

BEFORE THE CANTERBURY REGIONAL COUNCIL

IN THE MATTER OF

The Resource Management Act 1991

AND

IN THE MATTER OF

an application by an application by **Otematata Station Limited** for a water permit filed under **CRC020355** to take and use surface-water from Lake Waitaki

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 **Otematata Station Limited** (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 The applicant proposes to take up to from Lake Waitaki at map reference NZMS 260 I40: 0150-1241. The proposed rate of take is up to 35 L/s, 18,500 cubic metres per ten days and 222,000 cubic metres of water per year. The water will be used for the spray irrigation of up to 37 ha of crop and pasture at Otematata Station.
- 2.2 Water will be taken from the Lake using a new intake structure, the exact location and design of which has not yet been confirmed by the applicant. Water will be piped from the lake to service the irrigation area. Figure 1. is an indicative location plan showing both the abstraction point and the area to be irrigated.

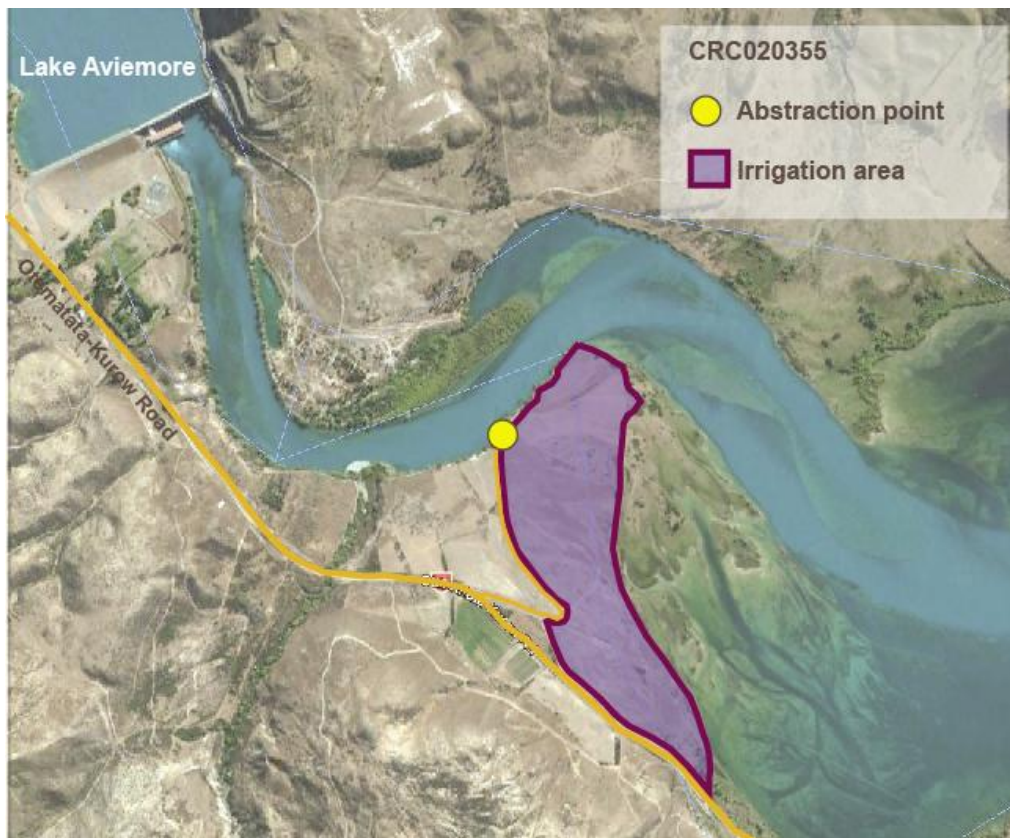


Figure 1. Indicative Location Map of Abstraction Point and Irrigation Area

The application

- 2.3 The application is for a water permit to take and use surface water pursuant to section 14 RMA. Consent is required under the Waitaki Catchment Water Allocation Regional Plan (WCWARP), as discussed below.
- 2.4 The application, CRC020355, was lodged with the Canterbury Regional Council (the Council) on 17 August 2001. This application was publicly notified and there were a number of submissions that are referred to later in this decision. The application is for a new activity and requested a consent duration for 35 years.

Related consents and applications

- 2.5 As mentioned above, a new intake structure will be required to take water from Lake Waitaki. The applicant has recognised that should the consents to take water be granted, there may be a need to gain further consents from both the Canterbury Regional Council (CRC) and Waitaki District Council to install the intake. The applicant advised it was reluctant to apply for such consents until there is certainty around their ability to take and use water for irrigation.
- 2.6 In addition to this application, applications CRC041033, CRC052739, CRC052740, CRC052741, CRC052742 and CRC052743 have been lodged by the applicant dealing with the diversion of water and associated discharge, dam and land use permits for an irrigation proposal from Glen Bouie Creek in the Otamatapaio River Catchment. Although by the same applicant, these applications relate to an area of land a considerable distance from the current proposal. We have therefore assessed and determined these applications in a separate decision.

3 DESCRIPTION OF THE ENVIRONMENT

- 3.1 The applicant provided very little detail regarding the affected environment in the original application, other than to indicate that the mean flow through the lake is approximately 350 cubic metres per second.
- 3.2 Fish and Game in their December 2003 submissions provided further description of the Lake Waitaki catchment. They state that Lake Waitaki contains a very good population of sportsfish including brown and rainbow trout and Chinook salmon. The lake is frequently used for recreational purposes by jet boats, sail boats and anglers.
- 3.3 The proposed irrigation area is on land on the edge of Lake Waitaki and is visible from the State Highway, lake users and public launching from the boat ramp on the property. This area of land is currently extensively cultivated with crops and pasture.
- 3.4 In addition to this application to take water from Lake Waitaki, there are three other existing consented users of water from the lake. These include one take for irrigation purposes, one for community supply, and MEL's consents for hydroelectricity purposes at Waitaki Dam and as part of the North Bank Tunnel proposal that was under appeal at the time of the hearing.
- 3.5 We detailed our site visits in Part A and we do not repeat this information here. We did not visit this site on the ground but did cover the area extensively by helicopter.

