

CANTERBURY REGIONAL COUNCIL  
*Kaunihera Taiao ki Waitaha*

# AGENDA|2019

## **Regulation Hearing Committee**

Thursday, 5 September 2019

Time: 8.00am

Venue: Council Chamber,  
200 Tuam Street, Christchurch



# Regulation Hearing Committee

## Membership

### Chair

Cr Peter Skelton

### Members:

Cr Claire McKay  
Cr Elizabeth Cunningham  
Cr Lan Pham  
Cr Peter Scott  
Cr Tom Lambie

**ENVIRONMENT CANTERBURY  
REGULATION HEARING COMMITTEE**

**TABLE OF CONTENTS**

<b>1. Apologies.....</b>	<b>4</b>
<b>2. Conflict of Interest .....</b>	<b>4</b>
<b>3. Deputations and Petitions.....</b>	<b>4</b>
<b>4. Minutes .....</b>	<b>5</b>
4.1. Minutes from 15 August 2019 .....	5
<b>5. Matters Arising.....</b>	<b>9</b>
<b>6. Items for discussion .....</b>	<b>10</b>
6.1. Appointment of Hearing Commissioner - N J Small .....	10
6.2. Resource Consent Application for Consideration - A J & M J Sim .....	12
<b>7. Extraordinary and Urgent Business.....</b>	<b>47</b>
<b>8. Other Business .....</b>	<b>47</b>
<b>9. Next Meeting - to be confirmed .....</b>	<b>47</b>
<b>10. Closure.....</b>	<b>47</b>

- 1. Apologies**
- 2. Conflict of Interest**
- 3. Deputations and Petitions**

## **4. Minutes**

### **4.1. Minutes from 15 August 2019**

Refer to attachment on following page.

## **REGULATION HEARING COMMITTEE**

Minutes of the meeting held in the  
Council Chamber, 200 Tuam Street, Christchurch, on  
Thursday, 15 August 2019 at 8.30am

### **CONTENTS**

- 1.0 Apologies
- 2.0 Conflict of Interest
- 3.0 Minutes of Meeting – 27 June 2019
- 4.0 Matters Arising
- 5.0 Deputations and Petitions
- 6.0 Item for Discussion
  - 6.1 Appointment of Hearing Commissioner – Flintoft Contractors Limited
  - 6.2 Appointment of Hearing Commissioner – Mr H S & Mrs K A Mackenzie
- 7.0 Extraordinary and Urgent Business
- 8.0 Other Business
- 9.0 Next Meeting
- 10.0 Closure

### **PRESENT**

Councillors Peter Skelton (Chair), Elizabeth Cunningham, Lan Pham, Claire McKay, Tom Lambie, and Peter Scott

### **IN ATTENDANCE**

Virginia Loughnan (Consents Planning Manager), and Alison Cooper (Consents Hearings Officer)

#### **1. APOLOGIES**

There were no apologies

#### **2. CONFLICT OF INTEREST**

No conflicts of interest were declared.

#### **3. MINUTES OF MEETING – 27 JUNE 2019**

The Committee discussed an amendment to paragraph 3 on page 3 of the minutes and agreed to add the following words after the penultimate sentence: "It was noted that the ten year duration was consistent with other existing operators ten year term of consent."

#### **Resolved:**

**The Regulation Hearing Committee:**

**Confirms the amended minutes of the meeting held on 27 June 2019, as a true and correct record.**

Cr Pham / Cr Cunningham  
CARRIED

**4. MATTERS ARISING**

There were no matters arising.

**5. DEPUTATIONS AND PETITIONS**

There were no deputations or petitions.

**6. ITEMS FOR DISCUSSION**

**6.1 Appointment of Hearing Commissioner – Flintoft Contractors Limited**

**Resolved:**

**That the Regulation Hearing Committee in regard to an objection to a decision on resource consent CRC192967 to be held by Flintoft Contractors Limited:**

- 1. Appoints Sarah Dawson as a Hearings Commissioner, under s34A of the Resource Management Act 1991; and**
- 2. Delegates to Sarah Dawson, pursuant to s34A(1) Resource Management Act 1991, the function, powers and duties required to: deal with any preliminary matters; hear; and decide the objection to the decision.**

Cr McKay /Cr Scott  
CARRIED

**6.2 Appointment of Hearing Commissioner – Mr H S & Mrs K A Mackenzie**

**Resolved:**

**That the Regulation Hearing Committee in regard to an objection to a decision on resource consent CRC193769 to be held by Mr H S & Mrs K A Mackenzie:**

- 1. Appoints Sarah Dawson as a Hearings Commissioner, under s34A of the Resource Management Act 1991; and**
- 2. Delegates to Sarah Dawson, pursuant to s34A(1) Resource Management Act 1991, the function, powers and duties required to: deal with any preliminary matters; hear; and decide the objection to the decision.**

Cr Lambie /Cr Cunningham  
CARRIED

**7. EXTRAORDINARY AND URGENT BUSINESS**

There was no extraordinary or urgent business.

**8. OTHER BUSINESS**

It was advised a Regulation Hearing Committee meeting to decide notified application CRC192885 was required. The meeting is to be held on Thursday 5 September 2019 at 8.00am.

**9. NEXT MEETING - To be advised**

**10. CLOSURE - The Chairperson declared the meeting closed at 8.47 am**

**CONFIRMED**

**Date:**

\_\_\_\_\_

**Chairperson:**

\_\_\_\_\_



## **5. Matters Arising**

## 6. Items for discussion

### 6.1. Appointment of Hearing Commissioner - N J Small

#### Regulation Hearing Committee paper

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<b>Date of meeting</b>	5 September 2019
<b>Agenda item</b>	6.1
<b>Consents Manager</b>	Virginia Loughnan
<b>Author</b>	Alison Cooper

#### Purpose

1. To appoint Hearing Commissioners to hear and decide an objection to decision of resource consent CRC040988, CRC040989, CRC051766 and CRC071825 held by Mr N J Small.

#### Recommendations

That the Regulation Hearing Committee in regard to an objection to a decision on resource consents CRC040988, CRC040989, CRC051766 and CRC071825 held by N J Small:

1. Appoints Cindy Robinson as a Hearings Commissioner under s34A of the Resource Management Act 1991; and
2. Delegates to Cindy Robinson pursuant to s34A(1) Resource Management Act 1991, the function, powers and duties required to: deal with any preliminary matters; hear; and decide the objection to decision.

#### Background

2. Mr N J Small has objected to the decision to decline an extension to the lapse period of 17 September 2019. The consents were originally granted in July 2010 with a lapse date of 19 July 2015.
3. The first request to extend the lapse date was granted until 17 July 2017. A second request in 2017 was declined, but a hearing to the objection to the decision upheld the objection and the lapse date was extended. This will be the third request for an extension to the lapse period.
4. The consents expire in July 2045.

5. The consents are to take and use surface water from a storage dam; dam water; divert surface water from a stream to a storage dam; and excavate and disturb the bed of a stream to place a dam to impound water at Gormans Road, Hakataramea Valley.

## **Proposed Commissioners**

6. Cindy Robinson has satisfied Council staff she has the necessary criteria, including technical ability, RMA Accreditation certification, availability and timeframe commitments to carry out the duties required as Hearing Commissioner. Ms Robinson is an experienced hearing commissioner with expertise in resource management law.

## **Legal compliance**

7. S34A of the Resource Management Act 1991 allows Council to delegate functions to Hearing Commissioners appointed by the Canterbury Regional Council.
8. The Regulation Hearing Committee appoints Hearing Commissioners in relation to consent authority matters under the Resource Management Act 1991.

<b>Peer reviewers</b>	Virginia Loughnan
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## **6.2. Resource Consent Application for Consideration - A J & M J Sim**

### **Regulation Hearing Committee paper**

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<b>Date of meeting</b>	5 September 2019
<b>Agenda item</b>	6.2
<b>Consents Manager</b>	Virginia Loughnan
<b>Author</b>	Alison Cooper

### **Purpose**

1. For the Regulation Hearing Committee to consider and decide resource consent application CRC192885 made by A J and M J Sim.

### **Recommendations**

**That the Regulation Hearing Committee acting pursuant to a delegation of the Council dated 25 August 2016:**

1. **Having considered all relevant provisions of the Resource Management Act 1991; and**
2. **For the reasons set out in section 42A report which is adopted; and**  
**Grants consent of application CRC192885 for a water permit to take and use groundwater at 1052 Valetta Westerfield Road, Ashburton for a period of 15 years**  
**Subject to conditions attached as Appendix 1.**

### **Background**

2. A J and M J Sim have applied for resource consent for a water permit to take and use groundwater from bore BX20/0054 for the irrigation of crops and pasture at 1052 Valetta Westerfield Road, Ashburton.
3. They propose to take water at a rate not exceeding 22 litres per second, and a volume not exceeding 204,976 cubic metres between 1 July and the following 30 June from a deep bore. The depth of water to be taken into the bore is to be not less than 147 metres below ground level.
4. The groundwater proposed to be taken is from the 'B' allocation block of the Ashburton River Groundwater Allocation Zone.

5. A J and M J Sim currently hold a water permit CRC020255.1 which authorises a take from shallow bores and irrigation of the same property as proposed in the application. This consent is currently under review as part of the Ashburton River Consent Review and it is proposed that CRC020255.1 be surrendered should application CRC182885 be granted.
6. Mitigation measures are proposed as conditions and include water metering, backflow prevention and water efficiency conditions for the proposed take and use of groundwater.
7. The application was limited notified to one party as it was shown that well interference on the proposed take from their bore exceeded the threshold set out in the relevant planning framework. No submission was received.
8. There is no reason for a hearing to be held.

