

**BEFORE ENVIRONMENT SOUTHLAND**

**IN THE MATTER** of the Resource Management Act 1991

**AND**

**IN THE MATTER** of Lorneville Processing Plant Resource Consent Applications (APP-20158595)

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**STATEMENT OF EVIDENCE OF TONY DONS  
ON BEHALF OF ALLIANCE GROUP LIMITED**

**4 July 2016**

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## QUALIFICATIONS AND EXPERIENCE

- 1 My full name is Tony (Antonius) Dons.
- 2 I am a Resource Management Consultant and Director and principal consultant of the environmental and resource management consulting firm, Tony Dons Limited. I have been in sole practice for 21 years and have worked throughout New Zealand.
- 3 I hold the qualifications of a Bachelor of Science with Honours, from the University of Otago and have 38 years of professional experience in environmental research, management and consulting. I have been involved in the following relevant investigations and studies:
  - (a) I have prepared over 85 resource consent applications in the past 23 years for a wide range of industries. Applications have included consultation, preparing and negotiating resource consent conditions and appearing at council resource consent hearings.
  - (b) I have provided resource management advice to the meat processing sector throughout New Zealand for over 20 years and have led a number of consultation processes for large multi-permit consent applications.
  - (c) Since 1999 our company has been based in Otago providing resource management advice to industrial clients in Southland, Otago and Canterbury. In particular I have undertaken numerous resource consent application projects for the three Southland Alliance meat processing plants (Lorneville, Makarewa and Mataura). The Southland Alliance projects have involved substantial consultation with key water-related stakeholders (Public Health South, Southland Fish & Game, Department of Conservation, and Te Ao Marama) and meat processing plant neighbouring communities for over 15 years.
- 4 I have visited the Alliance Lorneville processing plant on numerous occasions since March 2000. My role in this project was to:
  - (a) Design and lead the consultation programme;
  - (b) Prepare a project plan;
  - (c) Facilitate consultation meetings;
  - (d) Arrange publicity for the public information evening; and

- (e) Prepare a report on pre-application consultation.
- 5 In preparing this evidence I have reviewed:
- (a) The Section 42 Officers' Report; and
  - (b) An Everyday Guide: Consultation for Resource Consent Applications, Ministry for the Environment.
- 6 I have read and agree to comply with the Code of Conduct for Expert Witnesses (Environment Court Practice Note 2014). This evidence is within my area of expertise except where I state that I am relying on facts or information provided by another person. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

#### **SCOPE OF EVIDENCE**

- 7 My evidence addresses the following matters in relation to consultation:
- (a) The approach to consultation taken by Alliance including the parties consulted, and the key elements of the consultation process;
  - (b) The three main components for consultation: community consultation, technical working party, and consultation on recreational effects; and
  - (c) The outcome of consultation undertaken by Alliance.

#### **EXECUTIVE SUMMARY**

- 8 Alliance has completed substantial pre-application consultation for the re-consenting of the Lorneville plant located near Invercargill. Consultation began in March 2013 on consents for the discharge of treated wastewater to the Makarewa River, to land via spray irrigation, and to land for temporary storage; the discharge of biosolids to land and to an onsite monofil; the discharge of contaminants and odour to air; and the abstraction of water from the Oreti River and the associated disturbance of the riverbed for intake channel maintenance. The aim of pre-application consultation was to achieve well-informed affected parties and where practicable, to resolve concerns before the application was lodged. Alliance followed the principles for best practice resource consent consultation outlined by the Ministry for the Environment.

- 9 There were three main components for consultation:

- (a) Community consultation;
  - (b) Technical Working Party (**TWP**) consultation; and
  - (c) Recreation effects consultation.
- 10 Overall, Alliance arranged 29 meetings with 13 organisations, groups, and individuals including:
- (a) Environment Southland (**ES**);
  - (b) Invercargill City Council (**ICC**);
  - (c) Southland District Council (**SDC**);
  - (d) Southland Fish & Game (**SFG**);
  - (e) Public Health South (**PHS**);
  - (f) Department of Conservation (**DOC**);
  - (g) Te Ao Marama Incorporated (**TAMI**);
  - (h) Lorneville community;
  - (i) General public;
  - (j) Wallacetown Community Board (**WCB**); and
  - (k) Whitebaiters and eelers.
- 11 Consultation with the Lorneville community built on existing annual meetings but in spite of 494 invitations only about 1% of those who were distributed invitations attended the two meetings. It can be inferred that this low attendance reflects a low level of concern with the reconsenting of the Lorneville plant.
- 12 The public information evening was similarly attended by few people despite widespread publicity. Once again, this appears to indicate a low level of community concern. The information evening identified three parties where further consultation was desirable and Alliance has since progressed this.
- 13 Consultation with representatives of the WCB, including its chairman, confirmed that there was also a low level of concern from the nearest settlement.
- 14 Establishment of the TWP was the cornerstone of this consultation process and included substantial technical consultation particularly on the

wastewater discharge and water abstraction consents. Members of the TWP, including the regulators, are now well informed of the applications and supporting technical assessments.

- 15 A key outcome of the TWP consultation process was the agreement of all TWP members to "support in principle" the primary wastewater treatment upgrade. Most members of the TWP were, however, concerned with a 35 year term.
- 16 Consultation with iwi (TAMI) was also a successful component of the consultation programme. The outcome of consultation with TAMI was the finalisation of an Iwi Values and Mitigation Table prepared jointly by TAMI and Alliance.
- 17 PHS also supported the proposed primary wastewater treatment upgrade but was concerned that no treatment of bacterial (*E. coli*) discharges was proposed. Alliance now proposes to undertake an *E. coli* and disinfection review 10 years after the commencement of the consent. Both DOC and SFG provided support in principle for the primary wastewater treatment upgrade, acknowledged the proposed upgrades but had a number of concerns with the proposed consent conditions.
- 18 Consultation on recreation effects confirmed that the Makarewa River below the Alliance discharge is not a destination fishery; has considerably less angling value than the Oreti River; and has little public access.
- 19 Public notification of these consents attracted only six submissions which confirms the low level of community concern. Three of the submissions acknowledged the benefits of the consultation process.
- 20 Overall, Alliance has exceeded the standard consultation requirements for the Lorneville re consenting proposal. Agreement has been reached with key stakeholders on the proposed primary wastewater treatment upgrade and most of the proposed consent conditions. The consent term of 35 years however remains an area of disagreement.

#### **APPROACH TAKEN BY ALLIANCE**

- 21 The overall approach to pre-application consultation taken by Alliance was:
  - (a) To identify all parties who may be affected or interested;
  - (b) To inform these parties of the proposed application;

- (c) To provide opportunities to express concerns or support;
  - (d) To investigate concerns; and
  - (e) To provide relevant information.
- 22 The aim of pre-application consultation was to achieve well-informed affected parties and where practicable, to resolve concerns before the application was lodged.
- 23 Alliance followed the principles for best practice resource consent consultation outlined by the Ministry for the Environment.
- 24 Consultation began in March 2013. This allowed 2.5 years to consult key stakeholders and the general community. This long timeframe offered ample opportunity for stakeholders to review technical information provided by Alliance, understand Alliance's proposals and highlight areas of concern. Alliance appreciated that this application was large and complex and that a substantial timeframe was required to allow meaningful consultation.
- 25 Alliance seeks resource consent for the following activities: the discharge of treated wastewater to the Makarewa River, to land via spray irrigation, and to land for temporary storage; the discharge of biosolids to land and to an onsite monofil; the discharge of contaminants and odour to air; and the abstraction of water from the Oreti River and the associated disturbance of the riverbed for intake channel maintenance.
- 26 The parties potentially affected by these activities include those affected by water-related activities such as the discharge to the Makarewa River and abstraction from the Oreti River; and another group primarily affected by localised effects resulting from discharges to air and to land. Alliance also undertook additional consultation on recreation effects of wastewater discharges and water abstraction. This resulted in three main components for consultation:
- (a) Community consultation;
  - (b) Technical Working Party consultation; and
  - (c) Recreation effects consultation.

