

BEFORE THE CANTERBURY REGIONAL COUNCIL

IN THE MATTER OF

The Resource Management Act 1991

AND

IN THE MATTER OF

an application by **Mr F I Graham** filed under **CRC072363** for a water permit to take and use surface water from Black Jack Stream spray irrigation of 25 hectares, at Te Akatarawa Station, Te Akatarawa Road, Kurow.

**REPORT AND DECISION OF HEARING COMMISSIONERS PAUL ROGERS,
MICHAEL BOWDEN, DR JAMES COOKE AND EDWARD ELLISON
PART B – SITE SPECIFIC DECISION**

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1 INTRODUCTION

- 1.1 This is a decision on an application by **Mr F I Graham** (the applicant). It is one of many decisions we have made on 104 applications by various applicants for water permits and associated consents in the Upper Waitaki Catchment.
- 1.2 The decision should be read in combination with our Part A decision, which sets out our findings and approach to various catchment wide issues that are common to multiple applications. References to our Part A decision are made throughout this decision as appropriate.

2 THE PROPOSAL

- 2.1 This application seeks consent to take and use up to 12 L/s of water from Black Jack Stream for the irrigation of 25 ha of crop and pasture within a larger 80 ha command area on Te Akatarawa Station, as shown in Figure 1 below.

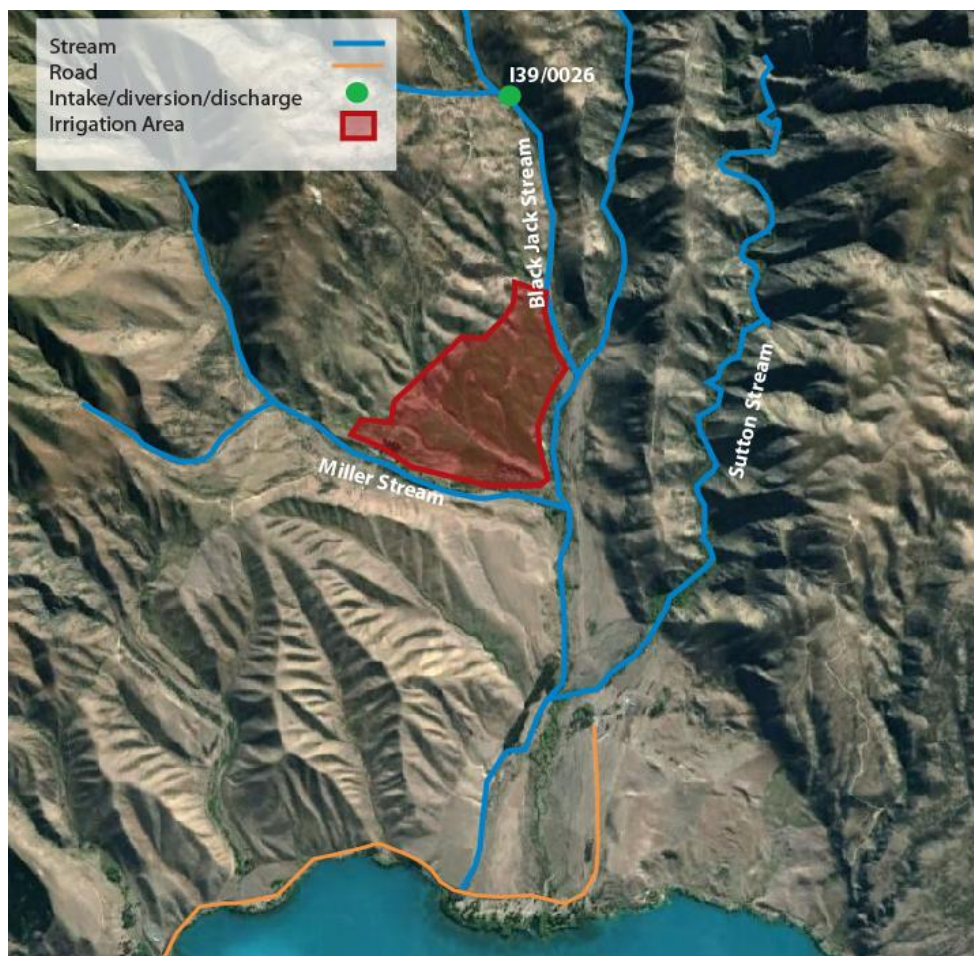


Figure 1: Indicative Location Plan

- 2.2 Water will be diverted from Black Jack Stream using an existing surface intake structure to a holding pond, from where it will be taken for irrigation. The proposed maximum rate of diversion and take is 12 L/s and 150,000 cubic metres per year. The diversion and take of water will cease if the flow in Sutton Stream is at or below 80L/s.
- 2.3 It is anticipated that the applicant will use spray irrigation, predominantly k-line. The water will be used only for the spray irrigation of pasture and feed crops for grazing stock, excluding milking dairy cows. The current farming practices and stocking numbers on the irrigation area will be maintained.
- 2.4 The applicant is currently irrigating part of the property in accordance with an existing consent, as discussed further below.

The application

- 2.5 The application is for a water permit to take and use surface water pursuant to section 14 of the RMA. Consent is required under the Waitaki Catchment Water Allocation Regional Plan (WCWARP), as discussed below.
- 2.6 The application (CRC072363) was lodged with the Canterbury Regional Council (the Council) on 7 February 2007, subsequent to the WCWARP becoming operative in July 2006. This application was publicly notified and there were a number of submissions that are referred to later in this decision. The application requested a consent duration to April 2025.

Modifications after notification

- 2.7 Since the application was initially lodged, the application was formally modified by decreasing the annual volume and irrigation area prior to this application being notified. Also a minimum flow has been incorporated since this application was publicly notified August 2007. On 26 August 2009 the applicant proposed a set of MIC/MEL common consent conditions which they advised form part of their consent application.
- 2.8 The general principle for modifications after notification is that amendments are allowed provided they do not increase the scale or intensity of the activity or significantly alter the character or effects of the proposal. The key consideration is prejudice to other parties by allowing the change. In this case, we are satisfied that the change does not significant alter the intensity or effects of the proposal and that no party would be adversely affected by allowing the change.

Related consents and applications

- 2.9 The applicant currently holds CRC001883 which allows him to take and use up to 17.5 L/s from Millers Stream. The water taken from Millers Stream is then used to spray irrigate 45 ha of land located between Millers Stream (to the south) and Black Jack Stream (in the north) within the area identified in Figure 1 above.
- 2.10 The applicant proposes both the existing and proposed water permits will operate together to allow him to maximise the potential of his irrigation system and irrigate a total area of 70ha within the 80ha command area. Miller Stream water will be used to irrigate the western side while Black Jack Stream water will be used to irrigate the eastern side.
- 2.11 We note that as far as we are aware, the applicant has not applied for and does not currently hold any consents to disturb the bed of Black Jack Stream for the purpose of installing or maintaining an intake structure. We do not have sufficient information to conclude whether such a consent is necessary, but simply note that we have not taken this activity into account in our consideration of the proposal.

3 DESCRIPTION OF THE ENVIRONMENT

Te Akatarawa Station

- 3.1 The applicant operates an 11,597 ha property located on Te Akatarawa Road on the northern shores of Lake Aviemore, of which 407 ha of the property is freehold with the remaining 11,190 ha of the property being pastoral lease.
- 3.2 Te Akatarawa Station consists of approximately 407 ha of "easy" freehold land, 616 ha of low altitude "easy" land, 5,427 ha of steep hill country, 4,811 ha of very steep hill country and 366 ha which cannot be grazed. Approximately 80% of the applicant's property is located on very fragile soils which requires careful grazing management.
- 3.3 The 25 ha to be irrigated under this application is located within the 407 ha freehold land. The area that the applicant irrigates and proposes to irrigate are of considerable value, as during the 1960's the majority of Te Akatarawa Station's productive river flats were flooded during the formation of Lakes Benmore and Aviemore.
- 3.4 The property's average rainfall is approximately 400-425 millimetres per season. Soils to be irrigated are predominantly Otematata Hill and Otematata soils with profile available water (PAW) between 30 and 150 millimeters.

Black Jack Stream

- 3.5 The applicant seeks to take water from the Black Jack Stream which drains an unnamed range to the west of the stream. The stream has a fairly constant flow as it is fed by rainfall and numerous springs during the summer months. At the point of take it is approximately 0.5m wide with a gravel bed and grassed banks.
- 3.6 The stream has several small branches in its upper catchment on the unnamed range, however, all these join together prior to the point at which the applicant proposes to take water. Black Jack Stream then joins Miller Stream, with Miller Stream then entering Gibson Stream which joins with Sutton Stream before discharging into Lake Aviemore.
- 3.7 There is limited information on Black Jack Stream in terms of aquatic values. However, it is noted that Gibson Stream goes subsurface prior to entering Lake Aviemore. Black Jack Stream does not feature a fishery as its lower reaches dry up in summer. The Department of Conservation has advised that there are no freshwater fish records for Black Jack Stream, although there are some trout and upland bullies recorded in Gibson and Miler Streams

Site visit

- 3.8 We detailed our site visits in Part A and we do not repeat this information here, other than to say we did not go onto the property.

4 PLANNING INSTRUMENTS

- 4.1 As discussed in our Part A decision, there is a wide range of planning instruments that are relevant under the RMA. This includes national and regional policy documents, along with regional and district plans. The key planning instruments relevant to this application are as follows:
- (a) Waitaki Catchment Water Allocation Plan (WCWARP);
 - (b) Natural Resources Regional Plan (NRRP);
 - (c) Proposed and Operative Canterbury Regional Policy Statement (CRPS); and
 - (d) Waimate District Plan (WDP)
- 4.2 The provisions of these planning instruments critically inform our overall assessment of the application under s104(1)(b) of the RMA, as discussed in Section 14 of this decision. In addition, the rules within the relevant planning instruments determine the status of the activity, as set out below.

