

## RDRML PROPOSED CHANGES TO RECOMMENDED CONDITIONS<sup>1</sup>

### CRC170651: a land use consent for earthworks on the lower terrace

	<b>GLOSSARY OF TERMS &amp; ABBREVIATIONS USED IN THIS RESOURCE CONSENT</b>
<b>0</b>	<p><b><u>Appropriately qualified and experienced expert(s)</u></b> means a person or persons:</p> <ol style="list-style-type: none"> <li><u>With a relevant and recognised tertiary qualification(s) to the topic being assessed;</u></li> <li><u>Whom is (are) recognised as a full member (or equivalent) of a relevant professional institution(s) (such as the Institution of Professional Engineers New Zealand), where such institutions exist;</u></li> <li><u>Has more than 10-years relevant experience in the topic being assessed; and</u></li> </ol> <p><b><u>Certifies and Certification</u></b> means a process whereby:</p> <ol style="list-style-type: none"> <li><u>The consent holder supplies a report, action plan, design plan, construction methodology, monitoring plan, commissioning plan, safety system or a management plan, and the Canterbury Regional Council appoints an appropriately qualified and experienced expert to assesses the documentation submitted to ensure that it achieves the requirements of the relevant condition(s) of consent;</u></li> <li><u>Should the documents supplied in accordance with condition 0(a), in the opinion of the expert appointed by the Council, achieve the intent of the relevant condition(s) of these resource consents, the Regional Leader: Compliance and Monitoring of the Canterbury Regional Council shall issue a written certificate to the consent holder confirming that the requirements of the relevant condition(s) have been satisfied;</u></li> <li><u>If the expert appointed by the Council is not satisfied that the documents supplied in accordance with condition (a) achieves requirements of the relevant condition(s), the Regional Leader: Compliance and Monitoring of the Canterbury Regional Council shall advise (in writing) the consent holder of the experts concerns and ask that the report, commissioning plan, monitoring plan, action plan, safety system or management plan be modified so as to address the concerns, and then be resubmitted;</u></li> <li><u>This process shall be repeated until the Regional Leader: Compliance and Monitoring of the Canterbury Regional Council is able (on the advice of the expert) to certify that the requirements of the applicable condition(s) of consent have been satisfied; and</u></li> </ol> <p><b><u>CLG</u></b> means the Community Liaison Group.</p> <p><b><u>CMP</u></b> means Construction Management Plan.</p> <p><b><u>Construction site</u></b> includes all areas, excluding gazetted and vested road reserves that contain formed roads, where construction works / activities authorised by these resource consents are being undertaken by the consent holder.</p> <p><b><u>Council</u></b> means the Canterbury Regional Council.</p> <p><b><u>EAP</u></b> means the Emergency Action Plan.</p> <p><b><u>ESCP</u></b> means Erosion and Sediment Control Plan.</p> <p><b><u>Fish screen</u></b> means the rotary fish screen and its associated bypass channel.</p> <p><b><u>FSVMP</u></b> means Fish Screen Verification Monitoring Plan</p> <p><b><u>Flood flow take</u></b> means a flood flow abstraction from the Rangitata River.</p> <p><b><u>HSSMP</u></b> means the Hazardous Substances Spill Management Plan</p> <p><b><u>Klondyke Pond</u></b> means the Lake Klondyke Water Storage Facility.</p> <p><b><u>km/hr</u></b> means kilometres per hour.</p>

<sup>1</sup> Note changes proposed following the lodgement of RDRML evidence are depicted as green underlined text.  
RDRML proposed conditions – amended following submitter evidence – as at 24 April 2018

	<p><u>l/s means litres per second</u>  <u>m<sup>3</sup> means cubic metres</u>  <u>m<sup>3</sup>/s means cubic metres per second</u>  <u>m means metre</u>  <u>m/s means metres per second.</u>  <u>mm/s means millimetres per second</u>  <u>NZSOLD means New Zealand Society on Large Dams New Zealand.</u>  <u>PPV means Peak Particle Velocity</u>  <u>Reasonable Mixing Zone means, for the purposes of condition 18.0A, a reasonable mixing zone extending from the point of discharge from the Sluice Channel to a point that is 200 metres downstream of the discharge point.</u>  <u>Regional Water Table means the upper surface of the full saturated groundwater system but does not, for the purposes of these resource consents, include perched groundwater (which is groundwater in saturated strata that occurs above the regional water table but is separated from it by a layer of unsaturated strata).</u>  <u>RDR means the Rangitata Diversion Race.</u>  <u>RDR mods means the modifications to the Rangitata Diversion Race.</u>  <u>RL means the right bank when looking downstream.</u>  <u>RMA means the Resource Management Act</u>  <u>The Proposal means the Klondyke Pond, WWC, RDR mods, fish screen, SBR relocation, flood flow take and refuge, and all incidental work.</u>  <u>TSP means total suspended particulate.</u>  <u>WRMP means Works in the River Management Plan</u></p>
	<b><u>CERTIFICATION PROCESS</u></b>
0A.1	<p>Except where explicitly required otherwise by conditions of this consents, the consent holder shall:</p> <ol style="list-style-type: none"> <li><u>Engage an appropriately qualified and experienced independent expert (or experts) to prepare the management plans, design plans, construction methodology, monitoring plans, action plan, commissioning plan and safety system specified in the conditions of this consent using the draft versions of these plans (which are attached as Annexure B) as a base document;</u></li> <li><u>Provide drafts of each of the documents required by condition 0A.1(a) to the Canterbury Regional Council, Attention Regional Leader - Monitoring and Compliance, not less than three months prior to construction works / activities commencing in accordance with these resource consents;</u></li> <li><u>Not commence any construction works / activities authorised by these resource consents until it has received a certificate from the Regional Leader: Compliance and Monitoring of the Canterbury Regional Council that the management plan, design plan, construction methodology, monitoring plan, action plan, commissioning plan or safety system is consistent with the applicable conditions of this consent;</u></li> <li><u>Adhere to and implement the certified version of the management plan, design plans, construction methodology, monitoring plan, action plan, commissioning plan or safety system;</u></li> <li><u>Submit any proposed variations to the management plans, design plans, construction methodology, action plan, safety system, monitoring plans and commissioning plan to the Regional Leader: Compliance and Monitoring of the Canterbury Regional Council, at least seven days prior to when the proposed change will be implemented by the consent holder. Any variations made shall not take effect until the Regional Leader: Compliance &amp; Monitoring of the Canterbury Regional Council certifies that the variations accord with the applicable conditions of the resource consent;</u></li> <li><u>Appoint an appropriately qualified and independent expert (or experts) to review the management plans, action plan, safety system, monitoring plans and commissioning plan at the frequency set out in these resource consents. Should the conditions of these resource consents not set a frequency, the reviews shall be conducted annually. Such reviews are to ensure that the management plans, action plan, safety system, monitoring plans and</u></li> </ol>