## THE PARTIES CONSULTED BY ALLIANCE

- 27 Table 1 provides a summary of the pre-application consultation undertaken by Alliance, detailing information on dates and times of meetings, while **Appendix 1** provides a detailed chronology. Overall, Alliance arranged 29 meetings with 13 organisations, groups, and individuals. All parties consulted by Alliance after July 2015 when the Summary AEE became available were provided with a Summary AEE.
- 28 Almost all parties consulted were well-known to Alliance and had previously been consulted on other consent applications for either the Lorneville plant, Makarewa or Mataura plants, or through various community consultation processes.

**Table 1: Summary of pre-application consultation**

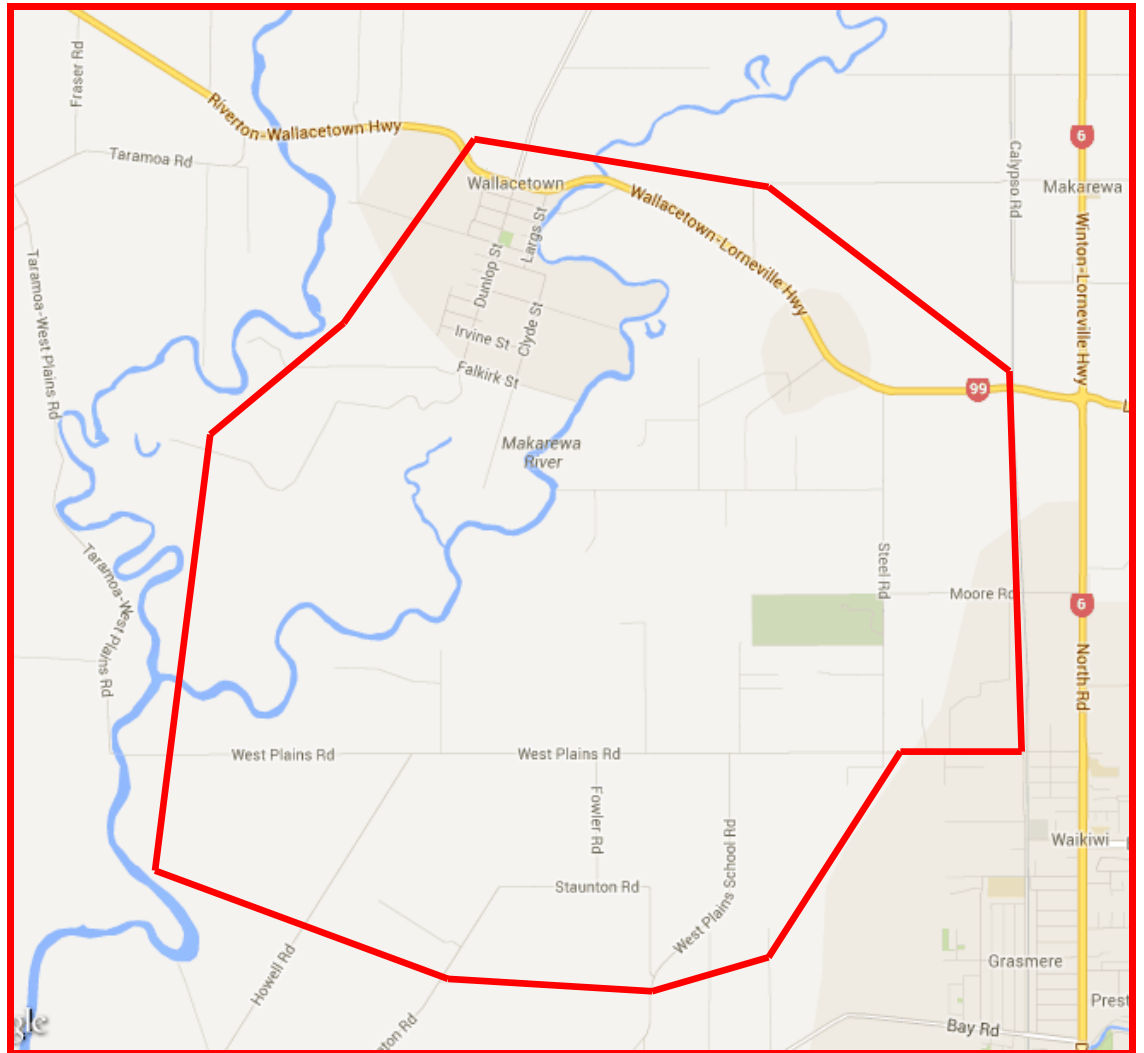
<b>Party consulted</b>	<b>Consultation</b>	<b>Date</b>
Environment Southland ( <b>ES</b> ), Invercargill City Council ( <b>ICC</b> ), Southland District Council ( <b>SDC</b> )	Meetings to outline project plan	7 March 2013
Lorneville community	Newsletter	25 July 2014
	Meetings (2)	31 July 2013 06 August 2014
General public	Information evening <ul style="list-style-type: none"> <li>• information displays</li> <li>• Summary AEE</li> <li>• Alliance and consultants</li> </ul>	26 August 2015
Technical Working Party ( <b>TWP</b> )	Meetings and site inspection (6)	19 November 2013 05 December 2013 13 November 2014 29 January 2015 6 May 2015 4 August 2015
Te Ao Marama ( <b>TAMI</b> )	Meetings in addition to TWP (6)	21 January 2014 7 April 2014 16 May 2014 15 October 2014 28 January 2015 18 May 2015
Southland Fish & Game ( <b>SFG</b> ) Wallacetown Community Board ( <b>WCB</b> )  TAMI Public Health South ( <b>PHS</b> )	Consultation meetings on recreation effects	24 – 25 September 2015
Mossburn Enterprises Maurice Casey George Wishart	Consultation on effects on eeling and whitebaiting	23 October – 13 November 2015

**OUTCOME OF CONSULTATION****LORNEVILLE COMMUNITY**

29 Community consultation consisted of consultation with the Lorneville community, the general public and the Wallacetown Community Board.



- 30 Consultation with the Lorneville community built on the existing annual meetings held by Alliance where Alliance informs the community on Lorneville plant operations and monitoring, and addresses any issues that residents may raise. The consent consultation meetings were expanded to include background information on the application process. Because this was a major consenting project, the invitation area was expanded to 2 km to the north and east and 4 km south and downstream (southwest) from the existing invitation area for annual meetings. Invitations were distributed to 494 properties, of which 280 were distributed to Wallacetown residents. Figure 1 shows the distribution area for consultation meeting invitations.
- 31 The Lorneville community was invited to two community meetings and a public information evening in order to gain awareness of this consent application process, and to have an opportunity to gain background information and raise any issues regarding the consent application. Alliance personnel and relevant technical experts were present to ensure that the public were well-informed on all aspects of the consenting process.



**Figure 1: Distribution area for consultation meeting invitations**

32 A two-page newsletter on the consenting project was distributed prior to the 2014 meeting to all properties in the invitation area. The first meeting was attended by nine neighbours and the second by six neighbours. ES was represented at both meetings. The issues identified by meeting attendees included:

- (a) Fresh air and water;
- (b) Odour emissions, especially from dead stock processing in spring, fellmongery, and wastewater treatment ponds;
- (c) Visual and health effects of boiler emissions;
- (d) Contaminant discharges to land including the expansion of wastewater discharges to land;
- (e) Consideration of all nutrient discharges in the Oreti catchment (not just those from Alliance operations);

- (f) Impacts of recent expansion of processing activities at Lorneville;  
and
  - (g) Recognition of improved odour emissions.
- 33 Overall, consultation with the Lorneville community showed that there was little concern over the renewal of the Lorneville plant consents. Despite there being a modest attendance (about 1% of distributed invitations) at the two community meetings, those that attended confirmed the key issues that Alliance should address and were generally supportive of the Alliance plant.