Status of the activity

- 4.3 In our Part A decision we provide a detailed discussion of our approach to determining the status of activities. We now apply that approach to the current application.
- 4.4 This application was lodged after the WCWARP was made operative. The following rules from the WCWARP are applicable to this application:
- (a) Rule 2 clause (1) – Black Jack Stream is a tributary of Sutton Stream and as such the applicant has proposed a minimum flow of the 5-year, 7-day low flow assessed by the Canterbury Regional Council (CRC) (Table 3, row xxii) to be maintained above the intake location on Sutton Stream sought by Waitangi Station (CRC030944) .
 - (b) Rule 2, clause (1)(b) – there is no instantaneous allocation limit for this water body (Table 3, row (xxii)).
 - (c) Rule 6 – the activity is within the allocation limit of 275 million cubic metres for agricultural activities upstream of the Waitaki Dam
 - (d) Rule 15 – classifying rule – discretionary activity.

- 4.5 Overall, the proposal is a **discretionary activity** under Rule 15 of the WCWARP and resource consent is required in accordance with section 14 of the RMA.

5 NOTIFICATION AND SUBMISSIONS

- 5.1 The application was publicly notified on 4 August 2007 and 16 submissions in total were received, including:
- (a) 2 in support;
 - (b) 12 in opposition; and
 - (c) 2 neither in support nor opposition.
- 5.2 Table 1 is based on the relevant s42A reports and summarises those submissions that directly referenced the application. In addition to those listed, there were other submitters that presented evidence at the hearing that was relevant to this application. The relevant evidence from submitters is discussed in more detail later in this decision. Please note that all submissions hold equal importance, even if not specifically listed below.

Table 1. Summary of submissions on application CRC072363

Submitter	Reasons	Position
Upper Waitaki Community Irrigation	Increased production	Support
Mr M Urquhart	Economic benefits, stable population, confidence to enhance property	Support
Mr S Carswell	Degradation of water quality	Oppose
Fish and Game	Stream doesn't have great fishery value, resident trout likely where flows allow. Concerns could be addressed through consent conditions	Oppose
Meridian Energy Limited	Flow regimes, metering, water quality	Oppose

- 5.3 Overall the key issues of concern to the submitters were effects on ecosystems, water quality, allocations, minimum flows, natural character and landscape, efficiency and cultural values.

6 THE PLANNING OFFICER'S REPORT

- 6.1 A section 42A report on the application and submissions was prepared by the Council's Consent Investigating Officer, Ms Vesey (Report 16).
- 6.2 The primary report was supported by a number of specialist s42A reports prepared by Messrs Heller, Hanson, Glasson, McNae and Stewart, and Drs Clothier, Schallenberg, Meredith and Freeman. The key issues addressed by these reports were cumulative water quality effects, landscape effects, and environmental flow and level regimes.
- 6.3 All reports were pre-circulated in advance of the hearing. We have read and considered the content of the reports and refer to them as relevant throughout this decision. Specific points noted from the s42A report are summarised below.

Ms Vesey

- 6.4 Ms Vesey cited a number of her concerns regarding the application. She said that with regard to s104(1)(a), she could not confirm that the actual and potential effects of the proposed activity were acceptable taking account the proposed mitigation. In particular, Ms Vesey said that there was uncertainty regarding the following aspects of the application:
- (a) *Surface water quality* - No detailed impact assessment or measures to address the water quality impacts that could arise from irrigation at this site. The impacts on water quality may therefore not be acceptable;

(b) *Cultural values* – The applicant had not provided any assessment on cultural values and there are outstanding submissions from Ngāi Tahu in opposition to this proposal.

- 6.5 Ms Vesey believed that the impacts on all other effects could be mitigated by conditions.
- 6.6 Turning to s104(1)(b) and specifically, the relevant provisions of the RPS and WCWARP Ms Vesey said that in her view the proposal may not be consistent with policy 13 because of the potential effects on water quality and no mitigation in the form of the farm management plan has been proposed by the applicant. In addition, she could not 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.
- 6.7 In relation to the overall purpose of the RMA, Ms Vesey said that 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 “avoid, remedy or mitigate” the potential impacts on surface water quality as required in Section 5(2)(c).
- 6.8 Having considered all relevant matters outlined in section 104(1), Ms Vesey was unable to make a recommendation under s104B as she believed she was not able to determine the actual and potential effects from the proposed activity on surface water quality and cultural values are acceptable.

Mr Glasson – Landscape architect

- 6.9 Mr Glasson noted that the proposed site is located in a valley of pastoral farming north of Lake Aviemore. He considered that the site has low visibility when seen from the closest public viewpoint, 7 km distance on SH83 and is modified with farming operations.
- 6.10 Mr Glasson’s assessment was that the proposed irrigation measures would create an adverse effect of less than minor and that no mitigation measures were required.

Mr Stewart - Hydrologist

- 6.11 Mr Stewart prepared a specialist report (Report 2B) where he assessed the hydrology of the catchments for Black Jack Stream, Gibson Stream and Sutton Stream. This is relevant to the current proposal and the nearby proposals by Waitangi Station, as discussed further below.
- 6.12 If this proposal was to be granted, Mr Stewart recommended that a minimum flow of 80L/s for Sutton Stream at I39:961-210 which is upstream of existing abstractions. He suggested that the applicant will need to start ramping down their abstractions as flows at the Sutton Stream recorder site reach 135 LI/s and cease abstraction when flows reach 80 L/s at this site.
- 6.13 Mr Stewart also recommended a data collection program including continuous flow measurement at the proposed monitoring site immediately upstream of the Waitangi Station intake on Sutton Stream needs to be undertaken over at least a 5 year period to support the value of the imposed minimum flow.

7 THE APPLICANT’S CASE

- 7.1 Legal counsel for the applicant, Ewan Chapman, presented opening submissions and called several witnesses as discussed below.

Opening legal submissions

- 7.2 The applicant is part of the Upper Waitaki Applicant Group (UWAG), as described in our Part A decision. Mr Ewan Chapman presented comprehensive opening legal submissions on behalf of all UWAG applicants. He said that there may be matters of a specific legal nature relating to certain applications and those issues will be raised when the specifics of the applications were discussed in closing.
- 7.3 Mr Chapman told us that UWAG represents some 72% of all applicants for water takes. This equates to 31% of the total water volume applied for (excluding stockwater and non-consumptive diverts) and 29% of the total irrigable area.
- 7.4 Mr Chapman emphasised that despite the collective approach adopted for these hearings, each application needs to be considered in isolation from others (allowing for priorities). However Mr

Chapman noted that UWAG is not producing any other evidence to support its own assessments of cumulative effects and adopts the MWRL evidence to the extent that it defines nodal thresholds.

- 7.5 While raising some challenge to the outcomes of the mitigation measures proposed by MWRL resulting from the WQS study, Mr Chapman told us that the UWAG members were not presenting their case to say that they cannot or will not meet an area-based NDA threshold. To the contrary, he said that we would be shown that they have taken the model and applied it to all properties and will, with mitigation, meet the thresholds.
- 7.6 Mr Chapman then addressed us on the issue of allocation of assimilative capacity. He contended the approach taken by MWRL that essentially resulted in some farming units mitigating for the nutrient loss of other farming units, was inappropriate. He submitted a more appropriate method of allocation is on the basis of productive use of land. The productive use of the land he said represents the level of nutrient discharge of each farming unit and that should be used; and that the method of allocation based on dividing allocation on a per hectare basis should not be utilised.
- 7.7 He submitted that by assessing allocation of assimilative capacity on the basis of productive land use to reflect the NDA for each unit, these methods would be more representative and realistic of the nutrient discharge of each farming unit.
- 7.8 In terms of conditions concerning the nodal approach, he told us the essential issue lies with pinpointing who is exceeding their NDA if exceedances are detected at the nodal point. He told us the UWAG applicants' preference is for on-farm management of total nutrient discharge and annual auditing of individual FEMPs. He then referred us to a draft condition from the Rakaia Selwyn groundwater zone hearing, noting it was a very much site-specific condition.
- 7.9 He submitted that on-farm monitoring should be favoured over monitoring at nodal points. He said this did bring in the practicalities of the purpose of employing the FEMP with the result that if a breach of the FEMP occurs, the consent authority would have control to enforce the conditions of the consent against the individual applicant. It also reflects the reality that each farm will be different depending on the type of activity that is undertaken on that farm with their own tailored farming management practices.
- 7.10 Mr Chapman also said that UWAG had not tabled a final set of conditions or final farm management plans. These matters would be worked through and provided to all parties as the hearing progressed. UWAG was of the view that one suite of conditions was inappropriate. There were variables between sub-catchments, take points, and the "type" of consent applied for which would mean that individual conditions would need to be worked through.

Ms Cathy Begley

- 7.11 Ms Begley provided a description of the proposal and Te Akatarawa Station, as summarised above. She described the benefits of the existing irrigation including the availability of high quality feed available to feed younger sheep and ewes and providing certainty that they will have sufficient winter-feed to feed their stock over the winter months.
- 7.12 Ms Begley then went on to address the potential effects of the proposal on the environment, which is summarised below.