	<p><u>commissioning plan continue to achieve the conditions of these resource consents.</u></p> <p><u>g. Any changes made as a result of the reviews conducted in accordance with condition OA.1(f) shall be submitted to the Canterbury Regional Council and shall not take effect until the Regional Leader: Compliance and Monitoring of the Canterbury Regional Council certifies that the changes accord with the applicable conditions of these resource consents;</u></p> <p><u>h. Pay the costs of the expert(s) appointed by the Canterbury Regional Council to certify the management plans, design plans, construction methodology, monitoring plans, commissioning plan, action plan and safety system (and any variations or changes thereto) in accordance with conditions OA.1(c) and OA.1(h); and</u></p> <p><u>i. Ensure that copies of the certified commissioning plan, design plans, construction methodology and management plans, monitoring plans, action plan, safety system and management plans set out in these conditions are available on site at all times during the construction works / activities authorised by this consent; and</u></p> <p><u>j. Ensure that all key personnel are to be made aware of the content and requirements / obligations of the management plans, action plan, safety system, commissioning plan and monitoring plans.</u></p>
<u>OA.2</u>	<p><u>Notwithstanding conditions OA.1(c), OA.1(e), OA.1(f) and OA.1(g), if the consent holder has not received a written response from the Canterbury Regional Council on or after the 30<sup>th</sup> working day of it providing a management plan, monitoring plan, action plan, commissioning plan or safety system for certification (or variations / changes to these documents), the works / activities authorized by these resource consents may commence in accordance with the document that was provided to the Council.</u></p>
	<b>SCOPE</b>
<b>1</b>	<p>The works shall be limited to the use of land to:</p> <ul style="list-style-type: none"> <li>a. Excavate material; and</li> <li>b. Deposit material</li> </ul> <p>for the purposes of and to the extent required for construction of an ecological refuge, gully race, drop structure and river outlet channel and associated infrastructure on land contained in Lot 2 of Deposited Plan 482124, Part Lot 1 of Deposited Plan 2767 and RS 36179 on Shepherds Bush Road, identified as the 'works area' on Plan CRC170651A, which forms part of this consent.</p>
<u>1A</u>	<p><u>The Proposal shall be constructed, operated and maintained in accordance with the details contained within the following documents:</u></p> <ul style="list-style-type: none"> <li>• <u>The Assessment of Environmental Effects report prepared by Ryder Consulting Limited in July 2016 and entitled "Lake Klondyke: A Proposed Water Storage Facility, Assessment of Environmental Effects Report &amp; Resource Consent Application, Prepared for the Rangitata Diversion Race Management Limited, Date Finalised: July 2016"; and</u></li> <li>• <u>The Assessment of Environmental Effects report prepared by Ryder Consulting Limited in November 2017 and entitled "Proposed Rangitata Diversion Race Fish Screen and Supplementary Matters Resource Consent Application".</u></li> </ul> <p><u>except where modified by specific conditions set out in these resource consents or by the plans authorised by the building consent for the Proposal.</u></p>
	<b>PRE-CONSTRUCTION</b>

2	<p>The consent holder shall:</p> <ul style="list-style-type: none"> <li>a. be responsible for all the contracted operations relating to the exercise of this consent including the Construction Works; and</li> <li>b. ensure compliance with consent conditions.</li> </ul>
3	<p>Prior to commencement of any physical works required for the activities described in Condition (1) (hereafter referred to as the 'Construction Works') the consent holder or its agent or contractor shall arrange and conduct a pre-construction site meeting between the Canterbury Regional Council and all persons involved in the Construction Works. At a minimum, the following shall be covered at the meeting:</p> <ul style="list-style-type: none"> <li>a. Scheduling and staging of the Construction Works;</li> <li>b. Responsibilities of all relevant parties;</li> <li>c. Contact details for all relevant parties;</li> <li>d. Expectations regarding communication between all relevant parties;</li> <li>e. Procedures for implementing any changes to the Construction Works;</li> <li>f. Site inspection; and</li> <li>g. Confirmation that all persons involved in the Construction Works have copies of the contents of this consent document, the Erosion and Sediment Control Plan (ESCP) and all plans and methodologies associated with this consent.</li> </ul>
4	<p><del>Erosion and sediment control measures recommended in the ESCP prepared under Condition (5) shall be installed before any excavation occurs on site.</del></p>
	<p><b><u>COMPLAINTS REGISTER</u></b></p>
4A.1	<p><del>The consent holder shall keep a register of complaints lodged with it in respect of the exercise of these resource consents.</del></p> <p><del>The register prepared and maintained in accordance with this condition shall record the following details for each complaint that is made:</del></p> <ul style="list-style-type: none"> <li><del>a. The date and time of the complaint; and</del></li> <li><del>b. The name and contact details of the complainant (if they are provided to the consent holder) and a description of the complaint; and</del></li> <li><del>c. The investigations (if any) that the consent holder undertook in response to each complaint; and</del></li> <li><del>d. Any action that was undertaken to address the concerns raised in the complaint; and</del></li> <li><del>e. The feedback provided to each complainant.</del></li> </ul>
4A.2	<p><del>The consent holder shall forward a copy of the register prepared and maintained in accordance with condition 4A.1 to the Canterbury Regional Council, Attention RMA Compliance and Monitoring Manager within five (5) working days of receiving a request to do so from the Council.</del></p>
4A.3	<p><del>The consent holder shall appoint a Liaison Officer for the Proposal prior to any construction works / activities authorised by these resource consents commencing. The Liaison Officer shall be the point of contact for the public during construction of the Proposal. The name and contact details for the Liaison Officer shall be advertised at the main construction entrance for the Klondyke Pond.</del></p>
	<p><b><u>CONSTRUCTION MANAGEMENT PLAN</u></b></p>

4B.1	The purpose of the Construction Management Plan is to describe the measures that will be implemented to ensure that all construction related environmental effects are avoided, minimised, or managed in accordance with the conditions of these resource consents and engineering / environmental best practice.
4B.2	<p>The objectives of the CMP are to:</p> <ol style="list-style-type: none"> <li>a. Avoid and / or minimise the magnitude of the adverse effects generated during the construction activities and / or works authorised by these resource consents; and</li> <li>b. Provide clarity as to how the Proposal is to be constructed by setting out the: <ol style="list-style-type: none"> <li>i. Construction methodology that is to be employed to construct the Proposal; and</li> <li>ii. Staging, timing, duration and monitoring of construction works and / or activities; and</li> <li>iii. Measures that are to be applied, and when they are to be applied, to minimise the effects of the construction activities and / or works authorised by these resource consents. These measures shall include: <ul style="list-style-type: none"> <li>* A requirement that all construction works / activities be in accordance with the Canterbury Regional Council's ESCG (2007);</li> <li>* Measures necessary to provide for stormwater disposal and sediment removal;</li> <li>* The inclusion and / or maintenance of a vegetated strip (or other treatment system supported by the ESCG) between all areas of earthworks and water courses / water bodies / water races;</li> <li>* Controls on the siting of stockpiles to avoid sediment-entrained runoff entering water races / water courses / water bodies and to reduce the risk of fugitive dust emissions;</li> <li>* Measures to avoid the entrainment of oil, fuels or any other hazardous substances in stormwater, with particular emphasis on re-fuelling areas and repair areas; and</li> <li>* Requirements regarding the stabilisation and maintenance of all construction site entrances associated with the Proposal from public roads; and</li> </ul> </li> <li>iv. The means by which stakeholders are to be kept informed of the construction works / activities being undertaken by the consent holder and/or its contractor(s).</li> </ol> </li> </ol>
4B.3	<p>The CMP shall contain the following sections:</p> <ol style="list-style-type: none"> <li>a. Purpose and Scope</li> <li>b. Personnel, Team Structure, Contact Details and Responsibilities. This will include the 24-hour contact details for the following personnel: <ol style="list-style-type: none"> <li>i. The administrator of the complaints register (if required by conditions of this consent); and</li> <li>ii. The Liaison Officer (if required by conditions of this consent);</li> </ol> </li> <li>c. Environmental Policy and Environmental Management System;</li> <li>d. Resource Consent and Building Consent Requirements;</li> <li>e. Accidental Discovery Protocol (if required by conditions of this consent);</li> <li>f. Environmental Management Sub-Plans including, as a minimum, the following plans: <ol style="list-style-type: none"> <li>i. Erosion and Sediment Control Plan;</li> <li>ii. Hazardous Substances Spill Management Plan;</li> <li>iii. Vibration Management Plan;</li> <li>iv. Waste Management Plan;</li> <li>v. Works in the River Management Plan;</li> <li>vi. Smoke Management Plan;</li> </ol> </li> </ol>

