

Conditions for water permit CRC030944 Proposal A		
Status of Consent: <u>new</u> Catchment: Waitangi Station Expiry date sought - 30 <sup>th</sup> of April 2025.		
No.	Proposed Condition	ECan Comments
		<p>The new proposed conditions, developed subsequent to the presentation of section 42A reports, do not currently contain all the necessary conditions to satisfactorily address cumulative water quality issues. For other issues refer to S42A reports and responses to commissioner questions.</p>
		<p><b>ECan Comment:</b></p> <p>Note the recommendation in s42a report 38A, para 157 with regard to splitting this into three separate consents.</p> <p>Three consents are proposed by way of A, B and C</p>
		<p><b>ECan Comment:</b></p> <p>No conditions proposed that specify minimum setback distances of irrigation areas from surface water bodies. These should be specified in a condition e.g., minimum of 20 metres.</p> <p>Applicant proposes: A minimum irrigation setback of 5m from all natural permanently flowing waterways</p>
		<p><b>ECan Comment:</b></p> <p>General condition numbering and cross referencing needs checking</p>

1	Water shall only be diverted between 1 <sup>st</sup> September and 30 <sup>th</sup> April from Sutton Stream at map reference NZMS 260: I39:9674-2157 at a rate not exceeding 55 litres per second	Agreed
2	<p>Water shall only be diverted between 1<sup>st</sup> May and 31<sup>st</sup> August from Sutton Stream at map reference NZMS 260: I39:9674-2157 at a rate not exceeding 15 litres per second</p> <p>Water from stockwater shall be taken with a maximum from the three combined takes of 35 litres per second, a maximum daily volume of 3,024 cubic metres per day and a maximum annual volume of 956,080 cubic metre per annum.</p>	<p>Para 1 Agreed</p> <p>Para 2: <b>ECan Comment:</b> I don't think an annual volume is required here because the stockwater for this proposal is based on 15 l/s continuously. The second part of the condition referring to combined rate and volumes not required – just specify on each proposal.</p> <p><b>Applicant Comment:</b> Proposed to be consistent with DA</p>
3	<p>Water shall only be taken from Sutton Stream located between map references NZMS 260 I39:9674-2157 at a rate not exceeding 40 litres per second with a volume not exceeding 34,560 cubic metres per eight consecutive days and 330,000 cubic metres.</p> <p>(a) Water for irrigation shall only be used between 1 September and the following 30 April and only in accordance with the maximum rate, daily volume (being from 12.00am to 12.00am the following day) and annual volume (measured between 1 September and the following 30 April) set out in Table A for the three combined takes (CRC030944 Proposal A, B &amp; C).</p> <p>(b) Water taken in accordance with allocated in Table A of Condition (3) shall be used only for the spray irrigation of 55 hectares for grazing sheep and beef cattle, on the area of land shown on attached Plan CRC030944 – Proposal A and B.</p> <p>(c) Water for irrigation shall only be used on or applied to land that is subject to a memorandum of encumbrance that complies with the requirements of the agreement entitled “<i>Agreement in Relation to the Allocation of Water for Irrigation</i>” between Meridian Energy Limited and the Mackenzie Irrigation Company Limited dated the 31<sup>st</sup> of October 2006.</p> <p>(d) The consent holder shall, six months prior to this consent being exercised, provide to the Canterbury Regional Council a certificate from the Consent Holder’s solicitor certifying that the memorandum of encumbrance provided for in Condition 2(d) is registered on the</p>	<p><b>Applicant Comment:</b> In accordance with MIC agreement/MEL derogation approval.</p> <p>Para 1: <b>ECan Comment:</b> recommend between 1 September and the following 30 April included after 330,000 cubic metres.</p> <p>Para 3:</p> <p><b>ECan Comment:</b> Preferred wording: Water taken in accordance with condition (3) shall only be used...</p> <p><b>Applicant Comment:</b> In accordance with DA</p> <p><b>ECan Comment:</b> Not proposing to “exclude milking dairy cows”. Refer to Vesey Addendum report, para 148-150</p> <p><b>Applicant Comment:</b> Consider IO suggestion met by defining stock.</p> <p>Last two paras <b>ECan Comment:</b></p> <p>Suggest parts 2 and 3 included as separate conditions. - refer to Paragraph 152 (c) of the addendum s42A report of S Vesey about concern in terms of expectations of Environment Canterbury enforcing this.</p>

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	computer registers for the land shown on Plan “Plan CRC030944 – Proposal A and B” and any other evidence of registration as the Canterbury Regional Council may require (if any).	
4	<p>The consent holder shall take all practicable steps to:</p> <ul style="list-style-type: none"> <li>a) Ensure that the volume of water used for irrigation does not exceed that required for the soil to reach field capacity; and</li> <li>b) Avoid leakage from pipes and structures; and</li> <li>c) Avoid the use of water onto non-productive land such as impermeable surfaces and river or stream riparian strips.</li> </ul>	Agreed
5	<p>Water may be diverted as follows:</p> <p>(a) Whenever the flow of the ‘Sutton Stream above Waitangi Intake’ as estimated by the Canterbury Regional at Map Reference NZMS 260 139:967-212:</p> <ul style="list-style-type: none"> <li>(i) Is equal or greater than 135 litres per second the maximum rate of take must not exceed 55 litres per second, and;</li> <li>(ii) Falls below the flow shown on the horizontal axis of ‘Figure 2A’, then the rate of abstraction permitted in terms of this permit shall not exceed those shown as corresponding flows on the vertical axis.</li> </ul> <p>(b) At a rate not exceeding 15 litres per second at any flow in Sutton Stream.</p> <p>OR provided that 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 which limits the total daily abstraction from the resource as referred to in (a) and (b) above then the taking of water in accordance with that determination shall be deemed to be in compliance with condition &lt;x&gt; of this consent.</p>	<p>In accordance with MIC agreement/MEL derogation approval.</p> <p><b>ECan comment:</b></p> <p>Part 3 and 4 not required as take not from canals.</p> <p>Need to remove reference to min flow being estimated by the CRC and replace with as measured in condition 12.</p> <p>Condition reference needs entering in water user group part of condition.</p>

	<p>The taking of water in terms of this consent shall cease for a period required by the owner and/or operator of the Waitaki Power Scheme, where the owner and/or operator considers it necessary to undertake maintenance on, to ensure the structural integrity and safety of, or to avoid risk or compromise to the operation of, the Waitaki Power Scheme.</p> <p>The taking of water in terms of this consent shall cease whenever the owner and/or operator of the Waitaki Power Scheme ceases to take, divert and/or discharge water into the Tekapo Canal(s), unless the owner and/or operator of the Waitaki Power Scheme gives written agreement to the continuation of take.</p>	
6	<ul style="list-style-type: none"> <li>(a) A fish exclusion device shall be installed, operated and maintained on the intake to ensure that fish are prevented from passing into the intake.</li> <li>(b) The fish exclusion device shall be positioned to avoid the entrapment of fish at the point of abstraction, and to minimise the risk of fish being damaged by contact with the fish screening device.</li> <li>(c) The fish exclusion device shall be designed or supplied by a person with experience in freshwater ecology and fish screening techniques, who shall ensure that the performance criteria specified in clauses (a) and (b) of this condition are achieved, and that the device is designed in accordance with best practice, as outlined in the document Fish Screening: Good Practice Guidelines for Canterbury, NIWA Client Report 2007-092, October 2007.</li> <li>(d) Prior to the installation of the fish screen, a report containing final design plans that demonstrate that the fish screen will meet the performance criteria specified in clauses (a) and (b) of this condition, and an operation and maintenance plan for the fish screen, shall be provided to Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager.</li> <li>(e) Before the taking of any water in terms of this permit, a certificate shall be provided to Canterbury Regional Council, by a person with experience in freshwater ecology and fish screening techniques, to certify that the design plans and operation and maintenance plan for the fish screen will meet performance criteria as outlined in this</li> </ul>	<p><b>Applicant Comment:</b> The condition proposed by the applicant is considered ECan standard wording for replacements. Given an existing stockwater race is being operated and the intake is proposed to be upgraded, the condition proposed by the applicant is considered to be appropriate for the situation of an existing race system.</p> <p><b>ECan Comment:</b></p> <p>In their right of reply, the applicant proposed to change their proposed gallery intake with a surface exclusion device. I agreed this was appropriate subject to the following condition which is used for surface takes. The condition referred to by the applicant is to be used for replacements where an existing water permit is being replaced. This application is for a new irrigation take – no existing water permit.</p> <ul style="list-style-type: none"> <li>(a) 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.</li> <li>(b) 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</li> </ul>

	<p>condition, and that the fish screen has been installed in accordance with the details provided to Canterbury Regional Council in accordance with clause (d) of this condition.</p> <p>(f) 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 Canterbury Regional Council upon request.</p>	<p>the risk of fish being damaged by contact with the screen face.</p> <p>(c) The fish screen shall be designed and installed to ensure that:</p> <p>(i) the majority of the screen surface is oriented parallel to the direction of water flow.</p> <p>(ii) 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.</p> <p>(iii) 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.</p> <p>(iv) the sweep velocity parallel to the face of the screen shall exceed the design approach velocity.</p> <p>(d) The fish screen shall be designed or supplied by a suitably qualified person who shall ensure that the design criteria specified in condition (WP09)(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.</p> <p>(e) 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 (WP09)(a) of this consent.</p> <p>(f) 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.</p>
7	<p>The consent holder shall ensure water races used to convey water diverted in terms of this permit are well maintained to minimise losses.</p>	<p>Agreed</p>
8	<p>The consent holder shall, before the first exercise of this consent at the point of take:</p> <p>a.</p> <p>(i) install 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 [specify] is measured; and</p>	<p><b>ECan Comment:</b> Refer to paragraphs 135-142 of Susannah Vesey's addendum report.</p> <p>Need to ensure both divert and take metered.</p> <p>CRC recommended condition for open channels with a accuracy of +/- 10% - proposed by applicant only allows for 5 % accuracy which is unlikely for an open channel.</p> <p><b>Applicant Comment:</b> Consider only take needs to be</p>

	<p>(ii) install a tamper-proof electronic recording device such as a data logger that shall record (or log) the flow totals every 15 minutes and have the capacity to hold at least one season's (as specified in conditions (3) and (4(a))) data of water taken as specified in clause (b) (i), or which is telemetered, as specified in clause (b)(ii).</p> <p>b. The water meter and recording device(s) shall be set to wrap the data from the measuring device(s) such that the oldest data will be automatically overwritten by the newest data (i.e. cyclic recording); and shall:</p> <p>(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</p> <p>(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.</p> <p>c. The measuring device shall be installed at a site likely to retain a stable rating (i.e. a man-made channel, concrete, steel or fibreglass pipe). Installation shall be in accordance with ISO 1100/1-1981 or equivalent and be undertaken by a suitably qualified person.</p> <p>d. The water meter and recording device(s) shall be accessible to the Canterbury Regional Council at all times for inspection and/or data retrieval.</p> <p>e. The water meter and recording device(s) shall be installed and maintained throughout the duration of the consent in accordance with the manufacturer's instructions.</p> <p>f. All practicable measures shall be taken to ensure that the water meter and recording device(s) are at all times fully functional and have an accuracy standard of 5%.</p>	<p>metered and not the divert which is consistent with the DA, hence why 5% accuracy proposed for piping out of the race.</p>
9	<p>(a) The water meter installed in accordance with Condition &lt;8&gt; shall be an electromagnetic or ultrasonic meter; or</p> <p>(b) The consent holder shall, before first exercise of this consent</p>	<p>Agreed</p>

	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.	
10	<p>Within one month of the installation of the measuring or recording device(s), specified in conditions &lt;8&gt; or any subsequent replacement measuring or recording device(s), 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, and demonstrating by means of a clear diagram, that:</p> <p>(a) the measuring and recording device(s) is installed in accordance with the manufacturers specifications; and</p> <p>(b) data from the recording device(s) can be readily accessed and/or retrieved in accordance with clauses (b) and (c) of condition &lt;8&gt;.</p>	Agreed
11	<p>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:</p> <p>(a) the water meter(s) is measuring the rate of water taken as specified in condition &lt;8&gt; and</p> <p>(b) the tamper-proof electronic recording device is operating as specified in condition &lt;8&gt;</p>	Agreed
12	<p>The consent holder shall, prior to exercising this consent, install a water meter measuring device at (map reference NZMS 260 NZMS 260 I39:961-210) in the Sutton Stream that will enable the determination of the continuous rate of flow in the reach of the waterbody to within an accuracy of 10 percent.</p> <p>(a) 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.</p> <p>(b) install a tamper-proof electronic recording device such as a data logger(s) that shall time stamp a pulse from the flow meter at least</p>	Agreed

	<p>once every 15 minutes, and have the capacity to hold at least one season's data of water taken as specified in clauses (d)(i) and (d)(ii), and which is telemetered, as specified in clause (d)(iii).</p> <p>(c) The recording device(s) shall:</p> <p>(i) 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</p> <p>(ii) store the entire season's data in each 12 month period from 1 July to 30 June in the following year, which the consent holder shall then download and store and provide to the Canterbury Regional Council in a format and standard specified in the Canterbury Regional Councils form for Water Metering Data Collection; and be readily accessible to be downloaded by the Canterbury Regional Council or by a person authorized by the Canterbury Regional Council: RMA Compliance and Enforcement Manager; and</p> <p>(iii) shall be connected to a telemetry system which collects and stores all of the data continuously with an independent network provider who will make that data available in a commonly used format at all times to the Canterbury Regional Council and the consent holder.</p> <p>(d) The measuring and recording devices described in clauses (a) and (c) shall be available for inspection at all times by the Canterbury Regional Council.</p> <p>All data from the recording device described in clause (c), and the corresponding relationship between the water level and flow (b), 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.</p>	
	<p><u>For the purposes of interpretation of the following conditions the Waitangi Station shall be defined as the areas in certificates of title and Pastoral Lease numbers {18 titles} which total 22875 hectares</u></p>	<p><u>Note title numbers and areas have been done by computer search and will be verified by applicant</u></p>
13	<p>Nutrient Loading:</p> <p>The consent holder shall prepare once per year <u>and not less than one month prior to the commencement of the irrigation season</u>, an Overseer® nutrient budgeting model report, and shall prepare, at least once per year, a report of the annual farm nutrient loading for the Waitangi Station using the model Overseer® (AgResearch model version number 5.4.3 or later</p>	<p>When exactly do these have to be done? Need to specify dates.</p>