### **PUBLIC INFORMATION EVENING**

- 34 A public information evening was held at Alliance Lorneville on 26 August 2015. The evening included information on the following: technical displays; summary AEE reports; air quality, and water quality. Planning consultants, key air quality and water quality experts and Alliance staff were present, and available to answer questions. Alliance gave the public attendees an opportunity to complete feedback forms. The evening was well advertised in the two weeks preceding it through the distribution of 484 leaflets to the Lorneville community, email notification to members of the TWP and Alliance Lorneville staff, newspaper advertisements in the Southland Times and Southland Express, and a newspaper article and listing in the Southland Times events column. In spite of this comprehensive promotion, there were only six attendees (which included one couple) and five of whom completed feedback forms. All agreed that the information evening was helpful, with three parties supporting the granting of consents, one party unsure and one party not supporting the granting of the consents.
- 35 The issues raised on the feedback forms included:
- (a) Health effects of boiler emissions;
  - (b) Odour emissions;
  - (c) Light pollution; and
  - (d) Odour from biosolids land discharges.

## **WALLACETOWN COMMUNITY BOARD**

- 36 The WCB was consulted as the elected representatives of the nearest township.
- 37 Alliance consulted with three representatives of the WCB including the chairman at a meeting on 24 September 2015. A WCB representative had also attended the July 2013 Lorneville community consultation meeting. WCB representatives were supportive of the proposed Lorneville plant consenting and pointed out that the Lorneville plant provided considerable employment for the Wallacetown community. It was also indicated that WWTP odours had considerably improved. WCB representatives agreed to provide written support for the consenting with 35 year consent terms. This written support was provided on 12 October 2015.

## **TECHNICAL WORKING PARTY**

### **OVERVIEW**

- 38 The TWP was established on 19 November a 2013 (following the successful model employed for the Alliance Matura wastewater discharge consent in 2002-2003) to provide a forum for stakeholders with a particular technical interest in wastewater discharges, water abstraction and water-related effects. Meetings were facilitated by an Alliance consultant and meeting notes circulated to TWP members. TWP members were provided with a considerable amount of detailed technical information on the Alliance Lorneville plant; existing and proposed wastewater discharges; Makarewa River; Oreti River and New River Estuary water quality and ecology assessments; Oreti River water abstraction; land disposal options; groundwater investigations; and proposed consent conditions. An inspection of the processing plant, WWTP and Makarewa River also took place. Key information was pre-circulated to the TWP members and opportunities provided at TWP meetings to provide comment and ask questions of Alliance personnel and relevant technical experts.
- 39 The members of the TWP were:
- (a) SFG;
  - (b) Department of Conservation (**DOC**);

- (c) Public Health South (**PHS**);
- (d) TAMI;
- (e) SDC;
- (f) ICC; and
- (g) ES.

- 40 TAMI was the iwi representative on the TWP and represented the interests of the three local runanga (Waihopai, Awarua and Hokonui). TAMI kept Te Runanga o Ngai Tahu (**TRONT**) informed of the consent process. Alliance undertook additional consultation with TAMI outside the TWP meetings to ensure that iwi issues were fully canvassed.
- 41 The TWP met six times over two years prior to the application being lodged and followed an agreed protocol. The TWP was offered the opportunity to review the complete draft AEE but it was agreed that the summary AEE was sufficient.
- 42 A key outcome of the TWP consultation process was the agreement of all TWP members to "support in principle" the proposed primary wastewater treatment upgrade. This upgrade was to achieve compliance with recommended in-river ammonia concentrations by reducing the ammonia-N concentration in the treated wastewater discharge by 75% when compared to 2013 levels.
- 43 An important aspect of the upgrade proposed by Alliance was the proposed consent term of 35 years, with implementation of the primary wastewater treatment upgrade by year 15. Most members of the TWP were concerned with a 35 year term and were more comfortable with a 25 year term. There was also some preference for implementing the wastewater treatment upgrade sooner than 15 years. However, SDC supported the 35 year term and the staged approach to wastewater treatment upgrades.
- 44 At the final TWP meeting Alliance presented responses to various issues raised by SFG, DOC and PHS, presented a summary AEE, and the proposed consent conditions. Although a large measure of agreement was achieved with the TWP a number of outstanding issues remained. These are summarised in the sections that follow.

## **ENVIRONMENT SOUTHLAND**

- 45 ES is a member of the TWP and has been represented at all meetings by three or four personnel. The TWP process has provided a useful forum for ES to gain an early understanding of the consent applications and associated technical information, to provide comment and ask questions, as well as hear first-hand the concerns and consensus achieved between Alliance and the stakeholders. Alliance also arranged one-on-one meetings with ES to outline the project plan, provide a technical briefing and a project update.

## **INVERCARGILL CITY COUNCIL**

- 46 ICC was represented at five of the six TWP meetings and, as with ES, the TWP process provided ICC with an early understanding of the consent application and associated technical information.

## **SOUTHLAND DISTRICT COUNCIL**

- 47 SDC attended two of the six meetings and consequently had a relatively minor role in the TWP process. Despite this, SDC provided "support in principle" for the proposed primary wastewater treatment upgrade, and specifically supported a 35 year term.

## **TE AO MARAMA INCORPORATED**

- 48 Alliance has consulted TAMI as a member of the TWP and through separate one-on-one meetings. TAMI attended two of the six TWP meetings and Alliance met with them separately on seven occasions. Key aspects that arose early in the consultation with TAMI were:
- (a) TAMI would represent the interests of Waihopai, Awarua, Hokonui Runanga, and TRONT;
  - (b) TAMI acknowledged that the Alliance Lorneville plant makes a significant contribution to the Southland economy and provides much needed employment;
  - (c) Iwi takes a Southland-wide view of discharges and regards the reduction in combined wastewater discharges from the Lorneville, Makarewa and Mataura plants as a significant environmental benefit;
  - (d) Deterioration of New River Estuary water quality and ecology was a significant concern for iwi;

- (e) A Cultural Values Report (**CVR**) should be prepared with Kitson Consulting assistance. A CVR would include an inspection of the catchment by iwi and a review of existing documents;
  - (f) Ngai Tahu were normally reluctant to agree to more than a 25 year term for wastewater discharge permits;
  - (g) Iwi noted that environmental compensation was an acceptable approach where adverse effects on the environment in one locality were compensated for by environmental enhancement in another locality; and
  - (h) Avoiding the discharge of human waste to water was desirable for iwi but this aspect was not clear-cut for two reasons: because other communities still discharged human waste to water, and the Alliance discharge included human waste from Wallacetown.
- 49 The CVR outlined the cultural landscape of the Makarewa River catchment and lower Oreti River catchment and clarified the four key values for iwi:
- (a) Kaitiakitanga (stewardship);
  - (b) Mahinga kai (food gathering);
  - (c) Ki uta ki tai (mountains to the sea); and
  - (d) Whanaungatanga (health and wellbeing).
- 50 TAMI also explained that freshwater mussels (waikakahi) were an important taonga and that iwi would not give up on trying to restore their population. Alliance noted that in their investigations, no mussels had been observed and the setting of site-specific ammonia criteria would not include the very low ammonia levels required for freshwater mussels.
- 51 During the discussions TAMI made it clear that a 75% reduction in nitrogen discharge to the Makarewa River was a significant improvement. TAMI also accepted that separation of human wastewater from general plant wastewater was not practicable. Alliance also outlined the proposed continued abstraction of water from the Oreti River which was agreeable to TAMI.