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) Waitaki 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 is listed in Schedule 2 of the Resource Management (Waitaki Catchment) Amendment Act 2004. Section 88A therefore does not apply and the relevant plan for this activity is the operative WCWARP.
- 4.5 The following rules from the WCWARP are applicable to this application:
- (a) Rule 2, clause (1)(a) and (Table 3, row (xvi)) The applicant proposes a minimum lake level of 227 metres above sea level in Lake Waitaki which is consistent with WCWARP Rule 2, clause (1)(b). There is no allocation limit for Lake Waitaki.
 - (b) Rule 6: The activity is within the allocation limit of 275 million cubic metres for agricultural activities upstream of Waitaki Dam.
 - (c) Rule 15: - Classifying rule – discretionary activity.
- 4.6 Overall, the proposed water permit is a **discretionary** activity under Rule 15 of the WCWARP (and TRP) and resource consent is required in accordance with section 14 of the RMA.

5 NOTIFICATION AND SUBMISSIONS

- 5.1 The application was publicly notified three times, including January 2003, December 2003 (as part of the “ministerial call-on” of all Waitaki consents), and again on 4 August 2007.
- 5.1 In the January 2003 public notification, ten submissions were received in total, including nine in support and one in opposition. In the December 2003 “ministerial call-in”, a total of 314 submissions were received on this application.
- 5.2 In the 2007 notification, 20 submissions in total were received, including:
- (a) 2 in support;
 - (b) 16 in opposition; and
 - (c) 2 neither in support nor opposition.
- 5.3 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 CRC020355

Submitter	Reasons	Position
Fish & Game ^{1,2}	Over the allocation limit for ag & hort activities; important sport fish habitat; water quality; fish screen; metering; duration	Oppose
Department of Conservation ^{1, 2}	potential effects on instream ecosystems, fish screens, water quality.	Oppose
Canterbury Aoraki Conservation Board ^{1,2}	Consent duration, runoff control in terms of water quality, potential effects on instream ecosystems, natural character of water bodies, and landscape.	Oppose
Otamatapaio Station (1993) Ltd ²	Irrigation is essential and provides economic benefit to community. Only using a small proportion of water in the catchment	Support
D Saunders ²	Supports taking of water from lakes and Waitaki River itself but not from smaller rivers/streams	Support
Parker Kingsbury Partnership & Willowcliff Ltd ³	<i>None stated</i>	Support
NZ Salmon Anglers Association ³	<i>None stated</i>	Support

Morven Glenavy Ikawai Irrigation Co Ltd ³	Should be subject to same restrictions as consents to take from Waitaki River	Support
W Lines ³	Increased productivity of the land and economic benefit to the community	Support
G Hayes ³	As land is so close to lake any runoff would reach lake so should be granted	Support
W Cameron ³	Sustainable farming system with guaranteed feed for finishing stock, water will be used efficiently	Support
D Sutton ³	Support application as more water runs off station than they proposed to abstract	Support
M Urquhart ³	Use of water will benefit wider community	Support
Meridian Energy Ltd ^{1,2,3}	Concerned about water quality, metering, duration and reasonable use	Oppose

¹ August 2007 submission

² Call-in 2003 submission

³ January 2003 submission

- 5.4 Overall, the key effects of concern to submitters included effects on: ecosystems, water quality, allocations, minimum flows, natural character and landscape, efficiency and cultural values

6 THE SECTION 42A REPORTS

- 6.1 A s42A report on the application and submissions was prepared by the Council's Consents Investigating Officer (Ms Claire Penman).
- 6.2 The primary report was supported by a number of specialist s42A reports prepared by Messrs Heller, Clothier, Hanson, Schallenberg, Glasson, McNae and Stewart, and Drs 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 The report was pre-circulated in advance of the hearing. Specific points noted from the report are summarised below.

Ms Penman

- 6.4 Ms Penman's report (Report 30A) covered a range of issues and identified the following matters as outstanding:
- (a) Water quality – no impact assessment or measures to address the water quality impacts that could arise from irrigation at this site
 - (b) Efficient and reasonable use – the soil water demand information was inconclusive to support the annual volume requested
 - (c) Ecosystems – the applicant had proposed a fish screen but had not included any details of what this would entail
 - (d) Landscape and amenity – The irrigation area is close to sensitive amenity areas and will be visible to the public using the lake and State Highway
 - (e) Cultural values - the applicant had not provided any assessment of cultural values and Ngai Tahu evidence had not been heard at the time the report was written.
- 6.5 Ms Penman considered that conditions could be provided to address any potential effects on ecosystems, landscape and amenity. However she was not satisfied that the actual and potential effects of the proposal were acceptable due to her concerns about water quality, efficient and reasonable use and cultural values. She therefore could not recommend that the application be granted.

Mr Glasson

- 6.6 Mr Christopher Glasson in his report noted that the irrigation area is located between SH83 and Lake Waitaki on a flat area of pastoral grassland. It is 2 km downstream of the Aviemore Dam with willows and pines on the perimeter and native shrubland on the uphill slopes. He
- 6.7 He considered that the site had high visibility due to its proximity to State Highway 83, made more so due to an adjacent viewpoint from which to view Aviemore Dam. However he was of the opinion that the site had low sensitivity and high absorption capacity due to its flatness, modification and existing pastoral usage.
- 6.8 Mr Glasson considered that the absence of a buffer between the site and lake would create moderate adverse effects that required mitigation. He recommended buffers of tussock grassland and shrubland should be provided between the site and the lake and the site and SH83. With these measures he considered that any adverse effects on landscape and amenity would be less than minor.