Effects on other water users

- 7.13 Ms Begley noted that there are no other surface water abstractors from Black Jack Stream either up- or downstream of the proposed point of take. Given this, she considered that the take from the Black Jack Stream will not impact upon any other water user or person who relies on this stream for other purposes, such as domestic and stock water.
- 7.14 Notwithstanding the above, Ms Begley noted that Black Jack Stream joins Gibson Stream approximately 1.8 km. downstream of the point of take, which then joins with Sutton Stream approximately 1.6 km. upstream of where it flows into Lake Aviemore. Waitangi Station are also applying to take water from Sutton and Gibson Stream to be used for irrigation and stock water purposes.

- 7.15 I note that Table 3 row (xxii) of the WCWARP does not set a specific allocation limit for these waterways to ensure that where there are competing users for the resource, the effects on these users is “acceptable”.
- 7.16 Ms Begley said that to ensure that the proposed take from Black Jack Stream does not impact upon Waitangi Station’s take, a minimum flow of 80L/s is proposed. However, she recognised that a minimum flow in itself will not protect other users who have a higher priority and told us that the applicant therefore proposes to establish a water users’ group to ensure the takes do not impact on each other.

Effects on in-stream values

- 7.17 In relation to a minimum flow, she referred to the evidence of Mr Boraman (discussed below), which calculated that the 5-year, 7-day low flow for Sutton Stream (of which Black Jack is a tributary) is 80L/s. Her understanding was that both Mr Stewart (the CRC hydrologist) and Mr Scarf (F & G and DoC’s hydrologist) agree that 80L/s is acceptable as a minimum flow.
- 7.18 In relation to fish screening, Ms Begely noted that there is an existing intake structure on Black Jack Stream with an existing fish screen in place. She told us that the applicant is proposing a mitigation measure which would require them to “as far as is practicable” exclude fish from entering the intake. To this end, prior to the exercising of this consent, the applicant will have their existing fish screen audited and certified to ensure that their fish screen as far as is practicable excludes fish and is in general accordance with the report *Fish Screening: good practice guidelines for Canterbury, NIWA Client Report: CHC2007.092, October 2007*.

Effects of inefficient water use

- 7.19 Ms Begley told us that the applicant is proposing an annual volume of 150,000 m³/year based upon the applicant’s Mackenzie Irrigation Company share holding. She noted that using the methodology set out in Policy 16(c)(ii) of the WCWARP, an annual volume of 156,250m³/year would be acceptable based upon mean rainfall of 190 mm/ha/year and the soils requiring 815mm/ha/year. As the proposed annual volume is less than the volume determined under Policy 16(c)(ii) the use of water is considered to be efficient.
- 7.20 Policy 21 of the WCWARP requires all water takes to be metered. To ensure that this application is consistent with this policy, Ms Begley told us that the applicant proposes to meter their take.

Effects of the use of water on water quality

- 7.21 Ms Begley told us that the cumulative effects on water quality have been addressed by Mackenzie Water Resources Limited (MWRL). The MWRL Water Quality Study states that the areas to be irrigated are located within the Lake Aviemore and Lake Waitaki Catchments. This study goes on to calculate N and P thresholds for the property.
- 7.22 Ms Begley told us that the OVERSEER® has been run by a qualified person to model the N and P outputs from the proposed farming system. The results of the model have been incorporated into the table below. This table shows that the applicant can meet the property thresholds that are the most restrictive.

	Nitrogen Threshold	Phosphorous Threshold
MWRL Water Quality Study Property Thresholds	26,302	748
OVERSEER® outputs	25,569	293

- 7.23 Ms Bgeley said that the applicant is committed to implementing the “Mandatory Good Agricultural Practices” set out within the Farm Environmental Management Plan (FEMP). Implementing these practices ensures that the OVERSEER® results are validated. This, along with ensuring that the property thresholds of the WQS are not exceeded, will ensure that the cumulative effects of the use of water for irrigation on water quality are no more than minor.
- 7.24 Ms Begley noted that whilst the applicant is able to comply with the thresholds outlined within the MWRL Water Quality Study, this study also identified that the applicant still has to consider specific on-farm effects and the impacts these activities could have on the local receiving

environment. This requires a specifically developed Farm Environmental Management Plan (FEMP) to identify and implement appropriate mitigation measures).

- 7.25 At a workshop held in Twizel in August 2009, the applicants met with Ms Melissa Robson of GHD Limited. A "desktop" on-farm risk assessment was undertaken. Ms Begley considered this to be the "starting point" of the FEMP.
- 7.26 The workshop identified potential on-farm risks specific to each farm along with possible mitigation measures. The on-farm risks identified during the desktop risk assessment need to be verified by an appropriately qualified person who has carried out a site visit. It was anticipated that this will occur should the application be granted.
- 7.27 For Te Akatarawa Station, the desktop risk assessment identified the following potential risks:
- (a) The large number of surface water bodies that flow through the property; and
 - (b) Transpower's tracking.
- 7.28 Ms Begley told us that the applicant has committed to implementing the FEMP, including an on-farm risk assessment and appropriate mitigation, monitoring and auditing before the first exercise of this consent. The FEMP has been proposed as condition of consent.
- 7.29 Given that the N and P thresholds from the MWRL Study can be met, and the applicant's commitment to addressing on-farm risks with the implementation of the FEMP, Ms Begley considered that the effects of the use of water on water quality for both the local receiving environment and cumulative effects were minor.

Effects on Tangata Whenua Values

- 7.30 Ms Begley noted that Te Runanga O Ngāi Tahu submitted on all applications in the catchment, seeking that all applications be declined. The primary reasons for this were that the applications were considered to be inconsistent with the policies and objectives of the WCWARP, and also at odds with the cultural objectives of the RMA.
- 7.31 Ms Begley acknowledged that Te Runanga O Ngāi Tahu have a significant relationship with the Waitaki Catchment, and as such, appropriate minimum flow conditions and management of water quality effects are proposed by the applicant to ensure that the potential effects on the environment, including tangata whenua values, are minor.

Effects on People, Communities and Amenity Values

- 7.32 The applicant has proposed an appropriate minimum flow condition for the water body from which they have applied to take and use water. Ms Begley considered that a minimum flow would adequately protect people, communities and amenity values within the rivers specific to each applicant.
- 7.33 Ms Begley noted that the activities all occur within a rural setting, where the dominant land use is pastoral farming. And, given that the proposed activities all occur on private farmland the use of water is unlikely to adversely affect amenity values.
- 7.34 Given the applicant's commitment to ensuring the efficient use of water on their properties, and that the take is within allocation limits set to protect in-stream values and other users, Ms Begley considered that effects on people and communities will be minor.

Mr David Boraman

- 7.35 Mr David Boraman undertook a hydrological investigation for the applicant to determine the 5 year 7 day MALF for Sutton Stream. He referred to a report prepared by Gabites / Horrell which determined a 7 day MALF of 81L/s and noted that he could not improve on this figure.
- 7.36 He told us that the issue was discussed between himself, Mr Stewart (on behalf of the Council) and Mr Scarf (on behalf of Fish and Game), who all agreed that the 7 Day MALF calculated using the Gabites / Horrell equation should be adopted until the dataset improved.
- 7.37 It was agreed that the interim Minimum flow for Sutton Stream should be adopted as 80L/s above the Waitangi Intake. To mitigate an environmental flow in Sutton stream the abstractions

from the catchment should be managed by a user group. This involved a constant reduction in the rate of abstraction from Black Jack, Gibson and Suttons Streams when the flows in Sutton Stream fell below 135 L/s and ceasing all takes when the minimum flow of 80L/s was reached. He provided graphs in his evidence to illustrate this reduction.

Mr Andrew Craig

- 7.1 Mr Andrew Craig gave his evidence in two parts. The first part dealt with the general landscape and his overview of the Upper Waitaki landscape and its values. The second part of his evidence dealt more directly with the individual applications.
- 7.2 In his part A evidence, Mr Craig discussed in detail Mr Glasson's mitigation approach and tools, and addressed us on statutory matters concerning the effects of landscape. Broadly, for reasons advanced in Part A, we agree with Mr Craig's assessment of the statutory planning documents in terms of landscape.
- 7.3 Unlike other applications by UWAG members, Mr Craig did not present a separate brief of evidence in respect of the current application. The reason for this was that he only prepared a separate brief of evidence where he considered the proposed irrigation was on a sensitive site. Visual sensitivity was determined by the location of publicly accessible vantage points and the views that could be had from them in relation to irrigation areas. In relation to the current application, Mr Craig considered that it was not a sensitive location in terms of landscape and that the proposal would therefore not negatively impact on landscape values.

Mr Robert Batty, planner

- 7.4 Mr Batty addressed us in relation to planning issues. He set out his broad view as being:
 - (a) whether or not granting any of the applications before us, including this application, would undermine the operational integrity of the WCWARP, regional plans and district plans;
 - (b) whether cumulative effects would arise from a grant;
 - (c) whether grants would promote reasonable efficiencies and sustainable management of the natural and physical resources concerned; and
 - (d) whether the grant of consent would derogate from any other consent.
- 7.5 He was critical of the section 42A officers' collective approach and suggested each application needs to be considered on its own merits. A move away from the generic approach of the reporting officers was required, he said, to enable a proper analysis of each application to occur.
- 7.6 He supported Mr Kyle's planning analysis on behalf of MWRL and he set out for us relevant policies and objectives in the district and regional plans. In conclusion, he was of the view that granting this consent and all other UWAG consents was appropriate.

Mr Andrew Macfarlane, farm management consultant

- 7.7 Mr Macfarlane is a farm management consultant with 29 years experience. He provided us evidence on behalf of all of the UWAG applicants.
- 7.8 He assessed the viability of the farm management plans and practicality and robustness of the mitigation measures and the ability to monitor progress.
- 7.9 He discussed a range of mitigation measures that had been examined and/or adopted by the UWAG farmers to deal with discharges from their properties consequent upon irrigation.
- 7.10 Mr Macfarlane also discussed with us the costing of various typical irrigation developments.
- 7.11 He considered on-farm monitoring, noting that on-farm monitoring had lifted in its intensity and in detail over the last 10 years, being driven by economic returns and a need to prove environmentally sustainable methods were being utilised. Overall, he held a high degree of confidence in progress concerning the ability to monitor and interpret interfaces between environmental science and management.