14	A copy of the report prepared in accordance with condition xx shall be given to the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager, upon request.	<p>Condition number? Condition xx = 13?</p> <p><u>Applicant Comment</u></p> <p><u>Agreed – but preference to leave final conditions numbering to be determined on grant</u></p>
15	<p>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 XX from Waitangi Station shall not exceed 56,286 kg of nitrogen and 2,390 kg of phosphorus.</p> <p>The NDAs shall be complied following the first full year (1 July to 30 June) of irrigation development.</p>	<p><b>Essential to specify and define the property “Waitangi Station” by reference to an area (X ha), legal description and/or a map, otherwise there is a risk that authorised nutrient load would be uncertain. The same nutrient load is specified in proposal B and proposal C. Therefore this would provide for a tripling of the nutrient load.</b></p> <p><b>The first clause of the proposed condition only requires compliance for commencement to occur, i.e., subsequent compliance would not be required. This is not appropriate. The condition should require ongoing compliance with the NDA.</b></p> <p>Needs to be “The annual (01 July to 30 June) nutrient loading (NDA) estimated in accordance with condition X, shall not exceed...”</p> <p>The final clause appears to be an attempt to broaden the compliance requirement but is missing some words and is not clear.</p> <p><u>Applicant Comment</u></p> <p><u>The condition requires compliance and verification annually</u></p> <p><u>Not opposed to this wording</u></p> <p><u>Do not understand. There is no attempt to broaden wording.</u></p>

16	<p>Overseer Modelling:</p> <p>Where Overseer, or Overseer modelling, is referred for the purposes of determining compliance with the NDA limits associated with activities on the property it shall undertaken by an independent person with an Intermediate or Advanced Sustainable Nutrient Management Certificate issued by Massey University or an equivalent qualification.</p>	<p>Don't consider that the three day intermediate course is adequate. Should require the more intensive Advanced Certificate. Majority of fertiliser representatives have this qualification and an increasing number of agricultural consultants.</p>
17	<p>Farm Environmental Management Plan</p> <ol style="list-style-type: none"> <li>1. The Farm Environmental Management Plan prepared for the Waitangi Station and supplied to Environment Canterbury on an annual basis within two months of commencement of the current irrigation season</li> <li>2. The consent holder shall implement, and update annually the Farm Environmental Management Plan (FEMP) for Waitangi Station. The FEMP shall include <ol style="list-style-type: none"> <li>(b) Verification of compliance with NDA's by farm nutrient modelling using the model Overseer® (AgResearch model version number 5.4.3 or later).</li> <li>(c) When undertaking the modelling outlined in clause (b), the consent holder shall use either weather records collected on-farm or from constructed data from the nearest weather station.</li> <li>(d) Implementation of Mandatory Good Agricultural Practices ("MGAPS") and requirements to manage in accordance with the Waitangi Station Overseer® model inputs specified in the attached Appendix A <u>of the FEMP</u>– Waitangi Station Overseer® parameter report. Appendix A forms part of this consent.</li> <li>(e) 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.</li> </ol> </li> </ol>	<p>Condition is missing some wording. It appears to be some form of statement rather than a requirement. A final FEMP should be submitted prior to making a decision.</p> <p>A FEMP including verification of NDA compliance is not the same as an actual requirement to comply with the NDA.</p> <p><u>Applicant Comment</u>  <u>Final FEMPS have been sent to Ecan: Com: Phillips - Warnock</u></p> <p>As above.</p> <p>No Appendix A provided.</p>

<p>(f) A requirement to review the risk assessment if there are any significant changes in land use practice</p> <p>3. Detailed records shall be maintained of fertilizer application rates, types of crops (including winter feed/forage crops), cultivation methods, stock units by 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.</p> <p>4. A report based on Overseer® modelling shall be provided within one month of completion of the Overseer modelling by the <u>person with the qualifications</u> described in condition 13 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.</p> <p>5. Changes may be made to Waitangi 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.</p> <p>6. 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.</p>	<p>Should be a person “with the qualifications described...”.</p> <p>The full Overseer output and input reports should be provided not a report “based on Overseer modelling”. These should include the “Current farm” calculated total N and total P leaching/runoff.</p> <p>Not clear who can undertake this certification. Condition X may not apply.</p> <p><u>Applicant Comment</u></p> <p><u>Applicant thought that with difficulties in opening and reading Overseer that Ecan wanted a report from the person in 13. We’re happy to provide whatever form Ecan wants</u></p> <p><u>Do not see issue – 13 applies to all references to Overseer</u></p>
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**Deleted:** person

**Deleted:** Advisory notes (Conditions 8 and 9)¶  
 # for the purposes of this consent  
 “Significant changes” constitute a  
 major change in the stock ratio  
 between sheep, cattle, and deer  
 major change in the farming system  
 for the property. . For example  
 from extensive sheep and beef  
 to dairy farming or cropping. It  
 include changes in stock numbers  
 would be expected to deal with  
 seasonal variations arising from  
 conditions or

		<p>Advisory note condition references appear to be incorrect.</p> <p>Not clear why this is needed. Conditions should allow for any change provided that the NDA is complied with and annual Overseer modelling is carried out.</p> <p><u>Applicant Comment</u></p> <p><u>Agreed and delete</u></p>
18	<p><b>Fertiliser</b></p> <p>7. 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.</p> <p>8. 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.</p> <p>9. For land based spreading of fertiliser an independent fertiliser spreading contractor shall be used to spread any fertiliser on the property except as provided for by clause (b) below.</p> <p>(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.</p> <p>(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 5 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</p>	<p>This code of practice is generally not written as an enforceable document, which means that this condition could not be enforced, doesn’t provide any assurance about effects and is therefore not necessary. Retention may give an impression that many aspects of fertiliser use can be controlled via a consent condition and enforced when they cannot. Therefore recommend deletion unless specific and enforceable components could be separated out and applied.</p> <p>Not clear what use could be made of “a record of the contractor”.</p> <p><u>Applicant Comment</u></p> <p><u>Fertiliser clause to be read as a whole. It has specific controls but in addition this overarching Code control provides for best overall practices to be adopted – as they may be developed from time to time.</u></p> <p><u>The issue was to avoid requirement for calibration to occur for every separate spreading operation – where it is not</u></p>

	<p>Council upon request.</p> <p>10. Nitrogen fertiliser shall not be applied to land between 31<sup>st</sup> May and 1<sup>st</sup> September in any year except for the use of nitrification inhibitors</p> <p>11. All fertiliser brought onto the property which is not immediately applied to the land is stored in a covered area that incorporates all practicable measures to prevent the fertiliser entering waterways.</p> <p>12. Applications of nitrogen fertiliser shall not exceed 50 kg nitrogen / hectare per application.</p> <p>13. 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.</p> <p>Fertiliser filling areas shall not occur within 50 metres from a water course, spring or bore.</p>	<p><u>within applicant's control to request calibration.</u></p> <p><u>Subclause 2 requirements for record keeping and calibration record the information. Ecan may wish this information to be supplied upon request</u></p>
19	<p>Irrigation Infrastructure</p> <p>1. The consent holder shall ensure that all new (not on the property at the time of commencement of this consent) irrigation infrastructure is designed and certified by a suitably qualified independent expert holding National Certificate in Irrigation Evaluation Level 4, and installed in accordance with the certified design.</p> <p>(a) Copies of certified design documents shall be provided to the Canterbury Regional Council upon request.</p> <p>(b) All irrigation infrastructure shall be tested within 12 months of the first exercise of this consent 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.</p> <p>(c) The expert shall prepare a report within two months of the testing, outlining their findings and shall identify any changes</p>	<p>Issued by who? NZWETA? What certified design? Certified by who?</p> <p><u>Applicant Comment</u></p> <p><u>NZQA</u></p> <p>This code of practice is not written as an enforceable document, which means that this condition could not be enforced, doesn't provide any assurance about effects and is therefore not necessary. Retention may give an impression that aspects of irrigation design can be controlled via conditions and enforced when they cannot. Therefore recommend deletion unless specific and enforceable components could be separated out and</p>

	<p>needed to comply with the code of practice.</p> <p>(d) Any changes needed to comply with this code of practice 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.</p> <p>2. 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:</p> <p>(a) The evaluation shall determine the system's current performance in accordance with the Code of Practice for Irrigation Evaluation.</p> <p>(b) This report shall be obtained within three months of the first exercise of the consent.</p> <p>(c) Any recommendations identified in the report shall be implemented within five years from the date of receipt of the report.</p> <p>A copy of the report shall be forwarded to the Canterbury Regional Council within 3 months of the report being completed.</p>	<p>applied.</p> <p><u>Applicant Comment</u></p> <p><u>This clause provides a cross check on water efficiency requirements in that the certification parameters of the design could not be signed off unless the irrigation "as built" structures meet the efficiency parameters – Applicants consider it appropriate that a check within first 12 months should be a condition</u></p> <p>Why not the person referred to above?</p>
20	<p>Fertigation</p> <p>1. If the irrigation system used in association with taking water in terms of this permit is <b>not supplied by gravity and</b> is 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:</p> <p>i. a reduced pressure zone device (RPZD), or</p> <p>ii. a pressure vacuum breaker (PVB), or</p> <p>iii. an air gap backflow prevention system.</p>	<p>Agree</p>

	<p>2. 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.</p> <p>3. 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.</p> <p>4. 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.</p> <p>5. 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.</p> <p>6. 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.</p> <p><i>Advice note</i></p> <p><i>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.</i></p>	
21	<p>Subdivision</p> <p>The NDAs shall be recalculated if there is a sale or transfer of any part, but</p>	No Appendix A provided.

	<p>not the whole, of the total farm area specified in Appendix [should be Appendix A]*. The recalculated NDAs shall replace the NDAs specified in condition 12. 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.</p>	<p>Condition 12 does not specify the NDA.</p> <p>Suggest add after “The recalculated NDAs...” “...shall be undertaken to accurately redistribute the NDA between the resultant properties and...”. Also need to add: “The new NDAs may be recalculated on any <u>apportionment</u> as long as the total of all the NDAs does not exceed the NDAs of the parent title as set out in condition X.</p> <p><u>Applicant Comment</u></p> <p><u>Agreed new condition defining Waitangi see above</u></p> <p><u>Agreed to altered wording</u></p>
22	<p>Soil Management</p> <p>(a) The consent holder shall use, where practicable, direct drilling as the principal method for establishing pastures; and</p> <p>(b) On the irrigation area the consent holder shall, where practicable, sow and irrigate all cultivated areas as soon as possible following ground disturbance.</p>	<p>Agree</p>
23	<p>The water quality of the Gibson and Sutton Stream shall be monitored as follows:</p> <p>(a) Location:</p> <p>Map reference: I39: 960-241 co-ordinates immediately upstream of the applicants irrigation on the Gibson Stream</p> <p>Map reference: I39: 960-207 co-ordinates downstream of the discharge</p> <p><b>Note:</b> Unless otherwise agreed the coordinates for Gibson and Sutton Stream monitoring shall be as specified – but provided the three characteristics of the monitoring points are adhered to ( being upstream of all intakes; downstream of all intakes; and the Swamp</p>	<p><b>The area of irrigation, the location of the streams and the proximity of Lake Aviemore means that it is unlikely that a significant amount of drainage water would move to the stream. The majority of drainage water is likely to move towards Lake Aviemore. Therefore monitoring of the Lake margin water in the vicinity of the irrigation area appears to be more appropriate.</b></p> <p><b>The locations proposed to monitor is the receiving water (e.g. irrigator upstream) and at the bottom of the irrigation area at the bridge which is the lake margin. Monitoring is therefore considered appropriate.</b></p> <p>Needs to clearly state when this should start.</p> <p>A map should be provided to show locations. Ideally map reference s should also include current NZTopo map</p>

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<p>receiving environment) then within those parameters the consent holder may vary the actual coordinates with the prior agreement of Ecan so as to more appropriately monitor the localised river effects arising from the exercise of this take consent</p> <p>(b) Water quality variables to include: (a) Dissolved inorganic nitrogen (b) dissolved reactive phosphorus; (c) dissolved oxygen (d) conductivity (e)turbidity (f)Water Temperature (g) periphyton biomass as chlorophyll a per square metre;(h) ecoli</p> <p>(c) This monitoring may be carried out on an individual basis, or may be prepared in collaboration with other consent holders, or on a collective basis by a suitable independent body appointed by all relevant consent holders in the sub catchment.</p> <p>(d) Frequency of monitoring: Quarterly during the months of November, February, May and August in each year.</p> <p>(e) Methods: The methods of sampling and analysis shall be those that are generally accepted by the scientific community as appropriate for monitoring river water quality and periphyton biomass. The methods of sampling shall be documented and made available to the Canterbury Regional Council on request.</p> <p>(f) The water quality monitoring shall be undertaken by a suitably qualified and/or experienced person who demonstrates that they understand the appropriate methods to use for surface water quality sampling, including preservation of samples. That person shall certify in writing that each batch of samples has been sampled and preserved in accordance with generally accepted scientific methods. A copy of those certifications and the person's qualifications shall be provided to the Canterbury Regional Council on request.</p> <p>(g) The laboratory undertaking analyses shall be accredited for those analyses by International Accreditation New Zealand (IANZ) or an equivalent accreditation organisation that has Mutual Recognition Agreement with IANZ.</p> <p>The results of all sampling shall be provided to the Canterbury Regional Council Attention: RMA Compliance and Enforcement Manager by 30</p>	<p>references.</p> <p><u>Applicant Comment</u> <u>Map is in the FEMP and has been supplied</u></p> <p>Don't consider that a secondary approval is appropriate, but an alternative approach would be to state "at or about" to give some flexibility. Locations should be specific to the irrigation areas.</p> <p><b>Monitoring should be undertaken monthly between 1 December and 30 April with a minimum of three weeks between sampling. Monitoring during November and August is unlikely to be the appropriate time to identify possible adverse effects on water quality. Averaging results over a 12 month period would mask summer adverse effects.</b></p> <p><u>Applicant Comment</u> <u>This condition is not intended to mask effects – but is designed to record and monitor long term trends in surface water quality.</u></p> <p><u>The monitoring is not designed to record and monitor a particular spike generated following a long drought or significant rainfall but is to safeguard against any long term reduction in acceptable water quality.</u></p>
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	May each year. This shall include copies of reports from the laboratory that undertook the analyses.	
24	The pre – irrigation monitoring shall be carried out in the full year prior to commencement of irrigation using the methodology set out above to determine the environmental trigger levels for condition 21 which shall either be the trigger levels set out below or the pre-irrigation DIN/DRP levels whichever is the higher.	<p>What pre-irrigation monitoring? Where is this specified? Are some proposed conditions missing or is this left over from an earlier conceptual approach?</p> <p><u>Applicant Comment</u> <u>... sets out the methodology and what is to be monitored .</u> <u>Want to avoid repetition of all of the parameters above</u></p>
25	<p>(a) If the monitoring undertaken in accordance with condition 20 shows that the average sample result for any of the two Gibson and Sutton Stream monitoring sites located at I39: 960-241 and I39: 960-207 (as shown on the attached map (Appendix E), over the annual period (November to August test results as above) is greater than 0.14 mg/l of DIN; or 0.006 mg/l DRP; or 90 mg chl <i>a</i>/ m<sup>2</sup> (early warning trigger) but does not exceed 0.18 mg/l of DIN; or 0.007 mg/l DRP; or 120 mg chl <i>a</i>/ m<sup>2</sup> (environmental standard trigger),(OR the pre-irrigation monitoring shows that the DIN/DRP levels are higher than the ANZECC guidelines then those pre-irrigation actual annual average sample results shall be substituted for the trigger levels) the consent holder shall prepare a report into the cause of the breach of the early warning trigger ( or any exceedence of the pre- irrigation sample results, as the case may be). The report shall be prepared by an expert review panel consisting of two qualified and experienced independent scientists. One of the scientists shall be nominated by the Canterbury Regional Council, and the other shall be appointed by the consent holder.</p> <p>(b) The report shall:</p> <ol style="list-style-type: none"> <li>i. include the experts' conclusion on whether the exceedence(s) were as a result of natural influences, one off events, or in whole or part by nutrient loss associated with the irrigation authorised</li> </ol>	<p>See above comments re the need for summer rather than annual average.</p> <p>What pre-irrigation monitoring?</p> <p><u>Applicant Comment</u> <u>Defined</u></p>