7 THE APPLICANT'S CASE

- 7.1 Legal counsel for the applicant, Mr Ewan Chapman, presented opening submissions and called a number of witnesses as summarised 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 Begley

- 7.11 Ms Begley said that Otematata Station was farmed in conjunction with Aviemore Station (which also had water permit applications subject to this hearing) Awakino Downs and Little Awakino Station. The latter two areas had been used to grow out the young stock and as the hogget wintering blocks. The properties farmed by the applications extend from the shores of Lake Aviemore and Lake Waitaki to the Hawkdun Range to the south.
- 7.12 Ms Begley said that in the 2008 year the properties carried 30,457 sheep, consisting of 10,798 wethers, 11,625 ewes, 7186 hoggets, 286 rams and 562 "others" and 399 cattle, consisting of 269 cows, 40 heifers, 14 bulls, 61 R1 heifers and 15 "others". The applicant saw irrigation as an important step in being able to continue to farm the area as a viable long-term farming operation. Having irrigation would also provide the applicant with options before entering tenure review. While the outcome of the tenure review process was unknown, it was possible that as a result of this process the area able to be farmed could be reduced (potentially even halved). Irrigation would allow them to maintain their current stocking rates, even with a reduced farmable area. The irrigation would also provide the applicant with increased flexibility within their existing farming operation.
- 7.13 To date, the applicants had used traditional method of farming within the high county. Irrigated areas would allow a greater level of flexibility within the applicant's existing farming operation. Ms Begley said that the greatest value was in the fact that the irrigation addressed the high variability in seasons. The variability led to significant risks when taking on contracts (i.e. to grow lambs to a specific weight and condition) as the quality of the end product could be compromised. Irrigation would also allow sufficient winter feed to be grown at a lower cost.

Effects on other water users

- 7.14 There were no other surface water abstractors within a 500 metre radius of the applicants proposed points of take on Lake Waitaki. The nearest neighbouring intake (CRC011947) was located approximately 900m to the south of the applicant's point of take on a tributary stream of Lake Waitaki. Also Meridian Energy's Aviemore Dam was located approximately 1 km upstream of the proposed point of take. Ms Begley's view was that the take from the lake would not impact upon any other water user or person whom relies upon the lake for other purpose such as domestic and stock water.
- 7.15 The proposed take was within the area defined as Upstream of Waitaki Dam, but not Upstream of the outlets of the Glacial Lakes in Table 5 of the WCWARP. This table sets a cumulative allocation of 275 million m³/year for this area. The granting of these applications would not result in the cumulative allocation limit being exceeded. Further, Ms Begley said that the applicant had gained derogation approval from Meridian Energy Ltd and as such the granting of the proposed takes would not impact upon its existing consents to take and use water within the catchment for power generation.

Effects on instream values

- 7.16 Ms Begley's view was that Table 3 of the WCWARP sets a specific minimum lake level for Lake Waitaki (227m a.m.s.l.) to ensure that the instream values of the lake was protected. The applicant was proposing to cease taking water whenever the lake level within Lake Waitaki dropped to 227m a.m.s.l, thereby ensuring that the instream values of the lake were protected.

Effects of inefficient water use

- 7.17 Ms Begley said that traditionally two methods had been used to determine whether the use of water for irrigation was efficient. The first method was ensuring that the peak application rate

was no more than half the water holding capacity of the soil. The second method by through the implementation of an annual volume using one of the two methods set out in Policy 16 (c) of the WCWARP. The applicant would be applying 44 mm per 10 days which was no more than half of the average water holding capacity of the soil on each site, and so she considered it to be an efficient use of water.

- 7.18 The applicant proposed an annual volume of 222,000 m³/year for the take from Lake Waitaki. Ms Begley said that this volume was based upon the applicants MIC shareholding. Using the methodology set out in Policy 16(c)(ii) an annual volume of 203,408 m³/year would be acceptable. The latter annual volume was based upon mean rainfall of 210 mm/ha/year and the soils requiring 750 mm/ha/year. This annual volumes was less than that proposed. However, Policy 16(c)(i) also sets an alternative methodology for determining annual volumes. She said that using this methodology an annual volume of 282,330 m³/year would be acceptable. As the proposed annual volume was less than the volume determined under Policy 16(c)(i) the use of water was considered to be efficient.
- 7.19 Policy 21 of the WCWARP requires all water takes to be metered. To ensure that this application was consistent with this policy, the applicant proposes to meter their take.

Effects of the use of water on water quality

- 7.20 Ms Begley said that the MWRL Water Quality Study stated that the areas to be irrigated were located within the Lake Aviemore and Lake Waitaki Catchments. This study went on to calculate N and P thresholds for the property.
- 7.21 The calculated nutrient mitigation requirement of the receiving environments determined in the MWRL Study has identified the N and P thresholds for the property. These were shown in the table below.
- 7.22 Ms Begley said that OVERSEER® had 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. This table shows that the applicant can meet the property thresholds which were the most restrictive.

	Nitrogen Threshold	Phosphorous Threshold
MWRL Water Quality Study Property Thresholds	97,622	2,206
OVERSEER® outputs	80,466	788

- 7.23 The applicant was committed to implementing the "Mandatory Good Agricultural Practices" set out within the Farm Environmental Management Plan (FEMP). Implementing these practices ensure that the OVERSEER® results were validated. This along with ensuring that the property thresholds of the WQS (set out in the table above) were not exceeded would ensure that the cumulative effects of the use of water for irrigation on water quality were no more than minor.
- 7.24 Ms Begley said that whilst the applicant was able to comply with the thresholds outlined within the MWRL Water Quality Study, this study also identified that the applicant still had to consider specific on farm effects and the impacts these activities would have on the local receiving environment. This required a specifically developed Farm Environmental Management Plan (FEMP) to identify and implement appropriate mitigation measures set out in the plan.
- 7.25 At a workshop held in Twizel in August 2009, the applicants met with Dr Melissa Robson of GHD Limited. A "desk top" on farm risk assessment was undertaken. This was considered 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 had carried out a site visit. It was anticipated that this would occur should the application be granted.
- 7.27 For Aviemore & Otematata Station Ms Begley said that the desktop risk assessment identified the following potential risks:

- (a) The large number of surface water bodies that flow through the property;
 - (b) Extensive tracking;
 - (c) Use of full cultivation.
- 7.28 The applicant had committed to implementing the FEMP including an on farm risk assessment, appropriate mitigation, monitoring and auditing before the first exercise of this consent. The FEMP had been proposed as condition of consent and a draft FEMP was submitted as part of the evidence.
- 7.29 Given that the N and P thresholds from the MWRL Study could be met, and the applicant's commitment to addressing on farm risks with the implementation of the FEMP, the effects of the use of water on water quality for both the local receiving environment and cumulative effects were considered by Ms Begley to be minor.