- 7.12 He raised with us the advantages of reliable availability of water and pointed out for us the benefits of irrigation, noting that while generally irrigation typically only represents a small part of the total farm area, but it does result in high productivity increases with a resultant favourable impact on economic viability of farming operations. He concluded with the correct planning, management and monitoring any negative environmental impact of intensification of a small area would lead to positive environmental outcomes on the balance of the property. It was his view a net positive balance was certainly possible.

8 SUBMITTERS

- 8.1 Set out below is the summary of the issues raised by submitters who appeared before us. We emphasise that we have read and considered all submissions made, both in support and in opposition to the application, as well as reviewing and carefully considering evidence advanced before us.

Meridian Energy Ltd – Mr Richard Turner

- 8.2 Mr Richard Turner (Planning Manager – Natural Resources, Meridian Energy Ltd) noted that there were discrepancies between the applicant's proposed consent conditions and those common consent conditions agreed with MEL prior to derogation approval being acquired. He noted that failure to make the application consistent with the common consent conditions would result in derogation approval be revoked. He expected the applicant to clarify the conditions they were seeking before the end of the hearing.
- 8.3 Meridian Energy Ltd original submission opposed the consent citing the effects on water quality and flow metering requirements. However in his supplementary brief of evidence Mr Turner confirmed that this proposal was not of any concern to Meridian in terms of cumulative water quality effects.

Central South Island Fish and Game Council – Mr Frank Scarf and Mr Mark Webb

- 8.4 Central South Island Fish and Game Council opposed the granting of the consent and requested a minimum flow of the 1 in 5 year, 7 day low flow. With respect to this submission, the applicant proposed a minimum flow of 80 L/s to be measured on Sutton Stream.
- 8.5 As noted above, Mr Frank Scarf on behalf of Fish & Game agreed that the proposed minimum flow was appropriate. He also told us that he agreed with the conditions recommended in Ms Vesey's report, including the volumetric limits placed on the application.
- 8.6 In addition to the above, Mr Mark Webb provided comment on the fish and game values of Sutton and Gibson Streams. He noted that resident brown trout are known from the middle and upper reaches of Gibson Stream, but that there was no known resident trout population in Sutton Stream. If the consent was to be granted, he recommended a condition on the Black Jack Stream consent requiring that the Miller Stream consent held by Mr Graham should comply with the Sutton Stream minimum flow condition. He also recommended the auditing of existing intakes to ensure they comply with recommended guidelines for fish exclusion.

Mackenzie Guardians – Dr Susan Walker

- 8.7 Dr Susan Walker (Plant Ecologist, Landcare Research) was engaged by the Mackenzie Guardians to provide evidence at the hearing detailing the effects on terrestrial ecology from the proposed irrigation of an additional 25,000 ha. The majority of Dr Walker's evidence related to the proposed irrigation in all of the Upper Waitaki catchment. A summary of this evidence has been included in Part A of this decision.
- 8.8 In relation to individual applications, Dr Walker's Attachment 15 contained her more particularised reviews in respect of each site. Dr Walker assessed the proposed irrigation area as being approximately 89% converted. She noted that it was mainly already developed and classified it as being of "least" concern in relation to potential effects of irrigation on terrestrial biodiversity.

Cultural values – Mr Paul Horgan – Environmental Advisor

- 8.9 Mr Horgan told us that Ngāi Tahu had taken a balanced approach when assessing the applications and resisted the temptation to simply oppose all applications in their entirety. More particularly, Ngāi Tahu had generally placed its emphasis upon the new (rather than

replacement) consent applications and those that will result in large scale land use intensification, rather than the taking of water so as to provide security of supply for existing farming operations.

- 8.10 Mr Horgan told us that Ngāi Tahu had adopted two focal points in the Upper Waitaki Basin against which they assessed the applications, being the Upper Haldon Arm / Lower Tekapo River and the Ahuriri Delta. Mr Horgan told us that in addition to being focal points, that Ngāi Tahu also propose to undertake mahinga kai restoration in those locations also.
- 8.11 Notwithstanding the interest in the two focal points of the Ahuriri Delta and the Haldon Arm, Mr Horgan for Ngāi Tahu reiterated concern about the possible effects that increased nitrates and phosphorous concentrations in Lake Benmore might have on the Lower Waitaki catchment. In this respect the Ngāi Tahu philosophy of “Ki Uta Ki Tai” or “mountains to the sea” is relevant and recognises that all parts of the catchment are interconnected and an impact on one part will affect all other parts.
- 8.12 A litmus test for Ngāi Tahu was that kai gathered in the waters of the Waitaki system should be able to be eaten safely. They stated that the individual and cumulative effects of the proposed activities required that a precautionary approach must be adopted in our decision making.
- 8.13 The visual evidence provided by Ngāi Tahu at the hearing indicates that there are a number of “recorded” archaeological sites located around the perimeter of Te Akatarawa Station. It is likely that the archaeological sites are in fact submerged beneath the surface of the manmade Lakes Benmore and Aviemore as a result of hydro electricity developments.

9 UPDATES TO THE SECTION 42A REPORTS

- 9.1 In Ms Vesey’s addendum report, she considered that the key outstanding issue for the proposal was local water quality. She also noted that she was yet to hear the submission from Ngāi Tahu, so her comments in her original s42A report regarding tangata whenua values remained applicable

Water quality

- 9.2 In relation to cumulative water quality, she noted that The FEMP provided by Ms Begley has been audited by Environment Canterbury’s technical experts, including Dr Freeman. For this application, they considered that there is a high level of certainty that the actual or potential adverse effects will be less than minor, and given the scale of development and/or receiving environment, suggest that on the basis of cumulative water quality effects, this application can be granted.
- 9.3 In regards to localised water quality, she noted that findings from the on-farm farm environmental risk assessment (FERA) had yet to be provided by the applicant, however the FEMP provided in Ms Begley’s evidence suggested laybacks from streams in regards to fencing and fertiliser application. She also pointed point that the desktop FERA identified a large number of surface water bodies that flow through the applicant’s property and Transpower’s tracking to be potential risks
- 9.4 Ms Vesey recommended conditions be included on consent requiring fencing of a riparian buffer along streams through the irrigation area, and restricting the application of fertiliser adjacent to the waterways. She considered that such restrictions would be addressed through the FEMP and conditions could be drafted upon completion of the on-farm FERA.
- 9.5 Additionally she noted the table attached to Mr McNae’s s42A report identifies there to be areas of concern with the parameters used in the running of OVERSEER for this applicant. Until such a time that correct parameters were submitted, Ms Vesey considered that these concerns may contribute in particular to localised effects on water quality.

Conditions

- 9.6 Ms Vesey reviewed and provided comment on the conditions proposed by the applicant, along with some alternative conditions proposed by submitters.
- 9.7 Ms Vesey noted that Ms Begley has amended the metering conditions to have telemetry as optional, with no explanation for this change. Ms Vesey recommend this be retained as recommended in her original s42A Report.

- 9.8 She also noted that Ms Begley's amended conditions have removed all requirements for the applicant to monitor the minimum flow for their proposal. Without this, Ms Vesey was not satisfied the applicant will be able to demonstrate compliance with the proposed minimum flow. As such, she recommend the conditions be retained on this consent.
- 9.9 In relation to the conditions recommended by Mr Webb on behalf of Fish and Game, she considered that it would be unreasonable to restrict Mr Graham's existing consent under his proposed consent as the potential effects of the Miller Stream take were assessed at the time the consent was sought. In relation to fish screens, she also noted that a condition relating to this issue had been both proposed by the applicant and recommended by her.

10 APPLICANT'S RIGHT OF REPLY

- 10.1 As for his opening, Mr Chapman's right of reply was presented on behalf of all UWAG members. He also provided some specific comment on individual proposals, but not in relation to this application.
- 10.4 Turning to more general comments, Mr Chapman challenged Dr Freeman's Table 5, contained within his first addendum report dated 12 January 2010. Mr Chapman considered the correct approach for the ranking of the applications was to determine where they sit in relation to the existing environment.
- 10.5 Mr Chapman said that other scenarios would need to apply for those consents whose catchment or sub-catchment was below Benmore or a combination of Benmore/Aviemore and Waitaki. He said that those consents should revert back to the property specific monitoring arrangements with no trigger response or increased monitoring which related to the condition or trends relating to Benmore.
- 10.6 He noted there had been much emphasis on nutrient management but he contended we should also be considering sustainability of the erosion-prone fragile soils within the catchment. He also submitted we should take note that district plans encourage farming, including irrigation, within these environments; and the tenure review undertaken by the Crown encourages intensification of land use retained in freeholding ownership in order to release more vulnerable pastures to be set aside under Crown ownership.
- 10.7 He also contended we should consider economic implications on the survival of these farms given their investment in infrastructure as a factor. He also noted we should take into account managing the land in light of weed and pest problems and how irrigation assists in that regard.
- 10.8 In terms of staging of implementation, Mr Chapman told us that undoubtedly those UWAG applicants, this applicant among them, may choose to stage the introduction of a new system of irrigation.
- 10.9 We did subsequently receive from Mr Chapman generic conditions and revised FEMPs applicable to all the UWAG applicants.

