA Monitoring and Compliance Manager at least one month prior to the exercise of the consent.
6. The OMP may be amended at any time. Any amendments shall be submitted in writing to the Canterbury Regional Council, Attention: RMA Monitoring and Compliance Manager prior to any amendment being implemented.
7. At least one month prior to the exercise of this consent, the Consent Holder shall provide to the Canterbury Regional Council, Attention: RMA Monitoring and Compliance Manager the design plans for the biofilter required by Condition 8.

DESIGN, MONITORING AND MAINTENANCE

8. The following equipment at the Terminal Pump Station shall be fully enclosed and all waste gases extracted via a fan and ventilation system to a bark biofilter:
 - a. Wet well;
 - b. Screens; and
 - c. Grit trap and bagging system.
9. Air extraction shall be sufficient to ensure that the air pressure within the Terminal Pump Station building is negative with respect to outside air pressure when the doors of the building are closed.
10. The biofilter required by Condition 8. shall be designed, operated and maintained to ensure compliance with Condition 3. at all times. The design, maintenance and operation shall include but not be limited to:
 - d. Ensuring waste gases are well dispersed throughout the filter bed;
 - e. Maintaining the biofilter bed in a friable condition with a pressure drop of no greater than 200 millimetres water gauge;
 - f. Installing a manometer or other means of pressure management system to provide a permanent indication of pressure drop across the biofilter bed;
 - g. Maintaining the moisture content of the biofilter bed between 40 percent and 60 percent by weight;
 - h. Measuring and recording the moisture content of the biofilter on a monthly basis;
 - i. Maintaining the pH of the biofilter bed to between 6.0 and 8.0 inclusive at all times;
 - j. Measuring and recording the pH of the biofilter bed at least once every three months.
11. During normal operation the fan required by Condition 8. shall be sized and operated to ensure that a negative pressure is maintained in the ventilation system.

COMPLAINTS

12. The Consent Holder shall keep a record of any complaints about odours from the Pump Station that serves 281 Beach Road and the Terminal Pump Station, and shall include (when provided with that information):

- a. The location where the odour was detected by the complainant;
- b. The date and time the odour was detected;
- c. A description of the wind speed and wind direction when the odour was detected by the complainant;
- d. The most likely cause of the odour detected; and
- e. Any corrective action undertaken to avoid, remedy or mitigate the odour detected.

The record shall be provided to Canterbury Regional Council, Attention: RMA Monitoring and Compliance Manager in accordance with Condition 12. and on request.

REPORTING

13. The Consent Holder shall, no later than the 30th of September each year provide an Annual Environmental Report for the period of 1 July to 30 June to the Canterbury Regional Council, Attention: RMA Monitoring and Compliance Manager setting out all monitoring and reporting results required by the conditions of this consent, and including complaints received over the previous year.

