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Conditions for water permit CRC052501 to divert water (Glenmore Station Ltd)					
Status of Consent: <u>renewal</u> Catchment: <u>Tekapo</u> A 35 year duration is sought.					
No.	Proposed Condition	ECan Comments	Meridian comments	Applicant comments	Applicant final proposed conditions
1	Water shall only be diverted from the Cass River at SWAP I37/0055, at or about map reference NZMS 260 I37: 062-007 at a rate not exceeding 230 litres per second, with a volume not exceeding 19,872 cubic metres per day, and 1,238,325 cubic metres between 1 July and the following 30 June.	Refer to S42a addendum report of Maria Bartlett, paragraphs 44-45. The applicant is indicating in this conditions set that race losses are to be accommodated for the duration of consent and that diversion into the race system is proposed to occur for 35 years. This differs from my previous understanding that the race system would be converted to a piped system within 5 years, such that the take permit CRC052502 would have a 35 year duration, while the diversion permit CRC052501 would only have a 5 year duration. The discharge is still proposed to cease within 5 years, which is difficult to reconcile. I recommend that the diversion permit be granted for 5 years with the Condition 1 wording proposed by the applicant.			
2	The consent holder shall ensure water races used to convey water diverted in terms of this permit are well maintained to minimise losses.	"well maintained" is uncertain.		The applicant does not propose to alter this clause	
3	The consent holder shall, within six months of the commencement date of this consent at the point of take: <ul style="list-style-type: none"> a. <ul style="list-style-type: none"> (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 (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). 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: <ul style="list-style-type: none"> (i) store the entire season's data in each 12 month period from 1 July to 30 June in the following year, which shall be downloaded and stored in a commonly used format and provided to the Canterbury Regional Council upon request in a form and to a standard specified in writing by the Canterbury Regional Council; or (ii) be connected to a telemetry system which collects and stores all of the data continuously with an independent network provider who will make that data available in a commonly used format at all times to the Canterbury Regional Council and the consent holder. No data in the recording device(s) shall be deliberately changed or deleted. c. 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. d. The water meter and recording device(s) shall be accessible to the Canterbury 	Agree			

	<p>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 10%.</p>	Open channel therefore accuracy needs to be 10 %			
4	<p>(a) The water meter installed in accordance with Condition <3> shall be an electromagnetic or ultrasonic meter; or</p> <p>(b) The consent holder shall, within six months of the commencement date 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>	Agree			
5	<p>Within one month of the installation of the measuring or recording device(s), specified in conditions <8> 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) of condition <8>.</p>	Agree			
6	<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 <8> and</p> <p>the tamper-proof electronic recording device is operating as specified in condition <8></p>	Agree			
FISH EXCLUSION DEVICE					
7	<p>By the fifth anniversary of the first exercise of this consent:</p> <p>(a) A fish exclusion device shall be installed and maintained on the intake to ensure that fish are prevented from passing into the intake.</p> <p>(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 screen face.</p>	<p>Status quo of no fish screen on the diversion accepted, but for a 5 year duration only. Refer to S42a Report 14A (pg 19) for recommended conditions for CRC052501.</p> <p>This fish screen condition required on CRC052502.</p>			

	<p>(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 practise, as outlined in the document Fish Screening: Good Practise Guidelines for Canterbury, NIWA Client Report 2007-092, October 2007.</p> <p>(d) 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 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 Environment Canterbury upon request.</p>				
8	<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) Dealing with any adverse effect on the environment which may arise from the exercise of this consent and which it is appropriate to deal with at a later stage.</p>	Agree			
9	The lapsing date for the purposes of section 125 shall be 5 years.	Agree			