11 STATUTORY CONTEXT

- 11.1 The relevant statutory context for a **discretionary** activity is set out in detail in our Part A decision. In accordance with those requirements, we have structured this evaluation section of our report as follows:
- (a) Evaluation of effects
 - (b) Evaluation of relevant planning instruments
 - (c) Evaluation of other relevant s104 matters
 - (d) Part 2 RMA
 - (e) Overall evaluation

12 EVALUATION OF EFFECTS

12.1 Drawing on our review of the application documents, the submissions, the Officers' Reports, the evidence presented at the hearing and our site inspection, we have concluded that the effects we should have regard to are:

- (a) Water quality
- (b) Efficiency and effects on other users
- (c) Cultural values

Water quality

12.2 The dominant issue to be addressed in the consideration of this consent is the increased nutrient discharge that will arise from the increased farming activity associated with the irrigation of the additional 25 hectares.

12.3 The areas to be irrigated are located within the Lake Aviemore and Lake Waitaki catchments. The MWRL Water Quality Study calculated N and P thresholds for the property.

12.4 OVERSEER® has been run by a qualified person to model the N and P outputs from the proposed farming system. The results of the model have been incorporated in to the table below.

	Nitrogen Threshold	Phosphorous Threshold
MWRL Water Quality Study Property Thresholds	26,302	748
OVERSEER® outputs	25,569	293

12.5 Within Part A of this decision the thresholds outlined within the MWRL Water Quality Study, and the Study have been discussed in detail. Our findings regarding the thresholds and study are also set out in part A and we do not repeat our discussion of that matter here.

12.6 The study also identified that the applicant would also have to consider specific on farm effects and the impacts these activities could have on the local receiving environment.

12.7 For Te Akatarawa Station, a desktop risk assessment identified the following potential risks to water quality:

- (a) The large number of surface water bodies that flow through the property;
- (b) Transpower's tracking;

12.8 The applicant has committed to implementing a Farm Environmental Management Plan (FEMP) including an on farm risk assessment, appropriate mitigation, monitoring and auditing before the first exercise of this consent. Should the consent be granted the FEMP would be a condition of consent this would address the concerns expressed by the section 42A reporter on this matter.

Efficiency and effects on other users

12.9 The proposed annual volume applied for is less than the volume determined under Policy 16 (C)(ii), and the application rate is less than half the water holding capacity of the soil so the use of water is considered to be efficient.

12.10 The WCWARP sets an annual allocation "cap" for agricultural and horticultural activities within defined areas (Table 5). The annual allocation limit proposed for this resource consent is within that "cap". Implementation of Farm Environmental Management Plans, requiring existing irrigation systems to be audited and improved where possible, and new systems to be designed and installed by accredited personnel, will ensure that water is used wisely.

12.11 There are no other surface water abstractors from Black Jack Stream either up or downstream of the proposed point of take as the land is in the control of Te Akatarawa Station. However, Black Jack Stream joins the Gibson Stream approximately 1.8 km downstream of the point of take.

Gibson Stream then joins Sutton Stream approximately 1.6 km upstream of where it flows into Lake Aviemore. Given the nature of the stream and the tenure of the land bordering the stream the effects on other users of the resource will be less than minor.

Flows and instream ecosystems

- 12.12 On this issue of flows, there was broad agreement between Messrs Boraman, Scarf and Stewart as to the appropriate minimum flows and conditions of consent. We agree with the measures set out in Mr Stewart's initial report and supported by the other experts including a minimum flow of 80L/s in Sutton Stream with a graduated reduction in abstraction rates between 135L/s and 80 L/s.
- 12.13 Given the limited data on which the minimum flow is based, we agree with Mr Stewart's observation about the need for a data collection program including continuous flow measurement at the proposed monitoring site on Sutton Stream. However as a recorder is being installed as part of the flow metering conditions, the MALF is able to be checked at any time without the need for a separate condition to this effect.
- 12.14 In addition, we consider that it is important that an appropriate fish exclusion device be included on the existing intake before water is taken under this consent. With this measure in place in combination with the above flow regime, we are satisfied that there will be no adverse effects on instream ecosystems. We have preferred the fish screening condition proposed in the addendum report of Ms Vesey (nee Vesey) which was the outcome of a fish screening working party.

Landscape

- 12.15 No party raised any issue with the effects of the proposal on landscape values, however for completeness we have covered this off. In summary, based on the existing modified nature of the irrigation area (which is already irrigated), the unobtrusive nature of the irrigation infrastructure (k-line) and the low visibility of the site from public viewing points, we consider that there will be no adverse effects on landscape values that require mitigation.

Tangata Whenua values

- 12.16 In their evidence Ngāi Tahu did not identify any specific cultural or spiritual values that may be adversely affected by this proposed activity.
- 12.17 The proposed activity for new irrigation is located in a part of the catchment that has a relatively small level of existing irrigation. It is downstream of the area that has been identified by Ngāi Tahu for mahinga kai restoration, however that does not minimise the duty to avoid adverse effects on the localised cultural values of tangata whenua. The "Ki uta ki tai" (mountains to the sea) concept recognises the interconnected nature of the waters of the Waitaki system and the relationship that Ngāi Tahu hold with all parts of the waterways.
- 12.18 Additionally, both Te Ao Mārama / Lake Benmore and Mahi Tikumu / Lake Aviemore have Statutory Acknowledgements which provides for the recognition of Ngāi Tahu mana to be reflected in the management of resources that may impact on the lakes.
- 12.19 In our assessment of this application we conclude that due to the small scale nature of the activity, coupled with the proposed mitigation and conditions that the effect on cultural values will be minor..

13 EVALUATION OF RELEVANT PLANNING INSTRUMENTS

- 13.1 Under s 104(1)(b) of the Act, we are required to have regard to the relevant provisions of a range of different planning instruments. Our Part A decision provides a broad assessment of those planning instruments and sets out the approach we have applied to identification and consideration of the relevant provisions. The following part of our decision should be read in combination with that Part A discussion.
- 13.2 In relation to the current application, we consider that the most relevant and helpful provisions are found in the regional plans, including in particular the WCWARP and the NRRP. In addition, the Proposed and Operative CRPS and the relevant District Plans are of assistance in relation to landscape issues that arise.

- 13.3 The following sections of this decision provide our evaluation of the key objectives and policies from these planning instruments. We have organised our discussion in accordance with the key issues arising for this application.

Water quality

- 13.4 In relation to water quality, the key documents we have considered are the WCWARP (incorporating the objectives of the PNRRP) and the operative NRRP provisions.
- 13.5 In relation to the WCWARP, we consider that Objective 1 is the critical objective. In particular, Objective 1(b) seeks to safeguard life-supporting capacity of rivers and lakes and Objective 1(c) requires us to manage waterbodies in a way that maintains natural landscape and amenity characteristics and qualities that people appreciate and enjoy.
- 13.6 We have determined that granting these consents with conditions (incorporating mitigations set out in the FEMP) will help to minimise nutrient loss from the irrigated area. The load arising from this activity will not adversely affect the trophic status of Lake Aviemore. There are streams on the eastern and southern boundary of the irrigation command area but with the small area of irrigation proposed we are satisfied that effects on these stream will be minor,. Overall, we conclude that a grant of consent, with conditions, would be consistent with Objective 1 of the WCWARP.
- 13.7 We note that Objectives 2, 3, 4, and 5 are “in the round” deal with and provide for the allocation of water. The critical qualification is that water can be allocated provided that to do so is consistent with Objective 1. Given the findings we have made about Objective 1 we conclude that allocating water in terms of the balance objectives would be consistent with the overall scheme of the WCWARP. We reach this view taking into account the national and local costs and benefits (environmental, social, cultural and economic) of the proposal, as required by Objective 3.
- 13.8 Policy 13 links the WCWARP to the PNRRP (as it existed at the time) by requiring us to have regard to how the exercise of the consent could result in water quality objectives of the PNRRP not being achieved. As we explained in our Part A decision, we have considered the objectives of the PNRRP and the now operative NRRP in relation to the current proposal. However we have generally given greater weight to the NRRP provisions on the basis that they represent the current approach for achieving the common goal of protecting water quality.
- 13.9 Under the NRRP, Lake Aviemore is classified as an “Artificial On-River Lake”. Objective WQL1.2 of the NRRP seeks to ensure that the water quality of the lake is managed to at least achieve the outcomes specified in Table 6, including a maximum Trophic Level Index (“TLI”) of 3 (i.e. oligotrophic-mesotrophic boundary). For the reasons discussed above, we consider that granting consent to the proposal would be consistent with this objective and would not (in combination with others we grant) cause the TLI maximum to be breached.
- 13.10 Overall then having regard to the scheme of the WCWARP and the NRRP we reach a conclusion that granting consent with appropriate conditions to the proposal would be consistent with the key objectives and policies of both of these plans relating to water quality.

Environmental flow and level regimes

- 13.11 Policies 3 and 4 of the WCWARP refer to the setting of environmental flow and level regimes to achieve the objectives of the WCWARP. In addition, Policy 12 seeks to establish an allocation for each relevant activity within the catchment and requires consideration of the effects on other users. This is reflected in the rules of the PNRRP which specifies minimum flows and levels for water bodies and allocation limits for specific activities.
- 13.12 The issue of environment flows is discussed in more detail in the assessment of effects section. As the applicant is proposing to adopt the minimum flow required by the WCWARP, we are satisfied that the proposal is consistent with these policies.

Efficient use of water

- 13.13 Policies 15 – 20 provide for an efficient use of water so that net benefits are derived from its use and are maximised and waste minimised. In particular, Policy 16 requires us to consider whether the exercise of these consents would meet a reasonable use test in relation to both the instantaneous rate of abstraction and the annual volume for take, use, dam or divert. As

discussed in our evaluation of effects, we are satisfied that the rates and annual volumes reflect an efficient and effective use of water and that the reasonable use test can be met.