## IWI VALUES AND MITIGATION

- 52 The culmination of pre-application consultation between Alliance and iwi was the completion of an Iwi Values and Mitigation Table. The most current version is included in **Appendix 2**. It was agreed with iwi that a formal Cultural Impact Assessment (**CIA**) was not necessary and that the table in **Appendix 2** represented an agreed position between Alliance and iwi. TAMI commented that the consultation process with Alliance and the preparation of the Iwi Values and Mitigation Table had been positive for iwi.
- 53 Key aspects of the agreed position arising from consultation between Alliance and iwi are:
- (a) Iwi support in principle the proposed primary wastewater treatment upgrade;
  - (b) Iwi do not support a 35 year term but do support a 25 year term;
  - (c) Iwi have a strong preference for land disposal of all wastewater and for avoiding human waste discharges to water. Iwi accept that these preferences are not practicable in this case; and
  - (d) Alliance has committed to an Environmental Monitoring Plan, a Habitat Enhancement Plan, annual monitoring reports, pre and post-upgrade aquatic biological and fish health surveys, ongoing iwi consultation, a wastewater treatment upgrade plan, continual improvement, avoidance of fish or eel stranding within the water take channel or on the riverbanks, the enabling of practicable access to Alliance land, post-treatment upgrade review, and participation in a catchment-wide water quality approach.

## SOUTHLAND FISH AND GAME

- 54 SFG was represented at all six meetings of the TWP and provided written comment on receiving water limits, Oreti River water take, and proposed conditions. During the pre-application consultation, SFG made a number of specific comments on receiving water limits and reference was made to the National Policy Statement for Freshwater Management 2014, Southland Regional Water Plan 2010 (**Water Plan**) and the Resource Management Act 1991 (**RMA**). SFG also questioned why a 15 year delay was needed before implementing the primary wastewater treatment upgrade.



- 55 SFG recognised the priority of Alliance's water take from the Oreti River, but recommended that Alliance should consider voluntary water conservation measures at the 7-day Mean Annual Low Flow (**MALF**). SFG also recommended that water take screening arrangements should reflect NIWA recommendations.
- 56 SFG made the following points on the proposed consent conditions:
- (a) The Makarewa River below the Alliance discharge has little if any suitable periphyton habitat;
  - (b) Nitrate limits should at least reflect existing water quality and the requirements of the Water Plan and the RMA;
  - (c) The reduction in ammonia discharge is supported but there is concern with the 15 year delay;
  - (d) The post upgrade discharge and receiving water limits are insufficient;
  - (e) There is no E coli discharge limit (post upgrade) or receiving water limit;
  - (f) There is concern with the reduction in water clarity limit;
  - (g) Alliance's changes to temperature, pH and foams and scums conditions are supported;
  - (h) There are no annual nitrogen and phosphorus limits;
  - (i) There are no proposed improvements during the 20 years following the primary wastewater treatment upgrade; and
  - (j) There is greater justification needed for a 35 year term.

#### **DEPARTMENT OF CONSERVATION**

- 57 DOC was represented at five of the six TWP meetings and provided written comment on the general approach and proposed conditions. DOC pointed out that the New River Estuary is significant, that the Makarewa River has significant ecological values but is not identified as outstanding, and that many of the limits sought by Alliance are "bottom line limits" and do not seek to improve fresh water values. However, DOC recognises that some significant improvements are being proposed. DOC also considers that the proposed consent term is too long.

- 58 The main points made by DOC on the proposed consent conditions were:
- (a) The fish community in the Makarewa River is surprisingly diverse and is regarded as "significant" and requiring protection;
  - (b) State "C" in the NPS should be the minimum state for the Makarewa River;
  - (c) Vulnerable life stages (eggs and larvae) should be considered in setting limits;
  - (d) The Water Plan objective of 10% improvement in surface water quality should be given effect to by Alliance;
  - (e) The proposed 35 year consent term is too long;
  - (f) The proposed temperature, pH and foams and scums limits are supported;
  - (g) The reduction in visual clarity standard is not supported;
  - (h) No consent condition is proposed for dissolved oxygen post upgrade;
  - (i) DOC recognises the effort in reducing ammonia discharges but wishes to see improvement before the proposed 15 year implementation date;
  - (j) Nitrate discharge should be reduced over the life of the permit;
  - (k) A receiving water E coli limit should be included;
  - (l) Discharge limits post-upgrade should be included;
  - (m) Greater clarity should be provided over review conditions, and there should be greater assurance that water quality will be improved;
  - (n) DOC supports the Environmental Monitoring Plan (**EMP**) but wishes to see an opportunity for the TWP to be consulted over any review of the EMP;
  - (o) There is concern over the 50 mm depth of wastewater irrigation to land; and
  - (p) A variety of other relatively minor technical matters.

## **PUBLIC HEALTH SOUTH**

- 59 PHS was represented at five of the six TWP meetings and provided written comments on the consultation process, E. coli and wastewater disinfection, the wastewater discharge permit, and the proposed conditions. PHS was supportive of the consultative approach taken by Alliance to these consent applications. Although PHS supported in principle the proposed primary wastewater treatment upgrade, PHS was keen to see a commitment from Alliance to reduce E. coli discharges to the Makarewa River even if upstream levels were elevated.
- 60 Towards the end of the pre-application consultation, and in response to consultation with PHS, Alliance committed to undertaking a review 10 years after the commencement of the consents, which would examine E. coli levels in the Makarewa River and determine the practicability of treatment, for example disinfection. This commitment appeared to satisfy PHS concerns regarding river bacterial levels and PHS acknowledged that a delay in the review and potential E. coli treatment was reasonable in this case.
- 61 PHS provided the following comments on the proposed conditions:
- (a) PHS congratulated Alliance on committing to an upgrade of the existing wastewater treatment plant;
  - (b) No receiving water limits for E coli have been proposed in consent conditions or the EMP;
  - (c) PHS considered that a 35 year consent duration was too long and proposed a maximum of 20 – 25 years; and
  - (d) PHS recommended that Alliance review the EMP once the Oreti River catchment NPS limits had been set.

## **CONSULTATION ON RECREATION EFFECTS**

- 62 During the preparation of the Alliance Lorneville resource consent applications it became clear that further consultation was required specifically on the effects on recreational values. Consultation meetings were undertaken on 24 and 25 September 2015 with all members of the TWP (except ES); WCB; and individuals involved in eeling and whitebaiting in the lower Makarewa River.