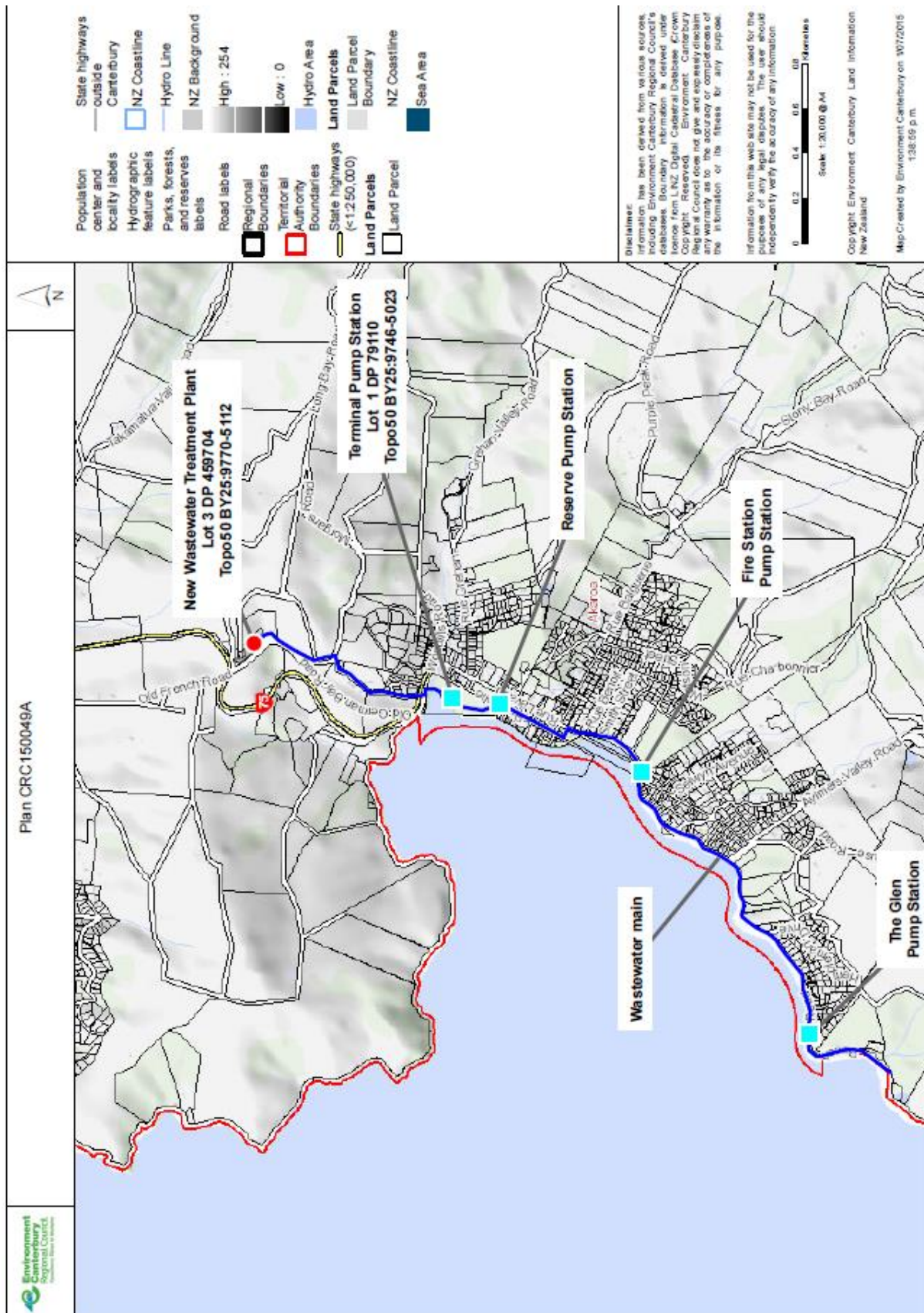
ADMINISTRATION

14. The Canterbury Regional Council may, on any of the last five working days of May or November, serve notice pursuant to section 128 of the Resource Management Act 1991 of its intention to review the conditions of this consent for the purpose of:

- a. Dealing with any adverse effects on the environment which 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 the Consent Holder to carry out monitoring and reporting instead of, or in addition to, that required by the consent; or
- d. Complying with a relevant rule in an operative regional plan; or
- e. Taking into account any Act of Parliament, Regulation, National Policy Statement, Regional Policy Statement or relevant regional plan which relates to limiting, record or mitigating the discharges to air authorised by this consent.

14. The lapse date for the purposes of section 125 of the Resource Management Act 1991 shall be 30 September 2020.

15. The duration of this consent is 35 years from the date of commencement.





CRC150050-A discharge permit to discharge contaminants (odour) to air from the Wastewater Treatment Plant and a land use consent to use land to store effluent.

LIMITS

1. The activities authorised by this consent shall be limited to:
 - a. The discharge of odour to air; and
 - b. The use of land for the storage of wastewater, rainfall that has entered the storage facility and stormwater that has infiltrated the wastewater network;

associated with the operation of the Akaroa Wastewater Treatment Plant, located at or about map reference Topo50 BY25:9770-5112, Lot 3 DP 459704 as shown on Plan CRC150050A and Plan CRC150050B, which form part of this consent.

2. At the Wastewater Treatment Plant, the volumes of wastewater, rainfall that has entered the storage facility and stormwater that has infiltrated the wastewater network shall not exceed 1500 cubic metres at any time.
3.
 - a. There shall be no discharge of odours as a result of the exercise of this consent that is offensive or objectionable to the extent that it causes an adverse effect beyond the boundary of the Wastewater Treatment Plant site.
 - b. There shall be no discharge of odours as a result of the exercise of this consent that is readily detectable by the public at any residence existing at the date of this consent during normal operation of the Wastewater Treatment Plant.

For the purpose of this condition "normal operation" does not include periods of regular maintenance.

PRIOR TO DISCHARGE

4. The Consent Holder shall prepare and implement an Odour Management Plan (OMP) for the Wastewater Treatment Plant which shall be incorporated into the Akaroa Wastewater Treatment Plant Operation Management Plan. The OMP shall outline how the conditions of the consent will be complied with and include, but not be limited to the following:
 - a. A description of odour sources on site;
 - b. A description of the housekeeping procedures to be used at the site;
 - c. The methods for controlling odour at each source;
 - d. A description of the inspection and maintenance procedures for all odour containment and ventilation systems including the biofilter;
 - e. Contingency methods for plant malfunctions;
 - f. Testing and maintenance procedures for the standby generator;
 - g. A description of the odour monitoring requirements;
 - h. A system of training for employees and contractors to make them aware of the requirements of the OMP;
 - i. Identification of staff responsible for implementing and reviewing the OMP; and
 - j. A method for recording and responding to complaints from the public.

