

**TABLED AT HEARING**Date 23/4/2010 .....

Condition	Comment
<b>Consent Application CRC073236</b>	
<b>Scope</b>	
1 Works in the bed and banks of the Mistake River shall be limited to the installation, use and maintenance of a water supply pipeline including:  (a) Excavation of a trench of up to 1m in width, 64m in length and 2m in depth;  (b) Installation of a pipeline 200mm in diameter.	
2 The pipeline described in 1(b) shall be buried to a minimum depth of 1m and a maximum depth of 2m below lowest bed level.	
<b>Location</b>	
3 The works carried out in accordance with Condition 1 shall be located in the bed and banks of the Mistake River between approximately map references NZMS 260 137:070-038 and NZMS 260 137:071-039 such that the buried pipeline extends the full width of the river bed.	
<b>Prior to works</b>	
4 Prior to commencing works, a copy of this resource consent shall be given to	

	all persons undertaking activities authorised by this consent.
5	The Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager shall be notified in writing not less than 48 hours prior to the commencement of works.
6	<p><i>Works/Construction</i></p> <p>Works to install the pipeline described in Condition 1 are to be undertaken only during the months of January February or March of any year and shall take no longer than 15 days to complete.</p>
7	<p>Prior to the commencement of construction, the consent holder shall prepare a Construction Management Plan and be submitted to the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager. The CMP shall cover (but not be limited to) the following matters:</p> <ul style="list-style-type: none"> <li>(a) Construction hours and days of the week when construction activity may occur.</li> <li>(b) Protocols for the handling and management of hazardous substances.</li> <li>(c) Protocols associated with the accidental discovery of archaeological matter.</li> <li>(d) Measures to be taken to prevent the erosion of excavated areas, including the prevention of sediment discharge.</li> </ul>

<p>(e) Post construction measures to ensure that the construction area is rehabilitated as closely as practicable to its natural state (as it was pre construction).</p> <p>(f) Safety measures to ensure that the general public is not at risk of harm when accessing Crown land in close proximity to the construction area.</p>	
<p>8 During the installation period the consent holder may divert the existing flow of the Mistake River from one half of the river channel.</p>	<p>To be dealt with in separate conditions</p>
<p>9 There shall be no stockpiling of materials within the bed or banks of the Mistake River.</p>	
<p><i>Erosion protection</i></p> <p>10.</p> <p>a. Erosion controls shall be installed on all earthworks to prevent sediment from flowing into any surface water body.</p> <p>b. Works shall not be undertaken in any manner likely to cause erosion of or instability to the Mistake River; or reduce the flood-carrying capacity of the Mistake River.</p>	

	<p><i>Sediment Control</i></p> <p>11. At least 20 working days prior to the commencement of the works, the consent holder shall submit to the Canterbury Regional Council, Attention: RMA Enforcement and Compliance Manager an Erosion and Sediment Control Plan (ESCP) as part of the CMP outlined in condition 7 that includes, but is not limited to the following:</p> <ul style="list-style-type: none"> <li>(a) a locality map; and</li> <li>(b) detailed drawings showing the type and location of erosion and sediment control measures, on-site catchment boundaries, and off-site sources of run-off; and</li> <li>(c) drawings and specifications of all designated erosion and sediment control measures with supporting calculations; and</li> <li>(d) a programme of works, which includes but is not limited to a proposed timeframe for the works;</li> <li>(e) a schedule of inspections and maintenance of erosion and sediment control measures; and</li> <li>(f) details of when the erosion and sediment control measures are to be established and decommissioned; and</li> <li>(g) measures to ensure that there is no tracking of mud or earth onto the surrounding road network, including the provision of shaker ramps and/or wheel washes where appropriate; and</li> <li>(h) measures to be undertaken should erosion and sediment control measures fail and result in contamination of any watercourse or water body.</li> </ul>
	<p>12. The ESCP shall be prepared in general accordance with the Environment Canterbury Erosion and Sediment Control Guidelines 2007 (ECAN ESC Guidelines).</p>