Conditions for water permit CRC052502 – to take and use water for irrigation (Glenmore Station Ltd)					
A 35 year duration is sought.					
No.	Proposed Condition	ECan Comments	Meridian comments	Applicant comments	Applicant final proposed conditions
1	Water that is taken shall be that diverted under CRC052501 or any subsequent replacement consent. (ii) Water shall be taken at a maximum rate of 230 litres per second, with a volume not exceeding 19,872 cubic metres per day and 1,238,325 cubic metres between 1 July and the following 30 June.	Refer to S42a addendum report of Maria Bartlett, paragraphs 44-45, and paragraph 52. Agree that reference to CRC052501 is warranted. Recommended wording to be revised as follows: "(i) Until the fifth anniversary of the commencement of this consent, water taken and used shall only be water that is diverted in accordance with consent CRC052501; ii) Upon the fifth anniversary of the commencement of this consent, water shall only be taken from Cass River, at surface water abstraction point I37/0055, at or about map reference NZMS 260 I37:062-007, at a maximum rate of 230 litres per second, with a daily volume not exceeding 19,872 cubic metres, and a total volume not exceeding 1,126,795 cubic metres between 1st July and the following 30th June."		Divert volume = take volume so if divert is metered then no than is being diverted is being taken – no need to meter take. Ditto with fish screen.	

2	<p>(i) Until the fifth anniversary of the first exercise of this consent, water shall be used for the border dyke and spray irrigation of 180 hectares of crops and pasture as described in the application, on the area of land shown in attached plan "CRC052502A", which forms part of this consent.</p> <p>(ii) Upon the fifth anniversary of the first exercise of this consent, water shall be used for the spray irrigation of 180 hectares of crops and pasture for grazing sheep, beef cattle, deer or non-milking dairy cows as described in the application, on the area of land shown in attached plan "CRC052502B", which forms part of this consent.</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>			
3	<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 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>	<p>The applicant will be unable to comply with (a) while borderdyke irrigation is occurring in the first 5 years of consent. Refer to S42a Report 14A, pages 13 and 20.</p> <p>"(a) Upon the fifth anniversary of the commencement of this consent, ensure that ..."</p>			
4	<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>Refer to S42a addendum report of Maria Bartlett, paragraphs 44-45. The applicant is indicating in this conditions set that race losses are to be accommodated for the duration of consent and that diversion into the race system is proposed to occur for 35 years. This differs from my previous understanding that the race system would be converted to a piped system within 5 years, such that the take permit CRC052502 would have a 35 year duration, while the diversion permit CRC052501 would only have a 5 year duration.</p> <p>Require fish screen condition and metering condition for piped scheme, as per Report 14A, pg 19-20</p>		<p>The applicant does not propose to alter this clause</p>	
IRRIGATION CONVERSION					
5	<p>The consent holder shall within a period of 5 years from the commencement date of this consent, convert to spray irrigation and advise the Canterbury Regional Council as to the staging of any conversion.</p> <p>Any rights to continue border dyke irrigation shall cease 5 years from the date of this consent</p> <p>The consent holder shall advise the Canterbury Regional Council of the completion of conversion prior to the commencement and use of the new spray system.</p> <p>For the avoidance of doubt, any conditions requiring testing as a precursor to the exercise of consent shall, with respect to the exercise of this replacement consent, occur prior to the next irrigation season following the commencement date.</p>				
NUTRIENT LOADING:					
	<p><u>For the purposes of interpretation of the following conditions the Glenmore Station shall be defined as the areas in certificates of title and Pastoral Lease numbers XXXXXXXXXXXX which total XXXXXXXX</u></p>				
6	<p>The consent holder shall prepare once per year, an Overseer® nutrient budgeting model report, and shall prepare, at least once per year <u>and not</u></p>	<p>When exactly do these have to be done? Need to specify dates.</p>			