	<p>vii. <u>Dust Management Plan; and</u>  viii. <u>Contaminated Land Remediation Action Plan</u>  g. <u>Construction Methodology;</u>  h. <u>Training and Induction of Contractors and their Staff;</u>  i. <u>Subcontractor Management;</u>  j. <u>Monitoring and Site Inspections;</u>  k. <u>Conformance and Corrective / Preventative Actions;</u>  l. <u>Meetings Frequency and Purpose; and</u>  m. <u>Environmental Systems Reviews.</u></p>
	<b>EROSION AND SEDIMENT CONTROL PLAN</b>
5	<p><u>The purpose of the Erosion and Sediment Control Management Plan is to ensure that the consent holder implements appropriate measures, as defined by the Canterbury Regional Council's Erosion and Sediment Control Guidelines (2007) (an equivalent industry guideline), to minimise all actual or potential erosion and sediment effects arising from the construction works / activities authorised by these resource consents.</u></p> <p>The consent holder shall prepare an ESCP, subject to the following conditions:</p> <ol style="list-style-type: none"> <li>a. No less than one month before the commencement of any Construction Works, a copy of the ESCP shall be submitted to the Canterbury Regional Council: Attention Regional Leader – Monitoring and Compliance for review and certification. All activities authorised by this consent shall be carried out in accordance with the ESCP.</li> <li>b. Unless Canterbury Regional Council provides notice in writing that it is unable to certify the ESCP within 20 working days of receipt of a draft ESCP, it is deemed to be certified by the Canterbury Regional Council. For the purposes of this condition, "Certification" means that the ESCP contains all the information specified in Condition 5(c).</li> <li>c. The ESCP shall include but not be limited to: <ol style="list-style-type: none"> <li>a. A list of the staff and / or experts responsible for reviewing the ESCP;</li> <li>b. A description of staff training and induction requirements that will be undertaken to ensure that the ESCP is followed by all acting in accordance with these resource consents;</li> <li>c. A description of the site and local receiving environment;</li> <li>d. A site drainage plan;</li> <li>e. Details of any anticipated earth excavation requirements;</li> <li>f. A schedule detailing the anticipated staging of the Construction Works including: <ol style="list-style-type: none"> <li>i. Site preparation works;</li> <li>ii. Any equipment or plant mobilisation necessary for carrying out the construction works;</li> <li>iii. Any field verification requirement.</li> </ol> </li> <li>g. A detailed description of how run on and run off water will be managed within the construction site;</li> <li>h. Measures to avoid or minimise any sediment entering exposed groundwater or the Rangitata River or being tracked onto roadways or neighbouring properties;</li> <li>i. A detailed description of how water will be treated prior to disposal to the various receiving environments;</li> </ol> </li> </ol>



	<ul style="list-style-type: none"> <li>j. Details of compliance checks, and any maintenance necessary to ensure that measures required under the ESCP or this consent are performing effectively.</li> <li>k. Identification of persons responsible for carrying out the actions within the ESCP including their contact details;</li> <li>l. A detailed description of how vegetation stripping and replanting would be undertaken to manage the area of disturbed ground that will be open throughout the construction works authorised by this resource consent.</li> </ul> <p>d. The ESCP shall be prepared in accordance with:</p> <ul style="list-style-type: none"> <li>a. Environment Canterbury's "Erosion and Sediment Control Toolbox for the Canterbury Region" (ESCT) <a href="http://esc.canterbury.govt.nz/">http://esc.canterbury.govt.nz/</a>; or</li> <li>b. An equivalent industry guideline. If an alternative guideline is used, the ESCP shall provide details of the relevant alternative methods used and an explanation of why they are more appropriate than the ESCT.</li> </ul> <p>e. Any amendments or revisions to the ESCP must be submitted to Canterbury Regional Council: Attention Regional Leader – Monitoring and Compliance.</p>
6	During construction, all practicable measures shall be undertaken to minimise exposed groundwater.
	<b><u>AIR QUALITY</u></b>
6A.1	<p><u>General Controls</u></p> <p><u>The contaminants that may be discharged to air when the consent holder is undertaking works / activities in accordance with these resource consents are limited to emissions from the following activities:</u></p> <ul style="list-style-type: none"> <li><u>a. Earthworks and activities associated with the construction of the Proposal;</u></li> <li><u>b. Combustion of diesel to power stationary engines;</u></li> <li><u>c. Crushing and screening of aggregate;</u></li> <li><u>d. Concrete batching;</u></li> <li><u>e. Revegetation of pond surrounds; and</u></li> <li><u>f. The operation of the Klondyke Pond.</u></li> </ul>
6A.2	<u>There shall be no discharge of dust, smoke or the products of combustion, as a result of the exercise of this consent (either during construction or following the completion of all construction) that is noxious, dangerous, offensive or objectionable beyond the property boundaries of the construction site on which the discharge occurs, and which are not owned by the consent holder.</u>
6B.1	<p><u>Smoke Management Plan</u></p> <p><u>The purpose of the Smoke Management Plan is to describe the procedures to be used to monitor and minimise the effects of smoke generated during the construction of the Klondyke Pond.</u></p> <p><u>The SMP shall include:</u></p> <ul style="list-style-type: none"> <li><u>a. A list of the staff and / or experts responsible for implementing and reviewing the SMP;</u></li> <li><u>b. A description of the staff training and induction requirements that will be undertaken to ensure that the SMP is followed by all acting in accordance with these resource consents;</u></li> <li><u>c. A description of the site and the local receiving environment;</u></li> <li><u>d. A description of the burning methodology that will be employed by the consent holder and its contractors;</u></li> <li><u>e. A description of the smoke monitoring that will be undertaken when the</u></li> </ul>

	<p><u>consent holder undertakes burning activities; and</u></p> <p><u>f. A description of the weather conditions when burning activities can and cannot take place.</u></p>
<u>6B.2</u>	<p><u>The smoke monitoring required by condition 6B.1 (e) shall, as a minimum, include:</u></p> <p><u>a. Visual monitoring of the smoke at the downwind boundary of the construction site;</u></p> <p><u>b. If the visual monitoring conducted in accordance with condition 6B.1 (a) identifies that smoke is visible beyond the boundary of the construction site, visual monitoring at the closest downwind residences; and</u></p> <p><u>c. Wind speed and direction, as measured by the site meteorological monitoring instruments (installed in accordance with condition 6H.1).</u></p>
<u>6C.1</u>	<p><u>Dust Management Plan</u></p> <p><u>The purpose of the Dust Management Plan is to describe the procedures to be used to monitor and minimise the effects of dust generated during the construction and operation of the Klondyke Pond in order to comply with conditions 6A.2 and 6D.1 to 6G.2.</u></p> <p><u>The DMP shall include:</u></p> <p><u>a. A list of the staff and / or experts responsible for implementing and reviewing the DMP;</u></p> <p><u>b. A description of staff training and induction requirements that will be undertaken to ensure that the DMP is followed by all acting in accordance with these resource consents;</u></p> <p><u>c. A description of the site and the local receiving environment;</u></p> <p><u>d. The dust mitigation and prevention methods that will be implemented to achieve condition 6D.1;</u></p> <p><u>e. A description of the dust monitoring (that accords with conditions 6C.3 and 6H.1 to 6H.5) that will be undertaken by the consent holder during the construction works / activities associated with the Proposal;</u></p> <p><u>f. The contingency methods that will be used by the consent holder for controlling dust when the TSP and wind speed alert levels included within conditions 6D.2 to 6D.5 (inclusive) are exceeded.</u></p>
<u>6C.2</u>	<p><u>The dust monitoring required by condition this condition shall include, as a minimum:</u></p> <p><u>a. Continuous instrumental monitoring of total suspended particulates at one location. The instrument shall be installed and operated at a location that provides a representative sample of the TSP concentrations at the boundary of the construction site in the immediate vicinity of the closest house to the construction activity associated with the Klondyke Pond;</u></p> <p><u>b. An inspection of all actual and potential dust sources within the construction site at least once per day; and</u></p> <p><u>c. Wind speed and direction, as measured by the site meteorological monitoring instruments (installed in accordance with condition 6H.1 of these resource consents).</u></p>
<u>6D.1</u>	<p><u>General Dust Mitigation Measures</u></p> <p><u>The methods used to mitigate and prevent fugitive dust emissions shall include, as a minimum, the following:</u></p> <p><u>a. Carrying out earthworks in strips in the construction of the Klondyke Pond, where each strip is no more than 75 hectares in area;</u></p> <p><u>b. That all potentially dusty surfaces (including roads) shall be stabilised using (as necessary) one or more of the following methods:</u></p> <p><u>i. water;</u></p> <p><u>ii. chemical dust suppressants;</u></p> <p><u>iii. compaction;</u></p> <p><u>iv. straw mulching;</u></p>