- 63 The main recreation-related points emerging from this consultation round were as follows:
- (a) Stakeholders were pleased with Alliance's proposal to include a specific condition requiring Alliance to undertake a review of river E. coli levels and the practicability of additional treatment (disinfection) 10 years from the commencement of the consent;
  - (b) Specific information on angler numbers in the Makarewa River below the Alliance wastewater abstraction is not available;
  - (c) SFG confirmed that the Makarewa River is not a destination fishery and that the Oreti River is a much more highly valued fishery. There are no SFG access points to the river below the Alliance discharge;
  - (d) SFG considered that the Alliance discharge to the Makarewa River and the Oreti River abstraction do not, in themselves, deter freshwater angling, and conversely if the Alliance activities ceased then current angling is unlikely to be affected;
  - (e) SFG also referred to the 2013 New Zealand Angling Values Survey. 133 respondents identified the Oreti River above Lumsden, 138 identified the Oreti River below Lumsden, and 18 identified the Makarewa River as fished over the last 3 – 5 years;
  - (f) SFG reported the comments of a newly appointed field officer who indicated that the lower Makarewa River "offers some good trout fishing" especially for younger anglers, mainly from Wallacetown, due to its proximity;
  - (g) WCB representatives thought that abstraction from the Oreti River would have little impact on recreation;
  - (h) WCB were also of the view that no mitigation measures beyond those currently proposed were necessary;
  - (i) PHS referred to the 2015 Southland Recreational Water Survey. PHS confirmed that no respondent to this survey identified the Makarewa River as a recreation location but that the Oreti River and New River Estuary were regularly used for a variety of recreational activities;

- (j) PHS thought that wastewater discharges to water would deter water-based recreation even though SFG thought that this would not apply to angling in the lower Makarewa River;
- (k) DOC commented that little is known of recreational eel fishing in either the Makarewa or Oreti rivers but the Alliance wastewater discharge has potential health effects through water contact and eel flesh contamination and recreational limitations due to reduced eel populations; and
- (l) DOC also considered that whitebaiting was popular in the Oreti River. The Makarewa River did not provide inanga spawning habitat, while spawning was likely to occur on the Oreti River. Potential effects of the Alliance discharge on whitebait were similar to the eel fishery.

64 Consultation with two commercial eelers and two recreational whitebaiters resulted in the following comments regarding the eel and whitebait fishery in the lower Makarewa River:

- (a) The lower Makarewa River supports a productive commercial eel and recreational whitebait fishery in spite of the discharge of treated wastewater from the Alliance Lorneville plant;
- (b) Recreational eeling in the lower Makarewa River appears to be minor. While about five whitebaiters regularly fish the area in the vicinity of the discharge, up to 15 whitebaiters may on occasion be present; and
- (c) Access to the lower Makarewa River appears to limit recreational fishing however the Alliance wastewater discharge does not appear to limit eeling or whitebaiting.

## **SUBMISSIONS**

65 Submissions were received from six parties. Three parties supported the application, one party was neutral, one party was only opposed to the 35 year term and one party was opposed. The low number of submissions for a project of this scale confirms the low level of community concern with the consenting of the Lorneville plant. Submissions were received from:

- (a) PHS;
- (b) Te Runanga o Waihopai (**TROW**);

- (c) SFG;
- (d) New Zealand Meat Workers Union;
- (e) SDC; and
- (f) Anna Napier.

- 66 In its submission PHS notes that the involvement in pre-application consultation was valuable. PHS confirmed its support in principle for the primary wastewater treatment upgrade. Its submission is neutral and PHS is only concerned with ensuring that if consent is granted, adequate conditions are imposed to protect the health of people and communities.
- 67 The TROW submission was prepared by TAMI and opposes the 35 year term sought and seeks a 25 year term. TAMI is appreciative of the consultation and the opportunity to prepare a Cultural Values Report. TROW confirmed TAMI's support in principle for the primary wastewater treatment upgrade.
- 68 SFG opposes the discharge to land and water permits, water permit and land use consent and raise a number of points and recommends that the consents are granted with significantly shorter consent terms. SFG does not acknowledge their substantial participation in the TWP consultation process but does confirm their support in principle for the primary wastewater treatment upgrade.
- 69 New Zealand Meat Workers Union supports the granting of 35 year consents and refers to the substantial employment and economic benefits of the Lorneville plant.
- 70 SDC supports the granting of the consents and specifically refers to the security for the Wallacetown community of the wastewater discharge from Wallacetown to the Alliance wastewater treatment plant. SDC acknowledges the TWP consultation process and the additional consultation with the Wallacetown community
- 71 Anna Napier, a resident of Gore, supports the granting of consents for 35 years.

## **CONCLUSIONS**

- 72 Alliance has embarked on a robust pre-application consultation process as part of the preparation of applications for the key Lorneville plant resource consents. The consultation process has achieved the principles

for good consultation in the Ministry for the Environment guidelines and has exceeded standard practice for resource consent consultation for the following reasons (which were explained in detail above):

- (a) Consultation began early;
- (b) Substantial technical information was provided;
- (c) Many opportunities were made for stakeholder comment; and
- (d) Some adjustments to the proposals were made by Alliance and a large measure of agreement between Alliance and key stakeholders resulted.

73 A number of stakeholders have congratulated Alliance on its positive approach to consultation.

74 Consultation with the Lorneville community built on existing annual meetings but in spite of 494 invitations only about 1% of those who were distributed invitations attended the two meetings. It can be inferred that this low attendance reflects a low level of concern with the reconsenting of the Lorneville plant. Those neighbours that attended the community meetings were generally supportive of Alliance.

75 The public information evening was similarly attended by few people despite widespread publicity. Once again, this appears to indicate a low level of community concern. The information evening identified three parties where further consultation would be desirable and Alliance has since progressed this.

76 Consultation with representatives of the WCB, including its chairman, confirmed that there was also a low level of concern from the nearest settlement. This was confirmed in writing and included support for a 35 year consent term.

77 Establishment of the TWP was the cornerstone of this consultation process and included substantial technical consultation particularly on the wastewater discharge and water abstraction consents. Members of the TWP, including the regulators, are now well informed of the applications and supporting technical assessments.

78 A key outcome of the TWP consultation process was the agreement of all TWP members to "support in principle" the primary wastewater treatment upgrade. Most members of the TWP were, however, concerned with a 35

year term and were more comfortable with a 25 year term. There was also some preference for implementing the wastewater treatment upgrade sooner than 15 years.

- 79 Consultation with iwi (TAMI) was also a successful component of the consultation programme. During the seven one-on-one meetings and site inspections with TAMI, and two TWP meetings, extensive technical information was shared by Alliance and a detailed explanation of iwi concerns was given by TAMI.
- 80 TAMI provided support in principle for the proposed primary wastewater treatment upgrade but did not support a 35 year term, preferring a 25 year term.
- 81 The outcome of consultation with TAMI was the finalisation of an Iwi Values and Mitigation Table prepared jointly by TAMI and Alliance. The final version of the table (in **Appendix 2**) included some additional commentary from TAMI to ensure that iwi preferences were noted for land disposal of wastewater and for avoiding human waste discharge to water even if these preferences were not practicable in this case.
- 82 TAMI also noted that the reduction in combined wastewater discharge from the Makarewa, Mataura and Lorneville plants was a significant environmental benefit for Southland. TAMI supported the continued abstraction of water from the Oreti River.
- 83 PHS also supported the proposed primary wastewater treatment upgrade but was concerned that no treatment of bacterial (E. coli) discharges was proposed. Alliance now proposes to undertake an E. coli and disinfection review 10 years after the commencement of the consent. This adjustment appeared to satisfy a number of stakeholders.
- 84 Consultation on recreation effects was undertaken to provide further background for the assessment of these effects. Alliance met SFG, TAMI, PHS and WCB and received written comment from DOC. The proposal by Alliance to review river E. coli levels ten years from the commencement of the consent was favourably received by stakeholders. Consultation confirmed that the Makarewa River below the Alliance discharge is not a destination fishery; has considerably less angling value than the Oreti River; and has little public access. The Alliance discharge to the Makarewa River and the abstraction of water from the Oreti River have, in themselves, little impact on angling numbers.