## **Legal Compliance**

9. Canterbury Regional Council has delegated the authority to the Regulation Hearing Committee to decide resource consent applications to which no submissions have been received and where there are no requests to be heard or any requests to be heard have been withdrawn.

## **Attachments**

Section 42A report prepared by Simon Woodlock.

<b>Peer reviewers</b>	Virginia Loughnan
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**Before the Commissioner / Hearing Panel  
appointed by Canterbury Regional  
Council**

**IN THE MATTER OF** The Resource  
Management Act  
1991

**AND  
IN THE MATTER OF** Application by A J  
& M J Sim for a  
water permit to  
take and use  
groundwater.

**Section 42A Officer's Report**

**Date of Hearing: 5 September 2019**

**Report of Simon Woodlock**

1. My name is Simon Woodlock. I have been employed as a Consents Planner at the Canterbury Regional Council (the CRC) since September 2012. During my time as a Consent Planner I have worked on consents for wastewater discharges, groundwater and surface water take and use, and nutrient discharges. I hold a Bachelor of Environmental Management from Lincoln University.
2. This report is prepared under the provisions of Section 42A of the Resource Management Act 1991 (RMA). This section allows a Council officer to provide a report to the decision-maker on a resource consent made to the Council, and allows the decision-maker to consider the report at the hearing. Section 41(4) of the RMA allows the decision-maker to request and receive from any person who makes a report under Section 42A *"any information or advice that is relevant and reasonably necessary to determine the application"*.
3. This report will provide the decision-maker with information and advice related to:
  - a. The background to the application;
  - b. Details of the notification of the application and submissions received;
  - c. An outline of the relevant legal and planning provisions;
  - d. Comments on the assessment of environmental effects provided;
  - e. Details of Council policy relevant to the applications;
  - f. Comments in relation to the matters specified in Part 2 of the RMA; and
  - g. Recommendations on whether the application can be granted or should be declined; if the application is to be granted what measures are required to avoid, remedy or mitigate any adverse effects; what monitoring could be undertaken and the duration of the consent.
4. It should be emphasised that any conclusions reached or recommendations made in this report are not binding on the decision-maker. It should not be assumed that the decision-maker will reach the

same conclusion or decision having considered all the evidence to be brought before it by the applicant and submitters.

## **EXECUTIVE SUMMARY**

5. The potential adverse environmental effects of the proposal are considered as appropriate with the exception of the effects of the take on other groundwater users, due to well interference.
6. The well interference assessment shows that the effect of the proposed take from bore BX20/0054 on neighbouring bore K36/0591 exceeds the threshold set out in the relevant planning framework. This effect is therefore the principal issue of this application. The owner of bore K36/0591 has been notified of this application on this basis.
7. The owner of potentially affected bore K36/0591 did not make a submission on the application, does not currently utilise the bore and is able to sufficiently irrigate their property from a separate bore.
8. It is therefore considered that the purpose of the RMA is best met by granting the application subject to conditions outlined in Appendix 1.

## **INTRODUCTION**

9. A J & M J Sim (the applicant) has applied to take and use groundwater from the "B" allocation block of the Ashburton River Groundwater Allocation Zone.
10. The applicant currently holds water permit CRC020255.1 which authorises the take of groundwater from shallow bores K36/0218 and K36/0722 (10 metres and 7 metres deep respectively) at a rate not exceeding 22 litres per second and a volume not exceeding 38,253 cubic metres in period of 21 consecutive days for the irrigation of the applicants entire 145-hectare property. Water permit CRC020255.1 is not currently subject to minimum flow conditions, however, the applicant considers that the take from the shallow bores authorised is hydraulically connected to the South Branch of the Ashburton River. I note that CRC020255.1 is currently under review as part of the Ashburton River Consent Review which is imposing plan compliant minimum flow restrictions on the consent. The review is however yet to be finalised.
11. To facilitate the take of the new allocation of groundwater from the "B" allocation block (swap), the applicant proposes to surrender CRC020255.1 concurrently with the grant of this application in accordance with condition 4 of Rule 13.5.2 of the Land and Water Regional Plan (LWRP).
12. The well interference effects of the proposed take of groundwater is considered to adversely affect neighbouring bore K36/0591 owned by Mr & Mrs G M & J M Waddell. Mr & Mrs G M & J M Waddell are consequently considered as affected parties and have been limited notified of the proposal.

## NOTIFICATION

13. The application was limit notified to Mr & Mrs G M & J M Waddell on 12 June 2019. The following wording was used in the notice:

<b>Applicant:</b>	<b>A J &amp; M J Sim</b>
<b>Address for service:</b>	Irricon Resource Solutions Limited Attn: Keri Johnston Washdyke PO Box 2193 Timaru 7920
<b>Resource consent application CRC192885:</b>	
<p>A J &amp; M J Sim has applied for consent from the Canterbury Regional Council to take and use groundwater from bore BX20/0054 (162 metres deep) at 1052 Valetta Westerfield Road at a rate not exceeding 22 litres per second and a volume not exceeding 204,976 cubic metres between 1 July and the following 30 June. The proposed use of water is for the irrigation of 145 hectares of crops and pasture.</p> <p>The applicant currently holds water permit CRC020255.1 which authorises the take of groundwater from shallow bores K36/0218 and K36/0722 (10 metres and 7 metres deep respectively) at a rate not exceeding 22 litres per second and a volume not exceeding 38,253 cubic metres in period of 21 consecutive days for the irrigation of the 145-hectare subject property. To facilitate the take of the new allocation of groundwater from the "B" allocation block (swap), the applicant proposes to surrender CRC020255.1 if the proposal is granted.</p> <p>A consent duration of 15 years is sought.</p>	

## Submission

14. No submission was received within the submission period which ended on 12 July 2019.

## DESCRIPTION OF THE PROPOSED ACTIVITY

15. The applicant has applied to take water from bore BX20/0054 (162 metres deep) at a rate not exceeding 22 litres per second and an annual volume not exceeding 204,976 cubic metres from the Ashburton River Groundwater Allocation "B" block for the irrigation of the 145-hectare property.
16. The applicant also proposes/adopts water metering, backflow prevention, water efficiency conditions as additional mitigation for the proposed take and use of groundwater.
17. In order to give effect to condition 4 of Rule 13.5.2 of the LWRP (via Rule 13.5.3 of the LWRP), the applicant also proposes a condition that requires the surrender of CRC020255.1.
18. A duration of 15 years is sought.



19. Please see Appendix 1 for a set of conditions that accompany the application.

## **LEGAL AND PLANNING MATTERS**

20. The following planning provisions are considered relevant to the proposed activities:
- a. Resource Management Act 1991 (RMA);
  - b. Canterbury Regional Policy Statement 2013 (CRPS);
  - c. Natural Resources Regional Plan (NRRP);
  - d. Land and Water Regional Plan (LWRP);
  - e. Te Whakatau Kaupapa, the Ngāi Tahu Resource Management Strategy for the Canterbury Region;
  - f. Iwi Management Plan of Kati Huirapa for the area Rakaia to Waitaki, Part One; and
  - g. Te Rūnanga o Ngāi Tahu Freshwater Policy Statement.

## **RESOURCE MANAGEMENT ACT 1991 (RMA)**

21. Section 14 of the RMA states that no person may take or use water unless expressly allowed by a national environmental standard, rule or resource consent unless the take is:
- a. For an individual's own reasonable domestic or stock drinking water needs, and the taking and use does not, or is not likely to, have an adverse effect on the environment; or
  - b. The take is for firefighting purposes.

## **NATIONAL POLICY STATEMENT (NPS)**

22. NPS (Freshwater Management 2014) sets out objectives and policies to manage water in an integrated and sustainable way, while providing for economic growth within set limits.

## **CANTERBURY REGIONAL POLICY STATEMENT 2013 (CRPS)**

23. The CRPS became operative on 15 January 2013 and contains relevant objectives and policies relative to this application.

## **REGIONAL PLANS – RULE CLASSIFICATION**

### **Land and Water Regional Plan (LWRP)**

24. The proposed take and use of groundwater have been applied under Rules 13.5.2 and 13.5.3 of the LWRP. Rule 13.5.2 states:
25. *“The take and use of groundwater within the B permit allocation limit of the Ashburton River Groundwater Allocation Zone is a restricted discretionary activity, provided that the following conditions are met:*

1. *The annual volume of the groundwater takes, in addition to all existing consented takes, does not exceed the B permit allocation limit as set out in Table 14;*
  2. *The bore interference effects are "acceptable", as set out in Schedule 12;*
  3. *The abstraction depth is greater than 40 m below ground level; and*
  4. *The applicant holds a lawfully established surface water take or stream depleting groundwater take for an equal or greater rate and volume than is sought and the surface water take or stream depleting groundwater take is surrendered concurrently with the application."*
26. The application meets conditions 1, 3 and 4 because:
- a. There is sufficient allocation available in the "B" allocation zone;
  - b. The well interference effects are acceptable under Schedule 12 of the LWRP;
  - c. The abstraction depth of BX20/0054 is greater than 40 metres below ground level; and
  - d. The applicant holds a lawfully established stream depleting groundwater take for an equal rate and equivalent annual volume which will be surrendered before first exercise of consent.
27. The application however does not comply with condition 2 because the well interference effects exceeds the thresholds under Schedule 12 of the LWRP.
28. Given that the proposal does not meet condition 2 of the rule, the activity must be processed under Rule 13.5.3 of the LWRP. Rule 13.5.3 of the LWRP states:
29. *"The taking and use of groundwater within the B permit allocation limit of the Ashburton River Groundwater Allocation Zone as set out in Table 13(f) that does not meet one or more of conditions 2 or 3 of Rule 13.5.2 is a non-complying activity."*
30. The application has therefore been processed as a **non-complying** activity as per Rule 13.5.3 of the LWRP.