	<ul style="list-style-type: none"> <li>v. <u>temporary vegetation;</u></li> <li>vi. <u>gravelling; or</u></li> <li>vii. <u>other surface modification methods;</u></li> <li>c. <u>Existing vegetation is to be retained for as long as practicable and areas where works are complete shall be revegetated as soon as practicable;</u></li> <li>d. <u>Vehicle speeds are to be controlled on site to not more than 20 kilometres per hour;</u></li> <li>e. <u>The height and slope of stockpiles associated with the Proposal are not to exceed 3 m;</u></li> <li>f. <u>Paved roads and yard areas are to be kept clean using either washing or vacuum sweepers;</u></li> <li>g. <u>A rumble grid and a sealed area of road of at least 20 metres in length are to be provided prior to all the site exits onto public roads;</u></li> <li>h. <u>Drop heights are to be minimised when loading and unloading vehicles; and</u></li> <li>i. <u>An adequate on-site supply of water and equipment for watering all potentially dusty areas of the site shall be provided and maintained at all times.</u></li> </ul>
6D.2	<p><u>The consent holder:</u></p> <ul style="list-style-type: none"> <li>a. <u>Shall review dust sources and dust control measures and implement additional dust control methods when TSP concentrations (as measured by the instrument installed and operated in accordance with condition 6H.1):</u> <ul style="list-style-type: none"> <li>i. <u>Exceed a 1-hour average concentration of 200 µg/m<sup>3</sup>; or</u></li> <li>ii. <u>Exceed a 24-hour average concentration of 80 µg/m<sup>3</sup>.</u></li> </ul> </li> <li>b. <u>Shall cease the works / activities authorised by these resource consents when TSP concentrations:</u> <ul style="list-style-type: none"> <li>i. <u>Exceed a 1-hour average concentration of 220 µg/m<sup>3</sup>; or</u></li> <li>ii. <u>Exceed a 24-hour average concentration of 120 µg/m<sup>3</sup>.</u></li> </ul> </li> <li>c. <u>May only recommence works once TSP concentrations, measured over two consecutive ten-minute periods, are less than 200 µg/m<sup>3</sup>.</u></li> </ul>
6D.3	<p><u>Dust sources and dust control measures shall be reviewed and additional dust control measures shall be implemented when hourly average wind speeds exceed 5 (five) m/s and winds are blowing towards an inhabited dwelling located within 500m of construction activities and potential sources of dust.</u></p>
6D.4	<p><u>The additional dust measures referred to in conditions 6D.2 and 6D.3 include, but are not limited to:</u></p> <ul style="list-style-type: none"> <li>a. <u>Reducing vehicle speeds within the construction site;</u></li> <li>b. <u>Increasing the water application rate on dusty surfaces within the construction site;</u></li> <li>c. <u>Ceasing dusty activities within the construction site, such as the stripping and spreading of topsoil.</u></li> </ul>
6D.5	<p><u>Potentially dusty activities that are taking place within 500m downwind of an inhabited dwelling shall cease, except for dust mitigation activities, when gust wind speeds (two-minute average or less) exceed 10 m/s during two consecutive ten-minute periods. The term 'potentially dusty activities' means, for the purpose of these resource consents, the following activities:</u></p> <ul style="list-style-type: none"> <li>a. <u>Stripping of potentially dusty materials such as topsoil and silt,</u></li> <li>b. <u>Formation of embankments surrounding water storage facilities using soil or silt;</u></li> <li>c. <u>Formation of soil and silt stockpiles;</u></li> <li>d. <u>Spreading of topsoil;</u></li> <li>e. <u>Movement or working of topsoil for the purpose of vegetating the embankments; and</u></li> <li>f. <u>Placement of the clay for the pond lining.</u></li> </ul>

	<u>The potentially dusty activities may recommence when wind gusts (two-minute average or less) are less than 7.5 m/s during the previous two consecutive ten-minute periods.</u>
<u>6E.1</u>	<u>Concrete Batching Plant Specific Measures</u> <u>The capacity of any concrete batching plant used to construct the Proposal shall not exceed 70 cubic metres per hour.</u>
<u>6E.2</u>	<u>The consent holder shall take all practicable measures to minimise the discharge of dust from any concrete batching plant used to construct the Proposal. These measures shall include:</u> <ul style="list-style-type: none"> <li><u>a. The concrete batching plant cement silos are to be fitted with fabric filters to control the discharge of dust during filling and batching operations;</u></li> <li><u>b. The cement silo fabric filters are to be regularly maintained in order to maintain effective operation at all times in accordance with the manufacturer's instructions;</u></li> <li><u>c. The cement silos are to be fitted with over-fill warning devices;</u></li> <li><u>d. The filtration system on the cement silos operates at all times when the concrete batching plant is in operation;</u></li> <li><u>e. Aggregates being conveyed to and within the concrete batching plant are to be sprayed with water, as required, to minimise dust emissions;</u></li> <li><u>f. Fine aggregate materials such as crusher dust shall be stored in three sided bins;</u></li> <li><u>g. Cement transferred to trucks from the concrete batching plant is to be via an enclosed control system that collects and treats cement dust; and</u></li> <li><u>h. Any spillages associated with the handling of sand, aggregate or cement materials involved in the batching process shall be cleaned up as soon as practicable following the spill.</u></li> <li><u>i. Cement delivery trucks shall be covered.</u></li> </ul>
<u>6F.1</u>	<u>Crushing and Screening Specific Measures</u> <u>The rate of aggregate crushing and screening on site shall not exceed 200 tonnes per hour.</u>
<u>6F.2</u>	<u>The consent holder shall take all practicable measures to minimise the discharge of dust from crushing and screening aggregates. These measures shall include:</u> <ul style="list-style-type: none"> <li><u>a. Using water sprays on all transfer points and crushing and screening equipment;</u></li> <li><u>b. Wetting of the aggregate as required to reduce the discharge of dust to air; and</u></li> <li><u>c. Minimising 'drop heights' when the aggregates are being unloaded and/or stockpiled.</u></li> </ul>
<u>6G.1</u>	<u>Post Construction Mitigation Measures</u> <u>All exposed surfaces of soil on site at the completion of construction shall be stabilised either by being gravelled or planted. The objective of the stabilisation activities is to minimise the generation of dust from the sites where construction works / activities authorised by these resource consents have been undertaken.</u>
<u>6G.2</u>	<u>The internal banks of the Klondyke Pond shall be kept damp (by the use of measures such as sprinklers on the edge of the Klondyke Pond) when the Klondyke Pond is drawn down below the rock armouring layer and when it is not raining, to prevent the generation of dust.</u>
<u>6H.1</u>	<u>Air Quality Monitoring</u> <u>Prior to construction activities commencing on site, the consent holder shall install instruments capable of continuously monitoring and recording:</u> <ul style="list-style-type: none"> <li><u>a. The meteorological conditions, including wind speed, wind direction, rainfall, temperature and relative humidity. These instruments shall be maintained in good working order for the duration of these resource</u></li> </ul>