- 85 There is little numerical information on recreation in the Makarewa River below the Alliance discharge and the Oreti River below the Alliance abstraction. The lower Oreti River is however used for a wide range of recreational activities. Alliance consulted two individuals involved in commercial eeling and two individuals involved in recreational whitebaiting. This consultation confirmed that the lower Makarewa River supports a productive commercial eel fishery and productive recreational whitebait fishery with up to 15 whitebaiters present on occasion. In the opinion of the four river users consulted, the Alliance discharge does not adversely affect the eeling or whitebaiting resource.
- 86 Public notification of these consents attracted only six submissions which confirms the low level of community concern. Three of the submissions acknowledged the benefits of the consultation process.
- 87 Overall, and based on my experience, I consider that Alliance has exceeded the standard consultation requirements for the Lorneville re consenting proposal. The process has been robust and included substantial technical consultation particularly on wastewater discharge and its environmental effects. Agreement has been reached with key stakeholders on the proposed primary wastewater treatment upgrade and most of the proposed consent conditions. The consent term of 35 years remains an area of disagreement.

**Tony Dons**

4 July 2016

**APPENDIX 1: Chronology of Pre-Application Consultation**

## **Alliance Lorneville Reconsenting: 2015 Consultation Chronology**

<b>Date</b>	<b>Party</b>	<b>Consultation</b>
7 March 13	Environment Southland	Outline project plan
7 March 13	Invercargill City Council	Outline project plan
7 March 13	Southland District Council	Outline project plan
31 July 13	Lorneville community	Outline project plan
21 October 13	Environment Southland	Technical briefing
19 November 13	Technical Working Party #1	Establish TWP Outline project plan Background environmental information
5 December 13	Technical Working Party #2	Plant, WWTP and river tour River and estuary assessment
21 January 14	Te Ao Marama	Outline project plan Plant, WWTP and river tour
17 February 14	Te Ao Marama	Confirmation of iwi consultation arrangements
7 April 14	Te Ao Marama	Discuss Cultural Values Report
30 April 14	Technical Working Party	Update newsletter
12 May 14	Environment Southland	Update meeting
16 May 14	Kitson Consulting	Plant, WWTP and river tour
6 August 14	Lorneville community	Progress report on reconsenting project
8 August 14	Kitson Consulting/Te Ao Marama	Provision of Cultural Values Report (CVR)
10 September 14	Mataura TWP-includes TAM, SFG, PHS, SDC and ES	Lorneville Reconsenting Project Update
15 October 14	TAM/Kitson Consulting	Discussion of CVR and presentation of FSL Ecology and Water Quality Investigations
4 November 14	Technical Working Party	Distribute FSL Receiving Environment Report (October 2014)
13 November 14	Technical Working Party #3	Present FSL river and estuary investigations, FSL/AES effects assessment and recommended mitigation and AGL primary wastewater mitigation proposal.
2 December 14	Technical Working Party	Distribute meeting notes, presentations (FSL, AES, Alliance) and AEE (FSL, AES)

8 December 14	Te Ao Marama	Followup Cultural Impact Assessment and propose consultation
12 December 14	Te Ao Marama	Te Ao Marama outline Cultural Impact Assessment process and accept proposed meeting
17 December 14	Technical Working Party	Distribute PDP Summary Wastewater Report
15 January 15	Te Ao Marama	Follow up Te Ao Marama re consultation meeting
19 January 15	Technical Working Party	Email re Technical Working Party #4 meeting agenda and attendance confirmation
20 January 15	Te Ao Marama	Follow up Te Ao Marama re consultation meeting
28 January 15	Te Ao Marama	Consultation meeting re wastewater upgrade
29 January 15	Technical Working Party #4	Meeting re wastewater upgrade and request for support in principle
29 January 15	Public Health South	Positive comment re Technical Working Party consultation process
20 February 15	Te Ao Marama	Progress report from Te Ao Marama
24 February 15	Public Health South	Plant visit for Jo Grimwood and Linda Robertson
25 February 15	Te Ao Marama	Support in principle with caveats
19 March 15	Technical Working Party	Distribute Technical Working Party #4 minutes and presentations and advance notice of Technical Working Party #5 on 6 May
19 March 15	Southland District Council	Request 'support in principle'
19 March 15	Southland District Council	Support in principle for primary wastewater upgrade including support for 35 year term
6 April 15	Technical Working Party	Followup meeting reminder
13 April 15	Technical Working Party	Meeting reminder and provision of monitoring proposals and Oreti River take AEE
13 April 15	Te Ao Marama	Request for Cultural Impact Assessment of Oreti River take
14 April 15	Public Health South	Clarification of 'support in principle' and explanation of Public Health South position on E coli and disinfection
23 April 15	Public Health South	Outline Alliance position on disinfection
6 May 15	Technical Working Party #5	Outline wastewater monitoring proposals, Oreti take AEE and other land disposal and ground water investigations
6 May 15	Department of Conservation	Feedback from Department of Conservation

11 May 15	Environment Southland	Outline Alliance approach to air consent
18 May 15	Te Ao Marama	Consultation meeting – recap and discussion of mitigation
19 May 15	Technical Working Party	Distribute meeting notes and presentation
19 May 15	Environment Southland	Confirmation of no further comment
20 May 15	Southland Fish & Game	Comment from SFG
4 June 15	Environment Southland	Lorneville site inspection for air discharge matters
10 June 15	Te Ao Marama	Email confirmation that Alliance was preparing mitigation proposals
12 June 15	Environment Southland	Alliance provision of draft key technical documents and proposed consents for review
13 July 15	Technical Working Party	Invitation to final programmed TWP meeting
22 July 15	Technical Working Party	Distribute Summary AEE, proposed consent conditions and Environmental Monitoring Plan (wastewater discharge)
29 July 15	Te Ao Marama	Send iwi values and mitigation table
3 August 15	Te Ao Marama	Send Technical Working Party presentation regarding Te Ao Marama feedback
4 August 15	Technical Working Party #6	Response to comments from stakeholders Summary AEE Proposed consent conditions
17 – 26 August 15	Public Information Evening	Publicity including neighbourhood leaflet, email to Technical Working Party, newspaper advertisements (2x Southland Times, 1x Southland Express), email to Alliance staff, media release and Southland Times events column listing
19 August 15	Technical Working Party	Send Technical Working Party #6 meeting minutes and reminder re feedback on proposed conditions
19 August 15	Environment Southland (Hilary Lennox)	Comments on conditions and technical reports conveyed to Alliance
26 August 15	Public Information Evening	Displays on consent process, wastewater treatment, river and estuary ecology, effects on river and estuary, Oreti River abstraction, land discharges, air emissions and Lorneville operations. Summary applications, consultants and Alliance staff available.

		Feedback forms Six attendees
27 August 15	Public Health South	Comment on wastewater discharge permit
31 August 15	Southland Fish & Game	Comments on proposed conditions
1 September 15	Department of Conservation	Comments on proposed conditions
4 September 15	Stan McDonald	Acknowledge boiler issues and indicate that relevant reports will be sent later
4 September 15	Glen Darragh	Forward Information Evening displays; acknowledge biosolids odour concern and indicate relevant report will be sent later
9 September 15	Public Health South	Comment on proposed conditions
16 September 15	Department of Conservation	Written comment on recreation effects
21 September 15	Te Ao Marama	Confirmation of presence of freshwater mussels in Lower Oreti 3 km downstream of Makarewa River confluence
24 – 25 September	Southland Fish & Game Wallacetown Community Board, Te Ao Marama, Public Health South	Consultation on recreation effects
25 September 15	Southland Fish & Game	Written comment on recreation effects
12 October 15	Wallacetown Community Board	Written support for consenting and 35 year term
13 October 15	Public Health South	Written comment on recreation effects
23 October – 13 November	Mossburn Enterprises (Mark Thompson, Victor Thompson) Maurice (Mo) Casey George Wishart	Consultation on effects of wastewater discharge on Makarewa River eeling and whitebaiting
27 October 15	Environment Southland	Alliance provides updated position and further background to proposed consent conditions