Effects on Tangata Whenua Values

- 7.30 Ms Begley said that Te Runanga O Ngai Tahu submitted on all applications in the catchment, seeking that all applications are 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 in her report acknowledged that Te Runanga O Ngai Tahu have a significant relationship with the Waitaki Catchment, and as such, appropriate minimum flow conditions, and management of water quality effects was proposed by the applicant to ensure that the potential effects on the environment, including tangata whenua values were minor.

Effects on People, Communities and Amenity Values

- 7.32 Ms Begley said that the applicant had proposed an appropriate minimum flow condition for the water body from which they had applied to take and use water. She considered the minimum flow adequately protected people, community and amenity values within the rivers specific to each applicant.
- 7.33 She also said that the activities all occur within a rural setting, where the dominant land use was pastoral farming and, the proposed activities all occur on private farmland, therefore the use of water was unlikely to adversely affect amenity values.
- 7.34 The WCWARP set an annual allocation "cap" for agricultural and horticultural activities within defined areas (Table 5). The applicant had proposed an annual allocation limit for their own resource consents for the use of water, as well as implementing Farm Management Plans. Those plans required existing irrigation systems to be audited and improved where possible, and new systems to be designed and installed by accredited personnel. The applicant was also required to implement initiatives to ensure that water was used wisely.
- 7.35 Ms Begley said that the primary objective of an annual allocation was to ensure that the water was used efficiently and effectively for the land use, soil type and climatic conditions. The applicant had proposed an annual volume that was considered to reflect reasonable and actual use and this was within the allocation limit defined by Table 5.
- 7.36 The applicant's commitment to ensuring efficient use of water on their properties, and as the take was within allocation limits set to protect in-stream values and other users, Ms Begley considered that effects on people and communities would be minor.

Mr Andrew Craig

- 7.37 Mr Craig provided us a response to Mr Glasson's s42A report dealing with landscape. Mr Craig recorded agreement with Mr Glasson that the application site is characterised by pastoral grassland. It is highly visible along State Highway 83 and is also within range of a designated viewing area in the vicinity of the nearby Aviemore Dam. Mr Craig referred to low sensitivity due to flatness, modification, and existing land use.
- 7.38 Mr Craig agreed with Mr Glasson's assessment that the application site has high capacity to absorb adverse effects. Mr Craig noted that Mr Glasson, against this assessment, nonetheless

recommended a tussock and shrubland buffer between the lake and the irrigated area and also along the highway.

- 7.39 Mr Craig agreed with the site description and its high absorption capacity. He noted that the land is presently cultivated character and pastoral regime. Mr Craig noted the land is fully improved pasture up to the roadside boundary and, in his view, essentially will not change in any significant way due to irrigation apart from becoming greener for longer. He noted that the application site has this greener appearance during certain times of the year in any event.
- 7.40 He also pointed out the existence now of scrubby vegetation, namely exotic weeds such as broom in the vicinity of the lakeshore, which is interspersed with pasture. He did say it was not intended to extend irrigation into this area; so that the existing lakeshore vegetation regime, he told us, would not change. He was here signalling that a buffer between the irrigation area and lakeshore would remain.
- 7.41 He said because the existing character of the application site will change very little as a result of the proposed irrigation activity, he formed the view that the adverse effects will be substantially less than minor, if any at all. He formed the view that there was no need to impose a landscape buffer alongside the highway and the lakeshore.

Mr Robert Batty, planner

- 7.42 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.
- 7.43 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.
- 7.44 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

- 7.45 Mr Macfarlane is a farm management consultant with 29 years experience. He provided us evidence on behalf of all of the UWAG applicants.
- 7.46 He assessed the viability of the farm management plans and practicality and robustness of the mitigation measures and the ability to monitor progress.
- 7.47 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.
- 7.48 Mr Macfarlane also discussed with us the costing of various typical irrigation developments.
- 7.49 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.
- 7.50 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.

Mr Scarf (Fish & Game)

- 8.2 Mr Scarf said that this was one of the applications involving the taking of water directly from lake bodies. From a hydrological point of view, Mr Scarf said that the applications seeking to take from the hydro canals and lakes pose little or no risk to instream values, provided that the minimum lake levels and the allocations, specified in Rule 6 Table 5 are complied with.

Meridian Energy Limited (MEL)

Mr Richard Turner

- 8.3 Mr Richard Turner (Planning Manager – Natural Resources, MEL) 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.

Ms Raewyn Moss

- 8.1 Although she did not make any specific comments on this application, Ms Moss (Manager – natural Resources) advised that the minimum operating level of lake Waitaki is 228.7m. we note that this is higher than the minimum lake level proposed by the applicant of 227m, for which derogation approval was provided by MEL. We return to this issue in our evaluation of effects.

Mr Rob Greenaway

- 8.1 We acknowledge the relevance of, and have taken into account, the evidence of Mr Rob Greenway called by MEL to point out to us the recreational values and opportunities such lakeside environments provide.