	<p><u>consents; and</u></p> <p><u>b. TSP's. This instrument shall be maintained in good working order for the duration of the construction works / activities associated with the Proposal, and shall be located on the south-eastern boundary of the Klondyke Pond, within the vicinity of the closest house to the construction activity</u></p>
<u>6H.2</u>	<p><u>The monitoring instruments installed in accordance with condition 6H.1(a) shall:</u></p> <p><u>a. Be installed at a height of at least six (6) metres above pre-construction ground level and in accordance with AS 2923- 1987 <i>Ambient Air Guide for Measurement of Horizontal Wind for Air Quality Applications</i>;</u></p> <p><u>b. Commence operating at least one month prior to the commencement of the construction works / activities authorised by these resource consents;</u></p> <p><u>c. Continuously record the meteorological conditions using an electronic data logging system with an averaging time for each parameter of not more than two minutes. The records collected shall be available to the consent holder in 'real time' and the logging system shall be able to send alerts via text message.</u></p>
<u>6H.3</u>	<p><u>The meteorological data recorded in accordance with conditions 6H.1(a) and 6H.2 shall be retained for the duration of these resource consents. Copies of the data shall be provided to the Canterbury Regional Council, Attention: Regional Leader - Compliance and Monitoring, upon request.</u></p>
<u>6H.4</u>	<p><u>The TSP monitoring instruments installed in accordance with condition 6H.1(b) shall:</u></p> <p><u>a. Be a continuous monitoring instrument capable of providing real time data;</u></p> <p><u>b. Be of an appropriate standard and quality (and shall include regular calibration of the monitoring equipment) to enable compliance with the TSP trigger levels set in Conditions 6D.2 and 6D.3 to be determined; and</u></p> <p><u>c. Continuously record TSP data using an electronic data logging system with an averaging time for each parameter of not more than two minutes. The TSP records shall be available to the consent holder in real time and the logging system shall be able to send alerts via text message.</u></p>
<u>6H.5</u>	<p><u>The TSP data recorded in accordance with conditions 6H.1(a) and 6H.3 shall be retained for the duration of the construction works / activities associated with the Proposal. Copies of the data shall be provided to the Canterbury Regional Council, Attention: Regional Leader: Compliance &amp; Monitoring, upon request.</u></p>
<u>6H.6</u>	<p><u>The Consent Holder shall prepare a report which summarises the meteorological and TSP monitoring data for the previous 12-month period and provide this to Canterbury Regional Council prior to 1 (March) each year. The summary report shall include the following information:</u></p> <p><u>a. Hourly and 24-hour average air temperature, wind speed, rainfall and relative humidity for the previous 12 months</u></p> <p><u>b. A summary of average, median, maximum and minimum 1 hour results for air temperature, wind speed, rainfall and relative humidity for each month</u></p> <p><u>c. A summary of average, median, maximum and minimum 24 hour results for air temperature, wind speed, rainfall and relative humidity for each month</u></p> <p><u>d. Hourly and 24-hour average TSP concentrations for the previous 12 months</u></p> <p><u>e. A summary of average, median and maximum hourly 1 hour and 24 hour average TSP concentrations for each month</u></p> <p><u>f. A summary of the number of exceedances recorded each month of the</u></p>

	<p><u>TSP concentration trigger values included in condition 6D.2 b and an explanation of the possible reason for the exceedance and any corrective actions taken.</u></p> <p>g. <u>Windroses showing the 1-hour average wind speed and wind direction for each month</u></p>
	<b>CONSTRUCTION</b>
7	Any imported materials for the Construction Works shall comprise of clean material(s). For the purposes of this consent, 'clean materials' are defined as material not sourced from a site listed on Canterbury Regional Council's Listed Land Use Register and/or Schedule 3 of the Land and Water Regional Plan.
8	No maintenance of vehicles, refuelling or fuel storage shall take place in or within twenty metres of the excavated area, exposed groundwater or any water course.
9	Spoil sites shall be sown with grass within one month of the completion of Construction Works, if completed during the period September through April. Should Construction Works be completed outside of this period, the embankments will where necessary to prevent erosion be stabilised with suitable matting (or equivalent), and sown with grass no later than the following September.
	<b>HAZARDOUS SUBSTANCE MANAGEMENT</b>
10	<p>The consent holder shall prepare a Hazardous Substances Spill Management Plan (HSSMP): The HSSMP shall include but is not limited to:</p> <ul style="list-style-type: none"> <li>a. Identifying the hazardous substances that will be retained on the site during construction and the restrictions that apply to, and are to be followed, in relation to their storage and use;</li> <li>b. Identifying the potential situations and locations where hazardous substances may be accidentally spilled, and to ensure that the appropriate measures are implemented by the consent holder to ensure that all actual or potential hazardous substances effects arising from the construction activities are minimised. This includes, but is not limited to, measures to provide secondary containment around storage locations and refuelling sites, to minimise the extent of soil contamination and to prevent run-off of spilled liquids from reaching surface water bodies;</li> <li>c. A list of the staff and/or experts responsible for reviewing the HSSMP;</li> <li>d. A description of staff / expert training and induction requirements that will be undertaken to ensure that the HSSMP is followed by all acting in accordance with this resource consent;</li> <li>e. A description of the site and local receiving environment;</li> <li>f. The procedures that are to be followed for the use of the hazardous substances within the construction site, including the construction personnel that are authorised to use them;</li> <li>g. The minimum requirements for spill management kits that are to be distributed throughout the construction site and the procedures that are to apply to the disposal of used spill management materials; and</li> <li>h. The procedures for corrective action in the event of a spill.</li> </ul>
11	<p>The consent holder shall take all practicable measures to avoid spills of fuel or any other contaminants. In the event of a spill of fuel or any other hazardous substances, the following corrective action shall be undertaken but is not limited to:</p> <ul style="list-style-type: none"> <li>a. All practicable measures shall be taken to prevent the spill being discharged into land via the stormwater system;</li> <li>b. The spill shall be cleaned up as soon as practicable and any</li> </ul>

	<p>contaminants that accumulate in the stormwater system shall be removed and the spill area shall be inspected and cleaned, and measures shall be taken to prevent reoccurrence.</p> <p><del>c. The consent holder shall provide the Canterbury Regional Council, Attention: Regional Leader Monitoring and Compliance, with the following information within 24 hours of a spill event exceeding five litres:</del></p> <ul style="list-style-type: none"> <li><del>i. The date, time, location and estimated volume of the spill;</del></li> <li><del>ii. The cause of the spill;</del></li> <li><del>iii. The type of contaminant(s) spilled;</del></li> <li><del>iv. Clean up procedures undertaken including evidence of appropriate disposal;</del></li> <li><del>v. Details of the steps taken to control and remediate the effects of the spill on the receiving environment;</del></li> <li><del>vi. An assessment of any potential effects of the spill; and</del></li> <li><del>vii. Measures to be undertaken to prevent a reoccurrence.</del></li> </ul>
12	<p><del>Any material, including sediment, hydrocarbons and other contaminants, removed in the exercising of this consent shall be disposed of at a location or facility authorised to receive such material.</del></p>
	<b>ACCIDENTAL DISCOVERY PROTOCOL - ARCHAEOLOGICAL MATERIALS</b>
13	<p>In the event of any discovery of archaeological material the consent holder shall immediately:</p> <ul style="list-style-type: none"> <li>a. Cease work within 10 metres of any part of the discovery and mark off the affected area;</li> <li>b. Advise the Canterbury Regional Council and Ashburton District Council of the discovery; and</li> <li>c. Advise Heritage New Zealand Pouhere Taonga of the discovery.</li> </ul>
14	<p>If the archaeological material is determined to be Koiwi Tangata (human bones) of Maori origin or taonga (treasured artefacts) by Heritage New Zealand Pouhere Taonga, the consent holder shall immediately:</p> <ul style="list-style-type: none"> <li>a. advise the office of Upoko Runanga o Arowhenua of the discovery; and</li> <li>b. consult Upoko Runanga o Arowhenua on any matters of tikanga (protocol) that are required in relation to the discovery and prior to the commencement of any investigation, and perform those requirements.</li> <li>c. Advise the New Zealand Police of the discovery in relation to Koiwi Tangata (human bones).</li> </ul>
15	<p>Iwi representatives, Canterbury Regional Council, Attention: Regional Leader-Monitoring and Compliance and Heritage New Zealand Pouhere Taonga <del>Trust</del> shall be afforded the opportunity to visit the site within three working days of the discovery (if and as they consider it necessary), <del>and such persons shall be given a reasonable time to record and recover archaeological features discovered before work may recommence on the site.</del> The site inspection shall occur within <del>six</del> <u>three</u> working days of the discovery being made.</p>