5. The OMP shall be provided to the Canterbury Regional Council, Attention: RMA Monitoring and Compliance Manager at least one month prior to the exercise of the consent.
6. The OMP may be amended at any time. Any amendments shall be submitted in writing to the Canterbury Regional Council, Attention: RMA Monitoring and Compliance Manager prior to any amendment being implemented.
7. At least one month prior to the exercise of the consent, the Consent Holder shall provide to the Canterbury Regional Council, Attention: RMA Monitoring and Compliance Manager the design plans for the biofilter and fan required by Conditions 8. and 9.

DESIGN, MONITORING AND MAINTENANCE

8. The following equipment shall be fully enclosed with air extracted via a fan and ventilation system to a bark biofilter:
 - a. Balance tank;
 - b. Any sludge thickening or dewatering equipment; and
 - c. Sludge storage tank.
9. The biofilter required in accordance with Condition 8. shall be designed, operated and maintained to ensure compliance with Condition 3. at all times. This shall include but not be limited to:
 - a. Ensuring waste gases are well dispersed throughout the filter bed;
 - b. Maintaining the biofilter bed in a friable condition with a pressure drop of no greater than 200 millimetres water gauge;
 - c. Installing a manometer or other means of pressure management system to provide a permanent indication of pressure drop across the biofilter bed;
 - d. Maintaining the moisture content of the biofilter bed between 40 percent and 60 percent by weight;
 - e. Measuring and recording the moisture content of the biofilter on a monthly basis;
 - f. Maintaining the pH of the biofilter bed to between 6 and 8 inclusive at all times;
 - g. Measuring and recording the pH of the biofilter bed at least once every three months.
10. During normal operation the fans required by Condition 8. shall be sized and operated to ensure that a negative pressure is maintained in the ventilation system when the doors of the building are closed.
11. The wastewater shall be stored in the following tanks which shall be designed not to leak:
 - a. Balance tank;
 - b. Activated sludge reactor;
 - c. Membrane tanks; and
 - d. Sludge tank.

12. The storage components referred to in Condition 11. shall be maintained in good structural condition at all times to prevent the leakage of wastewater onto or into land where it may enter water.
13. The storage facility shall be fenced to prevent public access.

COMPLAINTS

14. The Consent Holder shall keep a record of any complaints related to odours from the Wastewater Treatment Plant, and shall include (when provided with that information):
 - a. The location where the odour was detected by the complainant;
 - b. The date and time the odour was detected;
 - c. A description of the wind speed and wind direction when the odour was detected by the complainant;
 - d. The most likely cause of the odour detected; and
 - e. Any corrective action undertaken to avoid, remedy or mitigate the odour detected.

The record shall be provided to Canterbury Regional Council, Attention: RMA Monitoring and Compliance Manager in accordance with Condition 16. and on request.