9 UPDATES TO THE SECTION 42A REPORTS

Addendum report of Ms Penman

- 9.1 On the issue of water quality, Ms Penman noted that the draft FEMP and water quality assessment provided by Ms Begley, and MWRL, has been audited by Environment Canterbury's technical experts, including Dr Mike Freeman. This review suggested that on the basis of cumulative water quality effects, the application could be granted. We discuss this further below in relation to Dr Freeman's addendum.
- 9.2 Notwithstanding the above conclusion, Mr Penman noted that 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 are submitted, she considered that these concerns may contribute in particular to localised effects on water quality.
- 9.3 On the issue of efficiency, Ms Penman considered that provided a favorable comparison of the Irricalc input parameters against field measurements is undertaken prior to granting of consent, I would be satisfied that the proposed volume is reasonable for the property.
- 9.4 Ms Penman considered that effects on ecosystems were no longer a concern, provided an appropriate fish screening condition was included. On this issue of landscape, she supported the 100m buffer distance proposed by Mr Glasson, as discussed below.

Addendum report of Mr Chris Glasson

- 9.5 In his addendum report Mr Glasson noted that the key components of the proposal were the use of k-lines and cropping with no mitigation measures proposed. He considered that the effects of this proposal were acceptable, provided that a 100m buffer from the lake and 50m from any stream is provided. We note that this differs from his earlier recommendation in that there was no comment made on the need for a buffer from SH8.

Addendum report of Dr Michael Freeman

- 9.6 Dr Freeman produced an addendum report prepared in accordance with our Minute dated 21 August 2009. His report takes into account evidence provided by MWRL experts and Meridian Energy's experts and the evidence and reports provided by individual consent applicants' experts, including FEMPs. Dr Freeman noted in his report it had benefited from caucusing discussions between the Council reporting officers and experts for MWRL, Meridian Energy, and other parties. Dr Freeman's report also acknowledged that a considerable amount of new technical data and information had been provided in response to requests made to the applicant group by the Council.
- 9.7 The addendum report is comprehensive, covering many issues. In relation to this particular application, Dr Freeman considered that there is a high level of certainty that the actual or potential adverse effects will be less than minor. Given the scale of the development and receiving environment, Dr Freeman suggested that on the basis of cumulative water quality effects, this application can be granted.

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 no comment on this particular proposal.
- 10.2 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.
- 10.3 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.
- 10.4 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.
- 10.5 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.
- 10.6 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.
- 10.7 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) Inefficient take and use
 - (b) Water quality
 - (c) Effects on landscape and amenity
 - (d) Recreation and ecological values
 - (e) Cultural effects
 - (f) Positive effects

Inefficient take and use

- 12.2 As discussed above, the applicant proposes to take up to 222,000 cubic metres of water per year for irrigation of 37 hectares. The irrigation volume was determined by the applicant using the volume adopted by Mackenzie Irrigation Company of 600 millimetres per hectare per year and justified as efficient on the basis that it is lower than the annual volume calculated using Irricalc.
- 12.3 In contrast, Ms Penman completed her calculation using GIS system and the method outlined in Report U05/15 ("the WQN9v2 approach"). She based this calculation on intensive land use with 15% light soil (PAW <75mm) and 85% medium soil (PAW 75-110mm), and Effective Summer Rainfall of 210mm. Using these figures, Ms Penman recommended an annual volume of 203,408 cubic metres would be a more appropriate and efficient volume of water for spray irrigation of the proposed area.
- 12.4 As acknowledged by the applicant, under Policy 16 of the WCWARP there are two acceptable methods for calculating and efficient annual volume. The first is using a soil water balance approach. The applicant contends that Irricalc is such an approach. The second alternative is the WQN9v2 approach used by Ms Penman.
- 12.5 Of the two alternatives, we consider that the available data allows the WQN9v2 approach to be used for calculating annual volumes. We note that the Irricalc methodology requires supporting data such as detailed soil information and requires verification against field measurements when the proposal is in place. We have some concerns about the data and measurements on which the Irricalc calculations were based, which may not be adequate to satisfy the requirements of a soil water balance approach under Policy 16.
- 12.6 Based on the above, we consider that to adopt the annual volume proposed by the applicant may allocate more water than what is required and result in an inefficient use of water. We therefore prefer the annual volume of 203,408 cubic metres calculated by Ms Penman using the WQN9v2 approach and adopt this as the appropriate volume of water for spray irrigation of the proposed area. We also concur with the 42A reporter that the standard 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.

Water quality

- 12.7 An assessment of cumulative effects on water quality was requested to address Policy 13 of the WCWARP. The applicant was involved with the study by Mackenzie Water Research Ltd (MWRL) on cumulative effects within the catchment.
- 12.8 The report by MWRL has been audited and a separate s42a planning report prepared by Dr Michael Freeman as well as numerous technical s42A reports (see Reports 4A-F). The final audit of this group was this application was among those where there is a high level of certainty that the actual or potential cumulative adverse effects on water quality are, or will be, less than minor. Because of the scale of the water permit application and/or the scale of the receiving water it is considered that, on the basis of cumulative water quality effects, and subject to appropriate conditions, the water permit application could be granted.
- 12.9 Within Part A of this decision we have reviewed the MWRL study and our findings have been taken into account in our consideration of this application.
- 12.10 In terms of effects at the local scale, the applicant had not assessed the impacts of the proposed use of water for irrigation on groundwater and surface water quality in the initial application. The applicant advised that they were contributing to the cumulative effects study and individual on-farm mitigation measures, such as a farm management plan, would be developed as part of that study. At the hearing the applicant submitted a draft copy of a farm environmental management plan (FEMP).
- 12.11 An Overseer assessment indicated that the applicant could comply with the thresholds outlined within the MWRL Water Quality Study. At a workshop held in Twizel in August 2009, the applicants met with Dr Melissa Robson of GHD Limited. A "desk top" on farm risk assessment was undertaken. The workshop identified potential on farm risks specific to each farm along with possible mitigation measures. The inclusion of the FEMP in the conditions of consent will commit the applicant to carrying out the mitigation necessary to limit the local effects on water to less than minor.
- 12.12 No submissions were received on the local effects on water quality of this proposal.
- 12.13 We are satisfied that the adverse effects on water quality from the proposed activity will be minor.