Landscape and amenity

- 13.14 We discussed the relevant objectives and policies for landscape in our Part A Decision. In summary these are primarily found in the Proposed and Operative CRPS and the NRRP. In broad terms these provisions seek the protection of outstanding natural landscapes from inappropriate use and development.
- 13.15 In considering these provisions we are informed by the provisions of the Waimate District Plan which identifies the applicant's property as having a rural zoning and being located outside the identified Lakeside Protection Areas. In summary, there is nothing in the planning instruments that alters our conclusion that the proposal is appropriate for the environment in which they are located and will therefore be consistent with the relevant objectives and policies relating to landscape.

Tangata whenua

- 13.16 Objective 1(a) of the WCWARP relates to the integrity of mauri and is closely linked to Objective 1(b). If we are satisfied that the health of a particular water body is being safeguarded then the mauri is being safeguarded also.
- 13.17 Objective WQN1 from Chapter 5 of the NRRP seeks to enable present and future generations to access the regions surface water and groundwater resources to gain cultural, social, recreational, economic and other benefits, while (c) safeguarding their value for providing mahinga kai for Ngāi Tahu and (d) protecting wāhi tapu and other wāhi taonga of value to Ngāi Tahu. This objective aligns with the Ngāi Tahu philosophy "Ki Uta, Ki Tai", or recognising the interconnected nature of the Waitaki catchment and safeguarding the associated cultural values. Our finding is that there is unlikely to be deterioration in water quality of Te Ao Mārama / Lake Benmore and Mahi Tikumu / Lake Aviemore as a consequence of this proposal and that this application is consistent with this Objective.
- 13.18 Objective WTL1(a)&(d) from Chapter 7 of the NRRP seeks to achieve no overall reduction in the contribution of wetlands to the relationship of Ngāi Tahu and their culture and traditions with their ancestral lands, water, mahinga kai sites, wāhi tapu and wāhi taonga. We consider that the localised and cumulative impacts when subject to the proposed mitigation measures will ensure that the proposed activity is consistent with this Objective.

Key conclusions on planning instruments

- 13.19 For all of the above reasons we consider that, with the imposition of appropriate conditions granting consent would be consistent with the objectives and policies of the relevant plans. We have reached this conclusion taking into account the relevant planning provisions in respect of water quality, efficiency, environmental flows, landscape and tangata whenua values.

14 EVALUATION OF OTHER RELEVANT S104 MATTERS

- 14.1 Under s104(1)(c), we are required to have regard to any other matter that we consider to be relevant and reasonably necessary to determine the application. After hearing all the relevant evidence, we consider that no such matters exist in relation to this application.

15 PART 2 RMA

- 15.1 Section 104(1) states that the matters which we have discussed above are subject to Part 2, which covers section 5 through section 8 inclusive. These sections are set out in full in our Part A decision and are discussed below in the context of the current application.

Section 6 – Matters of National Importance

- 15.2 Section 6 identifies matters of national importance that we must "recognise and provide for" when making our decision, including in particular preserving the natural character of lakes and rivers (s6(a)), protecting outstanding natural features and landscapes (s6(b)) and the relationship of Māori with the environment (s6(e)).

- 15.3 In respect of s6(a) we recognise that preservation of the natural character of lakes and rivers is the imperative. We think that because of our finding in terms of the water quality issues, which takes into account mitigation measures, the grant of consent recognises and provides for the preservation of the natural character of lakes and rivers.
- 15.4 In terms of s6(b), we have evaluated the natural features and landscape, primarily by reference to the relevant planning instruments. We reach the view that the grant of consent in this case is not inappropriate because it will not, in our view, diminish the natural features and landscapes such as they are in any significant way.
- 15.5 In terms of section 6(c), it is our view, taking into account the evidence received, that there are not areas of significant indigenous vegetation and significant habitats of indigenous fauna that are at risk thus requiring protection as a consequence of the grant of consent.
- 15.6 In relation to section 6(e) we are cognisant of the relationship that Ngāi Tahu hold with the natural resources of this area, and while no specific values were specified by Ngāi Tahu in relation to this application, we believe that the mitigation measures and conditions provide for the cultural relationship to this catchment that is of importance to Ngāi Tahu.
- 15.7 For the above reasons, we consider that granting consent to the proposal would recognise and provide for s6 matters, as we are required to do under the RMA.

Section 7 – Other Matters

- 15.8 Section 7 lists "*other*" matters that we shall "*have particular regard to*". We make the following observations in relation to each of those matters as they are relevant to this application, referring to the sub paragraph numbers of s7:
- 15.9 Sub-section (a) refers to kaitiakitangā. We consider that the proposed activity with mitigation measures and conditions sits within the acceptable environmental parameters outlined by Ngāi Tahu such that that it will not cause distress to the function of kaitiakitangā.
- 15.10 Sub-section (b) relates to the efficient use and development of natural and physical resources. Relevantly in this case is water. We have determined that the volumes of water we are prepared to grant and the methodology of its conveyance and distribution, results in the efficient use and development of the water resource.
- 15.11 Sub-section (c) refers to the maintenance and enhancement of amenity values. Having regard to the amenity values of the area proposed for irrigation, we do not think that allowing irrigation to occur will impact on sub-section (c) issues.
- 15.12 In terms of sub-sections (d) and (f), we have had particular regard to the intrinsic values of ecosystems and the maintenance and enhancement of the quality of the environment. We consider that through the grant of consent with the conditions imposed such values will be safeguarded.
- 15.13 Having particular regard to the above matters in the context of section 7, we conclude that the grant of consent could be supported

Section 8 – Treaty of Waitangi

- 15.14 Finally, section 8 requires that we shall take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi).
- 15.15 The cultural values of tangata whenua are appropriately recognised in the relevant planning documents applicable to the Mackenzie Basin sufficient to alert applicants to the need to address such values. We are satisfied that the notification of the appropriate Runangā and tribal authority has been followed and that the applicant was a contributor to the general assessment of the impact of irrigation activities on cultural values.
- 15.16 We are satisfied that the consultation procedures provided Ngāi Tahu with the opportunity to understand and respond to the proposed activity, albeit in conjunction with a large number of applications in the Mackenzie Basin.

Section 5 – Purpose of the RMA

- 15.17 Turning now to the overall purpose of the RMA, that is, “*to promote the sustainable management of natural and physical resources*”, we make the following further comments:
- (a) We consider the development and use of land is consistent with the purpose of sustainable management;
 - (b) Irrigation will make a contribution to the overall regional (Waitaki) wellbeing; and
 - (c) The natural and physical resources of the site (water and land resources) will all be sustained.
- 15.18 This leaves section 5(2)(c) RMA and the obligation to avoid, remedy or mitigate any adverse effects of activities on the environment. We are satisfied that the applicant has proposed appropriate mitigation to avoid and remedy the adverse effects arising from this proposal.

16 OVERALL EVALUATION

- 16.1 Under s104B of the RMA, we have a discretion as to whether or not to grant consent. This requires an overall judgment to achieve the purpose of the Act and is arrived at by:
- (a) Taking into account all the relevant matters identified under s 104;
 - (b) Avoiding consideration of any irrelevant matters;
 - (c) Giving different weight to the matters identified under s 104 — depending on our opinion as to how they are affected by the application of s 5(2)(a), (b), and (c) and ss 6-8 — to the particular facts of the case; and then in light of the above; and
 - (d) Allowing for comparison of conflicting considerations, the scale or degree of conflict, and their relative significance or proportion in the final outcome.
- 16.2 The key issues for us in relation to this application were to do with water quality issues, environmental flows, and, overall, how well the grant of consent sat alongside the key policies and objectives within the WCWARP. There were not, in our view, any significant competing or conflicting considerations and no significant opposition to the proposal. The only real debate was around the nature of conditions that were appropriate to mitigate any potential adverse effects of the proposal. We are satisfied that any such effects will be adequately addressed by the conditions we impose.
- 16.3 Having reviewed the application documents, all the submissions, taking into account the evidence to the hearing and taking into account all relevant provisions of the RMA and other relevant statutory instruments we have concluded that the outcome which best achieves the purpose of the Act is to grant consent.

17 CONDITIONS

- 17.1 Given our decision to grant consent, we have given careful consideration to the conditions that are necessary to avoid, remedy and mitigate the potential adverse effects of the proposal. The starting point we have used for this exercise is the final condition set provided by the applicant. This was the result of a collaborative process that occurred after the conclusion of the hearing, as described in our Part A decision.
- 17.2 The condition set provided to us includes comments on discrete issues from Council officers and several submitters. Where any such comments have been made, we have taken this into account when arriving at the final condition set. We are proceeding on the basis that the condition set provided to us incorporates all relevant conditions required by Meridian Energy as part of its derogation approval, which has been confirmed by legal counsel for Meridian.
- 17.3 We have made some modifications and additions to the condition set provided to us. However all modifications respect the conditions attaching to derogation approvals provided by Meridian. Several of these changes relate to matters discussed in the preceding sections of this decision to ensure that any concerns we have about potential effects are adequately addressed.


- 17.4 We note that the agreed conditions between the applicant, submitters and Ecan do not include any explicit water quality monitoring conditions with a requirement to ratchet back irrigation should thresholds be exceeded . We are satisfied that this is reasonable because:
- (a) The proposed irrigation area is very small (25ha)
 - (b) Lake Aviemore is well-flushed with a mean retention time of~ 16-20 days. This together with the minor area of irrigation proposed means there is no risk of nutrient inputs from irrigation causing the TLI to exceed the threshold in the NRRP (3.0).
 - (c) The applicant has volunteered monitoring upstream (Black Jack Stream) and downstream (Sutton Stream) in the FEMP (Table 8) although this is not tied back to a condition that requires a reduction in irrigation area should periphyton thresholds be exceed. Given the small size of the irrigation area we are comfortable with this approach, particularly as Ecan can review conditions (condition 55) in the event that the voluntary monitoring identifies a problem.