16	<p><u>Other than in circumstances where an Authority has been granted by Heritage New Zealand Pouhere Taonga</u>, the consent holder may recommence any work if Heritage New Zealand Pouhere Taonga (following consultation with Kaitiaki Rūnanga if the material is of Maori origin) provides a statement in writing to the Canterbury Regional Council that appropriate action has been undertaken in relation to the archaeological material discovered.</p> <p><b>Advice Notes</b></p> <ol style="list-style-type: none"> <li>1. <i>Under the Heritage New Zealand Pouhere Taonga Act 2014 an archaeological site is defined as any place associated with pre-1900 human activity, where there is material evidence relating to the history of New Zealand. For sites solely of Maori origin, this evidence may be in the form of accumulations of shell, bone, charcoal, burnt stones, etc. In later sites, artefacts such as bottles or broken glass, ceramics, metals, etc., may be found or evidence of old foundations, wells, drains, tailings, races or other structures. Human remains/koiwi may date to any historic period.</i></li> <li>2. <i>It is unlawful for any person to destroy, damage, or modify the whole or any part of an archaeological site without the prior authority of Heritage New Zealand Pouhere Taonga. This is the case regardless of the legal status of the land on which the site is located, whether the activity is permitted under the District or Regional Plan or whether a resource or building consent has been granted. The Heritage New Zealand Pouhere Taonga Act 2014 provides for substantial penalties for unauthorised damage or destruction. An authority from Heritage New Zealand Pouhere Taonga <del>Trust</del> may be required.</i></li> </ol>
	<p><b>ACCIDENTAL DISCOVERY PROTOCOL – WASTE MATERIALS/ CONTAMINATED SOILS</b></p>
17	<p><del>In the event of encountering visual or olfactory indicators of waste materials and/or soil contamination or an uncontrolled discharge of contaminants the consent holder or its contractors shall immediately comply with the Accidental Discovery Protocol (ADP). The ADP for unexpected contaminants shall include include but not be limited to the following steps:</del></p> <ol style="list-style-type: none"> <li><del>a. Earthworks within ten metres of unexpected contaminants shall cease immediately; and</del></li> <li><del>b. Immediate steps shall be taken to minimise exposure of the contaminated material, including covering the contaminants with an impervious cover where practicable; and</del></li> <li><del>c. Notification of the Canterbury Regional Council, by a Suitably Qualified and Experienced Practitioner (SQEP), Attention: Contaminated Sites Manager, within 24 hours of the discovery;</del></li> <li><del>d. Earthworks within ten metres of unexpected contaminants shall not recommence until a (SQEP) confirms to Canterbury Regional Council, Attention: Regional Leader Monitoring and Compliance that it is safe to do so;</del></li> <li><del>e. The consent holder shall take all practicable steps to prevent the contaminated material becoming entrained in stormwater runoff.</del></li> <li><del>f. All records and documentation associated with the discovery shall be kept and copies shall be provided to the Canterbury Regional Council upon request.</del></li> </ol> <p><u>In the event of encountering visual or olfactory indicators of waste materials and/or soil contamination or an uncontrolled discharge of contaminants the consent holder or its contractors shall immediately comply with the Accidental Discovery Protocol (ADP). The ADP for unexpected contaminants shall comply with the HSSMP.</u></p>



	<b>ECOLOGICAL REFUGE PLANTING AND MANAGEMENT PLAN</b>
18	The consent holder shall prepare an Ecological Refuge Planting and Management Plan (ERPMP). The ERPMP shall be provided to the Canterbury Regional Council, Attention Regional Leader – Monitoring and Compliance at least three months prior to the commencement of construction works under this consent.
19	The ERPMP shall meet the following objectives: <ul style="list-style-type: none"> <li>a. To establish a permanent ecological refuge comprising six hectares of wetland, native plantings, and lizard habitat; and</li> <li>b. To provide receptor habitat for lizards to assist in meeting the objectives of the Lizard Management Plan (LMP) required under this consent.</li> </ul>
20	The ERPMP shall include but not be limited to: <ul style="list-style-type: none"> <li>a. A detailed plan that shows the area and location of the habitats to be created. The detailed plan shall give effect to the concept plan for the Refuge, which is attached as Plan CRC170651B, which forms part of this consent;</li> <li>b. The location, density and species of native plants to be planted in the Refuge;</li> <li>c. A requirement that all plants planted as part of the Refuge are grown from seeds collected from local, naturally occurring indigenous vegetation;</li> <li>d. A requirement for ongoing weed control at the refuge and the timing and methods for weed control;</li> <li>e. A schedule setting out the timing of the site preparation, planting and maintenance activities (including specifying when replacement plantings are needed, and when maintenance activities can cease);</li> <li>f. The methods for site preparation prior to planting, including stock exclusion and clearing and disposal of existing weeds;</li> <li>g. The planting methods to be employed in establishing the Refuge; and</li> <li>h. The monitoring activities (and their frequency and duration) that are to be conducted by the consent holder to monitor the success of the activities that are undertaken to establish and maintain the ecological refuge LMP.</li> </ul>
	<b>LIZARD MANAGEMENT PLAN</b>
21	The Consent Holder shall prepare and submit a Lizard Management Plan (LMP) to the Canterbury Regional Council, attention Regional Leader – Monitoring and Compliance at least three months prior to the commencement of construction works under this consent.
22	The LMP shall set out detailed methods and timeframes to ensure that the following objectives are achieved: <ul style="list-style-type: none"> <li>a. To provide an area of lizard habitat that is larger than one hectare and is consistent in size with the area identified on Plan CRC170651B as Open Shrubland with stone piles.</li> <li>b. To translocate lizards from the existing stone piles within the Klondyke Storage Dam's footprint to the Refuge using methods that will maximise the probability of survival and establishment of a viable population of lizards at the receptor habitat; and</li> <li>c. To monitor whether lizards have established successful populations at the receptor habitat.</li> </ul>
23	The LMP shall include but not be limited to: <ul style="list-style-type: none"> <li>a. The objectives set out in condition (22);</li> <li>b. Copies of, and a brief explanation of the permits secured under the Wildlife Act 1953 for the translocation of lizards from the Klondyke Storage Dam footprint to the Refuge and the conditions that apply to the relocation</li> </ul>

	<p>activities;</p> <p>c. A map showing the area, location and layout of the lizard habitat within the Refuge;</p> <p>d. The methods and timing to be employed by the consent holder for the removal of the existing stone piles from the footprint of the Klondyke Storage Dam and the re-establishment of stone piles within the Refuge;</p> <p>e. The methods and timing to be employed by the consent holder for translocating lizards to new or existing lizard habitat at the Refuge;</p> <p>f. The identification of suitable nearby unaffected lizard habitat to which lizards may be re-located, if such relocation proves necessary;</p> <p>g. The monitoring activities (and their frequency and duration) that are to be conducted by the consent holder to monitor the success of the activities that are undertaken to relocate the lizards and to establish and maintain a viable lizard habitat;</p> <p>h. Descriptions of the lizard habitat and fauna at the source site (the Klondyke Storage Dam) and the receptor site (being the Refuge); and</p> <p>i. Methods for collection of DNA from lizards captured for translocation.</p>
	<b>MONITORING OF ERPMP AND LMP</b>
24	The consent holder shall, at least three months prior to the commencement of any construction works authorised by this resource consent, appoint an appropriately qualified and experienced ecologist to undertake the monitoring required by the ERPMP and LMP.
25	<p>The monitoring undertaken by the ecologist appointed in accordance with condition (24) shall occur at the frequency and using the methods set out in the ERPMP and LMP over the course of construction works / activities authorised by this resource consent, and shall continue for not less than five years after the stone pile and lizard relocation activities required by conditions (22) and (24) commence, and not less than three years after all construction is complete.</p>
26	<p>The ecologist appointed in accordance with condition (24) shall prepare an annual report as follows:</p> <p>a. The report shall be prepared for the first four years of the monitoring required by condition (24) and then every two years thereafter until the completion of the monitoring; and</p> <p>b. All of the reports required by this condition shall be provided to the Canterbury Regional Council, attention Regional Leader – Monitoring and Compliance by no later than the 30th of June each year; and</p> <p>c. Each monitoring report shall assess whether the ERPMP and LMP are achieving the purposes set out in conditions (19), (20), (22), and (23); and</p> <p>d. If the findings of the ecologist are that changes to the LMP and/or the ERPMP are required, including any additional measures or actions to achieve the purposes of the ERPMP and LMP plans, they shall make recommendations to the consent holder as to the changes and/or additional measures or actions that are required.</p>
27	Where revisions are made to the ERPMP and /or LMP to give effect to the recommendations of the ecologist arising from condition (24) of this resource consent, the revisions shall be provided to the Canterbury Regional Council, attention Regional Leader – Monitoring and Compliance at least 10 working days prior to the ERPMP and /or LMP being amended.
	<b>DECOMISSIONING</b>