	<p>by this consent; and</p> <ul style="list-style-type: none"> <li>ii. include an assessment as to whether there is likely to be a continuation of the monitored results;</li> <li>iii. be completed by 30 July following the sampling; and</li> <li>iv. be provided to the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager, by 30 August following the sampling.</li> </ul> <p>(c) If the authors of the report prepared in accordance with clauses (a) and (b) conclude, after considering all the relevant available information, including on-site monitoring, sub-catchment monitoring, and catchment resource consent compliance and audit reports made available by the Canterbury Regional Council, that the cause of the breach of the early warning trigger was unlikely to have been caused in whole or in part by nutrient loss associated with the irrigation authorised by this consent, or if the report concludes that it is unlikely that there is a trend towards exceedence of the environmental standard trigger pertaining to the Gibson and Sutton Stream monitoring sites, then no further action needs to be undertaken by the consent holder, and no nutrient load reductions and investigations shall be required, if.</p> <p>(d) If the monitoring undertaken in accordance with condition 20 shows that the average sample result for any of the two Gibson and Sutton Stream monitoring sites, located at I39: 960-241 and I39: 960-207 (as shown on the attached map (Appendix E), over the period December to April is greater than 0.14 mg/l of DIN; or 0.006 mg/l DRP; or 90 mg chl <i>a</i>/ m<sup>2</sup> (early warning trigger) but does not exceed 0.18 mg/l of DIN; or 0.007 mg/l DRP; or 120 mg chl <i>a</i>/ m<sup>2</sup> (environmental standard trigger), then the property nutrient load (NDA), as specified in condition 19, shall be reduced by 5% x Irrigation Proportion Factor (IPF) for the irrigation season subsequent to the monitoring period. The IPF shall be the proportion of the total authorised irrigation area developed for</p>	<p>Should clarify "If both authors of the report..."</p> <p><u>Applicant Comment</u></p> <p><u>It specifies the plural – if only one concludes then the applicant is not meeting condition</u></p> <p>No Appendix E provided.</p>
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<p>irrigation at the time of the exceedence under this resource consent divided by the total farm area (being 55 hectares on a total farm area of 21,487 ha)</p> <p>(e) Unless the experts conclude that the exceedence was caused by an event or activity other than nutrient loss associated with the irrigation authorised by this consent or if the experts conclude that it is unlikely that there is a trend towards exceedence of the environmental standard trigger pertaining to the Gibson and Sutton Stream monitoring sites, then the consent holder shall prepare a Remedial Action Plan.</p> <p>(f) The Remedial Action Plan shall set out the methods and timeframes for altering and/or adapting farm land use practices to ensure that the exceedence in the early warning trigger pertaining to the Gibson and Sutton Stream monitoring site, is returned <u>as soon as practicable</u> to and maintained below the average sample results of 0.14 mg/l of DIN; or 0.006 mg/l of DRP; or 90 mg chl <i>a</i>/ m<sup>2</sup> (early warning trigger) for the Gibson and Sutton Stream monitoring site, over the period December to April.</p> <p>(g) The Remedial Action Plan shall be prepared by a suitably qualified and experienced person using a <u>Overseer or an equivalent method to demonstrate</u> that the actions to be undertaken will achieve the necessary nutrient reductions <u>as soon as practicable</u>;</p> <ol style="list-style-type: none"> <li>i. If the Remedial Action Plan outlined in clauses (e) and (f) is prepared in collaboration with other consent holders who are required to prepare a Remedial Action Plan for this sub catchment the Remedial Action Plan shall be deemed to comply with this condition</li> <li>ii. Any actions required by the Remedial Action Plan shall be incorporated into the consent holders FEMP. The amended FEMP shall be immediately implemented.</li> <li>iii. The consent holder shall provide the Canterbury Regional Council with the Remedial Action Plan and an amended FEMP</li> </ol>	<p>Needs to be a compounding requirement for continuing breach e.g., "The NDA reduction shall compound on any currently reduced NDA."</p> <p>Should be ..."both conclude..."</p> <p><u>Applicant Comment</u> <u>Comment as above</u></p> <p>Need to add "as soon as practicable" after "... is returned..."</p> <p><del>Correct period - December to April, but doesn't match earlier proposed period.</del></p> <p>"approved" should be deleted and the sentence changed to "...using Overseer or an equivalent method..." Change "show" to "demonstrate". Add "as soon as practicable" after "...reductions..."</p> <p><u>Applicant Comment</u> <u>Agreed see tracked changes</u> <u>Should record full year period</u> <u>See tracked changes</u></p>
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Overseer<sup>®</sup> to show

	<p>upon request.</p> <p>If a required reduction in nutrient load is in effect under clause (d) and monitoring for that period shows that the average sample results for the Gibson and Sutton Stream monitoring site over the period December to April is less than 0.14 mg/l of DIN; or 0.006 mg/l of DRP; or 90 mg chl a/ m2 (early warning trigger), then for the subsequent season no property NDA reduction shall be required under this condition.</p>	Needs a condition number.
26	The Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager, shall be informed immediately on first exercise of this consent by the consent holder.	Agreed
27	<p>The Canterbury Regional Council may, once per year, on any of the last 5 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</p> <p>(a) any cumulative adverse effect on a waterway arising from abstractions;</p> <p>(b) and amending the flow in the Sutton Stream and tributaries at which abstraction is required to be reduced or discontinued as set out in condition 5.</p>	Agreed
28	The lapsing date for the purposes of section 125 shall be [between 5 years and 5 years three months, date set for each quarter].	From grant

**Conditions for water permit CRC030944 Proposal B**

Expiry date sought - 30<sup>th</sup> of April 2025.

No.	Proposed Condition	ECan Comments
		<p><b>The new proposed conditions, developed subsequent to the presentation of section 42A reports, do not currently contain all the necessary conditions to satisfactorily address cumulative water quality issues. For other issues refer to S42A reports and responses to commissioner questions.</b></p>
		<p><b>ECan Comment:</b></p> <p>No conditions proposed that specify minimum setback distances of irrigation areas from surface water bodies. These should be specified in a condition e.g., minimum of 20 metres.</p> <p><b>Applicant proposes: A minimum irrigation setback of 5m from all natural permanently flowing waterways</b></p>
1	Water shall only be diverted between 1 <sup>st</sup> September and 30 <sup>th</sup> April from Gibson Stream at map reference NZMS 260: I39:9608-2103 at a rate not exceeding 55 litres per second	Agreed
2	<p>Water shall only be diverted between 1<sup>st</sup> May and 31<sup>st</sup> August from Gibson Stream at map reference NZMS 260: I39:9608-2103 at a rate not exceeding 15 litres per second</p> <p>Water from stockwater shall be taken with a maximum from the three combined takes of 35 litres per second, a maximum daily volume of 3,024 cubic metres per day and a maximum annual volume of 956,080 cubic metre per annum.</p>	<p>Para 1 Agreed</p> <p>Para 2: <b>ECan Comment:</b> I don't think an annual volume is required here because the stockwater for this proposal is based on 15 l/s continuously. The second part of the condition referring to combined rate and volumes not required – just specify on each proposal.</p> <p><b>Applicant Comment:</b> Proposed to be consistent with DA</p>
3	<p>Water shall only be taken from Gibson Stream located between map references NZMS 260 I39:9608-2103 at a rate not exceeding 40 litres per second with a volume not exceeding 48,816 cubic metres per 19 consecutive days and 138,000 cubic metres.</p> <p>(a) Water for irrigation shall only be used between 1 September and the</p>	<p><b>Applicant Comment:</b> In accordance with MIC agreement/MEL derogation approval.</p> <p>Para 1: <b>ECan Comment:</b> recommend between 1 September and the following 30 April included after</p>

	<p>following 30 April and only in accordance with the maximum rate, daily volume (being from 12.00am to 12.00am the following day) and annual volume (measured between 1 September and the following 30 April) set out in Table A for the three combined takes (CRC030944 Proposal A, B &amp; C).</p> <p>(b) Water taken in accordance with allocated in Table A of Condition (3) shall be used only for the spray irrigation of 23 hectares for grazing sheep and beef cattle, on the area of land shown on attached Plan CRC030944 – Proposal A and B.</p> <p>(c) Water for irrigation shall only be used on or applied to land that is subject to a memorandum of encumbrance that complies with the requirements of the agreement entitled “<i>Agreement in Relation to the Allocation of Water for Irrigation</i>” between Meridian Energy Limited and the Mackenzie Irrigation Company Limited dated the 31<sup>st</sup> of October 2006.</p> <p>(d) The consent holder shall, six months prior to this consent being exercised, provide to the Canterbury Regional Council a certificate from the Consent Holder’s solicitor certifying that the memorandum of encumbrance provided for in Condition 2(d) is registered on the computer registers for the land shown on Plan “Plan CRC030944 – Proposal A and B” and any other evidence of registration as the Canterbury Regional Council may require (if any).</p>	<p>138,000 cubic metres.</p> <p>Para 3:</p> <p><b>ECan Comment:</b> Preferred wording: Water taken in accordance with condition (3) shall only be used...</p> <p><b>Applicant Comment:</b> In accordance with DA</p> <p><b>ECan Comment:</b> Not proposing to “exclude milking dairy cows”. Refer to Vesey Addendum report, para 148-150</p> <p><b>Applicant Comment:</b> Consider IO suggestion met by defining stock.</p> <p>Last two paras <b>ECan Comment:</b></p> <p>Suggest parts c and d included as separate conditions. - refer to Paragraph 152 (c) of the addendum s42A report of S Vesey about concern in terms of expectations of Environment Canterbury enforcing this.</p>
4	<p>Water shall only be temporarily diverted within the bed of Gibson Stream as follows:</p> <p>a) diversion shall only be for the purpose of installation and maintenance of a submerged gallery intake, in accordance with consent CRC031013;</p> <p>b) (ii) diversion shall only be over a length of the bed of less than 50 metres, located in accordance with Condition 1; and</p> <p>c) (iii) diversion shall not impede fish passage or cause the stranding of fish in pools or channels.</p>	<p><b>ECan comment:</b> I think this needs to be reworded to make it clear that this is a separate diversion to that which is consented in the conditions above.</p>
5	<p>The consent holder shall take all practicable steps to:</p> <p>a) Ensure that the volume of water used for irrigation does not exceed that</p>	<p>Agreed</p>