Deleted: for grazing sheep, beef cattle, deer or non-milking dairy cows

	<u>less than one month prior to the commencement of the irrigation season</u> , a report of the annual farm nutrient loading for Glenmore Station using the model Overseer® (AgResearch model version number 5.4.3 or later			
	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.	Condition number? Condition xx = 12?		<u>Agreed – but preference to leave final conditions numbering to be determined on grant</u>
	<p>Following conversion 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 6 from Glenmore Station shall not exceed 14,000 kg of nitrogen and 300 kg of phosphorus.</p> <p>The NDAs shall be complied with at the earlier of the first full year (1 July to 30 June) following completion of the Conversion Plan and (in accordance with Condition * above) or 5 years from the commencement of consent.</p>	<p>Condition number? Commence annually? Essential to define “Glenmore 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 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.</p> <p>Needs to be “The annual (01 July to 30 June) nutrient loading (NDA) estimated in accordance with condition X, shall be less than...”</p> <p>The final clause appears to contradict the first clause. Can't commence irrigation unless.... But final clause indicates compliance may not be needed for 5 years after commencement.</p>		<p><u>Agreed see wording above condition 12</u></p> <p><u>The condition requires compliance and verification annually</u></p> <p><u>Not opposed to this wording</u></p>
OVERSEER MODELLING:				
7	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.	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.		Leave for commissioners to decide
FARM ENVIRONMENTAL MANAGEMENT PLAN				
8	<p>1. The Farm Environmental Management Plan prepared for Glenmore Station and supplied to Environment Canterbury on an annual basis within two months of the irrigation season on request</p> <p>2. The consent holder shall implement, and update annually the Farm Environmental Management Plan (FEMP) for Glenmore Station. The FEMP shall include</p> <p>(a) Verification of compliance with NDA's by farm nutrient modelling using the model Overseer® (AgResearch model version number 5.4.3 or later).</p> <p>(b) 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>(c) Implementation of Mandatory Good Agricultural Practices (“MGAPS”) and requirements to manage in accordance with</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>A FEMP including verification of NDA compliance is not the same as an actual requirement to comply with the NDA.</p> <p>As above.</p>		<p>FEMP has been supplied dated 1 April 2010. Draft watermark to be removed</p> <p><u>Final FEMPS have been sent to Ecan: Com: Phillips - Warnock</u></p> <p>Clause C to be deleted</p>

	<p>Glenmore Station Overseer® model inputs specified in the attached Appendix A <u>of the FEMP</u> - Glenmore Station Overseer® parameter report. Appendix A forms part of this consent.</p> <p>(d) A property specific environmental risk assessment (including a description of the risks to water quality arising from the physical layout of the property and its operation which are not factored in as an Overseer parameter) prepared by a suitably qualified person which identifies any farm specific environmental risks along with measures to mitigate the farm specific environmental risks.</p> <p>(e) 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 reference to type, breed and age, prediction of realistic crop yields that are used to determine crop requirements and all other inputs to the Overseer nutrient budgeting model.</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 Appendix A Glenmore 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>No Appendix A provided.</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 13 may not apply.</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</p>		<p>Overseer parameter report attached</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><u>Agreed and delete</u></p>	
<p>FERTILISER</p>					
<p>9</p>	<p>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.</p> <p>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.</p> <p>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.</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><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</u></p>	

Deleted: person

Deleted: Advisory notes (Conditions 8 and 9)¶
 # for the purposes of this consent “Significant changes” constitutes a major change in the stock ratios between sheep, cattle, and deer or a major change in the farming systems for the property. . For example going from extensive sheep and beef farming to dairy farming or cropping. It does not include changes in stock numbers as would be expected to deal with inter seasonal variations arising from climatic conditions or changes in stocking rates due to market demand.

	<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 Council upon request.</p> <p>4. Nitrogen fertiliser shall not be applied to land between 31st May and 1st September in any year except for the use of nitrification inhibitors</p> <p>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.</p> <p>6. Applications of nitrogen fertiliser shall not exceed 50 kg nitrogen / hectare per application.</p> <p>7. 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>Not clear what use could be made of "a record of the contractor".</p> <p>Last clause needs numbering.</p>		<p><u>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>	
IRRIGATION INFRASTRUCTURE					
10	<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 installation of the new irrigation infrastructure and afterwards every five years in accordance with the 'Irrigation Code of Practice and Irrigation Design Standards, Irrigation NZ, March 2007' (code of practice) by a suitably qualified independent expert.</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</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>NZQA</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>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>	Why not the person referred to above?			
FERTIGATION					
11	<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>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>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</p>	Agree			