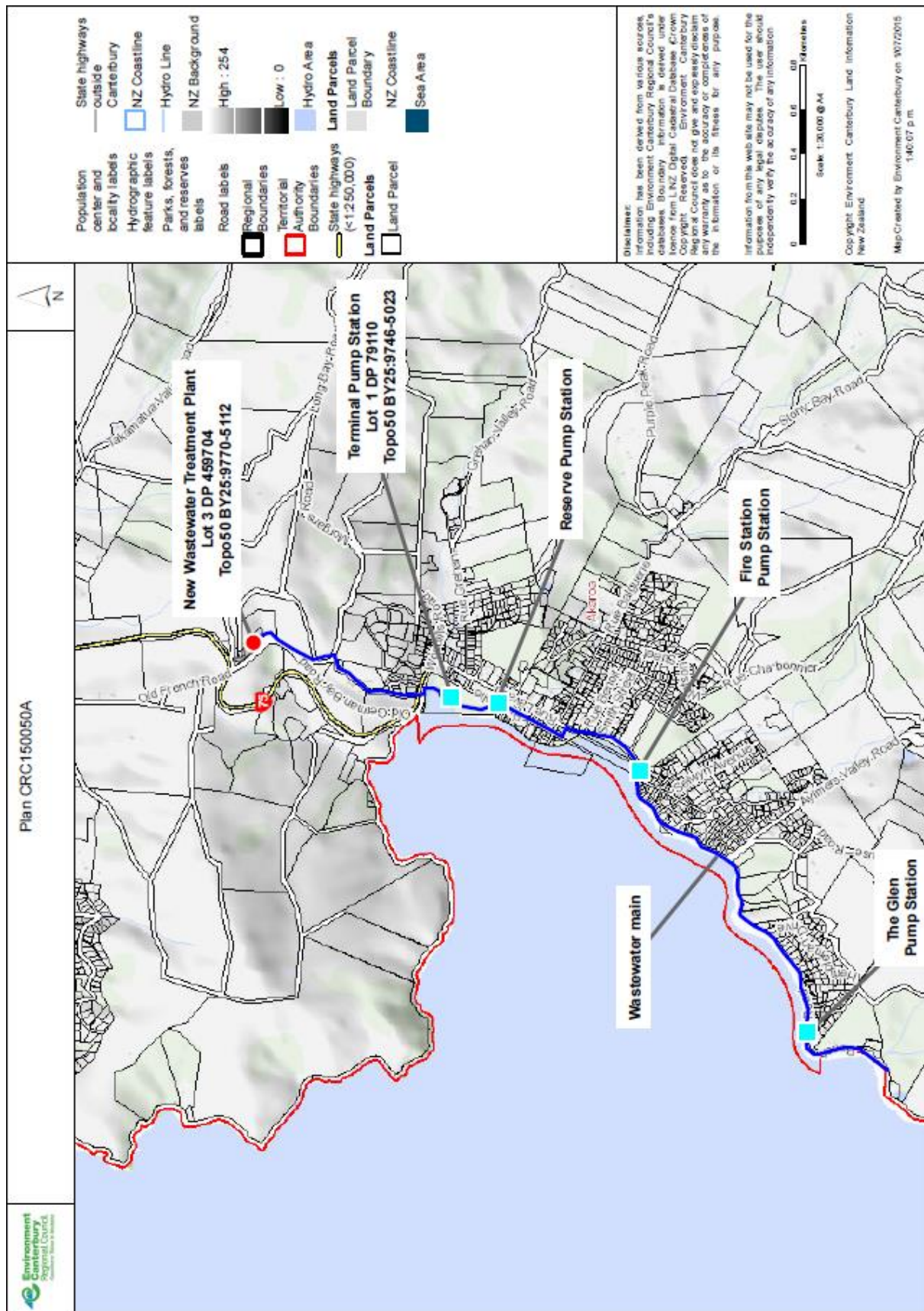
REPORTING

15. The Consent Holder shall, no later than the 30th of September each year provide an Annual Environmental Report to the Canterbury Regional Council, Attention: RMA Monitoring and Compliance Manager setting out all monitoring and reporting results required by conditions of consent including complaints received over the previous year.

ADMINISTRATION

16. The Canterbury Regional Council may, on any of the last five working days of May or November, serve notice pursuant to section 128 of the Resource Management Act 1991 of its intention to review the conditions of this consent for the purpose of:
 - a. Dealing with any adverse effects on the environment which 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 the Consent Holder to carry out monitoring and reporting instead of, or in addition to, that required by the consent; or
 - d. Complying with a relevant rule in an operative regional plan; or
 - e. Taking into account any Act of Parliament, Regulation, National Policy Statement, Regional Policy Statement or relevant regional plan which relates to limiting, recording or mitigating the discharges to air authorised by this consent.

17. The lapse date for the purposes of section 125 of the Resource Management Act 1991 shall be 30 September 2020.
18. The duration of this consent is 35 years from the date of commencement.



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CRC152814- A discharge permit to discharge construction phase stormwater and developed phase stormwater to water.

LIMITS

1. The activity shall be limited to the discharge of:
 - a. Sediment laden stormwater from exposed areas during site works to install new wastewater mains and to construct the Terminal Wastewater Pump Station and Wastewater Treatment Plant; and
 - b. Developed phase stormwater from the Terminal Pump Station and Wastewater Treatment Plant.
2. The discharge of sediment laden stormwater shall occur only from the following locations:
 - a. Within the road reserve along Beach Road, Rue Jolie, State Highway 75 and Old Coach Road;
 - b. Lot 3 DP 459704; and
 - c. Lot 1 DP 79110;as shown on Plan CRC152814A, attached to, and forming part of this consent.
3. Sediment laden stormwater shall be discharged:
 - a. In accordance with the Construction Management Plan (CMP) required by Condition 10.; and
 - b. To the reticulated network or surface water body shown on Plan CRC152814A.
4. The discharge of developed phase stormwater shall only occur from the following locations:
 - a. Lot 3 DP 459704 (Wastewater Treatment Plant);
 - b. Lot 1 DP 79110 (Terminal Pump Station);as shown on Plan CRC152814A, which is attached to, and forms part of this consent.
5. Developed phase stormwater shall be discharged as follows:
 - a. Stormwater from the Terminal Pump Station site shall discharge into Grehan Stream South Branch between map references Topo50 BY25:9746-5022 and Topo50 BY25:9742-5024; and
 - b. Stormwater from the Wastewater Treatment Plant shall discharge to Grehan Stream North Branch via submerged outlet sumps and the existing roadside drainage network on Old Coach Road;as shown on Plan CRC152814A and Plan CRC152814B, which forms part of this consent.
6. The discharge shall not at any time result in:
 - a. The production of oil or grease films;
 - b. The production of floatable or suspended materials; or
 - c. A change in visual clarity of more than 35 percent;in the waterbodies shown on Plan CRC152814A and Plan CRC152814B.
7. The concentration of Total Suspended Solids in any discharge from any construction site or at the boundary of Terminal Pump Station or Wastewater Treatment Plant site shall not exceed 100 milligrams per litre.