Effects on landscape

- 12.14 The irrigation is in a high amenity area on the lake edge and is visible to general traffic along SH83 and users of the lake. In addition it is visible from an adjacent viewpoint from which to view Aviemore Dam. Despite this visibility, we accept the common evidence of Messrs Glasson and Craig that it is a highly modified environment with existing pastoral usage and low sensitivity to change
- 12.15 The only issue of debate was whether buffers should be provided from the lake and/or SH83. In relation to the roadside, we prefer the view of Mr Andrew Craig when he contends that buffering is not required. We support his view primarily because the environment is already highly modified by pastoral activities and we do not think that allowing irrigation is out of step against the background of the existing development. In a way, irrigation on this particular site could be seen as part of a progression of the development. In addition, the use of k-line irrigators on this property will be less visually obstructive than other proposals before us involving larger pivot irrigators.
- 12.16 In respect of the setback from the lake, we consider there is some merit in this suggestion to protect the character and amenity of the lake. However we consider that the 100m buffer recommended by Mr Glasson is somewhat excessive. We think to some extent buffering will be provided, as Mr Craig points out, by the retention of lake edge vegetation that is currently in existence. We also note that in the final condition set provided by the applicants, a 20 setback from Lake Waitaki is proposed. However our concern with this is determining the precise location of lake edge given the potential fluctuations in lake level.
- 12.17 To resolve this issue we have checked the legal boundary of the properties that are included within the irrigation area (as shown on the map attached to the final conditions). We immediately noted that the proposed irrigation area extends beyond the legal boundary of these properties into the margins and waters of Lake Waitaki. This is a change from the map attached to the

original s42 report, where although the irrigation area extended further west, the lakeside boundaries of the irrigation area corresponded with the legal property boundaries.

- 12.18 We received no evidence that irrigation would extend beyond the boundary of this property towards the lake, so can only presume that irrigation will be contained within the legal boundaries, as originally applied for. Provided that this occurs, we are satisfied that no additional buffer is required, as there is already an adequate separation distance between the property boundaries and the lake edge. We have incorporated this intention into the conditions of consent along with a plan to illustrate the location of the property boundaries we are referring to. We also note that the FEMP provides for the planting of a buffer zone along the boundaries of Lake Aviemore, which is a measure we support.
- 12.19 Overall, provided the above measures are adopted, we are satisfied that the effects of this proposal on the landscape values are acceptable.

Effects of Lake Waitaki

- 12.20 Under this heading we have considered the potential effects of the take on the values of Lake Waitaki, including its ecological values and use for recreation. We have also considered the potential impact on other users that have existing consents to take water from the lake.
- 12.21 The level of the lake is controlled by MEL through the operation of the hydro scheme. MEL has provided derogation approval to the application on the basis that a minimum lake level of 227m asl is maintained. This is consistent with the requirements of the WCWARP, however we note that it is lower than the minimum operating level of the lake of 228.7m asl as confirmed by Ms Moss.
- 12.22 The evidence of Mr Turner stated that the intention of the minimum lake levels was to link the ceasing of operating takes with the normal minimum operating levels for the hydro lakes. With a minimum lake level of 227m asl as proposed, this intention would not be achieved. We also note that this is inconsistent with another application seeking to take water from lake Waitaki (Aviemore Limited – CRC041031), where MEL required a minimum lake level of 228.7m asl consistent with the lowest operating level.
- 12.23 For the above reasons, we consider that the appropriate response in this case is to impose a minimum lake level of 228.7m asl, below which all abstraction must cease. This level is higher than the minimum lake level of 227m required under the WCWARP, which has been set taking into account the natural values and ecosystems of the lake. In combination with the proposed fish screen on the intake, we consider that retaining this lake level will ensure that the ecosystems within the lake are protected and the recreational opportunities the lake provides are not compromised.
- 12.24 In relation to this screen, we have preferred the condition recommended by Ms Vessey in her addendum report (WP10 – specific to takes from lakes) to that proposed by the applicant. The condition was the outcome of a fish screen working party and we consider it is the most appropriate condition to ensure that the intakes comply with the NIW fish screening guidelines.
- 12.25 In relation to potential effects on other users, given the proposed rate of abstraction compared to the volume of water in the lake and the rate of inflow, we consider that the proposal will have a negligible impact on lake levels. On this basis we consider that no other users with consent to abstract water from the lake will be adversely affected by the grant of this consent.

Cultural effects

- 12.26 Te Runanga o Ngai Tahu and the local runanga when presenting their evidence qualified their earlier opposition to all applications in the catchment by focusing on the “...*new (rather than replacement) consent applications and those that will result in large scale land use and intensification*”. In this context, Ngai Tahu relaxed their opposition to the smaller applications provided appropriate riparian planting and fencing be undertaken, and that applicants undertake not to significantly increase the intensity of their farming operations.
- 12.27 Ngai Tahu did not identify any specific cultural or spiritual values that may be adversely affected by the proposed activity.
- 12.28 We find due to the small scale of this activity, which is adjacent to an area of the Waitaki Valley that has had a significant level of modification from hydro development, and the proposed mitigation measures that any effects on cultural values will be minor.

Positive effects

- 12.29 We do note and have considered that the use of water for irrigation would result in improved productivity of the land and positive economic benefits for the applicant and for the wider community.

Key conclusions on effects

- 12.30 In relation to the actual and potential effects of the proposal, our key conclusions are as follows.
- 12.31 In terms of the effects of an inefficient take and use, we are satisfied that if the annual volume is reduced to 203,408 cubic metres per year coupled with the standard efficiency condition, then the effects of the inefficient take will be minor. We have arrived at that conclusion because that is a proper outcome having regard to the soils and their absorption capacity and also to Policy 16 WCWARP, as discussed further below.
- 12.32 In terms of water quality, we accept the material put forward on behalf of the applicant and the assessment of that material by Dr Freeman and other experts that the effects of the proposal will be acceptable.
- 12.33 In terms of effects on landscape values, we do not think that the irrigating of the subject site will have any adverse effects. We prefer the evidence of Mr Craig on this point as opposed to the buffers proposed by Mr Glasson.
- 12.34 We consider that the mitigated measures we impose will adequately address any potential effects on other water users and ensure that the ecological and recreational values of the lake are maintained.
- 12.35 Finally, in terms of our key conclusions on effects we do accept that there will be economic benefits for the applicant and the wider community if this consent is granted.