	<p>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>				
SUBDIVISION					
12	<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>Agreed to altered wording</u></p>	
SOIL MANAGEMENT					
13	<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>			
SUB-CATCHMENT SURFACEWATER MONITORING AND MITIGATION					
14	<p>The water quality of the Cass River shall be monitored as follows:</p> <p>(a) Location: Map reference: NZMS 260 I37: 061-006 immediately upstream the intake on the Cass River Map reference: NZMS 260 I37: 078-975 at Mailbox Creek Note: Unless otherwise agreed the coordinates for Cass River monitoring shall be as specified – but provided the two characteristics of the monitoring points are adhered to (being upstream of all intakes and downstream of all intakes) 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 phosphorous (c) Dissolved oxygen (d) conductivity (e) conductivity (f) turbidity; (g) periphyton biomass as</p>	<p>Can't see the purpose of monitoring the Cass River to assess adverse effects of irrigation drainage water. The proposed irrigation areas are some distance from the Cass River and effects of drainage are more likely to occur in lake margin. Cass River monitoring would not identify any adverse effects on water quality.</p> <p>Notwithstanding above comments: Needs to clearly state when this should start. A map should be provided to show locations. Ideally map references should also include current NZTopo map references. 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>Phosphorus</p>		<p><u>Agreed with respect to the Cass River –</u> <u>However the downstream monitoring point of Mailbox Creek is definitely downstream of the existing and proposed irrigation area and will monitor the effects.</u></p>	

Deleted: proportionment

<p>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: Once per month from 01 December to 30 April each year, with a minimum of three weeks between sampling.</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 May each year. This shall include copies of reports from the laboratory that undertook the analyses.</p>	<p><i>E. coli</i></p>			
	<p>No lake water monitoring proposed for either lake margin or cumulative lake water quality.</p> <p>No trigger response conditions proposed.</p> <p>Therefore potential adverse effects would not be checked and there would be no requirement to address those effects.</p>		<p><u>This application is part of the existing environment – where the effects on the environment, through conversion, will minimise localised effects.</u></p> <p><u>The issues associated with a cumulative lake water quality monitoring point at the outlet to lake Tekapo are too remote and, given the size and high quality of the existing environment would not monitor the effects of this consent with any certainty so as to direct trigger response conditions.</u></p> <p><u>In the same manner, any cumulative effects monitoring based on Lake Benmore will be uncertain to the extent that the Glenmore existing operation will have no detectable effect on Benmore lake quality</u></p>	
<p>The initial monitoring shall be carried out in the first calendar year following the grant of consent 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 initial annual average sample results for DIN/DRP levels whichever is the higher</p>	<p>What initial monitoring?</p> <p>There is no complementary condition that prevents commencement of the consent to enable pre-irrigation situation to be determined.</p> <p>Developing a trigger based on one year's data may not provide representative data.</p> <p>Condition number?</p>		<p><u>It is not appropriate for pre irrigation situation when irrigation already occurring which will be improved by conversion operation</u></p> <p><u>Agree that one year's data may not be representative given seasonal fluctuations</u></p>	

22	<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>(b) Dealing with any adverse effect on the environment which may arise from the exercise of this consent and which it is appropriate to deal with at a later stage; and</p> <p>(c) amending the flow in the Cass River and tributaries at which abstraction is required to be reduced or discontinued as set out in condition 6.</p>	Condition number reference incorrect.			
23	The lapsing date for the purposes of section 125 shall be 5 years.	From when?			

