

**Before the Commissioners appointed by Canterbury  
Regional Council**

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

**AND**

**IN THE MATTER OF** Application CRC042661 by  
Grays Hills Station Ltd for a  
Water Permit to take & use  
surface water.

**Section 42A Officer's Report of Claire Penman**

**Date of Hearing: 21 September 2009**

1. This report should be read together with the introductory s42A report which gives an overview of all applications presented at this hearing (Report 1), the planning and technical reports on hydrology and minimum flows (Report 2A and 2B), the planning report outlining annual allocations (Report 3) and the reports on cumulative landscape and water quality effects in the catchment (Reports 4A -F).

**INTRODUCTION**

2. Grays Hills Station Ltd (the applicant) have applied for a resource consent to:
  - (a) Take and use water from two galleries each at a combined maximum rate not exceeding 100 litres per second with a volume not exceeding 1,140,000 cubic metres per year for the irrigation of 190 hectares within a 1500 hectare command area at Grays Hills Station, Haldon Road

See Attachment One for a map of the location of take and irrigation areas.

3. The applicant engaged Mr Bob Hall of GHD Ltd (formerly R J Hall) to prepare the application and assessment of environmental effects on their behalf. Subsequently, Ms Jenny Geddes of RJ Hall, and Ms Cathy Begley of GHD Ltd were engaged to respond to further information requests.
4. A duration of 16 years to April 2025 is sought. This is an application for a new activity.
5. A site visit was undertaken during the audit of this application on 27 January 2009.

**Background**

6. Application CRC042661 was lodged on 3 June 2004 and considered to be notifiable on 15 March 2005. Requests for further information have been sent covering effects including, but not limited to, water quality, landscape, irrigation volumes, minimum flows, intake design and derogation approvals.
7. Since the application was lodged, the rate of take has been reduced from a combined rate of 200 litres per second to a combined rate of 100 litres per second. The irrigation area has been reduced from 384 hectares to 190 hectares, however, the

1500 hectare command area remains unchanged. The total annual volume now being sought has been reduced from 2,304,000 cubic metres (as notified) to the currently proposed 1,140,000 cubic metres.

8. A bore permit (CRC052657) has been granted (and subsequently expired) for the installation of two galleries (I38/0057 and I380058) to take water. No additional applications have been lodged by the applicant.
9. The applicant also holds consent CRC022037.1 to take water from the Tekapo River for irrigation of 195 hectares of land on the western side of Grays Hill, a separate area of land from this current proposal.

## Notification

10. Details of the notification and wording are contained in Appendix 4 of the introductory s42A report (Report 1). This consent was notified in August 2007 with 200 other applications for similar activities in the Waitaki catchment.

## Submissions

11. 21 submissions in total were made on these applications. Of these:
  - (a) 3 were in support;
  - (b) 16 in opposition; and
  - (c) 2 neither supported nor opposed this application.
12. Details of submissions made in response to all applications which were publicly notified at the same time in 2007 are contained in Report 1, Attachment 5. Additionally, Table 1 below summarises submissions made individually on this application; or submissions which raise particular concerns in relation to this proposal. Please note that all submissions hold equal importance, even if not specifically listed below.
13. Overall, the key effects of concern to submitters include effects on: ecosystems, water quality, allocations, minimum flows, natural character and landscape, efficiency and cultural values.

Submitter	Issues	Support/Neutral/Oppose	To be heard
Otamatapaio Station 1993 Ltd	Need to have flow sharing arrangement when river gets low	Oppose	Yes
Fish & Game NZ	Popular river for anglers, and gamebird hunters. Potential cumulative effects on water quantity	Oppose	Yes
Meridian Energy Ltd	Concerned about allocation, water quality, metering and reasonable use	Oppose	Yes
Canterbury Aoraki Conservation Board	Potential effects on instream ecosystems, natural character of water bodies and landscape.	Oppose	Yes
Mackenzie Branch Federated Farmers	Water is important for economic sustainability and farm viability/productivity	Support	No

**Table 1: Summary of submissions on application CRC042661**

## DESCRIPTION OF THE PROPOSED ACTIVITY

14. The applicant proposes to take and use water from Grays River, via two galleries coming off two man-made drains which act as tributaries to the Grays River. Water will be used to irrigate an area of 190 hectares within a command area of approximately 1500 hectares on Grays Hills Station (see photos of take points and irrigation area in Attachment Two).
15. Water will be conveyed from the take points through a piped system to the proposed centre pivot irrigators.
16. The proposed annual volume does not include any provision for stock water. The applicant considers that the provision of stockwater is covered by section 14(3)(b) of the RMA.
17. The applicant proposes the following activities:

CRC042661

- (a) To take and use water from Grays River via gallery I38/0057, at or about map reference NZMS 260 I38:0500-6170 (15 metres long, 10 metres wide and 5 metres deep) and gallery I38/0058, at or about map reference NZMS 260 I38:0810-6420 (15 metres long, 10 metres wide and 5 metres deep) at a maximum combined rate of 100 litres per second, with a volume not exceeding 1,140,000 cubic metres per year.
- (b) Water shall be used for spray irrigation of up to 190 hectares of crops and pasture excluding dairy cows, within a command area of 1,500 hectares.
- (c) A minimum flow of 1.5 cubic metres per second at Days Bridge is proposed, which is lower than that required in Table 3, row (v) of the WCWARP.
- (d) The galleries will be designed to prevent the entrapment of fish.
- (e) The take of water will be metered.

## LEGAL AND PLANNING MATTERS

### Consent Requirements

18. An overview of the consent requirements under the Resource Management Act (RMA), Transitional Regional Plan (TRP) and Waitaki Catchment Water Allocation Regional Plan (WCWARP) for water permit applications is provided in the introductory s42A report (Report 1). A summary of the requirements for this application is provided below:

#### TRP

The TRP permits the abstraction of surface water from any surface waterway provided the annual volume abstracted is less than 10 cubic metres per day, and the rate of take is limited to 5 litres per second. Given that the proposed take exceeds these limits, consent is required as a discretionary activity.