<p>13. The ESCP shall be communicated to all persons undertaking activities authorised by this consent and a copy of the ESCP shall be kept on site at all times.</p>	
<p>14. The Erosion and Sediment Control Plan and any revisions of that document shall be submitted to the Canterbury Regional Council Attention: RMA Compliance and Enforcement Manager for certification that the Erosion and Sediment Control Plan meets all the requirements of the conditions of this consent.</p>	
<p>15. No activities authorised by this consent shall commence or be undertaken other than in full compliance with the Erosion and Sediment Control Plan that has been certified by or on behalf of the Canterbury Regional Council RMA Compliance and Enforcement Manager in terms of condition 11.</p>	
<p>16. 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>	
<p>17. 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.</p>	
<p>18. The consent holder shall ensure that during construction:</p> <ul style="list-style-type: none"> <li>(a) All practicable measures shall be undertaken to prevent oil and fuel leaks from vehicles and machinery.</li> <li>(b) As far as is practicable machinery avoids the wetted area of the</li> </ul>	

	<p>Mistake River; or where this is not possible the consent holder in consultation with Department of Conservation undertake surveys to confirm the presence of galaxiids prior to disturbance, and that any fish likely to be affected are to be translocated to suitable habitat nearby.</p> <p>(c) There shall be no storage of fuel or refuelling of vehicles and machinery within 20 metres of the bed of a river.</p> <p>(d) Fuel shall be stored securely or removed from site overnight.</p>
	<p>19. The consent holder shall ensure that works do not prevent the passage of fish, or cause the stranding of fish in pools or channels.</p>
	<p>20. The consent holder shall ensure that machinery used in the construction of the pipeline is:</p> <ol style="list-style-type: none"> <li>a. Free of plants and plant seeds prior to use in the waterbody; and</li> <li>b. That the machinery is thoroughly washed after use in the Mistake River.</li> </ol>
	<p>21. Vehicles and/or machinery shall not operate within 100 metres of birds which are nesting or rearing their young in the bed of the river.</p>
	<p><i>Upon Completion</i></p> <p>22. Following completion of the works the trench will be back-filled, levelled and compacted to resemble the original river bed as far as is practicable. All fill used for the installation and reinstatement shall be comprised of sand, silt and gravel, and shall be free of vegetation.</p>
	<p>23. All spoil and any other waste material from the installation works shall be removed from the site on completion of the works.</p>