#### **Proposed Plan Change 7 to the Land and Water Regional Plan (PPC7 LWRP)**

31. PPC7 LWRP was notified on 20 July 2019. The application was lodged prior to the notification of PPC7 LWRP so has been only assessed against the rules of the operative LWRP.

#### **Nutrient Management (Farming Land Use)**

32. The applicant holds farming land use consent CRC183008 which restricts the farming activity to a nutrient loss limit. The applicant is required to farm within the limit imposed in the farming land use consent.

## CONSULTATION

33. The applicant has consulted with and provided written approval from Valetta Holdings Limited who own and operate bores K36/0648 and K36/0653. These bores have been identified as affected by the applicants and audited well interference assessments.
34. The Canterbury Regional Council (CRC) have contacted the following parties regarding the lodgement of the application:
  - a. Arowhenua Rūnanga;
  - b. Aoraki Environmental Consultancy (representative of Arowhenua Rūnanga);
  - c. Ashburton District Council;
  - d. Department of Conservation;
  - e. Fish & Game;
  - f. Forest & Bird.

## DESCRIPTION OF THE AFFECTED ENVIRONMENT

35. The applicant has provided a detailed description of the affected environment on page 6 of the AEE.
36. To summarise:
  - a. The existing groundwater abstraction is located within the Ashburton River Groundwater Allocation Zone (AGWAZ). The following table shows the allocation limits of the “A” and “B” Allocation Zones and the current allocation status of those blocks:

Ashburton River Groundwater Allocation Zone			
Allocation block	Allocation limit (m <sup>3</sup> /annum)	Volume allocated (m <sup>3</sup> /annum)	Percentage allocated
A	69.70	104.96	136%
B	35.00	20.01	57%

**Table 1: Allocation zone status**

- b. The property is located within the Ashburton Nutrient Allocation Zone (NAZ) under the LWRP which is classified as an Orange Zone. Water quality outcomes in this area are at risk.
- c. The South Branch of the Ashburton River bounds the north east boundary of the applicant's property and is located approximately 500 metres of bore BX20/0054. The river is also located approximately 900 metres from shallow bores K36/0218 and K36/0722 which are currently authorised to take groundwater under CRC020255.1.
- d. The Ashburton/Hakatere River is a site of special wildlife significance has associated native bird habitat, riparian vegetation

and recreational values. The river is also a statutory acknowledgment area and Rūnanga sensitive area.

- e. There are no Silent Files Areas within 1,000 metres of the subject property.

## **ASSESSMENT OF ACTUAL AND POTENTIAL EFFECTS**

- 37. Given the management of the property's nutrient loss and that the irrigation area proposed is currently irrigated, I consider an assessment against the effects listed below is not required:
  - a. Effect of the use on groundwater quality; and
  - b. Effect of the use of water on biodiversity.
- 38. Given the nature of the proposal, I consider further assessment against the effects listed below is required:
  - a. Cumulative effect of take on other groundwater users;
  - b. Effects of salt water intrusion;
  - c. Effects of take on other groundwater users;
  - d. Effect of an inefficient take and use of groundwater;
  - e. Effects on surface water flows; and
  - f. Effects of the take and use of groundwater on Tangata Whenua values.
- 39. Further discussion has been provided below for these listed effects:

### **Cumulative effect of take on other groundwater users**

- 40. The applicant has proposed an annual volume of 204,976 cubic metres for the irrigation of the 145-hectare property.
- 41. The "B" block of the Ashburton River GWAZ is currently 57% allocated. The addition of the proposed annual volume increases the allocated percentage to 58%.

### Objectives and policies

- 42. The key policy regarding cumulative effects of the proposed groundwater abstraction is policy 13.4.4 of the LWRP.
- 43. Policy 13.4.4 states:

*To avoid over-allocation of the Ashburton River Groundwater Allocation Zone, it is limited to a total of 104.7 million m<sup>3</sup> per annum of which:*

  - a. *69.7 million m<sup>3</sup> per annum is available for existing lawfully established groundwater takes; and*
  - b. *35 million m<sup>3</sup> per annum is available for applicants who surrender surface water and/or stream depleting groundwater takes in accordance with Policies 13.4.5 and 13.4.7.*
- 44. Clause (b) of the policy is relevant to the application and establishes a "B" allocation block for the Ashburton River GWAZ. The allocation limit of the GWAZ has been established at 35 million cubic metres of which, the

proposed take in combination with all other “B” block takes, results in 58% of the limit being allocated.

45. The “B” allocation block has been established in order to enable the taking of deep groundwater when an associated surface water or hydraulically connected groundwater permit is surrendered. The surrender of surface water and hydraulically connected groundwater permits address the over-allocation of surface water in the Hakatere/Ashburton catchment as per Policy 13.4.5 of the LWRP.
46. Given that the proposed annual volume does not result in the relevant “B” allocation block being overallocated, the proposal complies with key Policy 13.4.4.

#### Conclusion

47. Given that there is sufficient allocation available for the proposal and the policy framework that provides for the allocation of groundwater is complied with, I agree that the cumulative effect of the proposed take is appropriate.

#### **Effects of salt water intrusion**

48. The proposed take is located approximately 40 kilometres inland from the coast.

#### Objectives and policies

49. The key objective regarding saltwater intrusion is Objective 3.13 of the LWRP. The objective states:

*“Groundwater resources remain a sustainable source of high quality water which is available for abstraction while supporting base flows or levels in surface water bodies, springs and wetlands and avoiding salt-water intrusion.”*

50. Canterbury Regional Council Coastal Aquifer Saltwater Intrusion Assessment Guideline (Report No. R04/18) recommends that all wells within 1,500 metre from the coast and all wells within 2,000 metres of the coast with a proposed rate of take greater than 30 litres per second should be considered for a saltwater intrusion assessment. Given the significant separation of the proposed take to the coast, an assessment of the localised effect of the take on saltwater intrusion is not required.
51. As well as a number of other environmental factors, groundwater allocation limits are set to ensure the integrity of the saltwater and freshwater interface from the cumulative effects of groundwater takes. Given that the proposal is within the limit set in the Ashburton River B Allocation block and is consistent with the policies and rules of the LWRP with the exception of those regarding well interference the cumulative effect of the proposed take on salt water intrusion will be appropriate.

#### Conclusion

52. Given the above discussion, the proposal is consistent with Objective 3.13 of the LWRP. The effects of salt water intrusion are therefore appropriate.

### Effect of take on other groundwater users

53. The applicant proposes to take a rate of 22 litres per second and an annual volume of 204,976 cubic metres. The applicant has undertaken a well interference assessment using the following average pumping effects:

Bore Number	Current Q7 (L/s)	Current Q150 (L/s)
BX20/0054	22	15.8

**Table 2: Pumping regime**

54. The aquifer parameters used in the applicant's assessment derive from a step test conducted on bore BX20/0054 which has been reviewed and agreed upon by Mark Trewartha, Senior Groundwater Scientist. The agreed parameters used in the assessment are as follows:
- Transmissivity – 723m<sup>2</sup>/day; and
  - Storativity – 0.0001 (assumed)
55. The applicant has also utilised a depth range of 80-999 metres below ground level in the assessment which has also been agreed upon by Mr Trewartha.
56. The applicant has assessed the effects of well interference on neighbouring groundwater bores using the Theis method against the provisions of Schedule 12 of the LWRP. The Theis assessment was undertaken using the online well interference tool.
57. The applicant's assessment shows that the following bores and their respective owners are affected by the proposal:
- K36/0591 – Mr & Mrs G M & J M Waddell; and
  - K36/0648 & K36/0653 – Valetta Holdings Limited.
58. I have audited the applicant's assessment by undertaking a Theis well interference assessment using the online well interference tool taking into account the pumping regime and the agreed aquifer parameters and depth range utilised by the applicant. The audited assessment shows the same results and affected parties as the applicant's assessment.
59. The following well interference assessment results show all bores that record an additional drawdown effect from pumping bore BX20/0054 as defined by Schedule 12 of the LWRP:

Well	Owner	Depth (metres)	Available drawdown for interference (metres)	Existing environment cumulative drawdown (metres)	Additional drawdown from pumping BX20/0054 (metres)
K36/0591	Waddell	113.2	3.92	14.03	1.18
K36/0648	Valetta Holdings Ltd	113.3	9.16	11.50	1.12

K36/0653	Valetta Holdings Ltd	107.5	6.33	24.72	0.98
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60. The applicant has provided the written approval of David Terence Desmond Clark, Director of Valetta Holdings Limited on 5 June 2019. In accordance with Section 95D(e) of the RMA, the effect of the activity on Valetta Holdings Limited must be disregarded. Furthermore, and in accordance with Section 95E(3)(a), Valetta Holdings is not considered an affected party because they have given, and not withdrawn, approval for the proposed activity (before CRC has decided whether there are any affected persons).
61. I note that affected bore K36/0591 is recorded as being screened in four separate sections along the length of the bore casing as follows:

	Screen type	Top screen of (m bgl)	Bottom screen of (m bgl)	Screen length (m)
Screen 1	Slotted casing	56	64	8
Screen 2	Slotted casing	64	96	32
Screen 3	Stainless steel	99	105	6
Screen 4	Slotted casing	105	113.2	8.2

62. The well interference assessment assumes that a pump is located directly above screen 1 of bore K36/0591.

#### Objectives and policies

63. The key policy regarding well interference effects is Policy 4.59 of the LWRP.

64. Policy 4.59 of the LWRP states:

*The direct cumulative interference effect from new groundwater takes on existing groundwater takes shall not exceed the acceptable threshold criteria described in Schedule 12, unless it can be demonstrated that there will be no more than minimal adverse effects on the yield of existing adequately penetrating bores.*

65. The relevant threshold criteria in Schedule 12 of the LWRP is as follows:

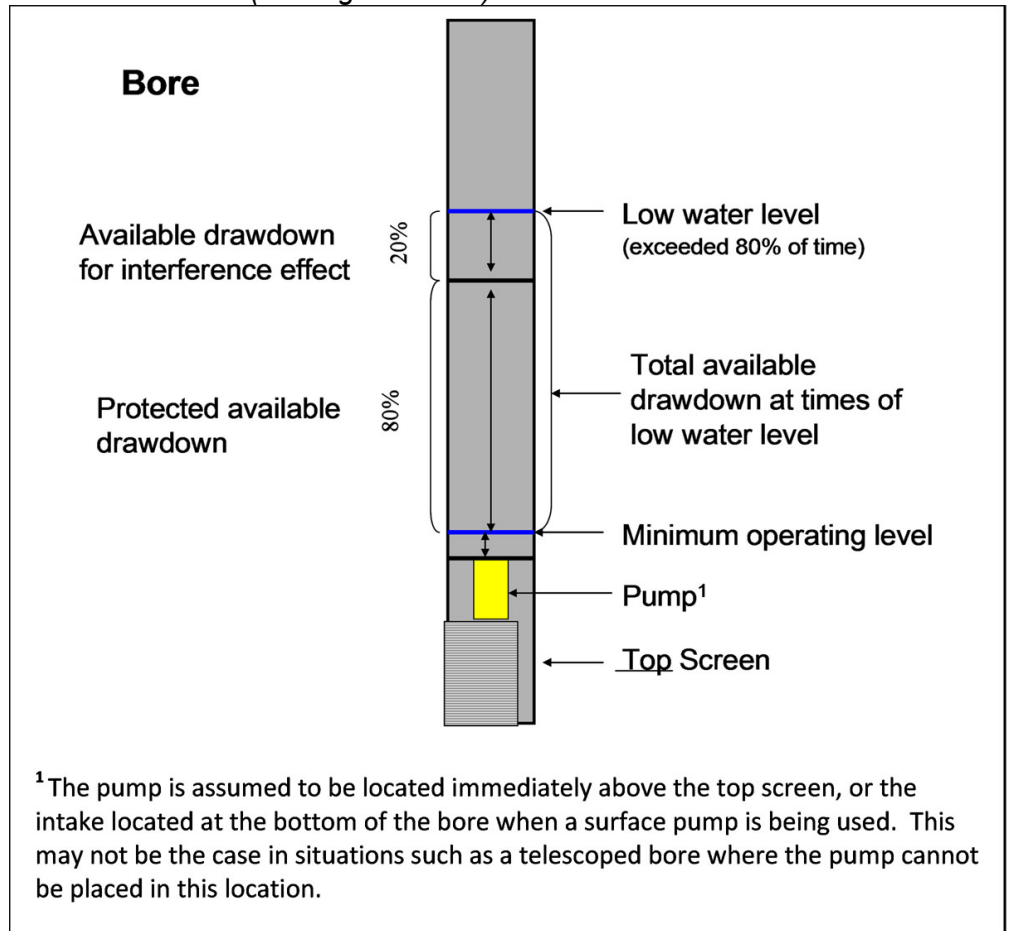
*The direct cumulative interference effect on a bore shall be the combined interference of abstracting from all bores (including the new bore):*

- 1. That are authorised by a resource consent to take groundwater for abstractive purposes (but excluding those that are authorised to take groundwater through an operative permitted activity rule) and bores used for which no water permit to take groundwater is*

required, but which are intended to be used for water level observations; and

2. That are located within 2 km of the bore, and have a calculated interference effect on that bore of more than 0.1 m, when abstracting at either the authorised rate of abstraction over 150 days to deliver their seasonal allocation, or pumping at the authorised average daily rate over seven continuous days, whichever is the greater.

An “acceptable” direct cumulative interference effect is when the direct cumulative interference effect is no greater than 20% of the total available drawdown at times of low water level that is exceeded 80% of the time during the period of proposed water use, having taken into account individual bore and pump installation details (see Figure S12.1).



**Figure S12.1**

66. According to the audited well interference assessment, the 20% available drawdown for interference effect (as described in Figure S12.1) is 3.92 metres.
67. The direct cumulative interference drawdown effect from the pumping of bore BX20/0054 in combination with all other neighbouring bores on bore K36/0591 is estimated to be 15.21 metres.
68. The direct cumulative interference drawdown effect of the proposal exceeds the 80% protected drawdown of bore K36/0591 so exceeds the threshold set out in Schedule 12 of the LWRP.



69. Schedule 12 of the LWRP also states:

*“Where an existing bore adequately penetrates an aquifer, the existing bore should not have its protected available drawdown reduced due to the direct cumulative interference effects from other bores, unless it can be demonstrated that the proposal will not have an impact upon the yield of the bore that is any more than minor or the effect is mitigated.*

*For a bore to adequately penetrate the aquifer, an adequate penetration depth shall be determined as follows:*

- 1. where the aquifer is included in Section 6 to 15, the depth specified in Section 6 to 15; or*
- 2. for aquifers where the depth is not specified in Section 6 to 15:*
  - a. either a depth below the calculated minimum water level, or below the level to which 50% of bores within 2 km penetrating the aquifer are already established at 1 January 2002, whichever is the deeper; or*
  - b. a depth determined by the application of the best available technical information and/or advice to be an adequate penetration depth.*

*Where an existing bore inadequately penetrates an aquifer, the interference effect of a new bore will be assessed as if the existing bore is also adequately penetrating.”*

70. Section 13 of the LWRP is the relevant sub regional section for this application and does not specify an aquifer depth so clause 1 is not applicable.
71. In accordance with clause 2(a) of Schedule 12, I have assessed the depth to which 50% of bores within two kilometres of bore K36/0591 are drilled as of 1 January 2002. The assessment shows that a depth of 60 metres is considered adequate in accordance with clause 2(a) and is greater than the calculated minimum water level of bore K36/0591 (34.4 metres).
72. Schedule 12 states that bore K36/0591 shall be assessed as if it is adequately penetrating the aquifer which previously stated, is 60 metres below ground level.
73. At an adopted depth of 60 metres below ground level, the combined cumulative effect from neighbouring bores and the direct effect from bore BX20/0054 also exceeds the 80% protected available water column of bore K36/0591.
74. Despite this, a pump is likely able to be installed at a depth of 99 metres which is depth at which the top of screen 3 is located. I have received advice from Principal Consents Planner Matt Smith regarding the setup of the bore as recorded. Mr Smith states a pump could be installed directly above screen 3 which is the primary stainless steel screen. Given that screens 1 and 2 are made by slotting the bore casing, they will not prevent the pump being set lower.
75. At an adopted depth of 99 metres below ground level, the combined cumulative effect from neighbouring bores and the direct effect from bore

BX20/0054 again exceeds the 80% protected available water column of bore K36/0591.

76. I have also assessed the exception written in Policy 4.59 which states:  
*“unless it can be demonstrated that the proposal will not have an impact upon the yield of the bore that is any more than minor or the effect is mitigated.”*
77. The Canterbury Regional Council Wells Database shows the results of a yield test undertaken on bore K36/0591 in February 2002 as follows:

Step	L/s	Drawdown (m)	Minutes
1	18.94	12.3	180
2	25.38	17.6	180

78. The yield test shows a maximum self-induced drawdown of 17.6 metres at a rate of 25.38 litres per second. The maximum consented average rate of take for bore K36/0591 is 34 litres per second based on the authorised annual volume.
79. Using information from the yield test, I have calculated an estimated total drawdown of bore K36/0591 using the following assumptions:
- Average rate of take of 34 litres per second;
  - Calculated min water level of 34.4 metres below ground level as defined by Figure S12.1 of Schedule 12 of the LWRP;
  - Minimum operating level of 97 metres below ground level as defined by Figure S12.1 of Schedule 12 of the LWRP and as discussed in paragraph 66;
  - Direct cumulative drawdown from neighboring bores (including BX20/0054) of 15.21 metres as discussed in paragraph 58;
  - Conservative estimation of 34 metres of self-induced drawdown (confirmed from results of yield test to be conservative).
80. The available water column available taking into account the assumptions above equates to approximately 13 metres.
81. Although an indication of available drawdown, the estimated available drawdown for bore K36/0591 indicates that the bore has a sufficient water column to support an average rate of take of 34 litres per second.
82. Given the information provided, it is unclear whether the proposal is consistent with Policy 4.59.
83. The applicant has provided a history of bore K36/0591 and is summarised as follows:
- The bore was drilled by McMillan Drilling Limited in February 2002;
  - The bore was commissioned the following year with power supplied to the site and a pump installed;
  - The bore yielded 25 litres per second and supplied water to a Rotor-Rainer irrigator;