## WCWARP

- (a) Rule 2, clause (1) – The applicant proposes a minimum flow of 1.5 cubic metres per second in the Grays River at Days Bridge. This is less than the minimum flow required in Table 3, row (v), but equivalent to the 5-year 7-day low flow (refer to Report 2B for discussion on why a lower minimum flow is proposed). The activity therefore does not comply with this rule. Report 2A provides further discussion on classifying activities that do not comply with the minimum flows in the plan.

The total rate of take of 100 litres per second falls within the allocation limits set for Grays River (excluding the Sawdon and Edward Stream) of 500 litres per second.

- (b) Rule 6 – The activity is within the allocation limit of 275 million cubic metres for agricultural activities upstream of Waitaki Dam (see Report 3 for annual allocation and priority tables).
- (c) Rule 16 - Classifying rule – non-complying activity

19. Overall, the proposed water permit is a **non-complying** activity under Rule 16 of the WCWARP (and TRP) and resource consent is required in accordance with section 14 of the RMA.
20. No further consent is required under section 13 of the RMA to undertake works in the bed and banks of Grays River (see paragraph 8).
21. No discharge is associated with the proposal. Consent under section 15 of the RMA is therefore not required.

## Priority

22. Rule 2 sets an allocation of 0.5 cubic metres per second as an instantaneous allocation limit for takes from the Grays River. There is one other applicant seeking water from this river with lower priority (A.N. Hope CRC041542 and CRC041543) at this hearing.
23. For Rule 6, annual allocation, refer to Report 3 for a full list of all existing consent holders and all applicants. As described above, the application is within allocation limits set in Rule 6. As such priority is not a concern.
24. For application CRC042661, the allocation limits are not exceeded and there are no priority issues

## Derogation approvals

25. At the time this report was written, Meridian Energy Limited (MEL) had not provided approval for Grays Hills Station to derogate from its consents.

## CONSULTATION

26. The applicant notes in the application that consultation will be undertaken with Arowhenua Runanga, Department of Conservation, Fish & Game and MEL. A letter from MEL was received outlining their objection to the application. No evidence of any consultation with other parties has been provided.

27. I am unsure if any consultation has occurred since notification in August 2007.

## **DESCRIPTION OF THE AFFECTED ENVIRONMENT**

28. A description of the values of the Waitaki Basin and upper catchment tributaries in general is provided in the introductory s42A report (Report 1).

29. In addition to the above overall summary, the applicant makes the following comments with which I agree:

(a) Grays River flows continuously, supported by flow from the drains and recharge from groundwater in its lower reaches.

(b) The drains which galleries will tap in to, drain the distal end of the Tekapo outwash fan. These drains flow in to the Grays River and flow all year round. They are typically 1 to 1.5 metres wide, 1 to 1.5 metres deep with typical flow depth of 300 millimetres. Flow ranges are estimated as 300 to 400 litres per second at Site 1 and 200 to 300 litres per second at Site 2.

(c) The drains provide habitat for native fish, benthic organisms, and trout juveniles in the lower reaches.

(d) There are no other users of the Grays River or the drains.

30. The Fish and Game submission and Grampians Station Conservation Resources Report (2003), produced by the Department of Conservation for Tenure Review, provide additional information regarding the landscape and ecological values of the area.

(a) The outwash flats are a distinctive and memorable feature of the Mackenzie Basin. They are also highly legible in terms of the glacial and post-glacial processes. The outwash flats extend out across the basin on a grand scale and visually relate and connect with the glaciated mountains on the west side of the basin, including the main divide of the Southern Alps and Aoraki/Mount Cook. This area is extremely important in terms of the experience of travellers entering the basin from the Mackenzie and Hakataramea passes. The lack of fences also emphasises the openness of the outwash flats and fans. Power pylons are a dominant introduced feature. The pylons march in straight lines across the landscape.

(b) Wetlands are present on the margins of Grays River. The river flows across flat arable land, which is dominated by pasture, exotic grassland, depleted fescue tussock grassland and scattered shrubland (brier, matagouri). Willow trees are present along the river margins. The Grays River wetland supports willow trees, introduced grasses, lotus, sedgeland and rushland. Stock and wild animal access appears unrestricted. Several vehicle tracks cross the streams through fords or over bridges and culverts.

(c) The Grays River is a reputable brown trout fishery and well-used by anglers. Upland bullies, Canterbury galaxias, alpine galaxias, brown trout, rainbow trout, and bignose galaxias have been found in the catchment. Additional species recorded in the New Zealand Freshwater Fish Database are common bully and longfin eel. The presence of bignose galaxias in a springfed tributary of Grays River and of longfin eel in the main channel of Grays River, near the bridge west of the intersection of public roads (Bowie, 2005) is important. The

other important feature is that four native species (bignose galaxias, Canterbury galaxias, longfinned eel and upland bully) are all found in the wetland part of the Greys River block.

31. Mr David Stewart, in Report 2B, describes the hydrology of the Grays River. He concludes that more data has become available since the assessment of flows put forward in the Waitaki Allocation Board hearings. He considers that a flow of 1.5 cubic metres per second now accurately reflects the 5-year 7-day low flow for the Grays River at Days Bridge.
32. I also note that the proposed irrigation area is predominantly flat land at the base of the valley hills, and is set approximately 2km back from Haldon Road but may be visible to traffic travelling along it. It is not visible to general traffic along State Highway 8.
33. High voltage power lines owned by Transpower traverse the proposed irrigation area.
34. The Grays River wetland on south side of Grays River is identified as a “Site of National Significance” and “Recommended Area for Protection”. In addition, the Grays River, near and upstream of gallery I38/0058, is a “Site of Significant Wildlife Interest” and a large section of the outwash plains are also identified as a “Recommended Area for Protection”.
35. There is one other applicant seeking water from the Grays River catchment with lower priority (A N Hope – CRC041542 & CRC041543).

## ASSESSMENT OF PROPOSED ACTIVITY

36. The proposed water permit is a discretionary activity and must be considered in the context of s104 of the RMA.
37. Section 104(1) outlines matters that the consent authority must have regard to when considering an application for a resource consent, including any actual and potential effects on the environment, any relevant statutory provisions, and any other matter the consent authority considers relevant.

### Assessment of actual and potential effects (s104(1)(a))

38. The effects that have been considered for this type of activity (surface water abstraction, works in the bed of a river and discharge to water) are presented in the introductory s42A report (Report 1). That report includes the presentation of the relevant planning provisions which direct us to consider these effects. A summary table regarding the assessment of individual effects for this application is provided below and a detailed discussion of those outstanding matters or areas of concern is provided in the following sections.