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	<p>required for the soil to reach field capacity; and</p> <p>b) Avoid leakage from pipes and structures; and</p> <p>c) Avoid the use of water onto non-productive land such as impermeable surfaces and river or stream riparian strips.</p>	
6	<p>Water may be diverted as follows:</p> <p>(b) Whenever the flow of the 'Sutton Stream above Waitangi Intake' as estimated by the Canterbury Regional at Map Reference NZMS 260 139:967-212:</p> <p>(iii) Is equal or greater than 135 litres per second the maximum rate of take must not exceed 55 litres per second, and;</p> <p>(iv) Falls below the flow shown on the horizontal axis of 'Figure 2A', then the rate of abstraction permitted in terms of this permit shall not exceed those shown as corresponding flows on the vertical axis.</p> <p>(b) At a rate not exceeding 15 litres per second at any flow in Sutton Stream.</p> <p>OR provided that 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 which limits the total daily abstraction from the resource as referred to in (a) and (b) above then the taking of water in accordance with that determination shall be deemed to be in compliance with condition &lt;x&gt; of this consent.</p> <p>The taking of water in terms of this consent shall cease for a period required by the owner and/or operator of the Waitaki Power Scheme, where the owner and/or operator considers it necessary to undertake maintenance on, to ensure the structural integrity and safety of, or to avoid risk or compromise to the operation of, the Waitaki Power Scheme.</p> <p>The taking of water in terms of this consent shall cease whenever the owner and/or operator of the Waitaki Power Scheme ceases to take, divert and/or</p>	<p>In accordance with MIC agreement/MEL derogation approval.</p> <p><b>ECan comment:</b></p> <p>Part 3 and 4 not required as take not from canals.</p> <p>Need to remove reference to min flow being estimated by the CRC and replace with as measured in condition 12.</p> <p>Condition reference needs entering in water user group part of condition.</p>

	discharge water into the Tekapo Canal(s), unless the owner and/or operator of the Waitaki Power Scheme gives written agreement to the continuation of take.	
7	<p>(a) No water shall be taken in terms of this permit as referred to in condition 1 until a report is provided to the Canterbury Regional Council, Attention RMA Compliance and Enforcement Manager demonstrating the existing fish exclusion measures have been designed and installed in accordance with Fish Screening: Good Practice Guidelines for Canterbury, NIWA Client Report 2007-092, October 2007. (Copy available on <a href="http://www.ecan.govt.nz">www.ecan.govt.nz</a>).</p> <p>(b) The fish exclusion measures shall be maintained in accordance with Fish Screening: Good Practice Guidelines for Canterbury, NIWA Client Report 2007-092, October 2007,</p>	<p><b>Applicant Comment:</b> It is considered that a fish screen condition is appropriate with the water permit rather than land use as proposed by the applicant for a gallery intake.</p> <p><b>ECan comment:</b> given the applicant's comments above, I recommend the following condition be added for the fish exclusion device:</p> <ul style="list-style-type: none"> <li>(a) The consent holder shall ensure that water is abstracted using a gallery intake and shall be designed to prevent native and exotic fish species from entering the system.</li> <li>(b) The fish screen shall be designed by a person with experience in freshwater ecology and fish screening techniques, and constructed in a manner that ensures the principals of the NIWA fish screening guidelines (Fish Screening: Good Practice Guidelines for Canterbury, NIWA Client Report 2007-092, October 2007. (Copy available on <a href="http://www.ecan.govt.nz">www.ecan.govt.nz</a>)) are achieved.</li> <li>(c) No water may be taken in terms of this permit until, upon completion of the intake structure a report is provided to the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager. The report shall be prepared by the consent holder for certification and shall demonstrate compliance with the following: <ul style="list-style-type: none"> <li>(i) Design plan for the gallery specifying gallery dimensions;</li> <li>(ii) Detail of depths and sizes of layers of</li> </ul> </li> </ul>

		<ul style="list-style-type: none"> <li>(iii) gravel over the gallery; Photographic evidence of key stages of construction of the gallery, including demonstrating compliance with gravel specifications in sub clause (c)(ii) above;</li> <li>(iv) Any ongoing maintenance required by the manufacturer is carried out in accordance with their specifications.”</li> </ul> <p>(d) The intake structure shall be maintained in good working order. Records shall be kept of all inspections and maintenance. And those records shall be provided to the Canterbury Regional Council upon request.</p>
8	The consent holder shall ensure water races used to convey water diverted in terms of this permit are well maintained to minimise losses.	Agreed
9	<p>The consent holder shall, before the first exercise of this consent at the point of take:</p> <p>a.</p> <ul style="list-style-type: none"> <li>(i) install 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 [specify] is measured; and</li> <li>(ii) install a tamper-proof electronic recording device such as a data logger that shall record (or log) the flow totals every 15 minutes and have the capacity to hold at least one season's (as specified in conditions (3) and (4(a))) data of water taken as specified in clause (b) (i), or which is telemetered, as specified in clause (b)(ii).</li> </ul> <p>b. The water meter and recording device(s) shall be set to wrap the data from the measuring device(s) such that the oldest data will be automatically</p>	<p><b>ECan Comment:</b> Refer to paragraphs 135-142 of Susannah Vesey's addendum report.</p> <p>Need to ensure both divert and take metered.</p> <p>CRC recommended condition for open channels with an accuracy of +/- 10% - proposed by applicant only allows for 5 % accuracy which is unlikely for an open channel.</p> <p><b>Applicant Comment:</b> Consider only take needs to be metered and not the divert which is consistent with the DA, hence why 5% accuracy proposed for piping out of the race.</p>

	<p>overwritten by the newest data (i.e. cyclic recording); and shall:</p> <ul style="list-style-type: none"> <li>(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</li> <li>(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.</li> </ul> <p>c. The measuring device shall be installed at a site likely to retain a stable rating (i.e. a man-made channel, concrete, steel or fibreglass pipe). Installation shall be in accordance with ISO 1100/1-1981 or equivalent and be undertaken by a suitably qualified person.</p> <p>d. The water meter and recording device(s) shall be accessible to the Canterbury Regional Council at all times for inspection and/or data retrieval.</p> <p>e. The water meter and recording device(s) shall be installed and maintained throughout the duration of the consent in accordance with the manufacturer's instructions.</p> <p>f. All practicable measures shall be taken to ensure that the water meter and recording device(s) are at all times fully functional and have an accuracy standard of 5%.</p>	
10	<ul style="list-style-type: none"> <li>(a) The water meter installed in accordance with Condition &lt;9&gt; shall be an electromagnetic or ultrasonic meter; or</li> <li>(b) The consent holder shall, before 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.</li> </ul>	Agreed
11	<p>Within one month of the installation of the measuring or recording device(s), specified in conditions &lt;9&gt; or any subsequent replacement measuring or recording device(s), or at any time when requested by the Canterbury Regional Council, the consent holder shall provide a certificate to the Canterbury Regional</p>	Agreed

	<p>Council, attention: RMA Compliance and Enforcement Manager, signed by a suitably qualified person certifying, and demonstrating by means of a clear diagram, that:</p> <ul style="list-style-type: none"> <li>(c) the measuring and recording device(s) is installed in accordance with the manufacturers specifications; and</li> <li>(d) data from the recording device(s) can be readily accessed and/or retrieved in accordance with clauses (b) and (c) of condition &lt;8&gt;.</li> </ul>	
12	<p>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:</p> <ul style="list-style-type: none"> <li>(c) the water meter(s) is measuring the rate of water taken as specified in condition &lt;9&gt; and</li> <li>(d) the tamper-proof electronic recording device is operating as specified in condition &lt;9&gt;</li> </ul>	Agreed
13	<p>The consent holder shall, prior to exercising this consent, install a water meter measuring device at (map reference NZMS 260 I39:961-210) in the Sutton Stream that will enable the determination of the continuous rate of flow in the reach of the waterbody to within an accuracy of 10 percent.</p> <ul style="list-style-type: none"> <li>(e) 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.</li> <li>(f) install a tamper-proof electronic recording device such as a data logger(s) that shall time stamp a pulse from the flow meter at least once every 15 minutes, and have the capacity to hold at least one season's data of water taken as specified in clauses (d)(i) and (d)(ii), and which is telemetered, as specified in clause (d)(iii).</li> <li>(g) The recording device(s) shall: <ul style="list-style-type: none"> <li>(iv) 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</li> <li>(v) 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 Councils form for Water</li> </ul> </li> </ul>	<p><b>ECan comment:</b> Change water meter measuring device to water level metering device.</p>

	<p>Metering Data Collection; and be readily accessible to be downloaded by the Canterbury Regional Council or by a person authorized by the Canterbury Regional Council: RMA Compliance and Enforcement Manager; and</p> <p>(vi) shall be connected to a telemetry system which collects and stores all of the data continuously with an independent network provider who will make that data available in a commonly used format at all times to the Canterbury Regional Council and the consent holder.</p> <p>(h) The measuring and recording devices described in clauses (a) and (c) shall be available for inspection at all times by the Canterbury Regional Council. All data from the recording device described in clause (c), and the corresponding relationship between the water level and flow (b), 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.</p>	
	<p><u>For the purposes of interpretation of the following conditions the Waitangi Station shall be defined as the areas in certificates of title and Pastoral Lease numbers XXXXXXXXXXXX which total XXXX hectares</u></p>	
14	<p>Nutrient Loading:</p> <p>The consent holder shall prepare once per year <u>and not less than one month prior to the commencement of the irrigation season</u>, an Overseer® nutrient budgeting model report, and shall prepare, at least once per year, a report of the annual farm nutrient loading for the Waitangi Station using the model Overseer® (AgResearch model version number 5.4.3 or later</p>	<p>When exactly do these have to be done? Need to specify dates.</p>
15	<p>A copy of the report prepared in accordance with condition xx shall be given to the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager, upon request.</p>	<p>Condition number? Condition xx = 13?</p> <p><u>Applicant Comment</u></p> <p><u>Agreed – but preference to leave final conditions numbering to be determined on grant</u></p>
16	<p>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 XX from Waitangi Station shall not exceed 56,286 kg of nitrogen and 2,390 kg of phosphorus.</p>	<p><b>Essential to specify and define the property “Waitangi Station” by reference to an area (X ha), legal description and/or a map, otherwise there is a risk that authorised nutrient load would be uncertain.</b></p>

	<p>The NDAs shall be complied following the first full year (1 July to 30 June) of irrigation development.</p>	<p><b>The same nutrient load is specified in proposal A and proposal C. Therefore this would provide for a tripling of the nutrient load.</b></p> <p><b>The first clause of the proposed condition only requires compliance for commencement to occur, i.e., subsequent compliance would not be required. This is not appropriate. The condition should require ongoing compliance with the NDA.</b></p> <p>Needs to be "The annual (01 July to 30 June) nutrient loading (NDA) estimated in accordance with condition X, shall not exceed..."</p> <p>The final clause appears to be an attempt to broaden the compliance requirement but is missing some words and is not clear.</p> <p><u>Applicant Comment</u></p> <p><u>The condition requires compliance and verification annually</u></p> <p><u>Not opposed to this wording</u></p> <p><u>Do not understand. There is no attempt to broaden wording.</u></p>
17	<p>Overseer Modelling:</p> <p>Where Overseer, or Overseer modelling, is referred for the purposes of determining compliance with the NDA limits associated with activities on the property it shall undertaken by an independent person with an Intermediate or Advanced Sustainable Nutrient Management Certificate issued by Massey University or an equivalent qualification.</p>	<p>Don't consider that the three day intermediate course is adequate. Should require the more intensive Advanced Certificate. Majority of fertiliser representatives have this qualification and an increasing number of agricultural consultants.</p>
18	<p>Farm Environmental Management Plan</p> <p>14. The Farm Environmental Management Plan prepared for the Waitangi Station and supplied to Environment Canterbury on an annual basis</p>	<p>Condition is missing some wording. It appears to be some form of statement rather than a requirement. A final</p>

	<p>within two months of commencement of the current irrigation season</p> <p>15. The consent holder shall implement, and update annually the Farm Environmental Management Plan (FEMP) for Waitangi Station. The FEMP shall include</p> <p>(g) Verification of compliance with NDA's by farm nutrient modelling using the model Overseer<sup>®</sup> (AgResearch model version number 5.4.3 or later).</p> <p>(h) When undertaking the modelling outlined in clause (b), the consent holder shall use either weather records collected on-farm or from constructed data from the nearest weather station.</p> <p>(i) Implementation of Mandatory Good Agricultural Practices ("MGAPS") and requirements to manage in accordance with the Waitangi Station Overseer<sup>®</sup> model inputs specified in the attached Appendix A_of the <u>FEMP</u> – Waitangi Station Overseer<sup>®</sup> parameter report. Appendix A forms part of this consent.</p> <p>(j) 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.</p> <p>(k) A requirement to review the risk assessment if there are any significant changes in land use practice</p> <p>16. Detailed records shall be maintained of fertilizer application rates, types of crops (including winter feed/forage crops), cultivation methods, stock units by 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.</p> <p>17. A report based on Overseer<sup>®</sup> modelling shall be provided within one month of completion of the Overseer modelling by the <u>person with the qualifications</u> described in condition 13 and no later than two months prior to the start of the next irrigation season to the Canterbury Regional Council, Attention:</p>	<p>FEMP should be submitted prior to making a decision.</p> <p>A FEMP including verification of NDA compliance is not the same as an actual requirement to comply with the NDA.</p> <p><u>Applicant Comment</u></p> <p><u>Final FEMPS have been sent to Ecan: Com: Phillips - Warnock</u></p> <p>As above.</p> <p>No Appendix A provided.</p>
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	<p>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.</p> <p>18. Changes may be made to Waitangi 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.</p> <p>19. 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.</p>	<p>Should be a person “with the qualifications described...”.</p> <p>The full Overseer output and input reports should be provided not a report “based on Overseer modelling”. These should include the “Current farm” calculated total N and total P leaching/runoff.</p> <p>Not clear who can undertake this certification. Condition X may not apply.</p> <p><u>Applicant Comment</u></p> <p><u>Applicant thought that with difficulties in opening and reading Overseer that Ecan wanted a report from the person in 13. We're happy to provide whatever form Ecan wants</u></p> <p><u>Do not see issue – 13 applies to all references to Overseer</u></p> <p>Advisory note condition references appear to be incorrect.</p> <p>Not clear why this is needed. Conditions should allow for any change provided that the NDA is complied with and annual Overseer modelling is carried out.</p> <p><u>Applicant Comment</u></p> <p><u>Agreed and delete</u></p>
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**Deleted:** Advisory notes (Co and 9)¶  
 # for the purposes of this cons  
 “Significant changes” constitu  
 major change in the stock rati  
 between sheep, cattle, and de  
 major change in the farming s  
 for the property. . For example  
 from extensive sheep and bee  
 to dairy farming or cropping. I  
 include changes in stock num  
 would be expected to deal wit  
 seasonal variations arising fro  
 conditions or