**APPENDIX 2: Iwi Values and Mitigation Table**

## Alliance Lorneville Reconsenting 2015 –Proposals to Recognise Iwi Values

### *Comments from Kitson Consulting Ltd (for Te Ao Marama Inc)*

#### Context:

- A Cultural Values Report (CVR), not a Cultural Impact assessment, was provided for the Alliance Lorneville Reconsenting proposed wastewater discharge.
- Makarewa & Oreti River are important cultural landscapes.
- Ngai Tahu whānui view resource management from ki uta ki tai – holistically, from mountains to the sea, and includes Ngai Tahu whānui as part of the landscape/ecosystem. The Activities of AGL will affect the whole catchment.
- Mahinga Kai is central element to Ngāi Tahu Whānui cultural identity and well-being.
- The following particular points were made in the CVR in relation to the proposed Alliance Lorneville wastewater management:
  - The need to separate human waste from food gathering areas.
  - Food gathering occurs in the area downstream and upstream of the area (mahinga kai can move in and through the discharge area).
  - The adverse effects of human waste discharge on wāhi tapu/archaeological sites near and downstream of this area.
  - The potential effects of ammonia on taonga species.
  - The expectation set up in the Iwi Management Plan that wastewater disposal practice will improve over time and with improved technology.
  - The expectation of restoration and protection of mahinga kai outlined in the Iwi Management Plan.
- Alliance sought support in principle (in part or in whole) of the following:
  - The discharge of treated wastewater to the Makarewa River (and then Oreti River and New River Estuary)
  - The primary mitigation for this discharge will be a 75% reduction of TN concentration,
  - The 75% TN reduction would be achieved by year 15.
  - The duration of the consent is proposed to be 35 years.
  - Human sewage will be part of the discharge to water.
- After considering the Alliance proposal, the cultural values report, policies in the IMP, past responses to similar proposals, as well as the economic and social benefits of the Alliance Lorneville, the TAMI board gave their support in principle to all the above points, expect the duration of the consent. The IMP does not allow for consents exceeding 25 years, as that is making decisions for the next generation. It is important to note that in the IMP there is a strong preference for effluent to be treated by a land-based solution, to filter and cleanse contaminants. Where this is not practical or feasible, and discharge to water is proposed, then adverse effects must be mitigated through treatment to a very high standard and robust monitoring programs.
- TAMI provided a table with some core values and the respective needs to enable AGL and TAMI to explore appropriate consent conditions. Feedback on this and comments on the consent conditions, environmental monitoring plan is provided below

#### Method used to feedback on Alliance proposal:

- Makarewa River Cultural Values Report and presentation provided to Alliance
- TAMI presentation to Alliance 18 May 2015
- Meetings with Alliance and consultations and as part of the Technical Working Party (when Dean & Jane were available). Dean & Jane missed the 4<sup>th</sup> August TWG meeting that discussed the Summary AEE, Draft Consent Conditions & Environmental monitoring plan.
- Reviewed the summary AEE 22-7-2015 , consent conditions 22-7-2015, environmental monitoring plan 20-7-2015 & Iwi mitigation Table 28-7-2015



Comments on Alliance Iwi mitigation Table (dated 28-7-2015). Comments in blue.

Iwi core pillar values	Iwi needs	Proposed mitigation by Alliance	Proposed Monitoring	Relevant consent conditions (Proposed Conditions 22-7-15) <a href="#">See comments on proposed conditions in the section below.</a>
Kaitiakitanga	Protect, Restore & Reciprocity	<ul style="list-style-type: none"> <li>• Setting limits on wastewater discharge and receiving water to protect existing Makarewa River ecosystem to ensure no reduction in water and habitat quality.</li> <li>• Wastewater treatment upgrade to provide further protection for Makarewa River ecosystem and to substantially reduce Alliance’s contribution of nutrients to the lower Makarewa and Oreti Rivers and estuary.</li> <li>• Pre and post wastewater upgrade aquatic biological and fish health surveys</li> <li>• Restoration of oxbow habitat and riparian planting where appropriate along Makarewa River and identification of further opportunities to restore habitat and improve biodiversity on Alliance Lorneville land. These habitat enhancements offset potential wastewater discharge including human sewage and water take effects.*</li> <li>• Habitat enhancements to be identified in consultation with Te Ao Marama and documented in the Habitat Enhancement Plan for the Alliance Lorneville property.</li> </ul>	<p>Discharge and river limits and monitoring – Environmental Monitoring Plan (EMP)</p> <p>Pre and post wastewater upgrade aquatic biological and fish health monitoring.</p> <p>Habitat Enhancement Plan.</p> <p>Annual monitoring report.</p>	<p>Discharge to wastewater conditions:</p> <ul style="list-style-type: none"> <li>• Condition 3 – Environmental Monitoring Plan</li> <li>• Conditions 5 and 6, 14 and 15 – biological and fish health monitoring</li> <li>• Conditions 8 – 10 – discharge and river limits</li> <li>• Conditions 11 – 16 – Wastewater Treatment Upgrade</li> <li>• Condition 17 – Habitat Enhancement Plan</li> <li>• Condition 21 – Annual Report</li> </ul>

	Participation & connection	<ul style="list-style-type: none"> <li>Alliance to continue to consult iwi during the consent term and involve iwi as primary partner in the implementation of the Habitat Enhancement Plan.</li> </ul>	Iwi consultation **	Discharge to wastewater conditions: <ul style="list-style-type: none"> <li>Condition 17 – Habitat Enhancement Plan</li> <li>Conditions 24 – 27 – consultation with TWP</li> </ul>
	Best practices, improvement & in a timely manner	<ul style="list-style-type: none"> <li><b>Commitment to continual improvement.</b> Alliance will keep abreast of all technological and best practicable options with respect to its Plant operations. Alliance is committing to upgrading its wastewater system. This upgrade will be progressively implemented and fully commissioned within 15 years of any consent being granted.</li> <li>Along with regular daily, weekly and monthly monitoring of the discharge and receiving waters, on an annual basis Alliance will prepare a monitoring report which will assess compliance with the water quality limits and provide a comparative assessment of the annual discharged loads of certain parameters against preceding seasons. The purpose of this report is to ensure that the discharge quality and effects within the receiving water does not deteriorate from current conditions, and will also serve to ensure that any changes to the overall catchment water quality are identified.</li> <li>A substantial review of wastewater treatment and effects on the river – estuary ecosystem will be undertaken by year 25. Any practicable improvements identified by this review will be implemented as soon as is practicable following the outcome of the review process.</li> </ul>	Wastewater Treatment Upgrade Plan Annual Monitoring Report Wastewater Treatment Review	Discharge to wastewater conditions: <ul style="list-style-type: none"> <li>Conditions 11 – 16 – Wastewater Treatment Upgrade</li> <li>Condition 21 – Annual Report</li> </ul>