Adverse Effects	Applicant’s assessment	IO assessment	IO Conclusion
Other water users	No other users so no effects. Water meter and min flow proposed. Abstractions only represent between 25% and 30% of the flow in each of the drains.	Water meter proposed. Min flow still provides for other abstractive and non-abstractive users of water. No flow sharing required a within allocation limit. MIC shares have been purchased in order to seek MEL’s derogation approval for	Effects minor.

		this application.	
Ecosystems	Consider with a buried gallery and fish screen on intake pipe & min flow that effects minor.	Minimum flow proposed is lower than that set out in Table 3 as applicant considers plan is incorrect. Further discussion on this below. Gallery fish screen proposed.	Effects uncertain.
People, communities & recreational values	Land area to be irrigated is already 90% improved pasture that has been developed and oversown therefore effects of irrigation likely to be minor. Greening effects of irrigation part of agricultural landscape. Cumulative effects too remote, unnecessary to determine application & beyond scope of Regional Council.  Recreational & amenity effects have not been assessed.	The irrigation area is not visible from the State Highway, however it is visible from Haldon Road. Conclusions of Chris Glasson on landscape effects (Report 5) consider that riparian planting should be retained and a buffer area to Grays River to be retained.  Adequate min flow proposed to protect recreational use and aesthetic amenity of waterway.  I also note that use of water for irrigation may result in improved productivity of the land & positive economic benefits for the wider community.	Effects may be more than minor.
Inefficient take and use	Applicant proposes 1,140,000m <sup>3</sup> /yr for irrigation.	Disagree that this is an efficient volume. Consider 811,300m <sup>3</sup> /yr more appropriate using the methodology outlined in Report U05/15.	Effects may be more than minor.
Water quality	MWRL report for cumulative effects. Locally, only proposing to increase to 1su/ha which is very low. Mostly irrigation for providing supplementary feed production.	Not satisfied given conclusions in s42A reports on cumulative effects (Report 4A-F). There are a number of submitters to be heard on this matter.	Effects may be more than minor.
Tangata Whenua values	No assessment provided.	Submissions concerned & have not been addressed by applicant.	Effects uncertain.

### Adverse effect on ecosystems

39. There are a number of submissions concerned with minimum flows and protecting fisheries values in all rivers and tributaries in the Upper Waitaki catchment (see Appendix 5 of Report 1).
40. Fish and Game NZ lodged a submissions on this application and describe in detail the Grays River catchment, its importance for fisheries values and the pressure that proposed water abstraction may have on instream values (see paragraphs 26 to 28 of Fish & Games August 2007 submission (submission id #16892)).
41. The applicant disagrees with the minimum flow as set out in row (v) of Table 3 in the WCWARP. They consider that the gaugings used to calculate the minimum flow are historic and recorded before the change in flow regime that resulted from the implementation of the Waitaki Power Scheme. The applicant has proposed a minimum flow of 1.5 cubic metres on the Grays River at Days Bridge.

42. In Report 2B, Mr David Stewart on behalf of Environment Canterbury provides a discussion about determining the appropriate minimum flow for the Grays River. Mr Stewart concludes that a flow of 1.5 cubic metres per second accurately reflects the 5-year 7-day low flow on the Grays River at Days Bridge given the data collected since the Waitaki Allocation Board hearings.
43. The applicant considers that as the proposed minimum flow is equivalent to the 5-year 7-day low flow, which is what is required as the minimum flow on "*all other rivers and streams*", that ecological values in the river will be protected. No further assessment in regards to the difference between the minimum flow required in Table 3 of the WCWARP of 1.8 cubic metres per second and the proposed minimum flow of 1.5 cubic metres per second has been provided.
44. Given this, I am unable to determine the degree of effects from the proposed abstraction being managed on a minimum flow for Grays River of 1.5 cubic metres per second at Days Bridge.
45. The allocation limit set for this water body in Table 3, row v(d) is 0.5 cubic metres per second. As this consent totals only 100 litres per second and there are no other existing consented users, there is no requirement for flow sharing to occur.
46. The applicant proposes to screen fish on the intakes via a submerged gallery. The applicant has not yet specified the details of the minimum requirements for fish exclusion. In order to mitigate effects on ecosystems I would recommend a minimum depth of 2 metres below the stream bed.
47. While I have recommended the galleries have a separation depth of two metres from the river, I am unable to determine potential effects on ecosystems given there are still submissions which are concerned with ecological values and minimum flows and the applicant has not provided a detailed assessment of potential effects of a lower minimum flow on ecosystems.

#### **Adverse effect on other water users**

48. As discussed above the applicant considers that as the proposed minimum flow is equivalent to the 5-year 7-day low flow, which is what is required as the minimum flow on "*all other rivers and streams*", that values for other users in the river will be protected.
49. In addition, the proposed abstraction is within the allocation limit for this water body. There are no other consented users with the "*remainder of the Grays catchment*" allocation.
50. The applicant proposes to install a measuring or recording device at the point of take in order to monitor how much water the applicant will be taking in order to minimise adverse effects on ecosystems and other water users. Proposed wording for a consent condition to address this concern is contained in the 'list of standard conditions' in Appendix 6 of Report 1.
51. MIC shares have been purchased in order to seek MEL derogation approval for this proposal.
52. Given the above, I am satisfied that effects of the proposed activity on other water users in the Grays River catchment will be minor.