19	<p>Fertiliser</p> <p>20. 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.</p> <p>21. 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.</p> <p>22. For land based spreading of fertiliser an independent fertiliser spreading contractor shall be used to spread any fertiliser on the property except as provided for by clause (b) below.</p> <p>(c) 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.</p> <p>(d) Where the applicant's own fertiliser spreaders are used, the consent holder shall test and calibrate the fertiliser spreaders at least annually, and every 5 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.</p> <p>23. Nitrogen fertiliser shall not be applied to land between 31<sup>st</sup> May and 1<sup>st</sup> September in any year except for the use of nitrification inhibitors</p> <p>24. All fertiliser brought onto the property which is not immediately applied to the land is stored in a covered area that incorporates all practicable measures to prevent the fertiliser entering waterways.</p> <p>25. Applications of nitrogen fertiliser shall not exceed 50 kg nitrogen / hectare per application.</p> <p>26. 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</p>	<p>This code of practice is generally not written as an enforceable document, which means that this condition could not be enforced, doesn't provide any assurance about effects and is therefore not necessary. Retention may give an impression that many aspects of fertiliser use can be controlled via a consent condition and enforced when they cannot. Therefore recommend deletion unless specific and enforceable components could be separated out and applied.</p> <p>Not clear what use could be made of "a record of the contractor".</p> <p><u>Applicant Comment</u></p> <p><u>Fertiliser clause to be read as a whole. It has specific controls but in addition this overarching Code control provides for best overall practices to be adopted – as they may be developed from time to time.</u></p> <p><u>The issue was to avoid requirement for calibration to occur for every separate spreading operation – where it is not within applicant's control to request calibration.</u></p> <p><u>Subclause 2 requirements for record keeping and calibration record the information. Ecan may wish this information to be supplied upon request</u></p> <p>Condition clause numbering</p>
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	<p>any discharge to surface or groundwater and such that it is also protected from vehicle movements.</p> <p>Fertiliser filling areas shall not occur within 50 metres from a water course, spring or bore.</p>	
20	<p>Irrigation Infrastructure</p> <p>3. The consent holder shall ensure that all new (not on the property at the time of commencement of this consent) irrigation infrastructure is designed and certified by a suitably qualified independent expert holding National Certificate in Irrigation Evaluation Level 4, and installed in accordance with the certified design.</p> <p>(a) Copies of certified design documents shall be provided to the Canterbury Regional Council upon request.</p> <p>(b) All irrigation infrastructure shall be tested within 12 months of the first exercise of this consent 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.</p> <p>(c) The expert shall prepare a report within two months of the testing, outlining their findings and shall identify any changes needed to comply with the code of practice.</p> <p>(d) Any changes needed to comply with this code of practice 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.</p> <p>4. 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:</p> <p>(d) The evaluation shall determine the system's current performance in accordance with the Code of Practice for Irrigation Evaluation.</p> <p>(e) This report shall be obtained within three months of the first exercise</p>	<p>Issued by who? NZWETA? What certified design? Certified by who?</p> <p><u>Applicant Comment</u> <u>NZQA</u></p> <p>This code of practice is not written as an enforceable document, which means that this condition could not be enforced, doesn't provide any assurance about effects and is therefore not necessary. Retention may give an impression that aspects of irrigation design can be controlled via conditions and enforced when they cannot. Therefore recommend deletion unless specific and enforceable components could be separated out and applied.</p> <p><u>Applicant Comment</u> <u>This clause provides a cross check on water efficiency requirements in that the certification parameters of the design could not be signed off unless the irrigation "as built" structures meet the efficiency parameters – Applicants consider it appropriate that a check within first 12 months should be a condition</u></p>

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	<p>of the consent.</p> <p>(f) Any recommendations identified in the report shall be implemented within five years from the date of receipt of the report.</p> <p>A copy of the report shall be forwarded to the Canterbury Regional Council within 3 months of the report being completed.</p>	Why not the person referred to above?
21	<p>Fertigation</p> <p>7. If the irrigation system used in association with taking water in terms of this permit is <b>not supplied by gravity and</b> is 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:</p> <p>iv. a reduced pressure zone device (RPZD), or</p> <p>v. a pressure vacuum breaker (PVB), or</p> <p>vi. an air gap backflow prevention system.</p> <p>8. 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.</p> <p>9. 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.</p> <p>10. 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.</p> <p>11. An air gap backflow prevention system shall be tested at commissioning and annually afterwards. Maintenance shall be undertaken as necessary to</p>	Agree

	<p>ensure that backflow prevention is effective.</p> <p>12. 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.</p> <p><i>Advice note</i></p> <p><i>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.</i></p>	
22	<p>Subdivision</p> <p>The NDAs shall be recalculated if there is a sale or transfer of any part, but not the whole, of the total farm area specified in Appendix [should be Appendix A]*. The recalculated NDAs shall replace the NDAs specified in condition 12. 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.</p>	<p>No Appendix A provided.</p> <p>Condition 12 does not specify the NDA.</p> <p>Suggest add after “The recalculated NDAs...” “...shall be undertaken to accurately redistribute the NDA between the resultant properties and...”. Also need to add: “The new NDAs may be recalculated on any <u>apportionment</u>, as long as the total of all the NDAs does not exceed the NDAs of the parent title as set out in condition X.</p> <p><u>Applicant Comment</u></p> <p><u>Agreed new condition defining Waitangi see above</u></p> <p><u>Agreed to altered wording</u></p>
23	<p>Soil Management</p> <p>(a) The consent holder shall use, where practicable, direct drilling as the principal method for establishing pastures; and</p> <p>(b) On the irrigation area the consent holder shall, where practicable, sow and irrigate all cultivated areas as soon as possible following ground</p>	<p>Agree</p>

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	disturbance.	
24	<p>The water quality of the Gibson and Sutton Stream shall be monitored as follows:</p> <p>(h) Location:</p> <p>Map reference: I39: 960-241 co-ordinates immediately upstream of the applicants irrigation on the Gibson Stream</p> <p>Map reference: I39: 960-207 co-ordinates downstream of the discharge</p> <p><b>Note:</b> Unless otherwise agreed the coordinates for Gibson and Sutton Stream monitoring shall be as specified – but provided the three characteristics of the monitoring points are adhered to ( being upstream of all intakes; downstream of all intakes; and the Swamp receiving environment) then within those parameters the consent holder may vary the actual coordinates with the prior agreement of Ecan so as to more appropriately monitor the localised river effects arising from the exercise of this take consent</p> <p>(i) Water quality variables to include: (a) Dissolved inorganic nitrogen (b) dissolved reactive phosphorus; (c) dissolved oxygen (d) conductivity (e) turbidity (f) Water Temperature (g) periphyton biomass as chlorophyll a per square metre; (h) ecoli</p> <p>(j) This monitoring may be carried out on an individual basis, or may be prepared in collaboration with other consent holders, or on a collective basis by a suitable independent body appointed by all relevant consent holders in the sub catchment.</p> <p>(k) Frequency of monitoring: Quarterly during the months of November, February, May and August in each year.</p> <p>(l) Methods: The methods of sampling and analysis shall be those that are generally accepted by the scientific community as appropriate for monitoring river water quality and periphyton biomass. The methods of sampling shall be documented and made available to the Canterbury Regional Council on request.</p>	<p><b>The area of irrigation, the location of the streams and the proximity of Lake Aviemore means that it is unlikely that a significant amount of drainage water would move to the stream. The majority of drainage water is likely to move towards Lake Aviemore. Therefore monitoring of the Lake margin water in the vicinity of the irrigation area appears to be more appropriate.</b></p> <p><b>The locations proposed to monitor is the receiving water (e.g. irrigator upstream) and at the bottom of the irrigation area at the bridge which is the lake margin. Monitoring is therefore considered appropriate.</b></p> <p>Needs to clearly state when this should start.</p> <p>A map should be provided to show locations. Ideally map reference s should also include current NZTopo map references.</p> <p><u>Applicant Comment</u></p> <p><u>Map is in the FEMP and has been supplied</u></p> <p>Don't consider that a secondary approval is appropriate, but an alternative approach would be to state "at or about" to give some flexibility. Locations should be specific to the irrigation areas.</p>

	<p>(m) The water quality monitoring shall be undertaken by a suitably qualified and/or experienced person who demonstrates that they understand the appropriate methods to use for surface water quality sampling, including preservation of samples. That person shall certify in writing that each batch of samples has been sampled and preserved in accordance with generally accepted scientific methods. A copy of those certifications and the person's qualifications shall be provided to the Canterbury Regional Council on request.</p> <p>(n) The laboratory undertaking analyses shall be accredited for those analyses by International Accreditation New Zealand (IANZ) or an equivalent accreditation organisation that has Mutual Recognition Agreement with IANZ.</p> <p>The results of all sampling shall be provided to the Canterbury Regional Council Attention: RMA Compliance and Enforcement Manager by 30 May each year. This shall include copies of reports from the laboratory that undertook the analyses.</p>	<p>Monitoring should be undertaken monthly between 1 December and 30 April with a minimum of three weeks between sampling. Monitoring during November and August is unlikely to be the appropriate time to identify possible adverse effects on water quality. Averaging results over a 12 month period would mask summer adverse effects.</p> <p><u>Applicant Comment</u></p> <p><b><u>This condition is not intended to mask effects – but is designed to record and monitor long term trends in surface water quality.</u></b></p> <p><b><u>The monitoring is not designed to record and monitor a particular spike generated following a long drought or significant rainfall but is to safeguard against any long term reduction in acceptable water quality.</u></b></p>
25	<p>The pre – irrigation monitoring shall be carried out in the full year prior to commencement of irrigation using the methodology set out above to determine the environmental trigger levels for condition 21 which shall either be the trigger levels set out below or the pre-irrigation DIN/DRP levels whichever is the higher.</p>	<p>What pre-irrigation monitoring? Where is this specified? Are some proposed conditions missing or is this left over from an earlier conceptual approach?</p> <p><u>Applicant Comment</u></p> <p><b><u>... sets out the methodology and what is to be monitored. Want to avoid repetition of all of the parameters above</u></b></p>
26	<p>(h) If the monitoring undertaken in accordance with condition 20 shows that the average sample result for any of the two Gibson and Sutton Stream monitoring sites located at I39: 960-241 and I39: 960-207 (as shown on the attached map (Appendix E), over the annual period (November to August test results as above) is greater than 0.14 mg/l of DIN; or 0.006 mg/l DRP; or 90 mg chl <i>a</i> / m<sup>2</sup> (early warning trigger) but does not exceed 0.18 mg/l of DIN; or 0.007 mg/l DRP; or 120 mg chl <i>a</i> / m<sup>2</sup> (environmental standard</p>	<p>See above comments re the need for summer rather than annual average.</p> <p>What pre-irrigation monitoring?</p>

<p>trigger),(OR the pre-irrigation monitoring shows that the DIN/DRP levels are higher than the ANZECC guidelines then those pre-irrigation actual annual average sample results shall be substituted for the trigger levels) the consent holder shall prepare a report into the cause of the breach of the early warning trigger ( or any exceedence of the pre- irrigation sample results, as the case may be). The report shall be prepared by an expert review panel consisting of two qualified and experienced independent scientists. One of the scientists shall be nominated by the Canterbury Regional Council, and the other shall be appointed by the consent holder.</p> <p>(i) The report shall:</p> <ul style="list-style-type: none"> <li>v. include the experts' conclusion on whether the exceedence(s) were as a result of natural influences, one off events, or in whole or part by nutrient loss associated with the irrigation authorised by this consent; and</li> <li>vi. include an assessment as to whether there is likely to be a continuation of the monitored results;</li> <li>vii. be completed by 30 July following the sampling; and</li> <li>viii. be provided to the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager, by 30 August following the sampling.</li> </ul> <p>(j) If the authors of the report prepared in accordance with clauses (a) and (b) conclude, after considering all the relevant available information, including on-site monitoring, sub-catchment monitoring, and catchment resource consent compliance and audit reports made available by the Canterbury Regional Council, that the cause of the breach of the early warning trigger was unlikely to have been caused in whole or in part by nutrient loss associated with the irrigation authorised by this consent, or if the report concludes that it is unlikely that there is a trend towards exceedence of the environmental standard trigger pertaining to the Gibson and Sutton Stream monitoring sites, then no further action needs to be undertaken by the consent holder, and no nutrient load reductions and investigations shall be required, if.</p>	<p><u>Applicant Comment</u> <u>Defined</u></p> <p>Should clarify "If both authors of the report..."</p> <p><u>Applicant Comment</u> <u>It specifies the plural – if only one concludes then the applicant is not meeting condition</u></p>
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<p>(k) If the monitoring undertaken in accordance with condition 20 shows that the average sample result for any of the two Gibson and Sutton Stream monitoring sites, located at I39: 960-241 and I39: 960-207 (as shown on the attached map (Appendix E), over the period December to April is greater than 0.14 mg/l of DIN; or 0.006 mg/l DRP; or 90 mg chl <i>a</i>/ m<sup>2</sup> (early warning trigger) but does not exceed 0.18 mg/l of DIN; or 0.007 mg/l DRP; or 120 mg chl <i>a</i>/ m<sup>2</sup> (environmental standard trigger), then the property nutrient load (NDA), as specified in condition 19, shall be reduced by 5% x Irrigation Proportion Factor (IPF) for the irrigation season subsequent to the monitoring period. The IPF shall be the proportion of the total authorised irrigation area developed for irrigation at the time of the exceedence under this resource consent divided by the total farm area (being 55 hectares on a total farm area of 21,487 ha)</p> <p>(l) Unless the experts conclude that the exceedence was caused by an event or activity other than nutrient loss associated with the irrigation authorised by this consent or if the experts conclude that it is unlikely that there is a trend towards exceedence of the environmental standard trigger pertaining to the Gibson and Sutton Stream monitoring sites, then the consent holder shall prepare a Remedial Action Plan.</p> <p>(m) The Remedial Action Plan shall set out the methods and timeframes for altering and/or adapting farm land use practices to ensure that the exceedence in the early warning trigger pertaining to the Gibson and Sutton Stream monitoring site, is returned <u>as soon as practicable</u> to and maintained below the average sample results of 0.14 mg/l of DIN; or 0.006 mg/l of DRP; or 90 mg chl <i>a</i>/ m<sup>2</sup> (early warning trigger) for the Gibson and Sutton Stream monitoring site, over the period December to April.</p> <p>(n) The Remedial Action Plan shall be prepared by a suitably qualified and experienced person using <u>Overseer or an equivalent method to demonstrate</u> that the actions to be undertaken will achieve the necessary nutrient reductions <u>as soon as reasonable practicable</u>;</p>	<p>No Appendix E provided.</p> <p>Needs to be a compounding requirement for continuing breach e.g., “The NDA reduction shall compound on any currently reduced NDA.”</p> <p>Should be ...”both conclude...”</p> <p><u>Applicant Comment</u></p> <p><u>Comment as above</u></p> <p>Need to add “as soon as practicable” after “... is returned...”.</p> <p>Correct period - December to April, but doesn’t match</p>
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**Deleted:** approved methods, Overseer® to show