PRIOR TO COMMENCEMENT OF WORKS

8. Prior to the works described in Condition 1. the Consent Holder shall ensure that all personnel working on the site are made aware of and have access to this consent document and all associated erosion and sediment control plans and methodology.
9. At least one month prior to commencement of works the Consent Holder or their agent shall arrange and conduct a pre-construction site meeting between the Canterbury Regional Council and all relevant parties, including the primary contractor. At a minimum, the following shall be covered at the meeting:
 - a. Scheduling and staging of the works, including the proposed start date;
 - b. Responsibilities of all relevant parties;
 - c. Contact details for all relevant parties;
 - d. Expectations regarding communication between all relevant parties;
 - e. Procedures for implementing any amendments to construction methodologies or the CMP;
 - f. Site inspection; and
 - g. Confirmation that all relevant parties have copies of the contents of this consent document and all associated erosion and sediment control plans and methodology; and
 - h. Methods for resolution of non-compliance with the conditions of this consent.

CONSTRUCTION MANAGEMENT PLAN

10. At least one month prior to the commencement of construction works, the Consent Holder shall submit to the Canterbury Regional Council, Attention: RMA Monitoring and Compliance Manager a CMP outlining the construction and management practices and procedures to be adopted for sediment laden stormwater to ensure compliance with the conditions of this consent and to minimise the effects of the construction. The Plan shall include but not be limited to:
 - a. A map showing the location of all works;
 - b. Measures to prevent the loss of contaminated soil to surface water including:
 - i. Controls to avoid the loss of contaminated sediment directly to surface water or to the stormwater system;
 - ii. Methods to identify contaminated soil;
 - iii. Stockpiling procedures;
 - iv. Procedures to remove and dispose of contaminated soil to an approved facility.
 - c. The best practical option erosion and sediment control measures that will be undertaken to ensure compliance with this consent. The erosion and sediment control devices shall be selected, designed and installed in accordance with Environment Canterbury's "Erosion and Sediment Control Guidelines for the Canterbury Region" Report No. CRC R06/23, February 2007 (ESGC).

- d. Detailed plans showing the location of sediment control measures and treatment devices, on-site catchment boundaries, sources of runoff and discharge points;
- e. Drawings and specifications of designated sediment control and treatment measures;
- f. A programme of works, which includes but is not limited to, a proposed timeframe for the works;
- g. Inspection and maintenance of the sediment control measures and treatment devices; and
- h. Monitoring procedures and protocols.

11. The CMP may be amended at any time. Any amendments shall be:

- a. Only for the purpose of improving the efficacy of the erosion and sediment control measures and shall not result in reduced discharge quality; and
- b. Consistent with the conditions of this resource consent; and
- c. Submitted in writing to the Canterbury Regional Council, Attention: RMA Monitoring and Compliance Manager, prior to any amendment being implemented.

MONITORING

12. During construction and when a discharge is occurring, the discharge point(s) including that from the reticulated network into the receiving water body shall be visually assessed and observations recorded at least twice a day.

13. If observations undertaken in accordance with Condition 12. indicate a sheen, oil or grease or a decrease in visual clarity, the Consent Holder shall immediately identify and remediate the source of the sheen, oil or grease or reduction in clarity.