## **Adverse effect on people, communities and amenity values**

### ***Landscape effects***

53. The applicant stated in their response to a further information request received 5 December 2008 that the land area to be irrigated is already 90% improved pasture that has been developed and oversown, therefore effects of irrigation on this area are likely to be minor. There will be some “greening” effects of irrigation, but these are part of agricultural landscape and will be limited to the area of proposed irrigation. The applicant also notes that cumulative effects are too remote and unnecessary to determine the application. They consider they are also beyond the scope of the Regional Council.
54. During my site visit, I noted that the proposed irrigation area is not visible from the main road (State Highway 8). However it is visible from Haldon Road, although located on the other side of Grays River and set back from the road approximately 2km.
55. I have also reviewed the Mackenzie District Plan and note that none of the land area subject to this application is designated as a Site of Natural Significance or a Scenic Viewing Area. However, there is a designated Scenic Viewing Area located between the Grays River and alongside Haldon Road.
56. A number of submitters have raised concerns with regard to effects on natural character and amenity values through the change in landscape within the Mackenzie basin. This matter is discussed in Report 5 prepared by Mr Chris Glasson in regards to potential cumulative landscape effects.
57. Mr Glasson notes the applicant has not proposed to retain and protect riparian vegetation along the Grays River. Additionally he notes the applicant seeks a very large command area relative to the number of hectares sought to be irrigated. Given this he has assumed that command area cannot be irrigated at any one time.
58. Mr Glasson concludes that given his understanding of the proposal above the proposed activity will have significant adverse effects on landscape values which will need mitigation. He suggests mitigation may include, but is not limited to retaining riparian planting and retaining buffer area to the Grays River.
59. Given the conclusions reached by Mr Glasson and the absence of proposed mitigation, I am not satisfied that the adverse effects on people, community and amenity values, in terms of effects on landscape as a result of irrigation, will be minor.

### ***Recreational and amenity values***

60. A minimum flow lower than that in the WCWARP, however the proposed minimum flow is the 5-year 7-day low flow for the Grays River at Days Bridge. In setting minimum flows for the WCWARP, protection of recreational and amenity values on each water body would have been taken into account (see Policy 40), and the 5-year 7-day low flow was considered to provide for these values for “*all other rivers and streams*”.
61. Given the applicant proposes to cease abstraction at an appropriate minimum flow, I am satisfied that the adverse effects on people, community and amenity values, in terms of effects on the Grays River catchment, will be minor.

## **Adverse effects of inefficient take and use on other users**

62. The taking of water in excess of that required for the intended use may contribute to water levels being unnecessarily reduced and less water available for other users. A number of submitters have identified this issue.

### ***Irrigation volumes***

63. The applicant proposes to take water at a rate not exceeding 100 litres per second, and use up to 1,140,000 cubic metres of water per year for irrigation of 190 hectares. The irrigation volume has been calculated in based on a blanket allocation of 6,000 cubic metres per hectare as outlined by MIC.
64. In reference to the above annual volume, the applicant has undertaken an assessment using the methodology outlined in Report U05/15 to justify the volume of water being sought as reasonable and efficient. Their assessment was based on intensive land use with light soils (PAW <75mm) and Effective Summer Rainfall of 175mm. This gave a requirement of 1,216,000 cubic metres per year. Therefore, as the volume being sought is less than that which is determined using Report U05/15, the applicant concludes that it would be a reasonable and efficient volume and effects on other users would be no more than minor.
65. I note that the rate of water sought equates to a gross application depth of 4.5 millimetres per day and at 80% efficiency (as required by Policy 16(b)), the maximum application depth would be 3.6 millimetres per day. The applicant expects the evapotranspiration rates to be over 6 millimetres per day in the peak summer months. They therefore consider that the proposed volume and rate is efficient.
66. As a comparison to the applicant's annual volume calculation, I have used CRC's GIS system and the method outlined in Report U05/15 to audit the applicant's proposed annual volume for irrigation of the proposed area in accordance with Policy 16(c). I agree with most parameters except that I consider that the soils in area would actually be 35% heavy soil (PAW >110mm), 15% medium (PAW 75-110mm) and 50% light (PAW <75mm).
67. Using the above figures, an annual volume 811,300 cubic metres would be a more appropriate and efficient volume of water for spray irrigation of this area using one of the methods outlined in Policy 16(c).
68. I note that this methodology (Report U05/15) assumes an irrigation efficiency of 80% which is largely achievable for modern spray systems (consistent with Policy 16(b)) and takes into consideration on-site physical and climatic factors (Policy 16(a)).
69. Given the above discussion, I am not satisfied that the annual volume being sought by the applicant of 1,140,000 cubic metres per year would be reasonable and appropriate for the area and method of irrigation proposed.
70. I also consider that an efficiency condition (WP05) is appropriate to ensure that water is not applied to the soils above their average water holding capacity, nor onto unproductive areas of land.

### ***Conveyance / distribution efficiency***

71. The applicant has not allowed for any conveyance losses within the proposed annual volume of 1,140,000 cubic metres. However, as this is a new activity, the water will be piped from the intake points to the irrigation system. This is consistent with Policy 19 of the WCWARP.

## **Adverse effect of use on water quality**

### ***Local effects***

72. In terms of effects at the local scale, the applicant has considered that effects on water quality will be minor. They note that they are only proposing to increase from approximately 0.2 stock units per hectare to 1 stock unit per hectare which is very low. The irrigation will mostly be used to provide supplementary feed production (e.g. brassica).
73. No nitrates assessment for the property has been provided and depth to groundwater is unknown. I note that several small tributaries of Grays River run through the proposed irrigation area and that some form of buffer strip along their length may be appropriate to protect the surface water quality from runoff and leaching of nutrients as a result of irrigation. Conditions to this effect have not yet been provided by the applicant.
74. No submissions were received on the local effects on water quality of this proposal.
75. Given the above, I cannot be satisfied that the adverse effects on water quality from the proposed activity will be minor.

### ***Cumulative effects***

76. An assessment of cumulative effects on water quality was requested to address the above concerns and in reference to Policy 13 of the WCWARP. The applicant has been involved with the study by Mackenzie Water Research Ltd (MWRL) on cumulative effects within the catchment.
77. There are a number of submissions which identify water quality as a result of land use intensification as a concern, including a submission from Meridian Energy Ltd who effectively hold consent to use all the water in the Upper Waitaki catchment. Those submitters and their concerns are outlined in more detail in Appendix 5 of Report 1.
78. The conclusion of Dr Mike Freeman and other experts (as outlined in Reports 4A-F) is that given the significant level of uncertainties involved in, and technical concerns with, critical aspects of the MWRL/GHD assessment of the level of adverse effects, together with the lack of mitigation measures yet proposed by resource consent applicants means that it is premature to make adequate conclusions about the potential adverse cumulative effects.
79. Given the above, and absence of proposed on-farm mitigation in relation to water quality, I do not consider localised and cumulative potential adverse effects on water quality to be minor.