<p><i>Administration</i></p> <p>24. The Canterbury Regional Council may, once per year, on any of the last five working days of June each year, 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.</p>	
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	<b>Consent Application CRC031175 – To divert, take and use surface water</b>
1	Consent is granted for a term expiring on the 30 <sup>th</sup> of April 2025.
2	Water shall only be taken from the Mistake River via a gallery intake installation at surface water abstraction point I37/0041 at or about map reference NZMS 260 I37:063-036, at a maximum rate of 261 l/s, with a daily volume not exceeding 22,550m <sup>3</sup> per day and a total volume not exceeding 2,682,000m <sup>3</sup> per year for a period of 212 days between 1 October and the following 30 April.
3	Water shall be used only for spray irrigation of 447 hectares of crops and pasture for grazing sheep, beef cattle or non-milking dairy cows, as described in the application, on the area of land shown in <b>attached</b> plan CRC031175, which forms part of this consent.
4	<p><i>Management</i></p> <p>The consent holder shall take all practicable steps to:</p> <p>(a) Ensure that the volume of water used for irrigation is less than half the water holding capacity of the soil in each irrigation return period; 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><i>Ngai Tahu</i></p> <p>5 The consent holder shall undertake the following activities in respect of Rapuwai Lagoon:</p> <p>(a) Erect (in so far as there is not already a fence in place) a stock-proof fence to protect the riparian boundary from stock damage.</p> <p>(b) Carry out a progressive riparian regime over two years in accordance with the details set out in the Farm Environment Management Plan.</p>							
<p>6 Whenever the flow (expressed in litres per second) in the Mistake River recorded from measurements at the Mistake River recorder site at map reference NZMS 260 137.080-040 reaches the levels set out in column A of Table 1 (below) the maximum rate at which water may be taken shall not exceed the amount set out in column B of Table 1.</p> <p><b>Table 1</b></p> <table border="1" data-bbox="1099 1301 1356 1960"> <thead> <tr> <th>Column A River Flow (ℓ/s)</th> <th>Column B Abstraction (ℓ/s)</th> </tr> </thead> <tbody> <tr> <td>0-520</td> <td>0</td> </tr> <tr> <td>520-585</td> <td>0 (or managed minor take)</td> </tr> </tbody> </table>	Column A River Flow (ℓ/s)	Column B Abstraction (ℓ/s)	0-520	0	520-585	0 (or managed minor take)	
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<p><i>Farm Environmental Management</i></p> <p>7 The consent holder shall before the first exercise of this consent, prepare and submit to the Canterbury Regional Council a Farm Environmental Risk Assessment (FERA) and Farm Environmental Management Plan (FEMP) which sets out the practices and procedures to be put into place to operate the water take and delivery of water to the command area and to monitor the environmental effects arising from the exercise of the consent, so as to ensure compliance with the conditions of consent and to minimise the potential for adverse effects on the environment arising from the exercise of the consent. The FEMP shall, as a minimum, address:</p> <ul style="list-style-type: none"> <li>(a) Any issues raised by the FERA; and</li> <li>(b) On farm procedures to:             <ul style="list-style-type: none"> <li>(i) achieve efficient use of water; and</li> <li>(ii) minimise adverse effects on groundwater and surface water quality; and</li> <li>(iii) minimise adverse effects on groundwater levels; and</li> <li>(iv) minimise adverse effects on water bodies and riparian areas;</li> </ul> </li> </ul>										

	<p>and</p> <ul style="list-style-type: none"> <li>(v) safeguard significant indigenous biodiversity; and</li> <li>(vi) ensure compliance with Mandatory Good Agricultural Practices.</li> </ul> <p>(c) Monitoring requirements to measure compliance with condition 22(b)(i) to (vi) above.</p> <p>(d) Procedures to implement review and update the FEMP every 5 years, or following a significant change in farming practice (for example a change from beef production to dairy) in order to ensure ongoing compliance with condition 22(b) above.</p>
	<p>8 The consent holder shall give due consideration to any feedback from ECan on the contents of the FERA and FEMP prior to finalising the initial FEMP, each review of and any amendments to the FEMP.</p>
	<p><i>Metering</i></p> <p>9</p> <ul style="list-style-type: none"> <li>(a) The consent holder shall, prior to exercising this consent, install a water meter measuring device at approximately map reference 260 I37:080-040 or as close as practicable to the gallery intake as possible in the Mistake River that will enable the determination of the continuous rate of flow in the reach of the waterbody to within an</li> </ul>

accuracy of 10 percent.

- (b) 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.
- (c) 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)
- (d) The recording device(s) shall:
  - (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
  - (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 authorised by the Canterbury Regional Council:RMA Compliance and Enforcement Manager; and

<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>(e) 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>(f) 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 a times by the Canterbury Regional Council.</p>	
<p>10 The consent holder shall before the first exercise of this consent:</p> <p>(a)</p> <p>(i) install a water meter(s) that has an international accreditation or an equivalent New Zealand calibration endorsement, and has pulse output, suitable for use with an electronic recording device, which will measure the rate and the volume of water taken to within an accuracy of plus or minus five percent as</p>	

part of the pump(s) outlet plumbing, or within the mainline distribution system, at a location(s) that will ensure the total take of water is measured; and

- (ii) 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 (b)(i) and (b)(ii) and which is telemetered, as specified in clause (b)(iii).