SPILLS

14. All practicable measures shall be taken to avoid spills of fuel or any other hazardous substances within the site.

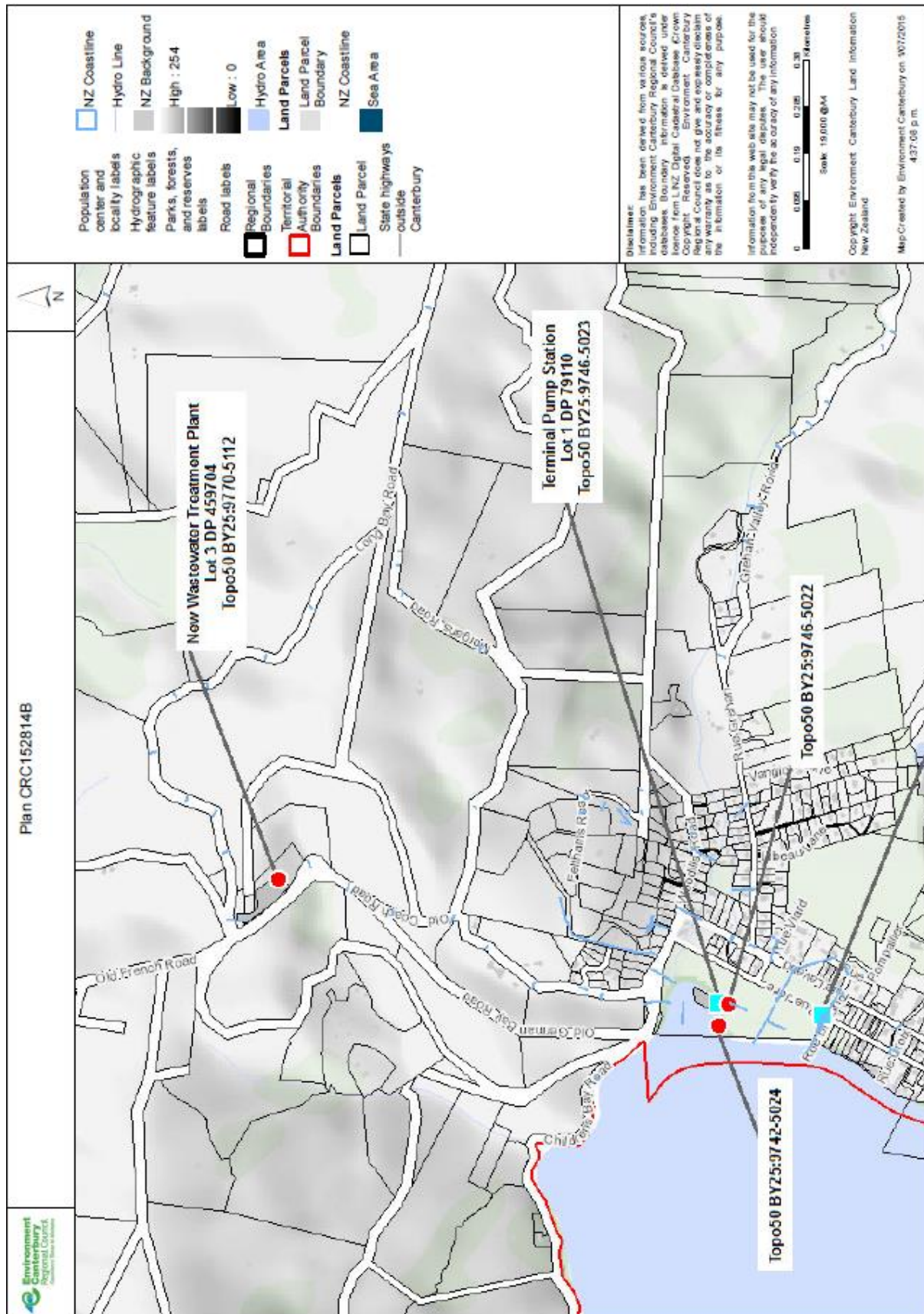
- a. In the event of a spill of fuel or any other hazardous substance, the spill shall be cleaned up as soon as practicable, the stormwater system shall be inspected and cleaned and measures taken to prevent a recurrence;
- b. The Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager, shall be informed within 24 hours of a spill event and the following information provided:
 - i. The date, time, location and estimated volume of the spill;
 - ii. The cause of the spill;
 - iii. The type of hazardous substance(s) 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 a recurrence.

ADMINISTRATION

15. The Canterbury Regional Council may, on any of the last five working days of May or November, serve notice pursuant to section 128 of the Resource Management Act 1991 of its intention to review the conditions of this consent for the purpose of:
 - a. Dealing with any adverse effects on the environment which 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 the Consent Holder to carry out monitoring and reporting instead of, or in addition to, that required by the consent; or
 - d. Complying with a relevant rule in an operative regional plan; or
 - e. Taking into account any Act of Parliament, Regulation, National Policy Statement, Regional Policy Statement or relevant regional plan which relates to limiting, record or mitigating the discharges to water authorised by this consent.
16. The lapse date for the purposes of Section 125 of the Resource Management Act 1991 shall be 30 September 2020.
17. The duration of this consent is 35 years from the date of commencement.

Advice Note: If any stormwater is discharged into the Coastal Marine Area, the conditions of Rule 7.1 of the Regional Coastal Environment Plan must be complied with unless a resource consent has been granted.





LAND USE CONSENT RMA92026256.CONDITIONS

NB As regional consents for the outfall into the harbour have been refused, consent for the associated temporary construction area at Duvauchelle is also refused.

1. Except as required by subsequent conditions the development shall proceed in accordance with the information submitted with the application. The Approved Consent Documentation has been entered into Council records as RMA92026256.