## **Adverse effect on Tangata Whenua values**

80. The applicant has not provided an assessment of the effects of the proposed activity on cultural values. The sites of the proposed activities are within the rohe of Te Runaka O Waihao and Te Runaka O Arowhenua. Both runanga and Te Runanga O Ngai Tahu were served notice of the applications in August 2007.
81. Submissions were received in opposition to this application from Te Runanga o Ngai Tahu and Ngai-Tahu Mamoe Fisher People. The concerns of the Ngai-Tahu Mamoe Fisher People seem to relate specifically to the resource consent process, rather than this specific application.

82. Te Runanga o Ngai Tahu have raised concerns relating to mixing of waters between catchments, deterioration of water quality, dewatering and residual flows, changes to sediment flow and deposition and impacts on sites of cultural significance.
83. Given that there are a number of submissions which identify cultural values, I cannot conclude whether the actual and potential effects on the cultural values of the area will be minor.

### **Conclusion**

84. With regard to s104(1)(a), the actual and potential effects of the activities have been discussed above. In particular, there is uncertainty regarding the following effects relating to this application:
- (a) The localised and cumulative impacts on water quality;
  - (b) Effects on ecosystems from a lower minimum flow than in the WCWARP;
  - (c) Whether the annual volume requested represents an efficient use of water;
  - (d) Effects on landscape values;
  - (e) The effects on cultural values in the area.
85. The impacts on all other effects can be mitigated, if the recommended conditions provided at the end of this report are included, should the Commissioners decide to grant consent for this activity.

### **Statutory Assessment (s104(1)(b))**

#### **Regional Policy Statement (RPS)**

86. Under Section 104(1)(b)(iii) of the RMA, the consent authority shall have regard to any relevant regional policy statement. The Canterbury Regional Policy Statement has been operative since 26 June 1998.
87. Of significance to these applications are Chapter 5 and 6 (Recognising and providing for Tangata Whenua), Chapter 8 (Landscape) and Chapter 9, which relates to the management of the Region's water resources. The WCWARP and PNRRP take into account policies in the RPS and address the issues outlined in more detail. Any assessment of effects has been made using these documents and therefore I have had regard to the RPS throughout this assessment.

#### **Waitaki Catchment Water Allocation Regional Plan (WCWARP)**

88. The objectives and policies of the WCWARP that are relevant to each potential adverse effect have been identified in the introductory s42A report. A table of all those objectives and policies considered to be relevant to this application is appended in Attachment Three. A discussion of the objectives and policies that I consider are particularly relevant when deciding this application is provided in the following paragraphs.

#### **Objectives**

89. Objective 1 is a key objective in relation to the proposed taking of water. I have considered whether Objective 1 can be met in terms of sustaining the quality of the river and surrounding environment. While the proposal may not entirely be consistent

with Objective 1 and the associated policies (particularly policy 13 relating to water quality and policies 15 & 16 relating to efficient use), it is difficult to determine if the inconsistencies are significant enough to make the proposal contrary to Objective 1.

90. The proposed activity will impact on the matters outlined in Objective 1. In particular, (a) relating to spiritual and cultural values, given that effects on Tangata Whenua have been raised as a concern by submitters and have not yet been addressed by the applicant, and (b) life-supporting capacity of river and ecosystems, given that the potential adverse effects on water quality remain an outstanding concern. The cumulative impacts of the proposal on natural character and landscape values of the catchment (c) may be addressed by requiring appropriate buffer distances between the irrigation area and sensitive areas, such as the Grays River. There have been a wide range of people who have submitted against the proposed activity due to concerns about impacts on these values. Given this, and that no mitigation has been proposed by the applicant, I cannot determine whether the proposed activity is contrary to these values at the time of preparing this report.
91. The proposed activity is within the allocation limits set by the WCWARP, therefore, it may be considered to be consistent with Objective 2.
92. Objective 4 aims to achieve a high level of technical efficiency in the use of water. The applicant has not provided sufficient information to confirm that the annual volume of water requested is reasonable to meet the demands of the soils within the irrigation area, therefore, the proposal may not be consistent with Objective 4.
93. The proposal is not likely to affect the reliability of supply to other users downstream on Grays River, therefore, it may be considered to be consistent with Objective 5 of the WCWARP..

#### ***Environmental flow and level regimes***

94. Policies 2 – 8, and 40 deal with environmental flow and level regimes for the Grays River.
95. Policies 3 outline values that must be maintained when setting an environmental flow regime for any river and stream in the upper catchment and links directly to Rule 2 and the environmental flow and level regimes outlined in Table 3.
96. Policy 4 outlines a number of matters that must be considered when setting an environmental flow and level regime and is particularly relevant to this application. Report 2A provides a discussion to the planning aspect of the proposed minimum flow. In summary, as the proposed minimum flow for the Grays River reflects that which is considered to be the 5-year, 7-day low flow; I am satisfied that this provides for suitable mitigation to protect the values and matters for consideration in Policy 4, and as such the proposal is not contrary to Policy 4. I do note however there are a number of submitters who wish to be heard on some of these issues.
97. Policy 40 deals with the environmental flow regime in the rivers and streams in the upper catchment (see Map 2 in the WCWARP). Policy 40 enables access to water for the activities identified in Objective 2, to the extent consistent with Objective 1.
98. This policy also recognises the connections of those rivers and streams to wetlands and groundwater systems of the Mackenzie and Ahuriri basins. The applicant is proposing a minimum flow less than that required by the plan for Grays River.

99. As described above, while this minimum flow is less than that specified in Rule 2, I consider it more accurately reflects the 5-year, 7-day low flow given the more recently available data for the flows in the Grays River. Therefore this takes into consideration the intent of policies 3, 4 and 40.
100. With regard to the reference to activities in Objective 2, the application is within the allocation limits set out in Table 6 and the allocation limit for the Grays River.
101. Therefore I consider that the proposal is not contrary to this Objective and am satisfied that the proposed activities will allow access to water for the activities identified in Objective 2.