Conditions for land use permit CRC073109 (Glenmore Station Limited)				
A 35 year duration is sought.				
No.	Consent Code	CRC Proposed	UWAG Proposed	Comments
Scope				
1	LU01	The works shall be limited to: (a) The excavation of a gravel bar up to 60 metres long, 2 metres high and 3 metres wide in the bed of the Cass River, for the purpose of diverting water to an irrigation intake structure. (b) Excavation required to reinstate the gravel bar following a flood event		Refer to S42a addendum report of Maria Bartlett, paragraphs 44-45. The applicant is indicating in this conditions set that operation and maintenance of a diversion bund is proposed to occur for 35 years. This differs from my previous understanding that the race system would be converted to a piped system within 5 years, such that the diversion permit CRC052501 would only have a 5 year duration and the associated S13 permit CRC073190 would also only have a 5 year duration. I recommend that the S13 permit be granted for 5 years.
2	LU02	The works carried out in accordance with condition (1) shall be located at the Cass River, within the area outlined as "gravel bund" on plan CRC073109 between map references NZMS 260 I37: 061-007 and I37: 062-007.		Plan CRC073109 is included as Attachment Two to S42a report 14C. The wording could be improved by use of the phrase "attached plan".
Operation and Maintenance				
3	LU08	Prior to commencing excavation, a copy of this resource consent shall		Agreed

		be given to all persons undertaking activities authorised by this consent.		
4	Non Standard	Works described in condition (1) shall take no longer than 1 day to complete associated with any one event.		Agreed – but clarified!
5	LU22	(a) All practicable measures shall be undertaken to prevent oil and fuel leaks from vehicles and machinery. (b) There shall be no storage of fuel or refuelling of vehicles and machinery within 20 metres of the bed of a river. (c) Fuel shall be stored securely or removed from site overnight.		Agreed
6	LU26	Machinery shall be free of plants and plant seeds prior to use in the riverbed.		Agreed
7	LU21	To prevent the spread of Didymo or any other aquatic pest, the consent holder shall ensure that activities authorised by this consent are undertaken in accordance with the Biosecurity New Zealand's hygiene procedures. Note: You can access the most current version of these procedures from the Biosecurity New Zealand website http://www.biosecurity.govt.nz or Environment Canterbury Customer		Agreed

		Services.		
8	LU24	All practicable measures shall be undertaken to minimise adverse effects on property, amenity values, wildlife, vegetation, and ecological values.		Agreed
9	LU25	The works shall not prevent the passage of fish, or cause the stranding of fish in pools or channels.		Agreed
10	LU07	Excavation shall not occur within 100 metres of birds, which are nesting or rearing their young in the bed of the river.		<i>Agreed - condition can be improved to specify species of interest, with the addition of a clause (b) as follows: "For the purposes of this condition, birds are defined as those bird species listed in Appendix A", using Appendix A in condition LU31 from S42a Report 1, Appendix 6.</i>
11	LU13	Works shall not be undertaken in any manner likely to cause erosion of or instability to, the banks or bed of the Cass River; or reduce the flood-carrying capacity of the waterway.		Agreed
12	LU10	All practicable measures shall be undertaken to ensure that works do not deflect floodwaters into the berm.		Agreed
13	LU17	All practicable measures shall be undertaken to prevent the discharge of sediment to the Cass River arising from the works, including.		Agreed

14	LU16 modified	All practicable measures will be undertaken to avoid work occurring in flowing water.		Agreed
15	LU09	<p>In the event of any disturbance of Koiwi Tangata (human bones) or taonga (treasured artefacts), the consent holder shall immediately:</p> <ul style="list-style-type: none"> (a) Advise the Canterbury Regional Council of the disturbance; (b) Advise the Upoko Runanga of [Runanga], or their representative, and the New Zealand Historic Places Trust, of the disturbance; and (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. 		Agreed - "(b) Advise the Upoko Runanga of Arowhenua, Waihao and Moeraki, or their representatives ..."
16	LU27	All disturbed areas shall be stabilised and regrassed following completion of the works.		All disturbed areas on the riverbank shall be stabilised following completion of works.