(b) the recording device shall:

- (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

- (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 Enforcement Manager; and

- (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.

- (c) no data in the recording device(s) shall be deliberately changed or deleted
- (d) the measuring and recording devices described in clauses (a) shall be available for inspection at all times by the Canterbury Regional Council, including access to the data recorded in accordance with clause (b)
- (e) the water meter(s) and recording device(s) shall be installed, maintained and operated throughout the duration of the consent in accordance with the manufacturer's instructions and with a minimum straight length of pipe upstream (before the meter) of 10 times the diameter of the pip and a minimum straight downstream (after the meter) length of five times the diameter of the pipe.
- (f) All practicable measures shall be taken to ensure that the water meter(s) and recording device(s) are fully functional at all times and meeting the accuracy stated in condition (a).

<p>11 Within one month of the installation of the measuring or recording device(s) specified in condition 7 and 10, 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> <ul style="list-style-type: none"> <li>(a) the measuring and recording device(s) is installed in accordance with the manufacturer's specifications; and</li> <li>(b) data from the recording device(s) can be readily accessed and/or retrieved in accordance with clauses (b) and (c) of condition 8 and 9</li> </ul>	
<p>12 At 5 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>(a) the water meter(s) is measuring the rate of water taken as specified in condition 2 and</li> <li>(b) the tamper proof electronic recording device is operating as specified in condition 9 and is telemetered, as specified in condition 9</li> </ul>	

<p><i>Pre-irrigation monitoring</i></p>	<p>4. Prior to the commencement of irrigation under this consent the consent holder shall:</p> <ul style="list-style-type: none"> <li>(a) Prepare and implement a water quality monitoring plan for the purpose of establishing a water quality 'baseline' for the Mistake River. Sampling shall include at least [ ] months data gathering and shall generally be in accordance with [ ] Water Quality Study.</li> <li>(b) Provide a report to the Canterbury Regional Council on the water quality monitoring results, including a summary of the data collected.</li> <li>(c) Prepare and implement a monitoring plan for the purpose of tracking numbers of fish and invertebrates within the area downstream of the gallery intake. The plan shall be in accordance with the method set out in [to be agreed].</li> <li>(d) Prepare and implement a monitoring plan for the purpose of confirming total farm nutrient loading (N and P).</li> <li>(e) Provide a monitoring report to the Canterbury Regional Council that includes the following: <ul style="list-style-type: none"> <li>(i) an estimate of the annual average existing N and P discharges from the farm using a minimum of 3 years of information, including the information from the 12 month</li> </ul> </li> </ul>
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	<p>monitoring period required by (e) above ("existing total farm nutrient loading");</p> <p>(ii) an estimate of the proposed nutrient loading that would occur as a product of the proposed farming system to be adopted (as described in the Farm Environmental Management Plan), including proposed mitigation ("proposed farm nutrient loading"); and</p> <p>(iii) the sum of the existing and the proposed nutrient loading ("total farm nutrient loading").</p> <p>The calculations for (i), (ii) and (iii) shall be derived in accordance with the method [to be specified].</p>
	<p>13 Copies of the monitoring plans (including the water quality monitoring plan referred to in Condition 12(a), the periphyton monitoring plan in Clause 12(c) ) must be provided to the Canterbury Regional Council for certification at least 20 working days prior to implementation of the plans.</p>
	<p><i>Existing installation</i></p> <p>14 The consent holder shall decommission and cease to use the existing take point, holding pond and water races within 6 months of first abstraction from the gallery intake point.</p>