#### ***Policies on water quality***

102. Policy 13 deals with water quality issues resulting from land use intensification and enables the consent authority to have regard to the water quality objectives in the PNRRP. The WCWARP incorporates by reference Objectives WQL1, 2 and 3 of the PNRRP which contain particular outcomes to be achieved in the regions waterbodies. Report 4A, by Dr Mike Freeman, addresses this policy in more detail, particularly on the cumulative scale. Given his conclusions, I cannot determine if this application is contrary to this policy.

#### ***Policies on efficient and effective use***

103. Policies 15 – 20 deal with efficient and effective use and all are applicable to this application.
104. Policy 15 ensures that the rate of abstraction and the annual volume is reasonable for the intended use. As discussed in the assessment of effects section of this report, I am not satisfied that the annual volume is reasonable for the intended use.
105. Policy 16 provides guidance for determining reasonable and efficient use for agriculture activities. As discussed in the assessment of effects, I am not satisfied that the requested volume of water is required under this consent application.

#### **Conclusion**

106. With regard to s104(1)(b), the relevant provisions of the RPS and WCWARP have been considered above. In my view the proposal may be contrary to Policies 15-16 and Policy 13 due to there being potential effects on water quality and no mitigation in the form of the farm management plan has been proposed by the applicant. In addition, I cannot make a conclusion about whether the application is consistent with Objective 1 given the number of submissions to be heard, particularly in relation to cultural values.

#### **Other Matters (s104(1)(c))**

107. With regard to s104(1)(c), the consent authority can consider any other matter relevant and reasonably necessary to determine the applications. I consider that the high court decision *Aoraki Water Trust and Others v Meridian Energy Limited*<sup>1</sup> is relevant to this application (see discussion in Report 1).

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<sup>1</sup> [2004] NZMRA 251

## **Particular restrictions for non-complying activities (s104D(1))**

108. The proposed water permit is a non-complying activity and must be considered in the context of s104 of the RMA.
109. Section 104D outlines matters that must be considered when determining an application for a non-complying activity. This section states that a consent authority may grant a resource consent for a non-complying activity only if it is satisfied that either, the adverse effects of the activity on the environment will be minor (s104D(a)(1)), or the application is for an activity that will not be contrary to the objectives and policies of the relevant plan (s104D(1)(b)).

### **S104D(1)(a)**

110. As discussed in the assessment of effects section of this report, I am not satisfied that adverse effects of the proposed activity on the environment will be minor when taking into account the proposed mitigation. In particular, there remains uncertainty regarding effects on:
- (a) The localised and cumulative impacts on water quality;
  - (b) Effects on ecosystems from a lower minimum flow than in the WCWARP;
  - (c) Whether the annual volume requested represents an efficient use of water;
  - (d) Effects on landscape values;
  - (e) The effects on cultural values in the area.

### **S104D(1)(b)**

111. The objectives and policies of the RPS and WCWARP that are relevant to the potential adverse effects have been identified in the introductory s42A report (Report 1) and discussed above in paragraphs 86-106. I do not consider the application is consistent with policy 13 due to there being likely effects on water quality and policies 15-20 due to effects of inefficient use. In addition, I cannot make a conclusion about whether the application is consistent with Objective 1 given the number of submissions to be heard.

## **PART II PURPOSE AND PRINCIPALS**

### **Purpose of the RMA (s5)**

112. Under Section 104, the consent authority must consider applications “subject to part II” of the RMA. The purpose of the RMA (Section 5(1)) is to:
- “promote the sustainable management of natural and physical resources.”*
113. Section 5(2) defines the meaning of “sustainable management”, which is to manage resources in a manner that provides for the social, economic and cultural wellbeing of communities while protecting the life-supporting capacity of the environment for the needs of future generations. This section also states that this should be achieved while “safeguarding the life-supporting capacity of water” and “avoiding, remedying or mitigating” the adverse effects of activities.
114. The proposal will allow the development of land to occur, which may provide for the economic and social well-being of the community. The applicant however has not

proposed measures to “safeguard the life-supporting capacity of water” and “avoid, remedy or mitigate” the potential impacts on surface water quality and landscape values as required in Section 5(2)(c), or provided information to confirm that the proposed annual volumes requested are reasonable and consistent with the objectives of Section 5(2)(a), which aims to provide for the needs of future generations.

### **Matters of National Importance (s6)**

115. Sub-sections (a), (b) and (e) of Section 6 of the RMA are particularly relevant to this application. The proposal will include a change in visual aesthetics in an area of high amenity and may result in effects on water quality and ecosystems that have not been adequately mitigated. The applicant has not yet proposed measures to address these effects. The applicant has not assessed the impacts on cultural values, and runanga have submitted in opposition on this application.

### **Other Matters (Section 7)**

116. In achieving the purpose of the RMA, the consent authority is directed to have particular regard to a number of matters as set out in (a) – (j) of Section 7.
117. Sub-sections (b), (c) and (f) are specifically relevant to this application and should be considered when deciding the acceptability of effects resulting from the proposed take and use of water from Grays River. Section (b) relates to the efficient use of water and as discussed above there is currently insufficient conclusive evidence to confirm that the applicant’s requested annual volume is reasonable.
118. Section (c) refers to the maintenance and enhancement of amenity values. The applicant has not proposed mitigation measures to ensure that this objective is achieved. However, maintaining buffer distances between the irrigation area and areas used by the public, such as the Grays River, may assist with ensuring that the amenity values of the area are not compromised.
119. Section (f) refers to the maintenance and enhancement of the quality of the environment. The applicant has not proposed mitigation measures to ensure that this objective is achieved, particularly with regards to water quality.

### **Principles of the Treaty of Waitangi (s8)**

120. Section 8 of the RMA requires the consent authority to take into account the principles of the Treaty of Waitangi. The site lies within the rohe of Waihao Runanga. Runanga were informed separately when ECan received the application and later when the application was notified. Submissions have been received from Ngai Tahu on this application.

## **RECOMMENDATION**

### **Grant or Decline**

121. Section 104B applies to any application which is a discretionary or non-complying activity and states that the consent authority may grant or refuse the application and may impose conditions under s108.
122. The proposal may result in economic and social benefits to the wider community through improved pasture production, and the applicant has recognised the natural values of the river by proposing to adopt a minimum flow.