18 DECISION

- 18.1 Pursuant to the powers delegated to us by the Canterbury Regional Council; and
- 18.2 For all of the above reasons and pursuant to sections 104 and 104B of the Resource Management Act 1991, we **GRANT** application **CRC072363** by **Mr F I Graham** for the following activity:
- To divert, take and use water from Black Jack Stream, at a maximum rate not exceeding 12 litres per second, and a volume not 150,000 cubic metres per year for the spray irrigation of 25 hectares, at Te Akatarawa Station, Te Akatarawa Road, Kurow.
- 18.3 Pursuant to section 108 RMA, the grant of consent is subject to the conditions specified at **Appendix A**, which conditions form part of this decision and consent
- 18.4 The duration of this consent shall be until the 30th April 2025.

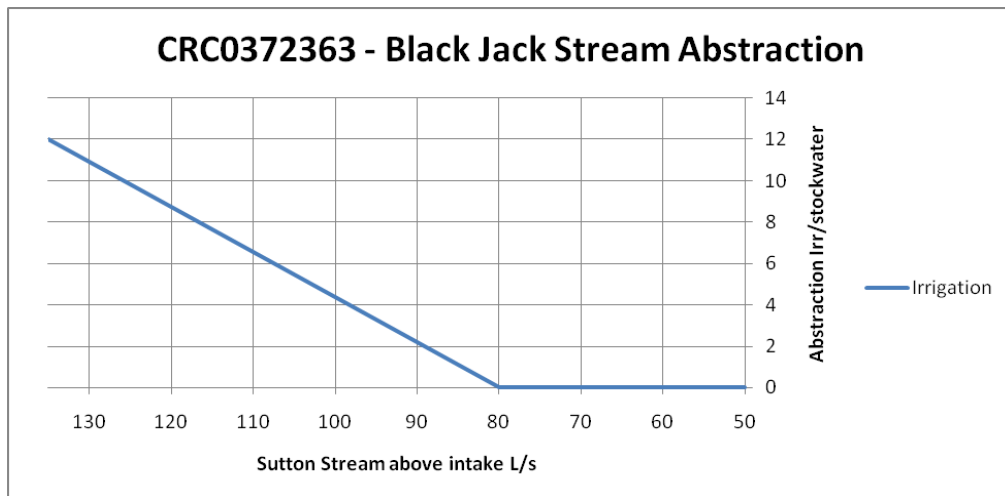
DECISION DATED AT CHRISTCHURCH THIS 23RD DAY OF MARCH 2012

Signed by:

Paul Rogers	 _____
Dr James Cooke	 _____
Michael Bowden	 _____
Edward Ellison	 _____

Diversion and take of water

1. Water shall only be diverted from the Black Jack Stream into a holding pond, at or about map reference NZMS 260 I39:956-25 and taken from this pond in accordance with Condition 5 at the property referred to as Te Akatarawa Station.
2. Water for irrigation shall only be diverted / taken between 1 September and the following 30 April at a rate and volume not exceeding 12 litres per second, 1,037 cubic metres per day (being from 12.00am to 12.00am on the following day) and 150,000 cubic metres per year (measured between 1 September and the following 30 April).
3. Subject to Condition 4, whenever the flow in Sutton Stream, as estimated by the Canterbury Regional Council calculated as the mean flow for the previous 24 hour period (midnight to midnight) at map reference NZMS 260 I39:961-210:
 - (a) is equal or greater than 135 litres per second, the maximum rate at which water is diverted / taken shall not exceed 12 litres per second;
 - (b) falls below the flow shown on the horizontal axis of the following Minimum Flow Graph then the rate of diversion/take permitted in terms of this permit shall not exceed those shown as corresponding flows on the vertical axis;
 - (c) is equal to or less than 80 litres per second the diversion / taking of water in terms of this permit for irrigation purposes shall cease.



4. Where the Canterbury Regional Council, in consultation with a Water Users Committee representing, but not limited to, surface water and hydraulically connected groundwater users who are subject to the above minimum flow, has determined upon a water sharing regime that limits the total abstraction from the resource as referred to above, then the taking of water in accordance with that determination shall be deemed to be in compliance with Condition 3.

Use of water

5. Water shall only be used for the spray irrigation of 25 hectares of crops and pasture per irrigation season for grazing sheep and beef within the area of land shown on attached **Plan CRC072363-A**, which forms part of this consent.
6. There shall be a minimum 5 metre setback, where there is no irrigation, from any permanently flowing waterways within the irrigation area marked on **Plan CRC072363-A**.
7. The consent holder shall take all practicable steps to:

- (a) Ensure that the volume of water used for irrigation does not exceed that required for the soil to reach field capacity; and
 - (b) Avoid leakage from pipes and structures; and
 - (c) Avoid the use of water onto non-productive land such as impermeable surfaces and river or stream riparian strips.
8. The consent holder shall ensure that any water races used to convey water diverted in terms of this permit are well maintained to minimise losses.

Water metering – Minimum flows

9. The consent holder shall, prior to exercising this consent, install:
 - (a) a water level measuring device in a stable reach of Sutton Stream at map reference NZMS 260 I39:961-210 that will enable the determination of the continuous rate of flow in the reach of the water body to within accuracy of ten percent.
 - (b) 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 15 minutes.
10. The measuring device shall be installed at a site that will retain a stable relationship between flow and water level. The measuring device shall be installed in accordance with the manufacturer's instructions.
11. The recording device(s) shall:
 - (a) be set to wrap the data from the measuring device such that the oldest data will be automatically overwritten by the newest data (i.e. cyclic recording); and
 - (b) 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 and provide to the Canterbury Regional Council in a format and standard specified in the Canterbury Regional Council's form for Water Metering Data Collection; and be readily accessible to be downloaded by the Canterbury Regional Council or by a person authorised by the Canterbury Regional Council: RMA Compliance and Enforcement Manager; and
 - (c) shall be connected to a telemetry system that 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.
12. The measuring and recording devices described in Condition 9 shall be available for inspection at all times by the Canterbury Regional Council.
13. Data from the recording device and the corresponding relationship between the water level and flow, and any changes in that relationship shall be provided to the Canterbury Regional Council annually in the month of June, and shall be accessible and available for downloading at all times by the Canterbury Regional Council.

Water metering – Take of water

14. The consent holder shall, prior to exercising this consent, install:
 - (a) a water level measuring device in a location that will enable the determination of the continuous rate of flow and volume of water being diverted/taken to within an accuracy of ten percent; and
 - (b) 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 15 minutes.
15. The measuring device shall, as far as is practicable, be installed at a site likely to retain a stable relationship between flow and water level. The measuring device shall be installed in accordance with the manufacturer's instructions.

16. All data from the recording device and the corresponding relationship between the water level and flow, shall be provided to the Canterbury Regional Council annually in the month of June, and shall be accessible and available for downloading at all times by the Canterbury Regional Council.
17. The measuring and recording device(s) specified in Condition 14 shall:
- (a) 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);
 - (b) either:
 - i. store the entire season's data in each 12-month period from 1 July to 30 June in the following year, which shall be downloaded and stored in a commonly used format and provided to the Canterbury Regional Council upon request in a form and to a standard specified in writing by the Canterbury Regional Council; or
 - ii. 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;
 - (c) be installed by a suitably qualified person in accordance with ISO 1100/1-1981 (or equivalent) and the manufacturer's instructions;
 - (a) be maintained throughout the duration of the consent in accordance with the manufacturer's instructions; and
 - (b) be accessible to the Canterbury Regional Council at all times for inspection and/or data retrieval.
18. All practicable measures shall be taken to ensure that the water meter and recording device(s) specified in Condition 14 are at all times fully functional and meet the accuracy standard stated in that condition.

Water metering – Compliance Checks

19. Within one month of the installation of the measuring or recording device(s) specified in Conditions 9 and 14 (or any subsequent replacement devices), the consent holder shall provide a certificate to the Canterbury Regional Council, attention: RMA Compliance and Enforcement Manager, signed by a suitably qualified person certifying, and demonstrating by means of a clear diagram, that:
- (a) the measuring and recording device(s) is installed in accordance with the manufacturer's specifications; and
 - (b) data from the recording device(s) can be readily accessed and/or retrieved in accordance with these conditions.
20. At five yearly intervals or at any time when requested by the Canterbury Regional Council, the consent holder shall provide a certificate to the Canterbury Regional Council, attention: RMA Compliance and Enforcement Manager, signed by a suitably qualified person certifying that:
- (a) the water meter(s) is measuring the rate of water taken as specified in these conditions; and
 - (b) the tamper-proof electronic recording device is operating as specified in these conditions.
21. The diverting and taking of water in terms of this permit shall cease for a period of up to 48 hours on notice from the Canterbury Regional Council to allow measurement of the flow in Black Jack Stream.