	<p>iv. If the Remedial Action Plan outlined in clauses (e) and (f) is prepared in collaboration with other consent holders who are required to prepare a Remedial Action Plan for this sub catchment the Remedial Action Plan shall be deemed to comply with this condition</p> <p>v. Any actions required by the Remedial Action Plan shall be incorporated into the consent holders FEMP. The amended FEMP shall be immediately implemented.</p> <p>vi. The consent holder shall provide the Canterbury Regional Council with the Remedial Action Plan and an amended FEMP upon request.</p> <p>If a required reduction in nutrient load is in effect under clause (d) and monitoring for that period shows that the average sample results for the Gibson and Sutton Stream monitoring site over the period December to April is less than 0.14 mg/l of DIN; or 0.006 mg/l of DRP; or 90 mg chl a/ m2 (early warning trigger), then for the subsequent season no property NDA reduction shall be required under this condition.</p>	<p>earlier proposed period.</p> <p>“approved” should be deleted and the sentence changed to “...using Overseer or an equivalent method...” Change “show” to “demonstrate”. Add “as soon as practicable” after “...reductions...”</p> <p><u>Applicant Comment</u></p> <p><u>Agreed see tracked changes</u></p> <p><u>Should record full year period</u></p> <p><u>See tracked changes</u></p> <p>Needs a condition number.</p>
27	<p>The Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager, shall be informed immediately on first exercise of this consent by the consent holder.</p>	<p>Agreed</p>
28	<p>The Canterbury Regional Council may, once per year, on any of the last 5 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</p> <p>(c) any cumulative adverse effect on a waterway arising from abstractions;</p> <p>(d) and amending the flow in the Sutton Stream and tributaries at which abstraction is required to be reduced or discontinued as set out in condition 5.</p>	<p>Agreed</p>

29	The lapsing date for the purposes of section 125 shall be [between 5 years and 5 years three months, date set for each quarter].	From decision
<p><b>Conditions for water permit CRC030944 Proposal C</b></p> <p>Expiry date sought - 30<sup>th</sup> of April 2025. <i>Clause 15.3(a) MIC Agreement</i></p>		
No.	Proposed Condition	ECan Comments
		<p>The new proposed conditions, developed subsequent to the presentation of section 42A reports, do not currently contain all the necessary conditions to satisfactorily address cumulative water quality issues. For other issues refer to S42A reports and responses to commissioner questions.</p>
		<p>ECan Comment:</p> <p>No conditions proposed that specify minimum setback distances of irrigation areas from surface water bodies. These should be specified in a condition e.g., minimum of 20 metres.</p> <p><i>Applicant proposes: A minimum irrigation setback of 20m from Lake Waitaki</i></p>
1	<p>Water shall only be taken from Lake Aviemore located between map references NZMS 260 I40:0037-1369 and I40:0031-1375 at a rate not exceeding 35 litres per second with a volume not exceeding 21,168 cubic metres per seven consecutive days and 330,000 cubic metres</p> <p>Water for irrigation shall only be taken between September and the following 30 April and only in accordance with the maximum rate, daily volume (being from 12.00am to <u>12.00am the following day</u>) and annual volume (measured between 1 July and the following 30 June) set out in Table A, for the three combined takes.</p>	<p>Para 2 <b>ECan Comment:</b> I don't think an annual volume is required here because the stockwater for this proposal is based on 15 l/s continuously. The second part of the condition referring to combined rate and volumes not required – just specify on each proposal.</p> <p><i>Disagree – stock water is in the condition below at 5l/s and this take if for irrigation and therefore requires an annual volume.</i></p>

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	<i>Clause 15.3(d)</i>	
2	<p>Water shall only be taken for stockwater between 1<sup>st</sup> May and 31<sup>st</sup> August from Lake Aviemore at map references NZMS 260 I40:0037-1369 and I40:0031-1375 at a rate not exceeding 5 litres per second</p> <p>Water from stockwater shall be taken with a maximum from the three combined takes of 35 litres per second, a maximum daily volume of 3,024 cubic metres per day and a maximum annual volume of 956,080 cubic metre per annum.</p>	<p>Para 1 Agreed – although not the additional wording of “for stockwater” given the changes to the layout from previous comments.</p> <p>Para 2: <b>ECan Comment:</b> The second part of the condition referring to combined rate and volumes not required – just specify on each proposal.</p> <p><b>Applicant Comment:</b> Proposed to be consistent with DA</p>
3		<p><b>ECan Comment:</b> Water shall only be taken with a volume not exceeding 330,000 cubic metres between 1 July and the following 30<sup>th</sup> June for irrigation purposes; and with a volume not exceeding 8,000 cubic metres between 1 July and the following 30<sup>th</sup> June for stockwater purposes.</p> <p><b>Applicant Comment:</b> Can see the point but applicant trying to comply with DA. If this option is to be used, then stockwater volumes needs to be specified on all three (A,B and C) consent to ensure compliance with DA total stockwater volume.</p>
4	<p>(a) Water for irrigation shall only be used between 1 September and the following 30 April and only in accordance with the maximum rate, daily volume (being from 12.00am to 12.00am the following day) and annual volume (measured between 1 September and the following 30 April) set out in Table A for the three combined takes (CRC030944 Proposal A, B &amp; C).</p> <p>(b) Water taken in accordance with allocated in Table A of Condition (3) shall be used only for the spray irrigation of 50 hectares for grazing sheep and beef cattle, on the area of land shown on attached Plan CRC030944 – Proposal C.</p> <p>(c) Water for irrigation shall only be used on or applied to land that is subject to a memorandum of encumbrance that complies with the requirements of the agreement entitled “<i>Agreement in Relation to the Allocation of Water for Irrigation</i>” between Meridian Energy Limited and the Mackenzie Irrigation Company Limited dated the 31<sup>st</sup> of October 2006.</p>	<p><b>Applicant Comment:</b> In accordance with MIC agreement/MEL derogation approval.</p> <p>Para 1: <b>ECan Comment:</b> recommend between 1 September and the following 30 April included after 330,000 cubic metres.</p> <p>Para 3:</p> <p><b>ECan Comment:</b> Preferred wording: Water taken in accordance with condition (3) shall only be used...</p> <p><b>Applicant Comment:</b> In accordance with DA</p> <p><b>ECan Comment:</b> Not proposing to “exclude milking dairy cows”. Refer to Vesey Addendum report, para 148-150</p> <p><b>Applicant Comment:</b> Consider IO suggestion met by</p>

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	<p>(d) The consent holder shall, six months prior to this consent being exercised, provide to the Canterbury Regional Council a certificate from the Consent Holder's solicitor certifying that the memorandum of encumbrance provided for in Condition 2(d) is registered on the computer registers for the land shown on Plan "Plan CRC030944 – Proposal C" and any other evidence of registration as the Canterbury Regional Council may require (if any).</p>	<p>defining stock.</p> <p>Last two paras <b>ECan Comment:</b></p> <p>Suggest parts c and d included as separate conditions. - refer to Paragraph 152 (c) of the addendum s42A report of S Vesey about concern in terms of expectations of Environment Canterbury enforcing this.</p>
5	<p>The consent holder shall take all practicable steps to:</p> <p>d) Ensure that the volume of water used for irrigation does not exceed that required for the soil to reach field capacity; and</p> <p>e) Avoid leakage from pipes and structures; and</p> <p>f) Avoid the use of water onto non-productive land such as impermeable surfaces and river or stream riparian strips.</p>	<p>formatting</p>
6	<p>Whenever the level in Lake Aviemore falls below 265.7 metres above mean sea level as assessed by Meridian Energy Limited and published on <a href="http://www.meridianenergy.co.nz">www.meridianenergy.co.nz</a>, the consent holder shall cease taking water for irrigation and reduce the rate of take to that specified in condition (2) of this permit.</p> <p>The taking of water in terms of this consent shall cease for a period required by the owner and/or operator of the Waitaki Power Scheme, where the owner and/or operator considers it necessary to undertake maintenance on, to ensure the structural integrity and safety of, or to avoid risk or compromise to the operation of, the Waitaki Power Scheme.</p> <p>The taking of water in terms of this consent shall cease whenever the owner and/or operator of the Waitaki Power Scheme ceases to take, divert and/or discharge water into the Tekapo Canal(s), unless the owner and/or operator of the Waitaki Power Scheme gives written agreement to the continuation of take.</p>	<p>Applicant has agreed with IO condition as it is still considered to meet DA but just provide more guidance.</p> <p>Paras 2 and 3:</p> <p><b>ECan comment:</b> these parts not needed given the take is not from canals.</p> <p><b>Applicant comment:</b> In accordance with MIC agreement/MEL derogation approval.</p>

7	<p>(c) A fish exclusion device shall be installed, operated and maintained on the intake to ensure that fish are prevented from passing into the intake.</p> <p>(d) The fish exclusion device shall be positioned to avoid the entrapment of fish at the point of abstraction, and to minimise the risk of fish being damaged by contact with the fish screening device.</p> <p>(e) The fish exclusion device shall be designed or supplied by a person with experience in freshwater ecology and fish screening techniques, who shall ensure that the performance criteria specified in clauses (a) and (b) of this condition are achieved, and that the device is designed in accordance with best practice, as outlined in the document Fish Screening: Good Practice Guidelines for Canterbury, NIWA Client Report 2007-092, October 2007.</p> <p>(f) Prior to the installation of the fish screen, a report containing final design plans that demonstrate that the fish screen will meet the performance criteria specified in clauses (a) and (b) of this condition, and an operation and maintenance plan for the fish screen, shall be provided to Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager.</p> <p>(g) Before the taking of any water in terms of this permit, a certificate shall be provided to Canterbury Regional Council, by a person with experience in freshwater ecology and fish screening techniques, to certify that the design plans and operation and maintenance plan for the fish screen will meet performance criteria as outlined in this condition, and that the fish screen has been installed in accordance with the details provided to Canterbury Regional Council in accordance with clause (d) of this condition.</p> <p>(h) 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 Canterbury Regional Council upon request.</p>	<p>(a) <b>ECan Condition:</b> 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.</p> <p>(a) 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.</p> <p>(b) The fish screen shall be designed and installed to ensure that:</p> <ul style="list-style-type: none"> <li>(i) the majority of the screen surface is oriented parallel to the direction of water flow.</li> <li>(ii) 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.</li> <li>(iii) 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.</li> </ul> <p>(c) 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.</p> <p>(d) A certificate shall be provided to Environment Canterbury by the designer or supplier of the fish</p>
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		<p>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.</p> <p>(e) 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.</p> <p><b>Applicant Comment:</b> The condition proposed by ECan is not for takes out of lakes or canals. The condition proposed by the applicant is considered to be ECan standard wording from takes from canals/lakes or replacements.</p> <p><b>ECan Comment:</b> The condition proposed by the applicant is not considered standard wording for takes from lakes. Given the intake proposed I recommend the condition recommended by myself in my s42A report 38A</p>
8	<p>The consent holder shall, before the first exercise of this consent at the point of take:</p> <p>a.</p> <p>(i) install 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 [specify] is measured; and</p> <p>(ii) install a tamper-proof electronic recording device such as a data logger that shall record (or log) the flow totals every 15 minutes and have the capacity to hold at least one season's (as specified in conditions (3) and (4(a))) data of water taken as specified in clause (b) (i), or which is telemetered, as specified in clause (b)(ii).</p> <p>b. The water meter and recording device(s) shall be set to wrap the data from the measuring device(s) such that the oldest data will be automatically overwritten by the newest data (i.e. cyclic recording); and shall:</p> <p>(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</p>	<p><b>Applicant comment:</b> In accordance with MIC agreement/MEL derogation approval</p> <p><b>ECan Comment:</b> Refer to addendum s42A report of Susannah Vesey, paragraphs 135-142 and response to questions report for discussion about metering</p> <p>I understand that the MEL/MIC agreement may have had a metering condition included, but I had understood that MEL were happy with this being amended as long as it still had the same intent.</p>

	<p>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</p> <p>(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.</p> <p>c. The measuring device shall be installed at a site likely to retain a stable rating (i.e. a man-made channel, concrete, steel or fibreglass pipe). Installation shall be in accordance with ISO 1100/1-1981 or equivalent and be undertaken by a suitably qualified person.</p> <p>d. The water meter and recording device(s) shall be accessible to the Canterbury Regional Council at all times for inspection and/or data retrieval.</p> <p>e. The water meter and recording device(s) shall be installed and maintained throughout the duration of the consent in accordance with the manufacturer's instructions.</p> <p>f. All practicable measures shall be taken to ensure that the water meter and recording device(s) are at all times fully functional and have an accuracy standard of 5%.</p>	
9	<p>(a) The water meter installed in accordance with Condition &lt;8&gt; shall be an electromagnetic or ultrasonic meter; or</p> <p>(b) The consent holder shall, before 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.</p>	Agreed
10	<p>Within one month of the installation of the measuring or recording device(s), specified in conditions &lt;8&gt; or any subsequent replacement measuring or recording device(s), 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, and demonstrating by means of a clear diagram, that:</p>	Agreed

	<p>(e) the measuring and recording device(s) is installed in accordance with the manufacturers specifications; and</p> <p>(f) data from the recording device(s) can be readily accessed and/or retrieved in accordance with clauses (b) and (c) of condition &lt;8&gt;.</p>	
11	<p>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:</p> <p>(e) the water meter(s) is measuring the rate of water taken as specified in condition &lt;8&gt; and</p> <p>(f) the tamper-proof electronic recording device is operating as specified in condition &lt;8&gt;</p>	Agreed
12	<p>The consent holder shall, prior to exercising this consent, install a water meter measuring device at (map reference NZMS 260 I39:961-210) in the Sutton Stream that will enable the determination of the continuous rate of flow in the reach of the waterbody to within an accuracy of 10 percent.</p> <p>(i) 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.</p> <p>(j) install a tamper-proof electronic recording device such as a data logger(s) that shall time stamp a pulse from the flow meter at least once every 15 minutes, and have the capacity to hold at least one season's data of water taken as specified in clauses (d)(i) and (d)(ii), and which is telemetered, as specified in clause (d)(iii).</p> <p>(k) The recording device(s) shall:</p> <p>vii) 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</p> <p>viii) 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 Councils form for Water Metering Data Collection; and be readily accessible to be downloaded by the Canterbury Regional Council or by a person authorized by the Canterbury Regional Council: RMA Compliance and Enforcement Manager; and</p>	Agreed