28	Once the Construction Works have been completed the consent holder shall decommission the sediment and erosion measures required by <del>condition (5) the conditions of this consent</del> . Erosion and sediment control measures shall not be decommissioned until the site is stabilised and the stormwater system for the developed site is functioning.
	<b>ADMINISTRATION</b>
29	<p>Pursuant to Section 128(1) of the Resource Management Act 1991, the Consent Authority may serve notice of its intention to review the conditions of this consent within a period of three months commencing on each anniversary of the date of issue of the consent for any of the following purposes:</p> <ul style="list-style-type: none"> <li>a. To deal with any adverse effects on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or</li> <li>b. To require the Consent Holder to adopt the best practicable option to mitigate any adverse effect upon the environment; or</li> <li>c. To deal with any other adverse effect on the environment on which the exercise of the consent may have any influence.</li> </ul>
30	<p>The lapsing date for the purposes of Section 125 of the Resource Management Act 1991 shall be 15 years from the date consent is issued.</p> <p><b>Advice note:</b> 'Exercised' is defined as implementing any requirements to operate this consent <u>and</u> undertaking the activity as described in these conditions and/or application documents.</p>

**CRC170652 and CRC182540: a land use consent for earthworks over an aquifer to construct the 53M m<sup>3</sup> storage dam; to upgrade part of the RDR Canal; and to construct a 460 metre long fish bypass channel.**

	<b>GLOSSARY OF TERMS &amp; ABBREVIATIONS USED IN THIS RESOURCE CONSENT</b>
<b>0</b>	<p><b>Appropriately qualified and experienced expert(s)</b> means a person or persons:</p> <ol style="list-style-type: none"> <li>With a relevant and recognised tertiary qualification(s) to the topic being assessed;</li> <li>Whom is (are) recognised as a full member (or equivalent) of a relevant professional institution(s) (such as the Institution of Professional Engineers New Zealand), where such institutions exist;</li> <li>Has more than 10-years relevant experience in the topic being assessed; and</li> </ol> <p><b>Certifies and Certification</b> means a process whereby:</p> <ol style="list-style-type: none"> <li>The consent holder supplies a report, action plan, design plan, construction methodology, monitoring plan, commissioning plan, safety system or a management plan, and the Canterbury Regional Council appoints an appropriately qualified and experienced expert to assesses the documentation submitted to ensure that it achieves the requirements of the relevant condition(s) of consent;</li> <li>Should the documents supplied in accordance with condition 0(a), in the opinion of the expert appointed by the Council, achieve the intent of the relevant condition(s) of these resource consents, the Regional Leader: Compliance and Monitoring of the Canterbury Regional Council shall issue a written certificate to the consent holder confirming that the requirements of the relevant condition(s) have been satisfied;</li> <li>If the expert appointed by the Council is not satisfied that the documents supplied in accordance with condition (a) achieves requirements of the relevant condition(s), the Regional Leader: Compliance and Monitoring of the Canterbury Regional Council shall advise (in writing) the consent holder of the experts concerns and ask that the report, commissioning plan, monitoring plan, action plan, safety system or management plan be modified so as to address the concerns, and then be resubmitted;</li> <li>This process shall be repeated until the Regional Leader: Compliance and Monitoring of the Canterbury Regional Council is able (on the advice of the expert) to certify that the requirements of the applicable condition(s) of consent have been satisfied; and</li> </ol> <p><b>CLG</b> means the Community Liaison Group.</p> <p><b>CMP</b> means Construction Management Plan.</p> <p><b>Construction site</b> includes all areas, excluding gazetted and vested road reserves that contain formed roads, where construction works / activities authorised by these resource consents are being undertaken by the consent holder.</p> <p><b>Council</b> means the Canterbury Regional Council.</p> <p><b>EAP</b> means the Emergency Action Plan.</p> <p><b>ESCP</b> means Erosion and Sediment Control Plan.</p> <p><b>Fish screen</b> means the rotary fish screen and its associated bypass channel.</p> <p><b>FSVMP</b> means Fish Screen Verification Monitoring Plan</p> <p><b>Flood flow take</b> means a flood flow abstraction from the Rangitata River.</p> <p><b>HSSMP</b> means the Hazardous Substances Spill Management Plan</p> <p><b>Klondyke Pond</b> means the Lake Klondyke Water Storage Facility.</p> <p><b>km/hr</b> means kilometres per hour.</p> <p><b>l/s</b> means litres per second</p> <p><b>m<sup>3</sup></b> means cubic metres</p> <p><b>m<sup>3</sup>/s</b> means cubic metres per second</p> <p><b>m</b> means metre</p>

	<p><u>m/s means metres per second.</u></p> <p><u>mm/s means millimetres per second</u></p> <p><u>NZSOLD means New Zealand Society on Large Dams New Zealand.</u></p> <p><u>PPV means Peak Particle Velocity</u></p> <p><u>Reasonable Mixing Zone means, for the purposes of condition 18.0A, a reasonable mixing zone extending from the point of discharge from the Sluice Channel to a point that is 200 metres downstream of the discharge point.</u></p> <p><u>Regional Water Table means the upper surface of the full saturated groundwater system but does not, for the purposes of these resource consents, include perched groundwater (which is groundwater in saturated strata that occurs above the regional water table but is separated from it by a layer of unsaturated strata).</u></p> <p><u>RDR means the Rangitata Diversion Race.</u></p> <p><u>RDR mods means the modifications to the Rangitata Diversion Race.</u></p> <p><u>RL means the right bank when looking downstream.</u></p> <p><u>RMA means the Resource Management Act</u></p> <p><u>The Proposal means the Klondyke Pond, WWC, RDR mods, fish screen, SBR relocation, flood flow take and refuge, and all incidental work.</u></p> <p><u>TSP means total suspended particulate.</u></p> <p><u>WRMP means Works in the River Management Plan</u></p>
	<b><u>CERTIFICATION PROCESS</u></b>
<b><u>0A.1</u></b>	<p><u>Except where explicitly required otherwise by conditions of this consents, the consent holder shall:</u></p> <ol style="list-style-type: none"> <li><u>a. Engage an appropriately qualified and experienced independent expert (or experts) to prepare the management plans, design plans, construction methodology, monitoring plans, action plan, commissioning plan and safety system specified in the conditions of this consent using the draft versions of these plans (which are attached as Annexure B) as a base document;</u></li> <li><u>b. Provide drafts of each of the documents required by condition 0A.1(a) to the Canterbury Regional Council, Attention Regional Leader - Monitoring and Compliance, not less than three months prior to construction works / activities commencing in accordance with these resource consents;</u></li> <li><u>c. Not commence any construction works / activities authorised by these resource consents until it has received a certificate from the Regional Leader: Compliance and Monitoring of the Canterbury Regional Council that the management plan, design plan, construction methodology, monitoring plan, action plan, commissioning plan or safety system is consistent with the applicable conditions of this consent;</u></li> <li><u>d. Adhere to and implement the certified version of the management plan, design plans, construction methodology, monitoring plan, action plan, commissioning plan or safety system;</u></li> <li><u>e. Submit any proposed variations to the management plans, design plans, construction methodology, action plan, safety system, monitoring plans and commissioning plan to the Regional Leader: Compliance and Monitoring of the Canterbury Regional Council, at least seven days prior to when the proposed change will be implemented by the consent holder. Any variations made shall not take effect until the Regional Leader: Compliance &amp; Monitoring of the Canterbury Regional Council certifies that the variations accord with the applicable conditions of the resource consent;</u></li> <li><u>f. Appoint an appropriately qualified and independent expert (or experts) to review the management plans, action plan, safety system, monitoring plans and commissioning plan at the frequency set out in these resource consents. Should the conditions of these resource consents not set a frequency, the reviews shall be conducted annually. Such reviews are to ensure that the management plans, action plan, safety system, monitoring plans and commissioning plan continue to achieve the conditions of these resource consents.</u></li> <li><u>g. Any changes made as a result of the reviews conducted in accordance</u></li> </ol>