- In 2007, G & J Waddell were granted water permit CRC021572.1 to add deep bore K36/0976 to water permit CRC021572 and to take a maximum rate of take of 65 litres per second from the bore.
  - The yield from K36/0976 was sufficient to take the full consented rate (associated to K36/0976) so the pump and electricity infrastructure for K36/0591 was removed. This occurred in 2007.
  - Bore K36/0976 has not been used since the removal of the pump and associated infrastructure and is currently subject to a temporary water metering waiver.
84. I have reviewed the information provided by the applicant and that available on record. I confirm that bore K36/0591 was drilled in February 2002 and is currently subject to a temporary water metering waiver which was issued in October 2018 and expires in October 2019. The record also shows that water taken under water permit CRC021572.1 (G & J Waddell) has only been abstracted from K36/0976 since its grant in 2007.
85. For clarity, water permit CRC021572.1 provides for the take of water:
- a. from bores K36/0227, K37/0592 and K37/0591 with a combined rate not exceeding 43 litres per second and a volume not exceeding 39,164 cubic metres in any period of eleven consecutive days;
  - b. from bore K36/0976 at a rate not exceeding 65 litres per second;
  - c. from bores K36/0227, K36/0591, K36/0592 and K36/0976 at a combined volume not exceeding 65 litres per second with a combined volume not exceeding 56,160 cubic metres in any period of ten consecutive days, and 440,200 cubic metres between 1 July and the following 30 June; and
  - d. for the irrigation of 100 hectares of crops and pasture for grazing stock.
86. Water usage reports associated with CRC021572.1 also show that only bore K36/0976 has been utilised and that it is capable of taking the full annual volume allocated to the permit.
87. It is apparent therefore that G & J Waddell are able to sufficiently irrigate their property without utilising bore K36/0591. I also reiterate that G & J Waddell did not make a submission on the application following the notification.

#### **Effect of an inefficient take and use of water**

88. The proposed annual volume of 204,976 cubic metres has been calculated using method 3 of the Schedule 10 calculator taking into account the system capacity of the proposed take. The proposed return period volume results in an average rate of take of 21 litres per second. This provides for the efficient irrigation of 42 hectares of the 145-hectare property based on a minimum application rate of 0.5L/s/ha. An application rate of 0.5L/s/ha is considered the minimum application to meet peak demand in the Canterbury Region.
89. I have audited the proposed annual volume of 204,976 cubic metres also using the Schedule 10 calculator for the irrigation of 42 hectares.
90. The audit assessment has taken into account the following inputs:

Hectares	Rainfall (mm)	Soil PAW - 1 metre	Irrigation demand (m³)
83.3	420	58.1	407,985
12.4		68.3	60,618
0.88		122.7	3,990
36.1	425	58.1	175,140
7.44		68.3	36,071
5.22		83.8	25,339
		<b>Total</b>	<b>709,139</b>

91. The yearly irrigation demand for the whole property has been calculated as 709,139 cubic metres. This equates to a demand of 4,882 cubic metres per hectare per year (pro rata). According to the audit assessment, the yearly irrigation demand for 42 hectares of the applicant's property equates to 205,044 cubic metres.
92. The audited annual volume is marginally greater than the proposed annual volume of 204,976 cubic metres. The proposed annual volume is therefore considered reasonable.
93. Please note that the proposed annual volume is considered to be the scope of the volume under CRC020255.1 which is not subject to a specific annual volume. Given that CRC020255.1 is to be surrendered and the volume of the proposed take is equal to its theoretical volume, the proposal meets condition (4) of relevant rule 13.5.2<sup>1</sup> of the LWRP.
94. The proposed pumping regime over the 145-hectare property results in limited system capacity (0.14L/s/ha). Given that the proposed annual volume is based on the area able to be efficiently irrigated at 0.5L/s/ha, the proposed use of water is considered to be efficient.
95. The results of the step test on bore BX20/0054 show that the proposed instantaneous rate of 22 litres per second can be taken sustainably. I also note that the maximum pump rate during the step test was 33 litres per second.

#### Objectives and policies

96. The key policies regarding the efficiency of the proposed take and use of groundwater are policies 4.65, 4.66(b), 4.68 and 4.69.
97. Policy 4.65 states:  
*The rate, volume and seasonal duration for which water may be taken will be reasonable for the intended use.*
98. Policy 4.66(b) states:  
*Water abstraction for irrigation is managed so that:*
  - b. *unless specified otherwise, abstraction is for a defined annual volume determined in accordance with Schedule 10.*

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<sup>1</sup> Noting the proposal is processed under Rule 13.5.3 of the LWRP.

99. Given that the proposed annual volume has been calculated in accordance with Schedule 10 and is considered reasonable for the area of land able to be irrigated at the capacity allowed by the average rate of take, the proposal complies with policies 4.65 and 4.66(b).
100. Policy 4.68 states:  
*Water used for irrigation is applied using good practice that achieves an irrigation application efficiency of not less than 80%.*
101. Policy 4.69 states:  
*Systems to convey or apply fresh water are designed to maximise efficient use of water, including the improvement over time of existing systems, taking into account:*
- a. practicable options to implement any change to existing systems;*  
*and*
  - b. the benefits and costs of achieving a higher level of efficiency*
102. The majority of the property is irrigated by centre pivot irrigation systems. Centre pivot irrigation systems are considered efficient applicators of water and can achieve an irrigation efficiency of 80%. Further to this, the applicants Farm Environment Plan (FEP) requires that the amount and time of irrigation is managed to meet plant demand and that water is being used efficiently. The FEP is required to be developed and maintained in accordance with farming land use consent CRC183008.
103. The proposal is therefore consistent with policies 4.68 and 4.69.

#### Conclusion

104. Given the discussion above, I consider that the effect of inefficient take and use of water is appropriate.

#### **Effect of the use of water on surface water flows**

105. The taking of groundwater that is hydraulically connected to surface water bodies may adversely affect surface water flows.
106. New bore BX20/0054 is 162 metres deep and is screened between 147-162 metres below ground level. The proposed take is therefore greater than the required abstraction depth of 40 metres below ground level required by Rule 15.5.2 of the LWRP. Given that the purpose of the "B" groundwater allocation block is to improve surface water flows in the Ashburton/Hakatere River, any take of groundwater greater than 40 metres is not considered hydraulically connected under the planning framework.
107. The proposed abstraction from 147-162 metres below ground level is therefore not considered to be hydraulically connected to surface water.

#### Objectives and policies

108. The key policies regarding surface water flows are policies 13.4.5 and 13.4.6 of the LWRP.
109. Policy 13.4.5 of the LWRP states:  
To address over-allocation of surface water in the Hakatere/Ashburton catchment and the Lower Hinds/Hekeao Plains Area, enable taking deep

groundwater provided the applicant holds a lawfully established surface water take or stream depleting groundwater take for an equal or greater rate and volume than is sought from the deep groundwater, and the surface water take, or stream depleting groundwater take is surrendered.

110. Rule 15.5.2 gives effect to Policy 13.4.5 by allowing the take of deep groundwater when a surface water or hydraulically connected groundwater take is concurrently surrendered. The proposal is consistent with all conditions of Rule 15.5.2 that provide the take of deep groundwater in order to create positive effects on surface water flows<sup>2</sup>.
111. Policy 13.4.7 states:
112. *The water resulting from any surrendered surface water and stream depleting groundwater takes in the Ashburton River/Hakatere catchment and in the Hinds/Hekeao Plains Area will not be reallocated and will be left in the river, until such time as the catchment is no longer over allocated.*
113. It is proposed that the allocation of surface water authorised under surface water permit CRC020255.1 will be surrendered concurrently with the exercise of the proposed take of deep groundwater. There is no mechanism in the current planning framework that allows for a person to take surrendered surface water allocation. For example, Rule 13.5.6 of the LWRP prohibits take and use of water from the Ashburton River/Hakatere catchment if the take exceeds an allocation limit. Given that the Ashburton River/Hakatere is over allocated, any new take of surface water regardless of any surrender of surface water allocation is prohibited.
114. The proposal is therefore consistent with policies 13.4.5 and 13.4.7 of the LWRP.

#### Conclusion

115. Given the above discussion, the effects of the proposal on surface water flows will likely be positive.

#### **Adverse effects on Tangata Whenua values**

116. The property falls within the rohe of Te Rūnanga o Arowhenua.
117. The subject property is bound by the South Branch Ashburton River/Hakatere which is a Statutory Acknowledgement area and Rūnanga sensitive area. There are no Silent File areas or registered archaeological sites within 2,000 metres of the applicant's irrigation area.

#### Objectives and policies

118. Aoraki Environmental Consultancy has provided a policy assessment against the Kati Huirapa, the Iwi Management Plan for the area Rakaia to Waitaki, Part One – Land, Water and Air Policies, Arowhenua (July 1992) (IMP) as follows:

Policy	Proposal consistent with policy?	Comments	Recommendations

<sup>2</sup> While acknowledging that condition 2 of the rule which covers well interference effects is not met.