13 EVALUATION OF RELEVANT PLANNING INSTRUMENTS

- 13.1 Under s 104(1)(b) of the RMA, 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 Waitaki and there are no local streams or rivers of concern. 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 Waitaki 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.

Efficient use

- 13.11 As we read the provisions of the WCWARP, there is a strong and clear focus on the efficient use of water. 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.
- 13.12 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, provided that the lower annual volume calculated by the s42 officer is adopted, 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

- 13.13 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.
- 13.14 In considering these provisions we are informed by the provisions of the Waitaki District Plan which identifies the applicant’s property as a classified Rural General Zone, as opposed to the more sensitive Rural Scenic Zone. It is not within any Outstanding Natural Landscape and does not receive any specific landscape protection under the Waitaki District Plan.
- 13.15 In summary, there is nothing in the planning instruments that alters our conclusion that the landscape effects of this proposal are acceptable for the environment in which they are located. For the reasons already advanced we think that the proposal is consistent with the relevant objectives and policies relating to landscape.

Environmental flow and level regimes

- 13.16 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.

- 13.17 In addition, Policy 42 specifically relates to setting minimum lake levels that recognise the natural and physical values of the lake and enable access to water for the activities identified in Objective 2, to the extent consistent with Objective 1.
- 13.18 As discussed above, we have imposed a minimum lake level higher than that required by the plan to correspond with the minimum operating level of the lake. In addition, the proposal is within the allocation for agricultural and horticultural activities identified in Rule 6, Table 5. We are therefore satisfied that the proposal is considered to be consistent with these policies.

Tangata whenua

- 13.19 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. We are satisfied that this is the case.
- 13.20 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. In our assessment of effects for this application we consider that it is consistent with this objective.

Key conclusions on planning instruments

- 13.21 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 EVALAUTION 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 our view, for the reasons already advanced, we think that the form of development here proposed will not be inappropriate. We are also supported in this view that we do not assess the relevant site as being an outstanding landscape nor containing an outstanding natural feature. We were not provided with any evidence that supported the view that there were areas of significant indigenous vegetation and habits of significant indigenous fauna that required us to recognise and provide for in terms of their protection. We also think that the maintenance and enhancement of the public access to and along the lake edge will be recognised and provided for.
- 15.4 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 the Lake Waitaki that is of importance to Ngāi Tahu.
- 15.5 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

- 15.6 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.
- 15.7 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.
- 15.8 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 Lake Waitaki. Sub-section (b) relates to the efficient use of water and as discussed the amended annual volume is reasonable.
- 15.9 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. We think as long as the natural buffering around the lake edge is sustained, amenity values (particularly from the lakeshore) will be maintained as a result of the irrigation activity.
- 15.10 Sub-section (f) refers to the maintenance and enhancement of the quality of the environment. The applicant has proposed mitigation measures to ensure that this objective is achieved, particularly with regards to water quality.
- 15.11 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

- 15.12 We find that due to the small scale and nature of the proposed activity and subject to the reduced annual volume and conditions, this activity will not offend the principles of the Treaty of Waitangi.

Section 5 – Purpose of the RMA

- 15.13 Turning now to the overall purpose of the RMA, that is, “*to promote the sustainable management of natural and physical resources*”.
- 15.14 In relation to s5 RMA, 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 would make a contribution to the overall regional (Waitaki) wellbeing, and
 - (c) The natural and physical resources of the Mackenzie Basin site (water and land resources) would all be sustained.
- 15.15 This leaves section 5(2)(c) RMA and the obligation to avoid, remedy or mitigate any adverse effects of activities on the environment.
- 15.16 The proposal will allow the development of land to occur, which will provide for the economic and social well-being of the community. The applicant however has 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).

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 the efficiency of the application of the water resource, water quality issues 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. Overall, we are of the view that the grant of consent subject to the conditions we impose is appropriate in terms of meeting the purpose of the RMA.
- 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 water quality monitoring conditions. We are satisfied that this is reasonable because:
- (a) There are no streams passing through the proposed irrigation area, and,
 - (b) Lake Waitaki is well-flushed with a mean retention time of 1-2 days. There is therefore no risk of nutrient inputs from irrigation causing the TLI to exceed the threshold in the NRRP (3.0). No useful resource management purpose would be served by requiring water quality monitoring in this instance.
- 17.5 One final point to note is that there is a difference between the irrigation area as depicted in the FEMP and the plan attached to the conditions of consent. We have assessed the proposal on the basis of the plan attached to the conditions, which was the latest plan provided by the applicant. This should be referred to for the interpretation of this decision and conditions, rather than the irrigation area shown on the plans in the FEMP.

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 **CRC020355** by **Otematata Station Limited** for the following activity:

take and use water from Lake Waitaki at a maximum rate of 35 litres per second and a maximum volume of 18,500 cubic metres per ten day return period and 203,408 cubic metres per year, at or about map reference NZMS 260 I40: 0150-1241, for the spray

irrigation of 37 hectares of crops, pasture and winter feed at Otematata Station, State Highway 83, Otematata.

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:

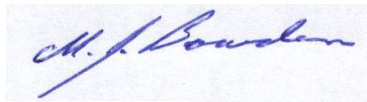
Paul Rogers



Dr James Cooke



Michael Bowden



Edward Ellison



Take of water

1. Water may only be taken from Lake Waitaki located at or about map references NZMS I40:0150 - 1241.
2. Water may be taken at a rate not exceeding 35 litres per second, with a volume not exceeding 3,024 cubic metres in any day, and 203,408 cubic metres between 1 July and the following 30 June.
3. Whenever the level in Lake Waitaki falls below 228.7 metres above mean sea level as assessed by Meridian Energy Limited and published on www.meridianenergy.co.nz, the consent holder shall cease the abstraction of water from Lake Waitaki for the irrigation purposes.