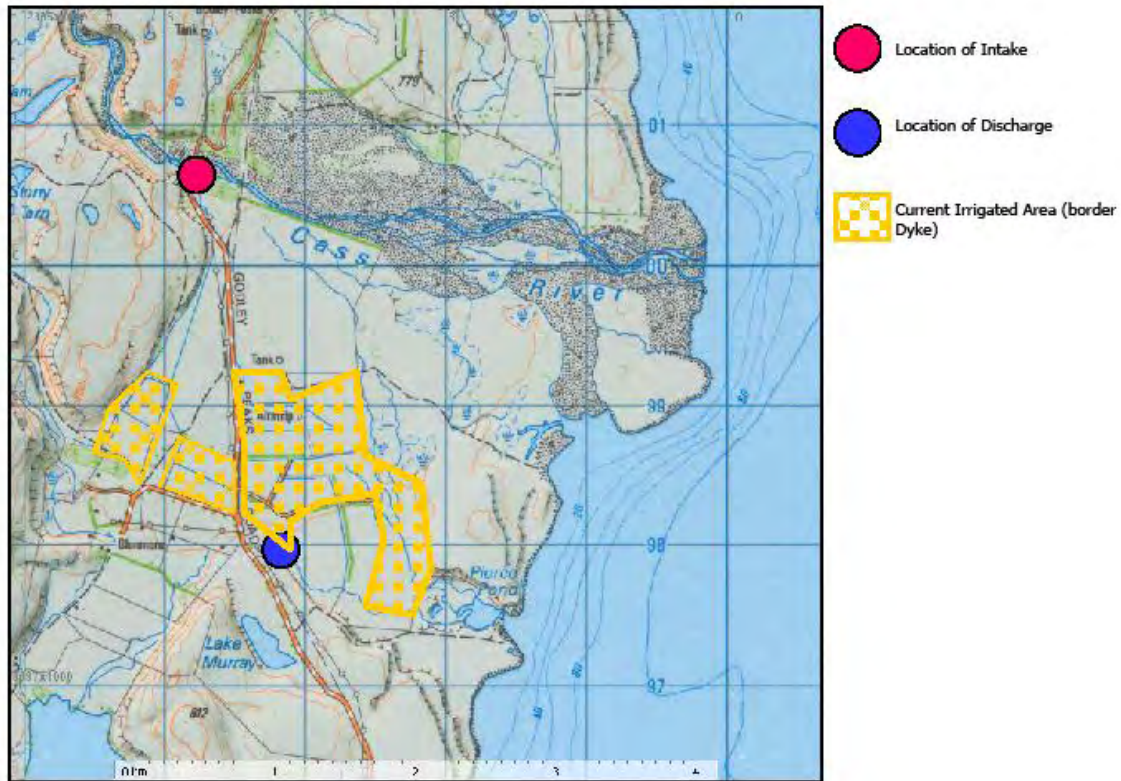
Administrative Conditions				
17	AD03	The Canterbury Regional Council may, once per year, on any of the last five working days of May or November, serve notice of its intention to review the conditions of this consent for the purposes of dealing with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage.		Agreed
18	AD04	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

Conditions for discharge permit CRC052503 (Glenmore Station Limited)				
A 5 year duration is sought.				
No.	Consent Code	CRC Proposed	UWAG Proposed	Comments
Scope				
1	DP01	(a) Water shall only be discharged to Mailbox Swamp Creek at or about map reference NZMS I37: 0675-9803 as shown on Plan "CRC051502A": (b) The discharge shall only be unused conveyance water and shall contain no		Agreed