Abstractions, dams and diversion of water – All water to be returned to rivers	No	Ultimately not all water will be returned to rivers as used for irrigation.	Ensure water that is taken is only for reasonable use.
What levels – water level of lakes, lagoons, wetlands, all natural be maintained at levels sufficiently high to sustain life of these waters	Yes		Ensure existing consent is surrendered if deep groundwater consent granted

119. The assessment concludes that the proposal is not consistent with the first policy but as discussed earlier, the proposed take is considered reasonable so gives effect to the associated recommendation.
120. I consider that the proposed surrender of the take of hydraulically connected groundwater somewhat gives effect to the first policy by reducing the volume of water taken from the Ashburton River/Hakatere.
121. Further to the policy assessment provided, the advice includes a comment stating that the proposal will improve flows of the Hakatere/South Branch of the Ashburton River.
122. The proposal is therefore not contrary to the policies of the IMP.

#### Conclusion

123. Given the above discussion, the effects of the proposal on Tangata Whenua values are appropriate.

### **COMPLIANCE HISTORY**

124. The compliance history of surface water permit CRC020255.1:

Season	Compliance grade
2005-2006	Fully compliant
2011-2012	Fully compliant
2012-2013	Fully compliant
2014-2015	Fully compliant

### **OBJECTIVES AND POLICIES**

125. In addition to those objectives and policies already discussed in the relevant sections above, I consider regard must be had to the following provisions.

#### **National Policy Statement for Freshwater Management 2014 (NPS-FM)**

126. The NPS-FM 2014 is effective from 1 August 2014 and replaces the NPS-FM 2011.

127. The NPSFM directs regional councils to set limits and targets for the management of freshwater resources. The NPSFM also contains objectives relating to tangata whenua roles and interests in the management of freshwater resources.
128. Of particular relevance to this proposal are Objectives A1(a) and A2(b). Objective A1(a) seeks to:  
*“...safeguard the life-supporting capacity, ecosystem processes and indigenous species including their associated ecosystems, of fresh water.”*
129. Objective A2(b) outlines the need to maintain or improve the significant values of wetlands.
130. Policies A1 – A7 gives effect to Objectives A1 and A2. The policies are specific to the setting of water quality limits and planning provisions that require the management of water resources within the limits. The policies do not specifically specify measures to manage ecosystems and wetlands outside of the setting of water quality limits.
131. The applications do not relate to the discharge of contaminants or the consenting of farming land use, so the policies do not appear to be relevant.
132. Given the effects of farming and irrigation on water quality has been assessed previously by farming land use consent CRC183008 and that the proposal does not change how the subject property is irrigated and farmed, I consider the proposal is consistent with Objectives A1 and A2 of the NPS-FW 2014.
133. Objective D1 addresses tangata whenua roles and interests and is given effect to through Policy D1. Given the conclusion in the assessment of adverse effects of tangata whenua values, I consider the proposal is consistent with Objective D1 and Policy D1.

### **Canterbury Regional Policy Statement (CRPS) 2013**

134. Under Section 104(1)(b)(v) of the RMA, the consent authority shall have regard to the relevant provisions of a regional policy statement. The Canterbury Regional Policy Statement became operative on 15 January 2013.

### **Chapter 7 – Freshwater**

135. Chapter 7 of the CRPS deals with freshwater issues in the region. Objective 7.2.1 reflects the objectives and policies of the NPS-FM 2011 and provides clear guidance on what should be considered and what is to be achieved for the region. It states:

*“The regions freshwater resources are sustainably managed to enable people and communities to provide for their economic and social well-being through abstracting and/or using water for irrigation, hydro-electricity generation and other economic and social activities associated with these values, providing:*

- a. The life supporting capacity ecosystem processes, and indigenous species and their associated freshwater ecosystems and mauri of the fresh water is safe-guarded;*
- b. The natural character values of wetlands, lakes and rivers and their margins are preserved and these areas are protected from*



*inappropriate subdivision, use and development and where appropriate restored or enhanced; and*

*c. Any actual or reasonably foreseeable requirements for community and stockwater supplies and customary uses are provided for.”*

136. The objective above provides clear guidance that water may be used for activities that will improve economic and social well-being but only if points a) through c) are met as well.

137. Objective 7.2.4 states:

*“Fresh water is sustainably managed in an integrated way within and across catchments, between activities, and between agencies and people with interests in water management in the community, considering:*

- 1. the Ngāi Tahu ethic of Ki Uta Ki Tai (from the mountains to the sea);*
- 2. the interconnectivity of surface water and groundwater;*
- 3. the effects of land uses and intensification of land uses on demand for water and on water quality; and*
- 4. kaitiakitanga and the ethic of stewardship; and*
- 5. any net benefits of using water, and water infrastructure, and the significance of those benefits to the Canterbury region.”*

138. Objective 7.2.4 provides overarching objectives to manage fresh water which are given effect to by policies 7.3.4 and 7.3.7 which are relevant to the proposal.

139. Policy 7.3.4 states:

*“In relation to the management of water quantity:*

- 1. to manage the abstraction of surface water and groundwater by establishing environmental flow regimes and water allocation regimes which:*
  - a. manage the hydrological connections of surface water, groundwater and the coastal environment;*
  - b. avoid long-term decline in groundwater levels and saltwater intrusion of coastal groundwater resources;*
  - c. protect the flows, freshes and flow variability required to safeguard the life-supporting capacity, mauri, ecosystem processes and indigenous species including their associated ecosystems and protect the natural character values of fresh water bodies in the catchment, including any flows required to transport sediment, to open the river mouth, or to flush coastal lagoons;*
  - d. provide for any existing or reasonably foreseeable needs of surface water or groundwater for individual, marae or community drinking water or stockwater supplies;*
  - e. support the exercise of customary uses, including any flows required to maintain wetlands or water quality for customary uses; and*
  - f. support any flow requirements needed to maintain water quality in the catchment; and, having satisfied the requirements in (a) to (f), provide for:*

- g. recreational values (including the patterns and timing of flow variability desired by recreational users) and amenity values; and*
- h. any actual or reasonably foreseeable demand for abstraction (for uses other than those listed in (d) above), unless Policy 7.3.4(2) applies;*

*and*

- 2. Where the quantum of water allocated for abstraction from a water body is at or exceeds the maximum amount provided for in an environmental flow and water allocation regime:*
  - a. avoid any additional allocation of water for abstraction or any other action which would result in further over-allocation; and*
  - b. set a timeframe for identifying and undertaking actions to effectively phase out over-allocation; and*
  - c. effectively addresses any adverse effects of over-allocation in the interim.”*

140. Policy 7.3.4 provides for high level provision required when setting water quantity limits through the plan writing process. Nevertheless, clause 1(a) and (b) and clause 2(a) and (b) are relevant to the proposal. The clauses are complied with because the surrender of hydraulically connected groundwater for deep groundwater provides for reduced pressure on the Ashburton/Hakatere surface water catchment which is currently over allocated.

141. Policy 7.3.7 states:

*“To avoid, remedy or mitigate adverse effects of changes in land uses on the quality of fresh water (surface or ground) by:*

- (1) Identifying catchments where water quality may be adversely affected, either singularly or cumulatively, by increases in the application of nutrients to land or other changes in land use; and*
- (2) Controlling changes in land uses to ensure water quality standards are maintained or where water quality is already below the minimum standard for the water body, it is improved to the minimum standard within an appropriate timeframe.*

*The method in which the Canterbury Regional Council will implement this policy is to set out objectives and policies, and may include methods in regional plans to:*

- a. Establish water quality standards, and, where appropriate, catchment contaminant load thresholds and controlling contaminants entering fresh water within surface water catchments or groundwater zones.*
- b. Provide for the adoption of management practices and techniques (including the use of incentives) which manage the effects of land-uses on fresh water in both urban and rural environments.*
- c. Manage activities which affect water quality, singularly or cumulatively.”*

142. Given that the effects of farming and irrigation on water quality have previously been consented and that this proposal does not result in any change of the consented effect, I consider the proposal is consistent with Chapter 7 of the CRPS.

### **Land and Water Regional Plan (LWRP)**

143. Objective 3.1 states:

*“Land and water are managed as integrated natural resources to recognise and enable Ngāi Tahu culture, traditions, customary uses and relationships with land and water.”*

144. Objective 3.2 states:

*“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.”*

145. Objective 3.8 states:

*“The quality and quantity of water in fresh water bodies and their catchments is managed to safeguard the life-supporting capacity of ecosystems and ecosystem processes, including ensuring sufficient flow and quality of water to support the habitat and feeding, breeding, migratory and other behavioural requirements of indigenous species, nesting birds and, where appropriate, trout and salmon.”*

146. Objectives 3.1, 3.2 and 3.8 provide the high-level basis for the management of fresh water taking into account Ngai Tahu values, integrated management and safeguarding water quality and quantity. I consider the proposal is consistent with these objectives because the proposal gives effect to the policy and rule framework of section 13 of the LWRP (as previously discussed) which seeks to address over-allocation of the Ashburton River/Hakatere catchment. Furthermore, Te Rūnanga o Arowhenua have practiced their kaitiaki through the consent process.

147. Objective 3.9 states:

*“Abstracted water is shown to be necessary and reasonable for its intended use and any water that is abstracted is used efficiently.”*

148. As discussed, the effects section of this report, the proposed take and use of water has been assessed as being reasonable for its intended use and will be used efficiently. The proposal is therefore consistent with this objective.