Fish Screen

22. Water shall only be taken when a fish screen with a maximum mesh width and height size of 3 millimetres or slot width and height of 2 millimetres is operated and maintained across the intake to ensure that fish and fish fry are prevented from passing through the intake screen.
23. The fish screen shall be positioned to ensure that there is unimpeded fish passage to and from the waterway and to avoid the entrapment of fish at the point of abstraction, and to minimise the risk of fish being damaged by contact with the screen face.
24. The fish screen shall be designed and installed to ensure that:
 - (a) the majority of the screen surface is oriented parallel to the direction of water flow; and
 - (b) where practicable, the screen is positioned in the water column a minimum of 300 millimetres above the bed of the waterway and a minimum of one screen radius from the surface of the water; and
 - (c) the approach velocity perpendicular to the face of the screen shall not exceed 0.06 metres per second if no self-cleaning mechanism exists or 0.12 metres per second if a self-cleaning mechanism is operational; and
 - (d) the sweep velocity parallel to the face of the screen shall exceed the design approach velocity.
25. The fish screen shall be designed or supplied by a suitably qualified person who shall ensure that the design criteria specified in Conditions 22 to 24 inclusive of this consent is achieved. Prior to the installation of the fish screen, a report containing final design plans and illustrating how the fish screen will meet the required design criteria and an operation and maintenance plan for the fish screen shall be provided to Environment Canterbury, Attention: RMA Compliance and Enforcement Manager.
26. A certificate shall be provided to Environment Canterbury by the designer or supplier of the fish screen to certify that the fish screen has been installed in accordance with the details provided to Environment Canterbury in accordance with Conditions 22 to 24 inclusive of this consent.
27. The fish screen shall be maintained in good working order. Records shall be kept of all inspections and maintenance, and those records shall be provided to Environment Canterbury upon request.

Nutrient Loading

28. For the purposes of interpretation of the conditions of this consent Te Akatarawa Station shall be defined as the areas in certificates of title and Pastoral Lease numbers SEC D SO 19747 P23 PT RUN 67 – TE AKATARAWA - RS 39703-6 BLKS V-VII IX-XI XIII-XV I II HEWLINGS SD BLKS I II GIBSON SD, which total 11,191 hectares.
29. The consent holder shall prepare once per year:
 - (a) an Overseer[®] nutrient budgeting model report not less than one month prior to the commencement of the irrigation season; and
 - (b) a report of the annual farm nutrient loading for Te Akatarawa Station using the model Overseer[®] (AgResearch model version number 5.4.3 or later).
30. When undertaking the modelling outlined in Condition 29, the consent holder shall use either weather records collected on-farm or from constructed data from the nearest weather station.
31. A copy of the reports prepared in accordance with Condition 29 shall be given to the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager within one month of their completion.
32. The consent holder shall not commence annually irrigation under this consent unless the annual (1 July to 30 June) nutrient loading (the nutrient discharge allowances (NDAs)) as estimated in accordance with Condition 29 from Te Akatarawa Station does not exceed

- 26,302 kg of Nitrogen and 748 kg of Phosphorus. Where the NDAs have been reduced by the application of a receiving water quality nutrient trigger condition, the reduced NDA shall apply.
33. The NDAs, incorporating any reductions required by receiving water quality nutrient trigger conditions, shall be complied with from the commencement of consent.
 34. Where Overseer, or Overseer modelling, is referred for the purposes of calculating or determining compliance with the NDA limits associated with activities on the property, it shall be undertaken by an independent person with an Advanced Sustainable Nutrient Management Certificate issued by Massey University or an equivalent qualification
 35. The consent holder shall at all times comply with the Farm Environmental Management Plan (FEMP) in particular, the mitigation measures and monitoring set out in section 5 of the FEMP for Te Akatarawa Station as attached to these conditions and marked **CRC072363-B**.
 36. Subject to Condition 35, the consent holder shall implement, and update annually the FEMP for Te Akatarawa Station. The FEMP shall include:
 - (a) Verification of compliance with NDAs (incorporating any reductions required by receiving water quality nutrient trigger conditions) by farm nutrient modelling using the model Overseer (AgResearch model version number 5.4.3 or later).
 - (b) Implementation of Mandatory Good Agricultural Practices ("MGAPS") and requirements to manage in accordance with the Te Akatarawa Station Overseer model inputs.
 - (c) The Overseer parameter inputs report, which shall be supplied to the Canterbury Regional Council.
 - (d) A property specific environmental risk assessment (including a description of the risks to water quality arising from the physical layout of the property and its operation which are not factored in as an Overseer parameter) prepared by a suitably qualified person which identifies any farm specific environmental risks along with measures to mitigate the farm specific environmental risks.
 - (e) A requirement to review the risk assessment if there are any significant changes in land use practice.
 37. Detailed records shall be maintained of fertilizer application rates, types of crops (including winter feed/forage crops), cultivation methods, stock units by reference to type, breed and age, prediction of realistic crop yields that are used to determine crop requirements and all other inputs to the Overseer nutrient budgeting model.
 38. A report on Overseer modelling shall be provided within one month of completion of the Overseer modelling by the person with the qualifications described in Condition 34 and no later than two months prior to the start of the next irrigation season to the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager. The consent holder shall supply to the Canterbury Regional Council all model inputs relied upon for the annual Overseer[®] modelling.
 39. Changes may be made to the Te Akatarawa Station Overseer model inputs, provided that written certification is provided that the change is modelled using Overseer, and that the result of that modelling demonstrates that the NDAs are not exceeded. A copy of that certification plus a copy of the resultant Overseer parameter report shall be provided to the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager, prior to the implementation of that change.

Subdivision

40. The NDAs shall be recalculated if there is a sale or transfer of any part, but not the whole, of the total farm area of 11,191 hectares. The recalculated NDAs shall be undertaken to accurately redistribute the NDA between the resultant properties and shall replace the NDAs specified in Condition 32. The new NDAs may be recalculated on any proportion as long as the total of all the NDAs does not exceed the NDAs of the parent title as set out in Condition 32. The recalculation of the NDAs shall be undertaken and certified using Overseer, completed and provided to the Canterbury Regional Council, Attention: RMA Compliance and Enforcement

Manager together with a copy of the full Parameter report, within one month of the sale or transfer.

Fertiliser and soil management

41. Fertiliser shall be managed and applied in accordance with 'The Code of Practice for Nutrient Management (With Emphasis on Fertiliser Use) NZFMRA 07' or any subsequent updates.
42. The consent holder shall keep a record of all fertiliser applications applied to the property, including fertiliser type, concentration, date and location of application, climatic conditions, mode of application and any report of the fertiliser contractor regarding the calibration of the spreader.
43. For land based spreading of fertiliser:
 - (a) where an independent fertiliser spreading contractor is used the consent holder shall keep a record of the contractor used, which can be supplied to the Canterbury Regional Council upon request; or
 - (b) where the applicant's own fertiliser spreaders are used, the consent holder shall test and calibrate the fertiliser spreaders at least annually, and every five years the fertiliser spreader will be certified by a suitably qualified person in accordance with 'The Code of Practice for Nutrient Management (With Emphasis on Fertiliser Use) NZFMRA 07' or any subsequent updates and the results of testing shall be provided to the Canterbury Regional Council upon request.
44. Nitrogen fertiliser shall not be applied to land between 31st May and 1st September.
45. All fertiliser brought onto the property which is not immediately applied to the land shall be stored in a covered area that incorporates all practicable measures to prevent the fertiliser entering waterways.
46. Applications of nitrogen fertiliser shall not exceed 50 kg nitrogen / hectare per application.
47. If liquid fertilisers, excluding liquid effluent, are stored on-site for more than three working days, the consent holder shall ensure that the fertiliser is stored in a bunded tank, at least 110% of the volume of the tank to avoid any discharge to surface or groundwater and such that it is also protected from vehicle movements.
48. Fertiliser filling areas shall not occur within 50 metres from a water course, spring or bore.
49. For land based spreading, fertiliser should not be applied within 20 metres of a watercourse.
50. Where practicable, the consent holder shall:
 - (a) use direct drilling as the principal method for establishing pastures; and
 - (b) sow and irrigate all cultivated areas within the irrigation area as soon as possible following ground disturbance.

Irrigation Infrastructure

51. The consent holder shall ensure that all new irrigation infrastructure (not on the property at the time of commencement of this consent) is:
 - (a) designed and certified by a suitably qualified independent expert holding a National Certificate in Irrigation Evaluation Level 4, and installed in accordance with the certified design. Copies of certified design documents shall be provided to the Canterbury Regional Council upon request; and
 - (b) tested within 12 months of the first installation of the new irrigation infrastructure and afterwards every five years in accordance with the 'Irrigation Code of Practice and Irrigation Design Standards, Irrigation NZ, March 2007' (code of practice) by a suitably qualified independent expert.

52. Within two months of the testing referred to in Condition 51(b) the expert shall prepare a report outlining their findings and shall identify any changes needed to comply with the code of practice. Any such changes shall be implemented within five years from the date of the report. A copy of the report shall be provided to the Canterbury Regional Council Attention: RMA Compliance and Enforcement Manager, within three months of the report being completed.
53. If existing irrigation infrastructure is being used, the consent holder shall obtain an evaluation report prepared by a suitably qualified person, on the following terms:
 - (a) The evaluation shall determine the system's current performance in accordance with the Code of Practice for Irrigation Evaluation.
 - (b) This report shall be obtained within three months of the first exercise of the consent.
 - (c) Any recommendations identified in the report shall be implemented within five years from the date of receipt of the report.
 - (d) A copy of the report shall be forwarded to the Canterbury Regional Council within three months of the report being completed.

Review of conditions

54. The Canterbury Regional Council may, once per year, on any of the last five working days of March or July serve notice of its intention to review the conditions of this resource consent for the purposes of dealing with any adverse effect on the environment which may arise from the exercise of the resource consent and which it is appropriate to deal with at a later stage, including (but not limited to) amending the flow at which abstraction is required to be reduced or discontinued.

Lapse

55. The lapsing date for the purposes of section 125 of the Resource Management Act shall be five years from the commencement of this consent.

Advice notes:

- *If any additional land use consents are required to carry out the proposed activity, those consents must be obtained before giving effect to this consent.*