MANAGEMENT PLAN CONDITIONS

2. A Construction Environmental Management Plan (CEMP) shall be prepared outlining the construction activities and all practices and procedures to be adopted in the construction of the project. The CEMP shall include sub-management plans as listed below:
 - 2.1 Traffic Management Plan;
 - 2.2 Erosion and Sediment Control Plan;
 - 2.3 Contaminated Soils Management Plan;
 - 2.4 Hazardous Substances/Spill Contingency Plan.
3. The CEMP in condition (2) shall be certified by an independent, suitably qualified and experienced person(s). Prior to the commencement of works, the Consent Holder shall submit information to the Consent Authority to demonstrate that the proposed certifier of the management plans (required by Condition (3)) is independent, suitably qualified and experienced. If the Consent Authority does not approve the person(s) proposed by the Consent Holder, reasons should be provided to indicate why the person(s) is not considered to be suitable. With the prior agreement of the Consent Authority, the independent certifier may be changed at any stage in the Project.
4. The independent certifier is required to confirm that:
 - 4.1 The CEMP is in general accordance with the requirements of the Draft Construction Environmental Management Plan ("CEMP") and other Management Plans submitted with the application;
 - 4.2 The CEMP addresses any further matters required by conditions of consent; and
 - 4.3 Any changes requested by the certifier have been made before the certification is confirmed.
5. The CEMP listed in condition (2) shall be provided to:

- 5.1 The Resource Consents Manager, Christchurch City Council at least ten (10) working days prior to the commencement of construction of the relevant stage or stages of work.
6. Where the sub- management plan(s) is to be submitted in a staged manner as a result of the staging of construction works, information about the proposed staging shall be submitted as part of the Construction Environmental Management Plan (CEMP).
7. Works shall not proceed until the CEMP and certification described in Condition (3) have been received and acknowledged in writing by the relevant Consent Authority. If written acknowledgement is not provided by the Resource Consents Manager, Christchurch City Council within five (5) working days of the Consent Holder sending the certification, the certification shall be deemed to be confirmed.
8. The Consent Holder may make amendments to the CEMP at any time. Any amendments shall:
 - 8.1 Remain consistent with the intent of the CEMP;
 - 8.2 Not result in the level of environmental protection being decreased;
 - 8.3 Be reviewed by an independent, suitably qualified person with at least five years' experience in the field relevant to the amendments at the request of the Resource Consents Manager, Christchurch City Council.

TERMINAL PUMP STATION

9. That the Terminal Pump Station building be sited so as to be a minimum of 5 metres from the common boundary line with the mini golf course and in general accordance with plan numbered RMA92026256 (Page 336).
10. All existing native trees within the immediate vicinity of the Terminal Pump Station site shall be retained.
11. That native tree and shrub plantings drawn from the list provided on the landscape plan (Sheet 12 of the Landscape Assessment in Appendix M of the application) be installed between the TPS building and the boundary with the mini golf course sufficient to provide a dense visual screening of the building when viewed from the mini golf course.
12. The plantings required in Condition 12 above shall be designed so that taller plantings are located close to the building and shorter plant species closer to the mini golf

course boundary so as to minimise any shading effects. Ideally the plantings should comply, as near as possible, with a 2 metre and 45 degree angle recession plane measured from the boundary.

13. The consent holder shall contact Ōnuku Rūnanga at least four weeks prior to development of the detailed landscape plan and shall invite a representative from Ōnuku Rūnanga to participate in the development of the proposed landscape plan. The consent holder shall provide a copy of the landscape plan to Ōnuku Rūnanga for their review, and shall discuss any proposed amendments from that review with the Rūnanga before the landscape plan is finalised.
14. The consent holder shall liaise on final Terminal Pump Station and Treatment Plant visual design aspects with the Council's urban design staff.
15. That all landscape plantings be in place no later than three months following the completion of the construction works.
16. That all landscape plantings (existing and proposed) be maintained with any dead, damaged or diseased plants being replaced with plants of the same or similar species in the first available growing season.
17. The hours of operation during construction shall be 7:00 am to 6:00 pm weekdays and 8:00 am to 6:00 pm Saturdays, with no work to be undertaken on public holidays and Sundays.

20. *Hoheria populnea* is deleted from the planting list for the road side planting strip and is replaced with *Hoheria angustifolia*.
21. The consent holder shall contact Ōnuku Rūnanga at least four weeks prior to development of the detailed landscape plan and shall invite a representative from Ōnuku Rūnanga to participate in the development of the proposed landscape plan. The consent holder shall provide a copy of the landscape plan to Ōnuku Rūnanga for their review, and shall discuss any proposed amendments from that review with the Rūnanga before the landscape plan is finalised.
22. All gates are to be impermeable to reduce views into the site. Materials to be used should be compatible with the natural characteristics of the site and the proposed plantings, for example, close spaced, stained wooden battens on metal frames.
23. Should vegetation trimming or clearance be required at the site access points which results in increased visibility of the plant buildings then the relevant portions of the perimeter fence shall be made visually impermeable with appropriate natural materials.

hours of the mini golf facility. At the mutual boundary with the mini golf course the noise limit of 55dBA L10 will not be exceeded and the applicant will use all reasonably practicable endeavours to achieve the District Plan daytime limit of 50 dBa L10.