	<p>(ix) shall be connected to a telemetry system which collects and stores all of the data continuously with an independent network provider who will make that data available in a commonly used format at all times to the Canterbury Regional Council and the consent holder.</p> <p>(l) The measuring and recording devices described in clauses (a) and (c) shall be available for inspection at all times by the Canterbury Regional Council.</p> <p>All data from the recording device described in clause (c), and the corresponding relationship between the water level and flow (b), 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.</p>	
	<p><u>For the purposes of interpretation of the following conditions the Waitangi Station shall be defined as the areas in certificates of title and Pastoral Lease numbers XXXXXXXXXXXXX which total XXXXX hectares</u></p>	
13	<p>Nutrient Loading:</p> <p>The consent holder shall prepare once per year <u>and not less than one month prior to the commencement of the irrigation season</u>, an Overseer® nutrient budgeting model report, and shall prepare, at least once per year, a report of the annual farm nutrient loading for the Waitangi Station using the model Overseer® (AgResearch model version number 5.4.3 or later</p>	<p>When exactly do these have to be done? Need to specify dates.</p>
14	<p>A copy of the report prepared in accordance with condition xx shall be given to the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager, upon request.</p>	<p>Condition number? Condition xx = 13?</p> <p><u>Applicant Comment</u></p> <p><u>Agreed – but preference to leave final conditions numbering to be determined on grant</u></p>
15	<p>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 XX from Waitangi Station shall not exceed 56,286 kg of nitrogen and 2,390 kg of phosphorus.</p> <p>The NDAs shall be complied following the first full year (1 July to 30 June) of irrigation development.</p>	<p><b>Essential to specify and define the property “Waitangi Station” by reference to an area (X ha), legal description and/or a map, otherwise there is a risk that authorised nutrient load would be uncertain. The same nutrient load is specified in proposal A and proposal B. Therefore this would provide for a tripling of the nutrient load.</b></p> <p><b>The first clause of the proposed condition only</b></p>

		<p>requires compliance for commencement to occur, i.e., subsequent compliance would not be required. This is not appropriate. The condition should require ongoing compliance with the NDA.</p> <p><b><u>Applicant Comment</u></b></p> <p><u>Agreed see wording above condition 13</u></p> <p>Needs to be "The annual (01 July to 30 June) nutrient loading (NDA) estimated in accordance with condition X, shall not exceed..."</p> <p>The final clause appears to be an attempt to broaden the compliance requirement but is missing some words and is not clear.</p> <p><b><u>Applicant Comment</u></b></p> <p><u>The condition requires compliance and verification annually</u></p> <p><u>Not opposed to this wording</u></p> <p><u>Do not understand. There is no attempt to broaden wording.</u></p>
16	<p>Overseer Modelling:</p> <p>Where Overseer, or Overseer modelling, is referred for the purposes of determining compliance with the NDA limits associated with activities on the property it shall undertaken by an independent person with an Intermediate or Advanced Sustainable Nutrient Management Certificate issued by Massey University or an equivalent qualification.</p>	<p>Don't consider that the three day intermediate course is adequate. Should require the more intensive Advanced Certificate. Majority of fertiliser representatives have this qualification and an increasing number of agricultural consultants.</p>
17	<p>Farm Environmental Management Plan</p> <p>1. The Farm Environmental Management Plan prepared for the Waitangi Station and supplied to Environment Canterbury on an annual basis within two months of commencement of the current irrigation season</p>	<p>Condition is missing some wording. It appears to be some form of statement rather than a requirement. A final FEMP should be submitted prior to making a decision.</p>

	<p>2. The consent holder shall implement, and update annually the Farm Environmental Management Plan (FEMP) for Waitangi Station. The FEMP shall include</p> <p>(l) Verification of compliance with NDA's by farm nutrient modelling using the model Overseer<sup>®</sup> (AgResearch model version number 5.4.3 or later).</p> <p>(m) When undertaking the modelling outlined in clause (b), the consent holder shall use either weather records collected on-farm or from constructed data from the nearest weather station.</p> <p>(n) Implementation of Mandatory Good Agricultural Practices ("MGAPS") and requirements to manage in accordance with the Waitangi Station Overseer<sup>®</sup> model inputs specified in the attached Appendix A <u>of the FEMP</u>– Waitangi Station Overseer<sup>®</sup> parameter report. Appendix A forms part of this consent.</p> <p>(o) 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.</p> <p>(p) A requirement to review the risk assessment if there are any significant changes in land use practice</p> <p>3. Detailed records shall be maintained of fertilizer application rates, types of crops (including winter feed/forage crops), cultivation methods, stock units by 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.</p> <p>4. A report based on Overseer<sup>®</sup> modelling shall be provided within one month of completion of the Overseer modelling by the <u>person with the qualifications</u> described in condition 13 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</p>	<p>A FEMP including verification of NDA compliance is not the same as an actual requirement to comply with the NDA.</p> <p><u>Applicant Comment</u></p> <p><u>Final FEMPS have been sent to Ecan: Com: Phillips - Warnock</u></p> <p>As above.</p> <p>No Appendix A provided.</p>
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	<p>the annual Overseer<sup>®</sup> modelling.</p> <p>5. Changes may be made to Waitangi Station Overseer<sup>®</sup> model inputs, provided that written certification is provided that the change is modelled using Overseer<sup>®</sup>, and that the result of that modelling demonstrates that the NDAs are not exceeded.</p> <p>6. 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.</p>	<p>Should be a person “with the qualifications described...”.</p> <p>The full Overseer output and input reports should be provided not a report “based on Overseer modelling”. These should include the “Current farm” calculated total N and total P leaching/runoff.</p> <p>Not clear who can undertake this certification. Condition X may not apply.</p> <p><u>Applicant Comment</u></p> <p><u>Applicant thought that with difficulties in opening and reading Overseer that Ecan wanted a report from the person in 13. We're happy to provide whatever form Ecan wants</u></p> <p><u>Do not see issue – 13 applies to all references to Overseer</u></p> <p>Advisory note condition references appear to be incorrect.</p> <p>Not clear why this is needed. Conditions should allow for any change provided that the NDA is complied with and annual Overseer modelling is carried out.</p> <p><u>Applicant Comment</u></p>
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**Deleted:** Advisory notes (Co and 9)¶  
 # for the purposes of this cons  
 “Significant changes” constitut  
 major change in the stock rati  
 between sheep, cattle, and de  
 major change in the farming s  
 for the property. . For exampl  
 from extensive sheep and bee  
 to dairy farming or cropping. I  
 include changes in stock num  
 would be expected to deal wit  
 seasonal variations arising fro  
 conditions or

		<u>Agreed and delete</u>
18	<p>Fertiliser</p> <ol style="list-style-type: none"> <li>1. 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.</li> <li>2. 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.</li> <li>3. For land based spreading of fertiliser an independent fertiliser spreading contractor shall be used to spread any fertiliser on the property except as provided for by clause (b) below. <ol style="list-style-type: none"> <li>(e) 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.</li> <li>(f) Where the applicant's own fertiliser spreaders are used, the consent holder shall test and calibrate the fertiliser spreaders at least annually, and every 5 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.</li> </ol> </li> <li>4. Nitrogen fertiliser shall not be applied to land between 31<sup>st</sup> May and 1<sup>st</sup> September in any year except for the use of nitrification inhibitors</li> <li>5. All fertiliser brought onto the property which is not immediately applied to the land is stored in a covered area that incorporates all practicable measures to prevent the fertiliser entering waterways.</li> <li>6. Applications of nitrogen fertiliser shall not exceed 50 kg nitrogen / hectare per application.</li> <li>7. If liquid fertilisers, excluding liquid effluent, are stored on-site for more than</li> </ol>	<p>This code of practice is generally not written as an enforceable document, which means that this condition could not be enforced, doesn't provide any assurance about effects and is therefore not necessary. Retention may give an impression that many aspects of fertiliser use can be controlled via a consent condition and enforced when they cannot. Therefore recommend deletion unless specific and enforceable components could be separated out and applied.</p> <p>Not clear what use could be made of "a record of the contractor".</p> <p><u>Applicant Comment</u></p>

	<p>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.</p> <p>Fertiliser filling areas shall not occur within 50 metres from a water course, spring or bore.</p>	
19	<p>Irrigation Infrastructure</p> <p>5. The consent holder shall ensure that all new (not on the property at the time of commencement of this consent) irrigation infrastructure is designed and certified by a suitably qualified independent expert holding National Certificate in Irrigation Evaluation Level 4, and installed in accordance with the certified design.</p> <p>(a) Copies of certified design documents shall be provided to the Canterbury Regional Council upon request.</p> <p>(b) All irrigation infrastructure shall be tested within 12 months of the first exercise of this consent 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.</p> <p>(c) The expert shall prepare a report within two months of the testing, outlining their findings and shall identify any changes needed to comply with the code of practice.</p> <p>(d) Any changes needed to comply with this code of practice 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.</p> <p>6. 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:</p> <p>(g) The evaluation shall determine the system's current performance in</p>	<p>Issued by who? NZWETA? What certified design? Certified by who?</p> <p>This code of practice is not written as an enforceable document, which means that this condition could not be enforced, doesn't provide any assurance about effects and is therefore not necessary. Retention may give an impression that aspects of irrigation design can be controlled via conditions and enforced when they cannot. Therefore recommend deletion unless specific and enforceable components could be separated out and applied.</p> <p><u>Fertiliser clause to be read as a whole. It has specific controls but in addition this overarching Code control provides for best overall practices to be adopted – as they may be developed from time to time.</u></p> <p><u>The issue was to avoid requirement for calibration to occur for every separate spreading operation – where it</u></p>

	<p>accordance with the Code of Practice for Irrigation Evaluation.</p> <p>(h) This report shall be obtained within three months of the first exercise of the consent.</p> <p>(i) Any recommendations identified in the report shall be implemented within five years from the date of receipt of the report.</p> <p>A copy of the report shall be forwarded to the Canterbury Regional Council within 3 months of the report being completed.</p>	<p><u>is not within applicant's control to request calibration.</u></p> <p><u>Subclause 2 requirements for record keeping and calibration record the information. Ecan may wish this information to be supplied upon request</u></p> <p>Why not the person referred to above?</p>
20	<p>Fertigation</p> <p>1. 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:</p> <p>vii. a reduced pressure zone device (RPZD), or</p> <p>viii. a pressure vacuum breaker (PVB), or</p> <p>ix. an air gap backflow prevention system.</p> <p>2. 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.</p> <p>3. 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.</p>	<p>Agree</p>

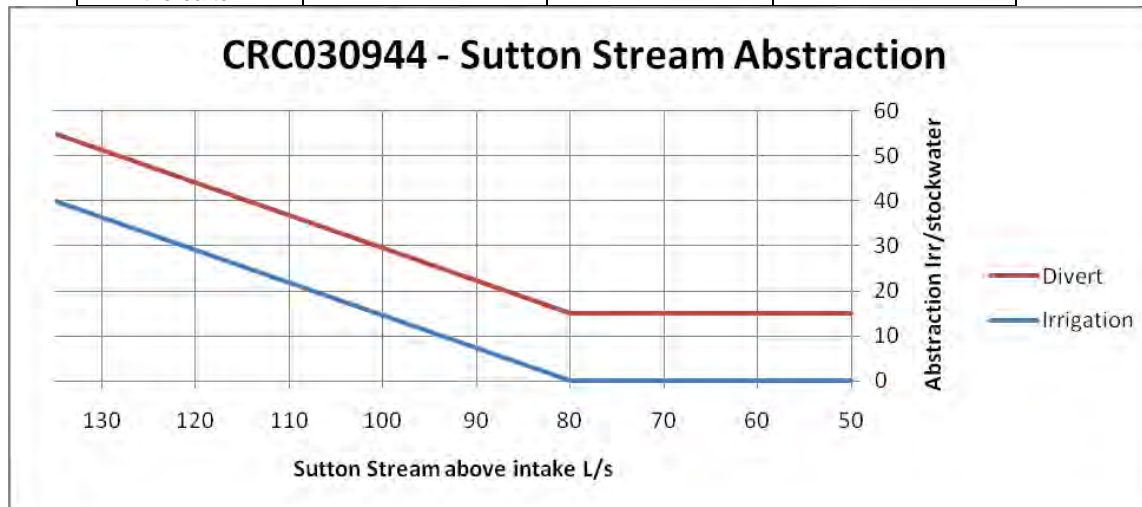
	<p>4. Field testing and maintenance shall be carried out of an RPZD or a PVB at commissioning of the use of the system for application of effluent or fertiliser and annually afterwards, in accordance with AS 2845.3 Water supply—Backflow prevention devices, Part 3: Field testing and maintenance, or an equivalent standard.</p> <p>5. 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.</p> <p>6. 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.</p> <p><i>Advice note</i></p> <p><i>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.</i></p>	
21	<p>Subdivision</p> <p>The NDAs shall be recalculated if there is a sale or transfer of any part, but not the whole, of the total farm area specified in Appendix [should be Appendix A]*. The recalculated NDAs shall replace the NDAs specified in condition 12. 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.</p>	<p>No Appendix A provided.</p> <p>Condition 12 does not specify the NDA.</p> <p>Suggest add after “The recalculated NDAs...” “...shall be undertaken to accurately redistribute the NDA between the resultant properties and...”. Also need to add: “The new NDAs may be recalculated on any <u>apportionment</u>, as long as the total of all the NDAs does not exceed the NDAs of the parent title as set out in condition X.</p> <p><u>Applicant Comment</u></p> <p><u>Agreed new condition defining Waitangi see above</u></p>

Deleted: proportionment

		<u>Agreed to altered wording</u>
22	<p>Soil Management</p> <p>(a) The consent holder shall use, where practicable, direct drilling as the principal method for establishing pastures; and</p> <p>(b) On the irrigation area the consent holder shall, where practicable, sow and irrigate all cultivated areas as soon as possible following ground disturbance.</p>	Agree
		<p>No local sub-catchment water quality monitoring as no relevant waterways or Lake Benmore as below the dam.</p> <p><b>ECan comment:</b></p> <p><b>The majority of drainage water is likely to move towards Lake Aviemore. Therefore monitoring of the Lake margin water in the vicinity of the irrigation area appears to be appropriate.</b></p> <p>Not considered necessary or warranted given the huge dilution effect of the water discharged from Lake Waitaki, 20mtr irrigation buffer and the fact there is a substantial terrace between the irrigation area and lake.</p>
23	The Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager, shall be informed immediately on first exercise of this consent by the consent holder.	Agreed
24	The Canterbury Regional Council may, once per year, on any of the last 5 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	Agreed
	(e) any cumulative adverse effect on a waterway arising from abstractions;	
	(f) and amending the flow in the Lake Aviemore and tributaries at which abstraction is required to be reduced or discontinued as set out in condition 5.	
25	The lapsing date for the purposes of section 125 shall be [between 5 years and 5 years three months, date set for each quarter].	