Use of water

4. Subject to Condition 5, water shall only be used for the spray irrigation of pasture for the grazing of sheep and beef stock within 37 hectares on the area of land shown on attached **Plan CRC020355-A**.
5. No irrigation shall occur beyond the Lakeside Boundary of the properties legally described as Pt Section 6, Blk VI Kurow SD, Section 1486R Blk VI Kurow SD and Pt Section 1 Blk VI Kurow SD, as shown on attached Plan **CRC020355-B**, which forms part of this consent.
6. 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.

Water metering

7. The consent holder shall, prior to exercising this consent, install:
 - (a) a water meter(s) that has an international accreditation or an equivalent New Zealand calibration endorsement suitable for use with an electronic recording device, from which the rate and the volume of water taken can be determined to within an accuracy of plus or minus five percent at a location(s) that will ensure the total take of water from Lake Waitaki is measured; and
 - (b) a tamper-proof electronic recording device such as a data logger that shall record (or log) the flow totals every 15 minutes.
8. If the water meter specified in Condition 7 is not an electromagnetic or ultrasonic meter, the consent holder shall, prior to the first exercise of this consent install or make available an easily accessible straight pipe(s) at a location where the total water take is passing through, with no fittings or obstructions that may create turbulent flow conditions, of a length at least 15 times the diameter of the pipe, as part of the pump outlet plumbing or within the mainline distribution system, to allow the Canterbury Regional Council to conduct independent measurements.
9. The measuring and recording device(s) specified in Condition 7 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.
10. All practicable measures shall be taken to ensure that the water meter and recording device(s) specified in Condition 7 are at all times fully functional and meet the accuracy standard stated in that condition.
11. Within one month of the installation of the measuring or recording device(s) specified in Conditions 7 (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.
12. 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.

Fish Screen

13. 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.
14. 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.
15. 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.
 - (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.
 - (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.

16. The fish screen shall be designed or supplied by a suitably qualified person who shall ensure that the design criteria specified in condition (WP10)(a) –(c)(iv) 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.
17. 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 condition (WP10)(a) of this consent.
18. 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

19. For the purposes of interpretation of the conditions of this consent "Aviemoire and Otematata Stations" shall be defined as those areas identified on Map A in the Farm Environmental Management Plan (attached to these conditions and marked **CRC020355-C**), which total approximately 40,058 hectares.
20. 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 Aviemoire and Otematata Stations using the model Overseer[®] (AgResearch model version number 5.4.3 or later).
21. When undertaking the modelling outlined in Condition 0, the consent holder shall use either weather records collected on-farm or from constructed data from the nearest weather station.
22. A copy of the reports prepared in accordance with Condition 0 shall be given to the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager within one month of their completion.
23. 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 0 from Aviemoire and Otematata Stations does not exceed 97,622 kg of Nitrogen and 2,390 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.
24. The NDAs, incorporating any reductions required by receiving water quality nutrient trigger conditions, shall be complied with from the commencement of consent.
25. 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
26. 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 Aviemoire and Otematata Stations, which is attached to these conditions and marked **CRC020355-C**.
27. Subject to Condition 26, the consent holder shall implement, and update annually the FEMP for Aviemoire and Otematata Stations. 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 Aviemoire and Otematata Stations 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.
28. 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.
29. 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 25 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.
30. Changes may be made to the Aviemore and Otematata Stations 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

31. 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 40,058 hectares. The recalculated NDAs shall be undertaken to accurately redistribute the NDA between the resultant properties and shall replace the NDAs specified in Condition 23. 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 23. 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

32. 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.
33. 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.
34. 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.
35. Nitrogen fertiliser shall not be applied to land between 31st May and 1st September.

36. 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.
37. Applications of nitrogen fertiliser shall not exceed 50 kg nitrogen / hectare per application.
38. 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.
39. Fertiliser filling areas shall not occur within 50 metres from a water course, spring or bore.
40. For land based spreading, fertiliser should not be applied within 20 metres of a watercourse.
41. 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

42. 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.
43. Within two months of the testing referred to in Condition 42(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.
44. 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.

Fertigation

45. If the irrigation system used in association with taking water in terms of this permit is to be used to distribute effluent, fertiliser or any other added contaminant, then one of the following shall be installed upstream of the point of addition of the effluent, fertiliser or other added contaminant:
 - (a) a reduced pressure zone device (RPZD), or

- (b) a pressure vacuum breaker (PVB), or
 - (c) an air gap backflow prevention system.
46. Installation of a RPZD or a PVB shall be in accordance with section 9 (PVB) or section 12 (RPZD) of Australian/New Zealand Standard AS/NZS 2845.1 Water supply - Backflow prevention devices, Part 1: Materials, design and performance requirements, or an equivalent standard.
47. An air gap backflow prevention system shall have an unobstructed vertical air gap separation of at least twice the diameter of the inlet pipe, from the lowest point of the inlet pipe to the flood level rim of the receptacle into which it discharges.
48. Field testing and maintenance shall be carried out of an RPZD or a PVB at commissioning of the use of the system for application of effluent or fertiliser and annually afterwards, in accordance with AS 2845.3 Water supply—Backflow prevention devices, Part 3: Field testing and maintenance, or an equivalent standard.
49. An air gap backflow prevention system shall be tested at commissioning and annually afterwards. Maintenance shall be undertaken as necessary to ensure that backflow prevention is effective.
50. Installation, testing and maintenance shall be undertaken by a certified irrigation evaluator. A report on the annual testing shall be provided to the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager, within two weeks of initial commissioning and within two weeks of each annual testing. Each report shall be accompanied with the name, qualifications and experience of the person who undertook the installation, testing or maintenance.

Review of conditions

51. 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.

Lapse

52. 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:

- *The discharge of effluent, fertiliser or any contaminant would require authorisation as a permitted activity or via a discharge permit. Contact the Canterbury Regional Council for advice on the relevant regional rules.*
- *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.*