149. Objective 3.10 states:

*“Water is available for sustainable abstraction or use to support social and economic activities and social and economic benefits are maximised by the efficient storage, distribution and use of the water made available within the allocation limits or management regimes which are set in this Plan.”*

150. As previously discussed, the proposed rate of take is sustainable and the allocation of take is within the limit set in the Ashburton River GWAZ “B” allocation block. The proposed use of water supports the economic activity of the subject property. These aspects of the proposal are consistent with Objective 3.10, however the proposal also poses a potential adverse effect

on the availability of water for the economic activity on the Waddell property. It is therefore unclear if the proposal is consistent with the objective.

151. Objective 3.13 states:

*“Groundwater resources remain a sustainable source of high quality water which is available for abstraction while supporting base flows or levels in surface water bodies, springs and wetlands and avoiding salt-water intrusion.”*

152. The proposed take supports the base flow in the Ashburton River/Hakatere through the concurrent surrender of hydraulically connected take and use water permit CRC020255.1. The proposed take also doesn't create adverse effects from saltwater intrusion. The proposal is therefore consistent with Objective 3.13.

153. Policy 4.2 states:

*“The management of lakes, rivers, wetlands and aquifers will take account of the fresh water outcomes, water quantity limits and the individual and cumulative effects of land uses, discharges and abstractions will meet the water quality limits set in Sections 6 to 15 or Schedule 8 and the individual and cumulative effects of abstractions will meet the water quantity limits in 6 to 15.”*

154. Given that there is sufficient allocation in the Ashburton River GWAZ “B” allocation block for the proposed take and the concurrent surrender results in less surface water allocation being taken, the proposal complies with Policy 4.2.

155. Policy 4.4 states:

*“Groundwater is managed so that:*

- a. groundwater abstractions do not cause a continuing long-term decline in mean annual groundwater levels or artesian pressures;*
- b. the individual and cumulative rate, duration and volume of water pumped from bores is controlled so as to prevent seawater contamination;*
- c. the rate and duration of individual abstractions is controlled to ensure that individually or cumulatively, localised pressure reversal does not result in the downward movement of contaminants;*
- d. in any location where an overall upwards pressure gradient exists, restrict the taking of groundwater so that at all times the overall upward pressure difference is maintained between any one aquifer and the next overlying aquifer;*
- e. overall water quality in aquifers does not decline; and*
- f. the exercise of customary uses and values is supported.”*

156. Clauses (a) – (c) and (e) of Policy 4.4 are relevant to the proposal. The proposal is consistent with clause (a) because the take is within the relevant groundwater allocation limit which has been set to ensure groundwater levels, artesian pressures are maintained. Clause (b) is met because the effect of take both on a localised or cumulative basis is considered not considered to more than minor.

157. Clause (c) is met because the take is not considered to reverse aquifer pressure given that the subject aquifer system is not confined. Clause (e) is met because the effect of the subject farming and irrigation activity has been considered under the farming land use planning framework and subsequently consented.

158. Policy 4.7 states:

*“Resource consents for new or existing activities will not be granted if the granting would cause a water quality or quantity limit set in Sections 6 to 15 to be breached or further over allocation (water quality and/or water quantity) to occur or in the absence of any water quality standards in Sections 6 to 15, the limits set in Schedule 8 to be breached. Replacement consents, or new consents for existing activities may be granted to:*

- a. allow the continuation of existing activities at the same or lesser rate or scale, provided the consent contains conditions that contribute to the phasing out of the over allocation (water quality and/or water quantity) within a specified timeframe; or*
- b. exceed the allocation limit (water quality and/or water quantity) to a minor extent and in the short-term if that exceedance is part of a proposal to phase out the over-allocation within a specified timeframe included in Sections 6 to 15 of this Plan.”*

159. The proposal is consistent with Policy 4.7 because the take will not result in the over allocation of a groundwater allocation limit.

160. Policy 4.54 states:

*“In addition to the requirements in the Resource Management (Measurement and Reporting of Water Takes) Regulations 2010, any new water permit, replacement of an expiring water permit, transfer or review of an existing permit:*

- a. to take water at a rate of more than 30 L/s;*
- b. to take water with a minimum flow or trigger level that signifies a restriction on take; or*
- c. to take water within a water users group;*

*shall include a condition requiring water use records to be telemetered to the Canterbury Regional Council or its nominated agent.”*

161. The applicant proposes water metering conditions consistent with the Resource Management (Measurement and Reporting of Water Takes) Regulations 2010 but is not required to telemeter the take because the proposed rate is restricted to a maximum of 22 litres per second. The proposed metering condition however provides for telemetry as an option to provide metering data. The proposal is therefore consistent with this policy.

162. Policy 4.57 states:

*“Any abstraction of groundwater does not result in cross-contamination between aquifers or water-bearing layers that results in, or may result in, adverse effects on water quality.”*

163. The proposed take is screened in one aquifer only so is consistent with this policy.

164. Policy 4.63 states:

*“Any abstraction of groundwater is subject to conditions specifying:*

- a. the maximum instantaneous rate of take;*
- b. a maximum seasonal volume based on reasonable use determined in accordance with Schedule 10 over the period the water is required;*
- c. the area or property within which the water is to be used;*
- d. the location of the abstraction;*
- e. any minimum groundwater levels at which abstraction ceases if specified in Sections 6 to 15;*
- f. any other conditions to regulate the rate or volume of water that may be abstracted relative to the estimated volume of groundwater stored in a groundwater zone, if specified in Sections 6 to 15; and*
- g. where the water is used for irrigation, the need for, compliance with, and auditing of a Farm Environment Plan.”*

165. The applicant proposes conditions that restrict the take of groundwater with matters set out in clauses (a)-(d). Clause (e) and (f) are not applicable section 13 of the LWRP does not contain additional restrictions regarding groundwater levels and volumes of storage within the aquifer. Clause (g) is adhered to through the FEP requirements set out in farming land use consent CRC183008.

#### **Proposed Plan Change 7 to the Land and Water Regional Plan (PPC7 LWRP)**

166. PPC7 LWRP) was notified on 20 July 2019. This proposes to amend the region-wide sections 1, 2, 4, 5 and 16, and sub-region sections 7, 8, 11, 12, 13, 14 and 15 of the LWRP. I have reviewed the objectives and policies in this plan change and do not consider that any of the changes are relevant to this application

## **PART 2 MATTERS**

167. Under section 104(1) of the RMA, the consent authority must consider applications "subject to Part 2" of the Resource Management Act 1991 (RMA), specifically sections 5, 6, 7 and 8.

#### **Purpose of the RMA (section 5)**

168. The purpose of this Act is to *“promote the sustainable management of natural and physical resources”*.

169. The purpose is achieved by the guidance provided by the Principles of the RMA (i.e. s.6, s.7, and s.8).

170. Section 5(2) of the RMA states that:

*“In this Act, **sustainable management** means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety while—*

- (a) *sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and*
  - (b) *safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and*
  - (c) *avoiding, remedying, or mitigating any adverse effects of activities on the environment.”*
171. The proposal would provide positive economic benefits from the applicants farming operation. I also consider that the effect of the proposal on water quality and quantity are appropriate.
172. I consider that the application therefore meets the specific clauses of (a)-(c) of Section 5(2).
173. Although the well interference effects of the proposal on neighbouring bore K36/0591 are inconsistent with Policy 4.59 of the LWRP, affected party G & J Waddell did not submit against the proposal and retain the ability to sufficiently irrigate their property using only bore K36/0976. This is backed by evidence that bore K36/0591 has not been utilised since 2006 or 2007. The proposal therefore achieves the purpose of the RMA because it provides for the economic wellbeing of the applicant while not diminishing the economic wellbeing of G & J Waddell.

#### **Matters of National Importance (section 6)**

174. The matters of national importance are set out in Section 6 of the RMA as follows and all persons exercising functions and powers under the RMA shall recognise and provide for:
- “(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:*
  - (b) the protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development:*
  - (c) the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna:*
  - (d) the maintenance and enhancement of public access to and along the coastal marine area, lakes, and rivers:*
  - (e) the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga.*
  - (f) the protection of historic heritage from inappropriate subdivision, use, and development.*
  - (g) the protection of recognised customary activities.”*
175. The relevant provision of section 6 in regard to the proposal is clause (e). Aoraki Environmental Consultancy (AEC) has provided comment on the application on behalf of Te Rūnanga o Arowhenua indicating that the proposal is not contrary to the relevant IMP. The relationship of Maori with water is therefore not adversely affected by the proposal. Section 6 appears to be provided for.

## Other Matters (section 7)

176. In achieving the purpose of the RMA, all persons exercising functions and powers under the RMA are directed to have particular regard to –

*“(a) kaitiakitanga:*

*(aa) the ethic of stewardship:*

*(b) the efficient use and development of natural and physical resources:*

*(ba) the efficiency of the end use of energy:*

*(c) The maintenance and enhancement of amenity values:*

*(d) intrinsic values of ecosystems:*

*(e) [Repealed]*

*(f) maintenance and enhancement of the quality of the environment:*

*(g) any finite characteristics of natural and physical resources:*

*(h) the protection of the habitat of trout and salmon:*

*(i) the effects of climate change:*

*(j) the benefits to be derived from the use and development of renewable energy.”*

177. The relevant provisions of section 7 are clauses (a) - (b) and (f) and (g).

178. Clauses (a), (aa) and (f), are met because the proposal provides for the sustainable management of groundwater within allocation limits and the stewardship of the Ashburton River/Hakatere catchment through the concurrent surrender of hydraulically connected groundwater. Clause (b) is met because the take and use of groundwater has been assessed as efficient and clause (g) is met because the proposed take does not result in an exceedance of any environmental limit set out in the relevant planning framework.