**Table A for Condition <2> above – Maximum rates of volumes**

Year	Maximum rate of abstraction (litres / second)	Maximum Daily Volume (cubic metres / day)	Maximum Annual Volume (cubic metres / year)
1 September 2009 to 30 April 2010	110 l/s	9,504 m <sup>3</sup> /day	768,000 m <sup>3</sup> /annum
1 September 2010 to 30 April 2011	110 l/s	9,504 m <sup>3</sup> /day	768,000 m <sup>3</sup> /annum
1 September 2011 to 30 April 2012	110 l/s	9,504 m <sup>3</sup> /day	768,000 m <sup>3</sup> /annum
1 September 2012 to 30 April 2013	110 l/s	9,504 m <sup>3</sup> /day	768,000 m <sup>3</sup> /annum
1 September 2013 to 30 April 2014 and every year thereafter	110 l/s	9,504 m <sup>3</sup> /day	768,000 m <sup>3</sup> /annum



<b>Conditions for land use permit CRC031013 (Waitangi Station Ltd)</b>		
Expiry date sought - 30 <sup>th</sup> of April 2025 to coincide with expiry of CRC030944		
<b>No.</b>	<b>Proposed Conditions</b>	<b>Comments</b>
1	<p>The works shall be limited to</p> <ul style="list-style-type: none"> <li>(a) Maintain, upgrade and reconstruct intake structure in the bed of Sutton Stream, including excavation of gravel and sediments, and to maintain adequate flow of water to irrigation and stockwater intake;</li> <li>(b) The excavation of a 20 metre long, 2 mtr wide and 3 metre deep trench for the purposes of installing a buried intake structure in Gibson Stream;</li> <li>(c) Depth of excavation for Gibson Stream will be up to 2.5 metres below bed level, with the gallery installed at a depth of at least 1 metre below bed level.</li> <li>(d) Maintenance works including replacing the intake structures.</li> </ul>	Condition has been modified to accommodate ECan suggestion.

2	The works carried out in accordance with condition (1) shall be located at the Sutton Stream and Gibson Stream, within the area outlined on Plan "CRC030944" at or about map reference(s) NZMS 260 map references NZMS 260 I39:9674-2157 and NZMS 260 I39:9608-2103	Agreed
3		<p><b>ECan Condition:</b></p> <p>(a) The consent holder shall ensure that water is abstracted using a gallery intake and shall be designed to prevent native and exotic fish species from entering the system.</p> <p>(b) The fish screen shall be designed by a person with experience in freshwater ecology and fish screening techniques, and constructed in a manner that ensures the principals of the NIWA fish screening guidelines (Fish Screening: Good Practice Guidelines for Canterbury, NIWA Client Report 2007-092, October 2007. (Copy available on <a href="http://www.ecan.govt.nz">www.ecan.govt.nz</a>)) are achieved.</p> <p>(c) Upon completion of the intake structure a report is provided to the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager. The report shall be prepared by the consent holder for certification and shall demonstrate compliance with the following:</p> <ul style="list-style-type: none"> <li>(i) Design plan for the gallery specifying gallery dimensions;</li> <li>(ii) Detail of depths and sizes of layers of gravel over the gallery;</li> <li>(iii) Photographic evidence of key stages of construction of the gallery, including demonstrating compliance with gravel specifications in sub clause (c)(ii) above;</li> <li>(iv) Any ongoing maintenance required by the manufacturer is carried out in accordance with their specifications."</li> </ul> <p>(d) The intake structure shall be maintained in good working order. Records shall be kept of all inspections and maintenance. And those records shall be provided to the Canterbury Regional Council upon request.</p> <p>(e) <b>Applicant Comment:</b> Disagree this new version proposed is warranted and it also relates to galleries whereas this land use consent relates</p>

		<p>also relates to Sutton Stream which is not a gallery intake. Suitable fish screen conditions have been proposed as part of the water permits rather than this more onerous version at the end of the process for galleries.</p> <p><b>ECan comment</b> : note my comments in relation to fish screen on water permit. Agree that this condition is not needed on landuse consent</p>
4	Works described in conditions (1)(a) to (1)(c) and (1)(d)(i) shall take no longer than a week. Maintenance works in accordance with condition (1)(d) shall take no longer than two days.	Agreed
5	All practicable measures shall be undertaken to ensure that works do not deflect floodwaters into the berm.	Agreed
6	Works shall not cause erosion of the banks and bed of the Sutton Stream and Gibson Stream.	<p><b>ECan Comment:</b> Replace with: Erosion and sediment control measures shall be constructed and maintained in accordance with the Environment Canterbury Erosion and Sediment Control Guidelines, and any amendments to that document to ensure works do not cause erosion to the bed and banks of Sutton and Gibson Streams.</p> <p><b>Applicant Comment:</b> Disagree this condition is warranted for the extent of the activities proposed and therefore the conditions proposed by the applicant to control erosion are considered sufficient.</p>
7	Erosion controls shall be installed on all earthworks to prevent sediment from flowing into any surface water body	
8	Works shall not be undertaken in any manner likely to reduce the flood-carrying capacity of the waterway	Agreed
9	Prior to commencing excavation, a copy of this resource consent shall be given to all persons undertaking activities authorised by this consent	Agreed
10	The Canterbury Regional Council Compliance Monitoring Officer shall be notified of the intention to carry out works and their intended type and scope at least 48 hours prior to the commencement of work.	Agreed

11	<p>Excavation shall not occur within 100 metres of birds listed in Appendix A, which are nesting or rearing their young in the bed of the river:</p> <p>Appendix A:</p> <p>South Island Pied Oystercatcher</p> <p>Black Stilt</p> <p>Pied Stilt</p> <p>Wrybill</p> <p>Banded Dotterel</p> <p>Black-fronted Dotterel</p> <p>Spur-winged Plover</p> <p>Paradise Shelduck</p> <p>Grey Duck</p> <p>NZ Shoveler</p> <p>Grey Teal</p> <p>NZ Scaup</p> <p>Black-billed Gull</p> <p>Red-billed Gull</p> <p>Caspian Tern</p> <p>White-fronted Tern</p> <p>Black-fronted Tern</p>	Agreed
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	<p>White-winged Black Tern</p> <p>Australasian Bittern</p> <p>Marsh Crake</p> <p>Spotless Crake</p> <p>Cormorant/shag colonies</p>	
12	All practical measures shall be taken to minimise the disturbance of the bed of the Sutton Stream and Gibson Stream	Agreed
13	All practicable measures shall be undertaken to prevent the discharge of sediment to the Sutton and Gibson Streams, arising from the works, including, but not limited to the placement of hay bales to collect sediment	Agreed
14	<p>The consent holder shall adopt the best practicable options to:</p> <ul style="list-style-type: none"> <li>a) Minimise soil disturbance and prevent soil erosion;</li> <li>b) Prevent sediment from flowing into any surface water; and</li> <li>c) Avoid placing cut or cleared vegetation, debris, or excavated material in a position such that it may enter surface water.</li> </ul>	Agreed
15	<p>All practicable measures shall be undertaken to minimise vehicles and machinery entering Sutton and Gibson Streams, including, but not limited to:</p> <p>The consent holder shall take all practicable steps to avoid cementitious material entering Sutton and Gibson Streams including waste wash water from tools and machinery.</p> <p>Cement shall be stored securely or removed from site overnight.</p>	
16	<p>All practicable measures shall be undertaken to prevent oil and fuel leaks from vehicles and machinery.</p> <p>There shall be no storage of fuel or refuelling of vehicles and</p>	

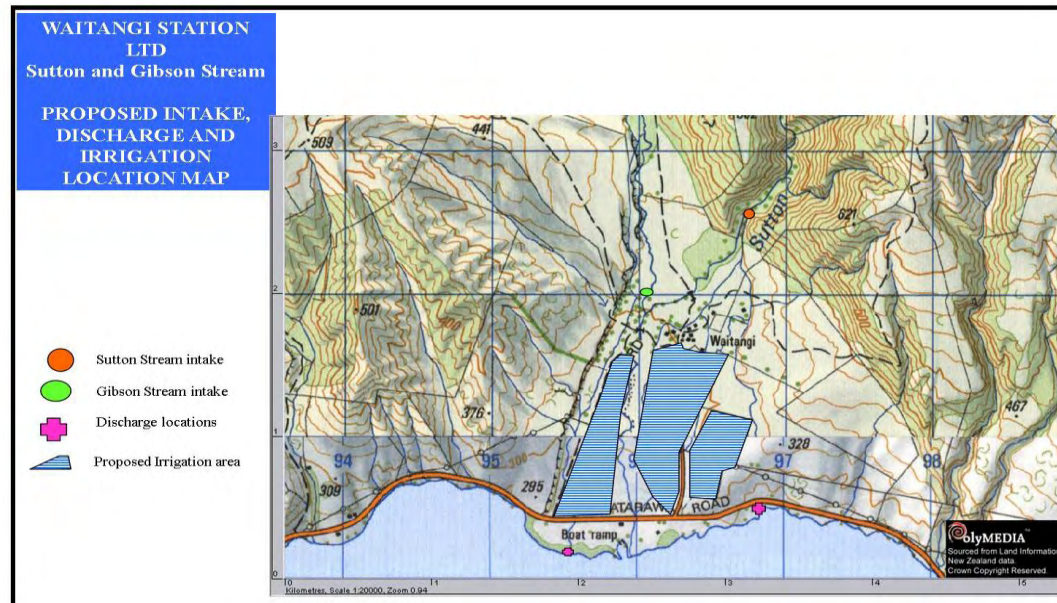
	<p>machinery within 20 metres of the bed of a river.</p> <p>Fuel shall be stored securely or removed from site overnight.</p>	
17	Machinery shall be free of plants and plant seeds prior to use in the riverbed	
18	All practicable measures shall be undertaken to minimise adverse effects on property, amenity values, wildlife, vegetation, and ecological values	Agreed
19	The works shall not prevent the passage of fish, or cause the stranding of fish in pools or channels	Agreed
20	<p>In the event of any disturbance of Koiwi Tangata (human bones) or taonga (treasured artefacts), the consent holder shall immediately:</p> <p>(a) Advise the Canterbury Regional Council of the disturbance;</p> <p>(b) Advise the Upoko Runanga of [Runanga], or their representative, and the New Zealand Historic Places Trust, of the disturbance; and</p> <p>(c) Cease earthmoving operations in the affected area until an area has been marked off around the site, and Kaumatua and archaeologists have given approval for the earthmoving to recommence. Note: This condition is in addition to any agreements that are in place between the consent holder and the Upoko Runanga (Cultural Site Accidental Discovery Protocol) or the New Zealand Historic Places Trust.</p>	Agreed
21	All spoil and other waste material from the works shall be removed from site on completion of works	Agreed
22	On completion of works, the area shall be restored to its original condition as far as practicable.	Agreed
23	The Canterbury Regional Council may, once per year, on any of the last five working days of May or November, serve notice of its intention to review the conditions of this consent for the purposes of dealing with any adverse effect on the environment which may arise from the exercise of the consent and which it is	Agreed

	appropriate to deal with at a later stage.	
24	The lapsing date for the purposes of section 125 shall be [between 5 years and 5 years three months, date set for each quarter].	Agreed

<b>Conditions for discharge permit CRC031014 (Waitangi Station Limited)</b>		
Expiry date sought – 35 years		
<b>No.</b>	<b>Proposed Conditions</b>	<b>Comments</b>
	(a)	I agree metering of discharge not needed provided divert and take metered so that can calculate the difference.
1	(b) Water shall only be discharged from Sutton Stream to Lake Aviemore at or about map reference NZMS 260 I40:9687-1954 as shown on Plan “CRC Plan A and B: (c) The water shall be unused irrigation and stock water (d) Water shall only be discharged at a rate not exceeding 55 litres per second from 1 <sup>st</sup> September to 31 <sup>st</sup> April.	Agreed
2	(a) Water shall only be discharged from Gibson Stream to Lake Aviemore at or about map reference NZMS 260 I40:9551-1919as shown on Plan “CRC Plan A and B: (b) The water shall be unused irrigation and stock water (a) Water shall only be discharged at a rate not exceeding 55 litres per second from 1st September to 31st April.	Agreed
3	(a) Water shall only be discharged from Sutton Stream to Lake Aviemore at or about map reference NZMS 260 I40:9687-1954 as shown on Plan “CRC Plan A and B: (b) The water shall be unused irrigation and stock water (c) Water shall only be discharged at a rate not exceeding 15 litres per second from 1st May to 31st August.	Agreed

4	<p>(a) Water shall only be discharged from Gibson Stream to Lake Aviemore at or about map reference NZMS 260 I40:9551-1919as shown on Plan “CRC Plan A and B:</p> <p>(b) The water shall be unused irrigation and stock water</p> <p>(c) Water shall only be discharged at a rate not exceeding 15 litres per second from 1st May to 31st August.</p>	Agreed
5	<p>(b) All practicable measures shall be undertaken to avoid erosion of the bed or banks of Lake Aviemore occurring as a result of the discharge.</p> <p>(c) In the event of any erosion occurring to the bed or banks of the unnamed water channel, as a result of the discharge, the consent holder shall be responsible for rectifying the situation as soon as practicable.</p>	Agreed
6	The discharge shall not occur in a manner likely to cause erosion of, or instability to, the banks or bed of the unnamed stream channel; or reduce the flood-carrying capacity of the waterway	Agreed
7	The discharge, after reasonable mixing, shall not cause a change in the colour or a reduction of the clarity of the receiving water body.	Agreed
8	The Canterbury Regional Council may, once per year, on any of the last five working days of May or November, serve notice of its intention to review the conditions of this consent for the purposes of dealing with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage.	Agreed
9	The lapsing date for the purposes of section 125 shall be [between 5 years and 5 years three months, date set for each quarter].	Agreed

**Plan “CRC030944 Proposal A and B”**



Plan "CRC030944 Proposal C"