123. There are however, a number of outstanding issues associated with this proposal as listed below:
- a. *Ecosystems* – There are submissions to be heard in relation to the values of the Grays River and the suitable minimum flow. Do detailed assessment of effects in regards to the lower minimum flow has been provided.
  - b. *Efficiency* – the applicant has not demonstrated the volume of water sought is reasonable and efficient.
  - c. *Landscape values* – no mitigation has been provided to mitigate potential effects on landscape.
  - d. *Water quality* - No detailed impact assessment or measures to address the water quality impacts that could arise from irrigation at this site. Given the conclusion regarding the potential cumulative adverse effects on water quality, it is premature to make any recommendation to grant or refuse this application as it relates to cumulative water quality;
  - e. *Cultural values* – The applicant has not provided any assessment on cultural values and there are outstanding submissions from Ngai Tahu in opposition to this proposal.
124. Having considered all relevant matters outlined in section 104D, I am not satisfied that the actual and potential effects of the proposed activity are minor due to concerns those matters outlined as (a) (b) (c), (d), and (e) above. I also cannot be satisfied that the proposal is consistent with objectives and policies of the relevant planning documents given that no assessment or mitigation has been provided for the above. On this basis, I cannot recommend that this application (CRC042661) be granted.

## RECOMMENDED CONDITIONS

125. If the Commissioners decide to grant this application, a list of conditions that are usually included in a water permit are provided in Appendix 6 of the introductory s42A report.
126. I have included a set of draft recommended conditions for this proposal in the table below. These have been proposed by the applicant or recommended by myself and are explained in relevant sections of this report.
127. I emphasise that these conditions should provide sufficient mitigation for those potential adverse effects which I consider will be minor. It should be noted that the investigating officer is not satisfied that these conditions would adequately mitigate that adverse effects that are of key concern, as identified in paragraph 123 above.

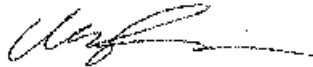
Table 4: Recommended draft conditions for water permit CRC042661		
No.	Condition Code <sup>2</sup>	Details
<b>Take</b>		
1	WP01	<i>Name of waterbody: Grays River</i>

<sup>2</sup> See Report 1, Appendix 6 for condition code and condition wording.

		<p><i>Map reference:</i> NZMS 260 I38:0500-6170 and I38:0810-6420</p> <p><i>Gallery:</i> I38/0057 and I38/0058</p> <p><i>Instantaneous rate:</i> 100 litres per second</p> <p><i>Volume:</i> 811,300 cubic metres</p>
<b>Use</b>		
2	WP04	<p><i>Instantaneous rate:</i> 100 litres per second</p> <p><i>Volume:</i> 811,300</p> <p><i>Type of irrigation:</i> Spray irrigation</p> <p><i>Number of hectares:</i> 190 hectares</p> <p><i>Use:</i> crops and pasture for grazing stock excluding milking dairy cows</p> <p><i>Plan No:</i> "CRC042661" (Attachment 1)</p>
3	WP05	Efficiency of use
4	WP06	Backflow preventer
<b>Mitigation</b>		
5	WP07	<p><i>Name of waterbody:</i> Grays River</p> <p><i>Map reference:</i> NZMS 260 I38:038-601</p> <p><i>Minimum flow:</i> 1.5 cubic metres per second</p> <p><i>Flow graph:</i> See Report 2A</p>
<b>Measuring &amp; Metering</b>		
6	ME02	
7	ME03	
8	ME04	
9	ME05	
10	ME06	<i>Waterway:</i> Grays River
11	WP08	<p><i>Waterway:</i> Grays River</p> <p><i>Map reference:</i> NZMS 260 I38:038-601</p> <p><b>To be used with ME03-05</b></p>
<b>Administrative Conditions</b>		
12	AD01	
13	AD02	<p><i>Number of working days:</i> 5</p> <p><i>Month 1:</i> March</p> <p><i>Month 2:</i> July</p> <p><i>Waterbody:</i> Grays River and tributaries</p>

		<i>Cross reference to Condition: 5</i>
14	AD04	Lapse date

Signed:



Date: 31<sup>st</sup> August 2009

*Claire Penman*  
*Consents Investigating Officer*

## REFERENCES

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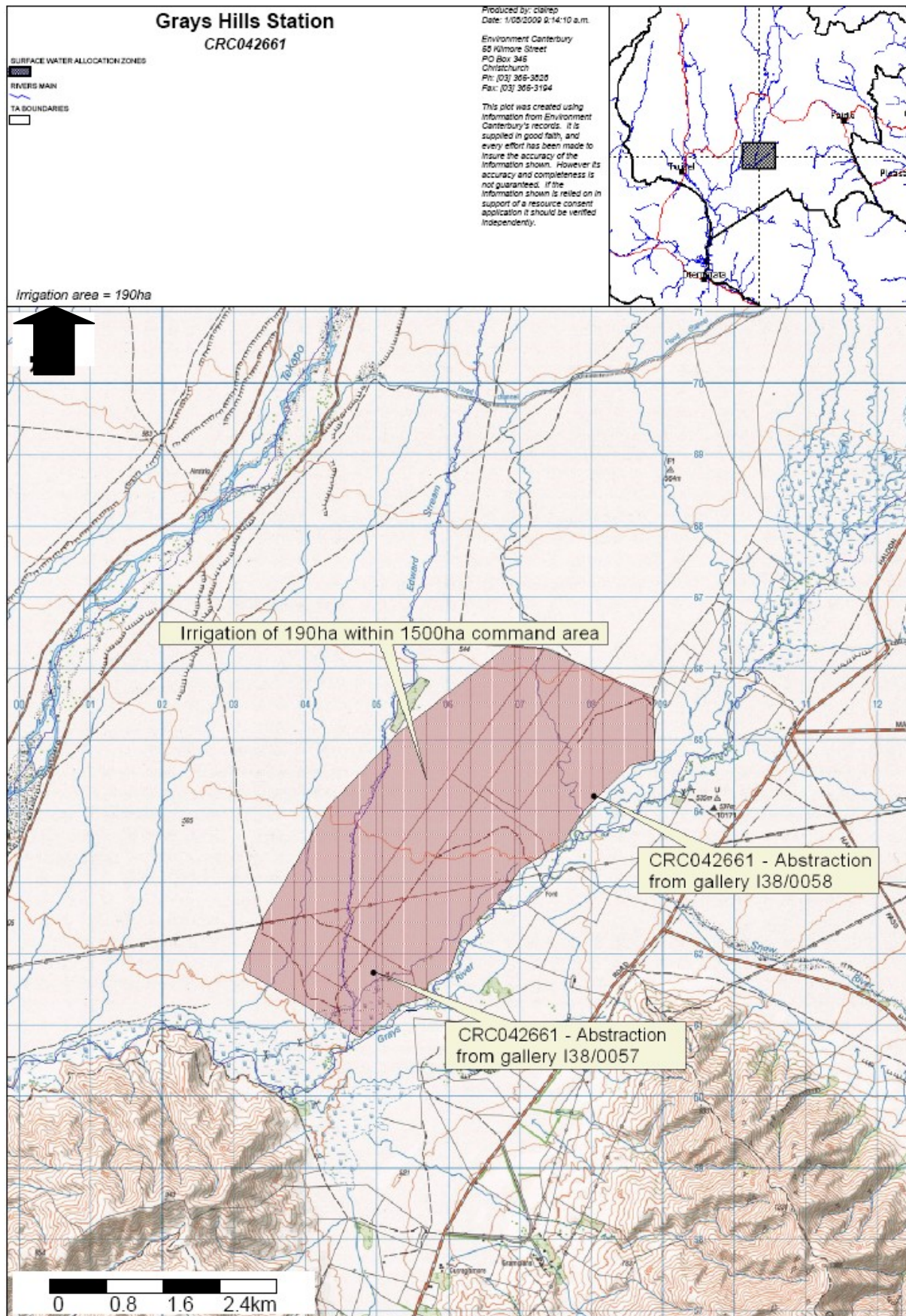
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# ATTACHMENT ONE – LOCATION MAP