## Principles of the Treaty of Waitangi (section 8)

179. Section 8 of the RMA requires the consent authority to take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi).

180. Section 8 states:

*“In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi).”*

181. The comments made by AEC on behalf of Te Rūnanga o Arowhenua on the proposal and the relevant iwi management plans have been taken into account when preparing this report.

## RECOMMENDATION

### Section 104B – Determination of applications for discretionary or non-complying activities

182. Section 104B of the RMA refers to the determination of applications for discretionary or non-complying activities.



183. Section 104B states that after considering an application for a resource consent for a discretionary activity or a non-complying activity, a consent authority:
- a. May grant or refuse the application; and
  - b. If it grants the application, may impose conditions under section 108.

#### **Section 104D – Particular restrictions for non-complying activities**

184. Section 104D of the RMA applies to the proposal because the activity is a non-complying activity under Rule 13.5.3 of the LWRP.
185. Section 104D states:
- (1) *Despite any decision made for the purpose of notification in relation to adverse effects, a consent authority may grant a resource consent for a non-complying activity only if it is satisfied that either—*
    - (a) *the adverse effects of the activity on the environment (other than any effect to which section 104(3)(a)(ii) applies) will be minor; or*
    - (b) *the application is for an activity that will not be contrary to the objectives and policies of—*
      - (i) *the relevant plan, if there is a plan but no proposed plan in respect of the activity; or*
      - (ii) *the relevant proposed plan, if there is a proposed plan but no relevant plan in respect of the activity; or*
      - (iii) *both the relevant plan and the relevant proposed plan, if there is both a plan and a proposed plan in respect of the activity.*
  - (2) *To avoid doubt, section 104(2) applies to the determination of an application for a non-complying activity.”*
186. The adverse effects of the proposal on the environment is considered to be minor so a consent authority may grant the application (if the decision maker is of the mind to grant) in accordance with clause (1)(a).
187. I note that the proposal is consistent with the all relevant policy frameworks except for those regarding well interference effects. It is unclear whether the proposal is consistent with the relevant well interference policy.
188. The proposal is therefore generally consistent with the policies of the relevant plans.

#### **Section 104 – Consideration of Applications**

189. I have considered s104(1)(a) of the RMA and the potential positive and adverse effects the proposal may have on the environment.
190. The proposal is likely to result in the following positive effects:
- a. Increased reliability of water for irrigation from the take of deep groundwater;
  - b. Flow on positive effects from increased economic benefits from the increased reliability on the applicant and the wider community.
  - c. Increased flows of the Ashburton River/Hakatere from the surrender of hydraulically connected groundwater.
191. I also consider that the adverse effects of the proposal on the environment are appropriate.

192. In accordance with section 104(1)(b) of the RMA, I have had regard to the relevant objectives and policies for this application as discussed in this report. In regard to the adverse effects of the proposal on the environment, I consider that the proposal is consistent with the relevant objectives and policies of the NPS-FM, CRPS and LWRP.
193. It is unclear if the proposal is contrary to Objective 3.10, Policy 4.59 and Schedule 12 of the LWRP in regard to well interference effects, however as previously discussed, the overall effect on neighbouring bore owners do not appear to be significant.

#### **Grant or Decline**

194. In conclusion, I consider that the adverse effects of the proposal on the environment are appropriate, and the potential adverse effects of the proposal on Mr & Mrs G M & J M Waddell (the affected party) will not diminish their ability to meet their economic needs by taking groundwater.
195. I therefore conclude that the provisions of the RMA are best met by granting the application with the conditions attached in Appendix 1.

#### **Duration**

196. The applicant seeks a consent duration of 15 years. This is consistent with Policy 4.74 of the LWRP and I see no reason to recommend a shorter duration.

Signed:



Date: 23 August 2019

Name:

Simon Woodlock  
Consents Planner

Signed:



Date: 23 August 2019

Name:

Principal Consents Planner  
Matt Smith

## APPENDIX 1: RECOMMENDED CONDITIONS

1	Water may be taken only from bore BX20/0054, 300 millimetres diameter and 162 metres deep, at map reference NZTM2000 1483177mE, 5154788mN.
2	Water may be taken at a rate not exceeding 22 litres per second, and a volume not exceeding 204,976 cubic metres between 1 July and the following 30 June.
3	Water shall only be used for irrigation of the area of land shown on attached plan CRC192885, which forms part of this consent.
4	The depth at which water is drawn into the bore shall not be less than 147 metres below ground level.
5	The consent holder shall, before the first exercise of this consent, install an easily accessible straight pipe(s), with no fittings or obstructions that may create turbulent flow conditions, of a length at least 15 times the diameter of the pipe, as part of the pump outlet plumbing or within the mainline distribution system.
6	<p>The consent holder shall before the first exercise of this consent:</p> <ul style="list-style-type: none"> <li>a. <ul style="list-style-type: none"> <li>i. install a water meter(s) that has an international accreditation or equivalent New Zealand calibration endorsement, and has pulse output, suitable for use with an electronic recording device, which will measure the rate and the volume of water taken to within an accuracy of plus or minus five percent as part of the pump outlet plumbing, or within the mainline distribution system, at a location(s) that will ensure the total take of water is measured; and</li> <li>ii. install a tamper-proof electronic recording device such as a data logger(s) that shall time stamp a pulse from the flow meter at least once every 60 minutes and have the capacity to hold at least one season's data of water taken as specified in clauses (b)(i) and (b)(ii), or which is telemetered, as specified in clause (b)(iii).</li> </ul> </li> <li>b. The recording device(s) shall: <ul style="list-style-type: none"> <li>i. be set to wrap the data from the measuring device(s) such that the oldest data will be automatically overwritten by the newest data (i.e. cyclic recording); and</li> <li>ii. store the entire season's data in each 12 month period from 1 July to 30 June in the following year, which the consent holder shall then download and store in a commonly used format and provide to the Canterbury Regional Council upon request in a form and to a standard specified in writing by the Canterbury Regional Council; or</li> </ul> </li> </ul>

	<p>iii. shall be connected to a telemetry system which collects and stores all of the data continuously with an independent network provider who will make that data available in a commonly used format at all times to the Canterbury Regional Council and the consent holder. No data in the recording device(s) shall be deliberately changed or deleted.</p> <p>c. The water meter and recording device(s) shall be accessible to the Canterbury Regional Council at all times for inspection and/or data retrieval.</p> <p>d. The water meter and recording device(s) shall be installed and maintained throughout the duration of the consent in accordance with the manufacturer's instructions.</p> <p>e. All practicable measures shall be taken to ensure that the water meter and recording device(s) are fully functional at all times.</p>
7	<p>Within one month of the installation of the measuring or recording device(s), or any subsequent replacement measuring or recording device(s), and at five-yearly intervals thereafter, and at any time when requested by the Canterbury Regional Council, the consent holder shall provide a certificate to the Canterbury Regional Council, Attention Regional Leader - Monitoring and Compliance, signed by a suitably qualified person certifying, and demonstrating by means of a clear diagram, that:</p> <p>a. The measuring and recording device(s) has been installed in accordance with the manufacturer's specifications; and</p> <p>b. Data from the recording device(s) can be readily accessed and/or retrieved in accordance with clauses (b) and (c) of condition (6).</p>
8	<p>The Canterbury Regional Council, Attention Regional Leader - Monitoring and Compliance, shall be informed within five days of first exercise of this consent by the consent holder.</p>
9	<p>The consent holder shall surrender resource consent CRC020255.1 before first exercise of this consent.</p>
10	<p>Access to allow water level measurements to be taken in the bore(s) shall be established, and maintained, via a bung and socket with a minimum diameter of 20 millimetres installed in the bore casing or headworks.</p>
11	<p>If the irrigation system is used to distribute diluted effluent, fertiliser or added contaminants the consent holder shall ensure:</p> <p>a. An effective backflow prevention device is installed and operated within the pump outlet plumbing or within the mainline to prevent the backflow of contaminants into the water source; and</p> <p>b. The backflow prevention device is tested at the time of installation and annually thereafter by a suitably qualified or certified person in accordance with Canterbury Regional Council approved test methods for the device used; and</p>

	<p>c. The test report is provided to the Canterbury Regional Council Attention Regional Leader - Monitoring and Compliance, within two weeks of each inspection.</p> <p><b>Advice Note:</b> This is not authorisation to discharge fertiliser or other contaminants to land, water or air under section 15 of the Resource Management Act.</p>
12	<p>The consent holder shall take all practicable steps to:</p> <ul style="list-style-type: none"> <li>a. Ensure that the volume of water used for irrigation does not exceed that required for the soil to reach field capacity; and</li> <li>b. Avoid leakage from pipes and structures; and</li> <li>c. Avoid the use of water onto non-productive land such as impermeable surfaces and river or stream riparian strips.</li> </ul>
13	<p>The Canterbury Regional Council may, once per year, on any of the last five working days of May or November, serve notice of its intention to review the conditions of this consent for the purposes of dealing with any adverse effect on the environment which may arise from the exercise of the consent.</p>
14	<p>If this consent is not exercised before 30 September 2022 then it shall lapse in accordance with section 125 of the Resource Management Act.</p> <p>Advice note: ‘Exercised’ is defined as implementing any requirements to operate this consent and undertaking the activity as described in these conditions and/or application documents.</p>



**7. Extraordinary and Urgent Business**

**8. Other Business**

**9. Next Meeting - to be confirmed**

**10. Closure**