	<p>15 [The consent holder may not commence irrigation under this consent unless:</p> <p>(a) The water quality is estimated to be less than the threshold contained in Table 1, Appendix A;</p> <p>(b) Fish and invertebrate habitat is to the standard of the threshold contained in Table 1, Appendix A.]</p> <p><b>if required</b></p>
	<p>16 If the monitoring undertaken in accordance with condition 12 indicates that the threshold limits contained in Table 1, Appendix A [to be agreed] in respect of:</p> <p>(a) Water quality;</p> <p>(b) Fish and invertebrates; and</p> <p>(c) Total farm nutrient loading.</p> <p>Then the sampling frequency shall be increased to weekly and notification of the exceedance shall be provided to the Canterbury Regional Council within 2 days of it being recorded.</p>
	<p>17 If the increased monitoring undertaken in accordance with condition 12 determines that the average of five consecutive weekly results exceeds the threshold limits in Table 1, Appendix A then a report shall be prepared by two appropriately qualified and independent experts, one of which is to be appointed by the Canterbury Regional Council and the other by the consent</p>

	<p>holder. The report prepared shall be provided to the Canterbury Regional Council within one month of the receipt of such results. The purpose of the report shall be to determine whether or not the cause of the exceedance is likely to be because of natural influences, one off events, or land use practices. The report shall include an assessment of the likely reasons for the change in baseline including likely source and contributors (natural sources, or land use influences). The report shall include an evaluation as to whether there is likely to be a continuation of the monitored results and whether the results are likely to trend toward an outright exceedance of the threshold limit over time.</p>
<p>18</p>	<p>If the monitoring and reporting undertaken in accordance with condition 17 predicts a trend toward an exceedance of the threshold limit over time and that the consent holder is either solely or partly responsible for the exceedance of all or any one of the threshold limits under Table 1 in Appendix [to be specified] then:</p> <p>(a) the consent holder shall prepare a Remedial Action Plan to ensure the threshold limit/s is/are not exceeded. This report shall be submitted to the Canterbury Regional Council within one month of the completion of the report prepared in accordance with condition 31.</p>
<p>19</p>	<p>The Remedial Action Plan shall prescribe the methods and timeframes for altering and/or adapting farm practices on one or more of the farms within the affected sub catchment to ensure that the exceedance of the threshold limit/s under Table 1 of Appendix A at the Mistake River are returned to and maintained at a level that is below the threshold limit/s identified in Table 1 in Appendix A for the subsequent irrigation seasons. The Remedial Action Plan</p>

	<p>shall illustrate, via an approved method such as OVERSEER or by expert opinion from the Cawthron Institute in respect of fish and invertebrates, that the recommended actions will deliver the required improvement in water quality, or nutrient reduction, or improvement to fish and invertebrate habitat. The Remedial Action Plan shall be reviewed by an appropriately qualified independent expert prior to being submitted to Canterbury Regional Council.</p>
20	<p>Once the Remedial Action Plan prepared in accordance with condition 19 has been received by the Canterbury Regional Council, the consent holder shall immediately implement any necessary changes to on farm management practices required by the Remedial Action Plan. The consent holder shall ensure that the farm management practices recommended by the Remedial Action Plan in accordance with condition 19 are incorporated into their FEMP.</p>
21	<p>If the report required in accordance with condition 19 finds that there is not likely to be a continuation of the monitored results or that the results do not predict a trend toward an outright exceedence of the threshold limits over time, no further remedial action is required.</p>
22	<p>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>
23	<p>The consent holder shall, six months prior to this consent being exercised,</p>

	<p>provide to the Canterbury Regional Council a certificate from the Consent Holder's solicitor certifying that the memorandum of encumbrance provided for in Condition 1 is registered on the computer registers for the land shown on Plan A, and any other evidence of registration as the Canterbury Regional Council may require (if any).</p>
	<p><i>Review</i></p> <p>24 The Canterbury Regional Council may, once per year, on any of the last five working days of June, 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.</p>
	<p><i>Lapse</i></p> <p>25 The lapsing date for the purposes of section 125 shall be 5 years from the date of first abstraction.</p>