**ATTACHMENT TWO – PHOTOS OF RIVER & INTAKE SITE TAKEN ON 27 JANUARY 2009 BY CLAIRE PENMAN**



Panoramic images showing Grays River in foreground looking north towards Lake Tekapo across proposed irrigation area



Grays River looking downstream from Days Bridge



Grays River looking upstream from Days Bridge



Grays River at confluence with drain from Site 2 gallery



Grays River at confluence with drain from Site 1 gallery



Site 1 – gallery location on drain



Site 2 – gallery location on drain



Irrigation area looking north-east



Irrigation area looking south-west

## ATTACHMENT THREE – OBJECTIVES & POLICIES

Objective / Policy	Description	Assessment
Objective 1	To sustain the qualities of the environment of the Waitaki River and associated beds, bars, margins, tributaries, islands, lakes, wetlands and aquifers.	The proposed activity will impact on the matters outlined in Objective 1, particularly (a), (b) and (c). There have been a wide range of people who have submitted against the proposed activity due to concerns about impacts on these values. I therefore cannot determine whether the proposed activity is contrary to these values at the time of preparing this report.
Objective 2	Provide water for different activities.	The proposed activity is within the annual allocation limit for agricultural and horticultural activities outlined in Rule 6. Therefore, this application would not affect availability of water to other users.
Objective 3	Recognise that there are beneficial and adverse effects on the environment at a national and local scale.	These factors have been considered in the assessment of effects.
Objective 4	Achieve a high level of technical efficiency in the use of water.	The applicant has not demonstrated that the use of water for irrigation is technically efficient.
Objective 5	Provide for practical and fair sharing of allocated water during times of low water availability.	Appropriate minimum flow proposed and the proposal would not affect the reliability of supply to other users.
Policy 1	Recognising connectedness between all parts of the catchment	By providing a suitable minimum flow, the connectedness with the catchment is recognised.
Policy 3	Setting of environment flow and level regimes for all activities in Objective 2 and consistent with Objective 1.	Applicant proposes minimum flow lower than that in Table 3 of the plan, but the one they propose will still enable access for the activities in Objective 2.
Policy 4	Outlines a number of matters that must be considered when setting an environmental flow and level regime	Applicant proposes minimum flow lower than that in Table 3 of the plan, but the one they propose will ensure those matters have been considered
Policy 8	Promoting water harvesting when flows are low	Water harvesting is not proposed
Policy 9	Discouraging further mixing of water between catchments	Water will be taken and used within the same catchment and sub-catchment
Policy 10	Enabling small amounts of water to be taken or diverted where effects are minor.	The proposed volume exceeds what is considered to be a small amount
Policy 11	Consider effects on Tangata Whenua values, local and national effects when allocating water to activities	Submissions received on Tangata Whenua values, but application falls within allocation limits for agricultural and horticultural activities
Policy 12	Outlines matters that must be considered when establishing allocation limits.	Application falls within allocation limit for activities in Objective 2
Policy 13	Addresses water quality objectives in the NRRP	Addressed in more detail in Report 4A
Policy 15	Ensuring take and use of water is reasonable for its intended use	Applicant is seeking what I consider to be an unreasonable volume of water
Policy 16	Requiring irrigation applications to meet the specified reasonable use	As above – applicant has not provided an adequate assessment

	test	
Policy 18	Requiring the volume of water on existing consents to reflect actual use.	Through the replacement of the existing consent an annual volume will be specified in the conditions
Policy 19	Encouraging piping or sealing of water distribution systems to minimise water loses and maintain water quality.	The proposed conveyance via a pipe and will therefore be consistent with this policy
Policy 20	Promoting the integration of multiple uses of water.	Multiple uses of water are not proposed
Policy 21	Requiring the installation and use of water-measuring and recording devices.	A suitable water metering device is proposed to be installed
Policy 23	Restricting taking or diverting of surface water during times of low flow except for essential uses	A suitable minimum flow is proposed for restricting the abstraction of water in times of low flow.
Policy 25	Allowing for sharing of available water within a water-users group	A flow sharing agreement may be required and is discussed in Report 4A
Policy 26	Setting priority bands for upper or mid-catchment tributaries and the Ahuriri catchment.	Priority bands have not been established for this catchment
Policy 27	Giving priority during low flows or levels to integrated schemes where water used for more than one purpose.	There are no integrated schemes with this sub-catchment
Policy 40	Setting an environmental flow and level regime for these tributaries	An appropriate minimum flow has been proposed to ensure consistency with this policy