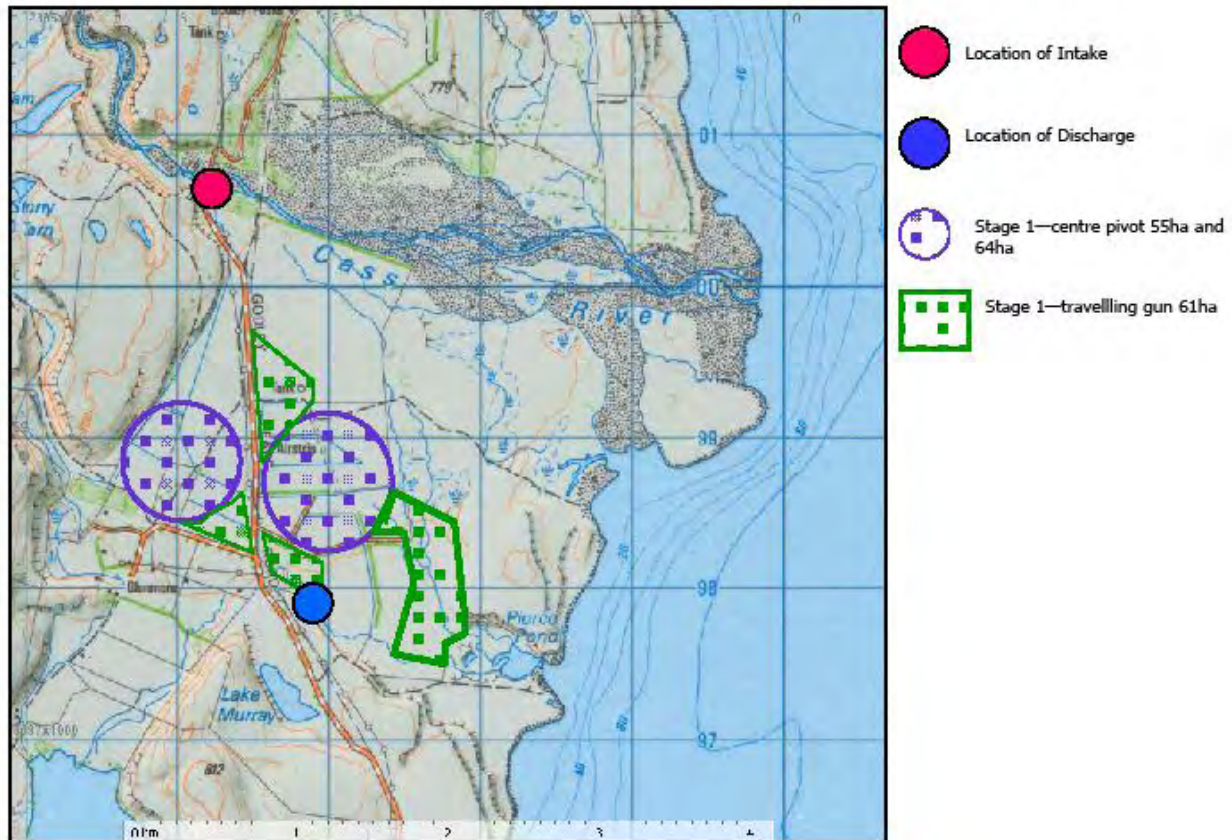
		contaminants. (c) Water shall only be discharged at a rate not exceeding 230 litres per second.		
Operation and Maintenance				
2	DP02	(a) All practicable measures shall be undertaken to avoid erosion of the bed or banks of Mailbox Swamp Creek channel occurring as a result of the discharge. (b) In the 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.		(a) All practicable measures shall be undertaken to avoid erosion of the bed or banks of Mailbox Swamp Creek occurring as a result of the discharge. (b) In the event of any erosion occurring to the bed or banks of Mailbox Swamp Creek, as a result of the discharge, the consent holder shall be responsible for rectifying the situation as soon as practicable.
3	LU13 modified	The discharge shall not occur in a manner likely to cause erosion of, or instability to, the banks or bed of the Mailbox Swamp Creek; or reduce the flood-carrying capacity of the waterway		Agreed
4	DP03	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
5	Non Standard	The discharge to Mailbox Swamp Creek shall not cause flooding of Pierce Pond or adversely affect nesting birds within the Pierce Pond wetland area.		Agreed

Administrative Conditions				
6	AD03	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
7	AD04	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 CRC051502A



Plan CRC051502B



Plan CRC073109

ATTACHMENT TWO – PLAN CRC073109