<p>Mahinga Kai</p> <p>A central element to Ngai Tahu whānui cultural identity</p>	<p>Desirable conditions – environment &amp; condition of species</p>	<ul style="list-style-type: none"> <li>Annual reporting to ensure that the discharge quality and receiving water quality does not deteriorate as set out above is proposed.</li> <li>A survey to establish the health of fish around the wastewater discharge zone will be undertaken within 5 years (baseline) and pre- and post-wastewater treatment upgrade.</li> <li>Any clearance of the water intake channel will be undertaken in accordance with best practice (agreed upon by iwi) and contractors will be advised to ensure that the intake channel is checked for eels (and other fauna) prior to work commencing and that material extracted is placed in such a way so it does not result in any fish or eel stranding.</li> </ul>	<p>Discharge and river limits and monitoring – Environmental Monitoring Plan</p> <p>Pre and post wastewater aquatic biological and fish health monitoring.</p> <p>Habitat Enhancement Plan.</p> <p>Annual monitoring report.</p> <p>Pre channel clearance inspection for eels and avoidance of fish, eel or other aquatic fauna stranding.</p> <p>Drain clearance best practice SOP (not part of the consent but part of overall commitment to better land management practices)</p>	<p>Discharge to wastewater conditions:</p> <ul style="list-style-type: none"> <li>Condition 3 - EMP</li> <li>Conditions 5 and 6 – biological and fish health monitoring</li> <li>Conditions 8 – 10 – discharge and river limits</li> <li>Conditions 11 – 16 – Wastewater Treatment Upgrade</li> <li>Condition 17 – Habitat Enhancement Plan</li> <li>Condition 21 – Annual Report</li> </ul> <p>Channel Clearance conditions:</p> <ul style="list-style-type: none"> <li>Condition 5</li> </ul>
	<p>Habitat</p>	<ul style="list-style-type: none"> <li>The Makarewa River habitat has been assessed as part of this application and will be reassessed before and after the wastewater treatment upgrade.</li> </ul>	<p>Pre and post wastewater aquatic biological and fish health monitoring.</p> <p>Habitat Enhancement Plan.</p> <p>Annual monitoring report.</p>	<p>Discharge to wastewater conditions:</p> <ul style="list-style-type: none"> <li>Conditions 5 and 6 – biological and fish health monitoring</li> <li>Conditions 8 – 10 – discharge and river limits</li> </ul>

				<ul style="list-style-type: none"> <li>• Conditions 11 – 16 – Wastewater Treatment Upgrade</li> <li>• Condition 17 – Habitat Enhancement Plan</li> <li>• Condition 21 – Annual Report</li> </ul>
	Life stages & co-dependant species present	<ul style="list-style-type: none"> <li>• The Makarewa River habitat has been assessed as part of this application and will be reassessed before and after the wastewater treatment upgrade.</li> </ul>	<p>Pre and post wastewater aquatic biological and fish health monitoring.</p> <p>Habitat Enhancement Plan.</p> <p>Annual monitoring report.</p>	<p>Discharge to wastewater conditions:</p> <ul style="list-style-type: none"> <li>• Condition 3 - EMP</li> <li>• Conditions 5 and 6, 14 and 15 – biological and fish health monitoring</li> <li>• Conditions 8 – 10 – discharge and river limits</li> <li>• Conditions 11 – 16 – Wastewater Treatment Upgrade</li> <li>• Condition 17 – Habitat Enhancement Plan</li> <li>• Condition 21 – Annual Report</li> </ul>
	Access	<ul style="list-style-type: none"> <li>• Access by iwi to sites of interest on Alliance Lorneville land (e.g. oxbow, Makarewa River riparian zones) will be freely given subject to logistics and appropriate safety measures.</li> <li>• <a href="#">Includes desirability to access</a></li> </ul>	<p>Iwi consultation <a href="#">(including monitoring of indicators of success)**</a></p>	<p>Discharge to wastewater conditions:</p> <ul style="list-style-type: none"> <li>• Condition 17 – Habitat Enhancement Plan</li> <li>• Conditions 24 – 27 – consultation with TWP</li> </ul>

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Ki uta ki tai	Linkage to the wider catchment & processes	<ul style="list-style-type: none"> <li>Alliance recognises that actions taken at its Lorneville plant can affect the whole Oreti River catchment e.g. reduction in nutrient discharges contribute (in a small way) to improvements in the estuary and avoidance of impacts on migratory fish has upstream benefits. Alliance also acknowledges that iwi believe that a positive action at Lorneville (e.g. oxbow habitat improvement) will result in benefit to the wider region.</li> <li>Participation in a catchment wide approach</li> </ul>	Iwi consultation (including monitoring of indicators of success). ** Post implementation review of upgrade and overall water quality in catchment in order to identify whether any further upgrades are necessary and practicable (this was in the AEE)	Discharge to wastewater conditions: <ul style="list-style-type: none"> <li>Condition 17 – Habitat Enhancement Plan</li> <li>Conditions 24 – 27 – consultation with TWP</li> </ul>
Whanaungatanga	Health & wellbeing	<ul style="list-style-type: none"> <li>Continued operation of the Lorneville plant provides employment for the community, including iwi, and enhances health and wellbeing. Health and wellbeing includes being a safe work place, sustainable in business, and being part of the community</li> <li>Fish will be safe for human consumption</li> <li>Also includes minimising pathogens and contaminants that people may encounter from gathering mahinga kai &amp; recreational activities</li> <li>Participation in a catchment wide approach</li> </ul>	Iwi consultation (including monitoring of indicators of success)** Fish health & contaminant monitoring? Monitoring fish are safe for human consumption? & safe to harvest?	Discharge to wastewater conditions: <ul style="list-style-type: none"> <li>Conditions 6 and 15 – Fish Health Survey</li> <li>Condition 17 – Habitat Enhancement Plan</li> <li>Conditions 24 – 27 – consultation with TWP</li> </ul>

Note: This table and columns 1 & 2 was first proposed by Te Ao Marama on 18 May 2015 as a vehicle for discussion of mitigation and consent conditions.

\* More of an attempt to offset this - would be good to recognise that TAMU policy is opposed to discharge of human waste to water, but in its decision-making had to consider this over all factors, including the cost and technology available as well as the economic benefits of AGL to the region. There is an expectation set up in the Iwi Management Plan that wastewater disposal practice will improve over time and with improved technology.

\*\* Needs to be meaningful consultation and not a 'tick' box' exercise. It might be useful to set up expectations in a MoU or something similar?

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## Questions/comments:

### *Draft Conditions*

#### **Treated Wastewater to Water:**

*General condition: 2.* This resource consent authorises the discharge of up to 22,730 m<sup>3</sup>/day of treated wastewater from the Alliance Lorneville waste water treatment ponds to the Makarewa River.

- Even in low flow conditions? Is there no condition on low flows?

#### *Condition 3: Environmental Monitoring Plan:*

- Iwi involvement in reviewing such a plan to ensure values are being measured? Role of iwi and/or technical working party not mentioned? Or is this part of condition 27- "The purpose of the Lorneville Wastewater Technical Working Party shall be to ... review results ... and recommend reviews of consent conditions if necessary."
- Use Maori & English name for tuna eg eel/tuna – so no confusion for those who don't know the Maori word for these species.

#### *Receiving Water Discharge Limits – Pre Wastewater Treatment Plant Upgrade. 9:*

- Faecal Coliforms limits after zone of reasonable mixing? You have bottom of the pipe limits, but if discharging same amount to varying flows, which will alter concentrations – potentially very concerning in high flows.
- Where is the linkage to the limits set in 7 (Treated Wastewater Limits – Pre Wastewater Treatment Plant Upgrade) – there seems to be a disjunct here?

#### *Wastewater Treatment Upgrade: 13:*

- No limits/stds on Faecal coliforms (or pathogens or containments arising from human sewage) or DRP?
- Where the linkages between what is monitored in 7 and what are is monitored here.

#### *Wastewater Treatment Upgrade 16 c:*

- Review should probably also consider water quality improvements in the Makarewa, and the future requirements for improvements required in both catchments (the Oreti FMU). This is part of Whanaungatanga & Kaitiakitanga.
- Reductions in Total Phosphorous concentration not mentioned (was quoted in an Alliance presentation as approximately 45%).

### *Monitoring Plan:*

- No detail on fish health surveys.
- How monitor on Life stages & co-dependant species present and link in reporting?
- Monitoring fish are safe for human consumption & safe to harvest?
- Monitoring of habitat enhancement
- Recreational safety monitoring?
- Iwi consultation - monitoring of indicators of success

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*Sticking point:*

- proposed consent term of 35 years