26. All sites must be adequately rehabilitated within three months of the completion of works. Surplus or unsuitable material is to be disposed of away from the site to a Council approved destination and bare surfaces shall be adequately top-soiled and re-vegetated.
27. That the applicant finalise the design of the Terminal Pump Station and Waste Water Treatment Plant buildings by liaising with Council Principal Advisor Urban Design (Josie Schroder) or persons nominated by the same, and that written documentation of that process be provided to the Manager Resource Consents Unit at least 10 working days prior to construction commencing.
28. The Ōnuku Rūnanga be contacted 2 weeks prior to earthworks beginning on site to ensure they have time to arrange cultural monitoring of earthworks on site if necessary.
29. If archaeological material such as koiwi (human skeletal remains), taonga or artefacts (including of European origin) are discovered during the construction of the Terminal Pump Station or the Waste Water Treatment Plant all work that may affect the archaeological material shall cease immediately. Heritage New Zealand shall be contacted in the event of the discovery as well as Te Rūnanga o Ōnuku and / or their representatives and no work within 50 metres of the archaeological material discovered shall be undertaken until the appropriate approvals have been obtained from Heritage New Zealand and / or any other necessary authorisations have been issued.

NES CONTAMINATED LAND

30. The proposed works on the Terminal Pump Station site shall adhere at all times to the procedures set out in the Contaminated Soils Management Plan - Akaroa Wastewater Terminal Pump Station (Prepared by CH2M Beca, dated 30 June, 2014), submitted with this application, and the required Contaminated Soils Management Plan.
31. The earthworks on the site must be overseen by a suitably qualified and experienced person who meets the specifications outlined in the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health.
32. If contaminated soil is removed from the site the consent holder must:

- 32.1. Provide evidence to the Manager Compliance and Licencing, Christchurch City Council, that the material has been deposited at an approved disposal facility and must provide copies of the approval to accept the material and receipts from that facility, and / or
 - 32.2. Provide evidence to the Manager Compliance and Licencing, Christchurch City Council, of where the material is taken, a plan of where it is placed and the quantity involved.
33. Any stockpiled contaminated soil on the site must:
- 33.1. Be located as far as practicable from adjoining uses such as the mini golf course, skate park and the like;
 - 33.2. Be kept in order and must not exceed 3.0 metres in height;
 - 33.3. If the stockpile is odorous it must be covered with an impermeable material or other form of odour suppression.
34. Within three months of the completion of the earthworks a Completion Report shall be prepared and submitted to Council. The Completion Report shall include as a minimum:
- 34.1. Volumes of materials moved on site;
 - 34.2. Details of any variations to the proposed work plan;
 - 34.3. Details of any health and safety incidents during the development;
 - 34.4. Details of any discharges of contingency measures employed during the earthworks;
 - 34.5. Photographic evidence of the site works;
 - 34.6. Evidence of the disposal of any soils or contaminated materials off site to an authorised facility.

Delivery of the Completion Report may be way of email to envresourcemonitoring@ccc.govt.nz Other Matters

35. Pursuant to Section 128 of the Resource Management Act 1991 the Council may review the conditions of consent by serving notice on the consent holder within a period of one month of any 12 month period following the date of this decision, in order to deal with any adverse effects on the environment which may arise from the exercise of this consent and which it is appropriate to deal with at a later stage.
36. The lapsing date for the purposes of Section 125 shall be five years from the commencement of this consent.
37. The Council will require payment of its administrative charges in relation to monitoring, as authorised by the provisions of section 36 of the Resource Management Act 1991. At present the monitoring charges include:
 - 37.1. A monitoring fee of \$145 to cover the cost of setting up a monitoring programme and carrying out two site inspections to ensure compliance with the conditions of this consent; and
 - 37.2. Time charged at an hourly rate of \$116 (incl. GST) where additional monitoring is required.

ADVICE NOTES

1. *This resource consent has been processed under the Resource Management Act 1991 and relates to planning matters only. You will also need to comply with the requirements of the Building Act 2004. Please contact a Building Consent Officer (ph: 941 8999) for advice on the building consent process.*
2. *This resource consent has been processed under the Resource Management Act 1991 and relates to planning matters only. You will need to obtain separate permission from the Council as owner of the land and administrator of the reserve (in the case of the TPS) before you may carry out the proposed activity on this site. Please contact Joanne Walton, Policy Advisor Greenspace, Network*