	<p><u>with condition 0A.1(f) shall be submitted to the Canterbury Regional Council and shall not take effect until the Regional Leader: Compliance and Monitoring of the Canterbury Regional Council certifies that the changes accord with the applicable conditions of these resource consents;</u></p> <p><u>h. Pay the costs of the expert(s) appointed by the Canterbury Regional Council to certify the management plans, design plans, construction methodology, monitoring plans, commissioning plan, action plan and safety system (and any variations or changes thereto) in accordance with conditions 0A.1(c) and 0A.1(h); and</u></p> <p><u>i. Ensure that copies of the certified commissioning plan, design plans, construction methodology and management plans, monitoring plans, action plan, safety system and management plans set out in these conditions are available on site at all times during the construction works / activities authorised by this consent; and</u></p> <p><u>j. Ensure that all key personnel are to be made aware of the content and requirements / obligations of the management plans, action plan, safety system, commissioning plan and monitoring plans.</u></p>
	<b>SCOPE</b>
1	<p>The works shall be limited to the use of land to:</p> <p>a. Excavate material; and</p> <p>b. Deposit material</p> <p>for the purposes of and to the extent required for construction of the Klondyke Storage Dam, upgrade of the canal and fish bypass channel and associated infrastructure on land located at Shephards Bush Road, Monalto Road, Klondyke Road, and Klondyke Terrace, identified as the 'works area' on Plan CRC170652A, which forms part of this consent.</p>
1A	<p><u>The Proposal shall be constructed, operated and maintained in accordance with the details contained within the following documents:</u></p> <p><u>a. The Assessment of Environmental Effects report prepared by Ryder Consulting Limited in July 2016 and entitled "Lake Klondyke: A Proposed Water Storage Facility, Assessment of Environmental Effects Report &amp; Resource Consent Application, Prepared for the Rangitata Diversion Race Management Limited, Date Finalised: July 2016"; and</u></p> <p><u>b. The Assessment of Environmental Effects report prepared by Ryder Consulting Limited in November 2017 and entitled "Proposed Rangitata Diversion Race Fish Screen and Supplementary Matters Resource Consent Application".</u></p> <p><u>except where modified by specific conditions set out in these resource consents or by the plans authorised by the building consent for the Proposal.</u></p>
	<b>PRE-CONSTRUCTION</b>
2	<p>The consent holder shall:</p> <p>a. be responsible for all the contracted operations relating to the exercise of this consent including the Construction Works; and</p> <p>b. ensure compliance with consent conditions.</p>
3	<p>Prior to commencement of any physical works required for the activities described in Condition (1) (hereafter referred to as the 'Construction Works') the consent holder or its agent or contractor shall arrange and conduct a pre-construction site meeting between the Canterbury Regional Council and all persons involved in the Construction Works. At a minimum, the following shall be covered at the meeting:</p> <p>a. Scheduling and staging of the Construction Works;</p> <p>b. Responsibilities of all relevant parties;</p>



	<ul style="list-style-type: none"> <li>c. Contact details for all relevant parties;</li> <li>d. Expectations regarding communication between all relevant parties;</li> <li>e. Procedures for implementing any changes to the Construction Works;</li> <li>f. Site inspection; and</li> <li>g. Confirmation that all persons involved in the Construction Works have copies of the contents of this consent document, the Erosion and Sediment Control Plan (ESCP) and all plans and methodologies associated with this consent.</li> </ul>
4	Erosion and sediment control measures recommended in the ESCP prepared under Condition (5) shall be installed before any construction works occur on site.
	<b><u>COMPLAINTS REGISTER</u></b>
<u>4A.1</u>	<p><u>The consent holder shall keep a register of complaints lodged with it in respect of the exercise of these resource consents.</u></p> <p><u>The register prepared and maintained in accordance with this condition shall record the following details for each complaint that is made:</u></p> <ul style="list-style-type: none"> <li><u>a. The date and time of the complaint; and</u></li> <li><u>b. The name and contact details of the complainant (if they are provided to the consent holder) and a description of the complaint; and</u></li> <li><u>c. The investigations (if any) that the consent holder undertook in response to each complaint; and</u></li> <li><u>d. Any action that was undertaken to address the concerns raised in the complaint; and</u></li> <li><u>e. The feedback provided to each complainant.</u></li> </ul>
<u>4A.2</u>	<u>The consent holder shall forward a copy of the register prepared and maintained in accordance with condition 4A.1 to the Canterbury Regional Council, Attention RMA Compliance and Monitoring Manager within five (5) working days of receiving a request to do so from the Council.</u>
<u>4A.3</u>	<u>The consent holder shall appoint a Liaison Officer for the Proposal prior to any construction works / activities authorised by these resource consents commencing. The Liaison Officer shall be the point of contact for the public during construction of the Proposal. The name and contact details for the Liaison Officer shall be advertised at the main construction entrance for the Klondyke Pond.</u>
	<b><u>CONSTRUCTION MANAGEMENT PLAN</u></b>
<u>4B.1</u>	<u>The purpose of the Construction Management Plan is to describe the measures that will be implemented to ensure that all construction related environmental effects are avoided, minimised, or managed in accordance with the conditions of these resource consents and engineering / environmental best practice.</u>
<u>4B.2</u>	<p>The objectives of the CMP are to:</p> <ul style="list-style-type: none"> <li>a. Avoid and / or minimise the magnitude of the adverse effects generated during the construction activities and / or works authorised by these resource consents; and</li> <li>b. Provide clarity as to how the Proposal is to be constructed by setting out the: <ul style="list-style-type: none"> <li>i. Construction methodology that is to be employed to construct the Proposal; and</li> <li>ii. Staging, timing, duration and monitoring of construction works and / or activities; and</li> <li>iii. Measures that are to be applied, and when they are to be applied, to minimise the effects of the construction activities and / or works authorised by these resource consents. These measures shall include: <ul style="list-style-type: none"> <li>* A requirement that all construction works / activities be in accordance with the Canterbury Regional Council's ESCG (2007);</li> </ul> </li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>* Measures necessary to provide for stormwater disposal and sediment removal;</li> <li>* The inclusion and / or maintenance of a vegetated strip (or other treatment system supported by the ESCG) between all areas of earthworks and water courses / water bodies / water races;</li> <li>* Controls on the siting of stockpiles to avoid sediment-entrained runoff entering water races / water courses / water bodies and to reduce the risk of fugitive dust emissions;</li> <li>* Measures to avoid the entrainment of oil, fuels or any other hazardous substances in stormwater, with particular emphasis on re-fuelling areas and repair areas; and</li> <li>* Requirements regarding the stabilisation and maintenance of all construction site entrances associated with the Proposal from public roads; and</li> </ul> <p>iv. The means by which stakeholders are to be kept informed of the construction works / activities being undertaken by the consent holder and/or its contractor(s).</p>
4B.3	<p>The CMP shall contain the following sections:</p> <ul style="list-style-type: none"> <li>a. <u>Purpose and Scope</u></li> <li>b. <u>Personnel, Team Structure, Contact Details and Responsibilities.</u> <u>This will include the 24-hour contact details for the following personnel:</u> <ul style="list-style-type: none"> <li>i. <u>The administrator of the complaints register (if required by conditions of this consent); and</u></li> <li>ii. <u>The Liaison Officer (if required by conditions of this consent);</u></li> </ul> </li> <li>c. <u>Environmental Policy and Environmental Management System;</u></li> <li>d. <u>Resource Consent and Building Consent Requirements;</u></li> <li>e. <u>Accidental Discovery Protocol (if required by conditions of this consent);</u></li> <li>f. <u>Environmental Management Sub-Plans including, as a minimum, the following plans:</u> <ul style="list-style-type: none"> <li>i. <u>Erosion and Sediment Control Plan;</u></li> <li>ii. <u>Hazardous Substances Spill Management Plan;</u></li> <li>iii. <u>Vibration Management Plan;</u></li> <li>iv. <u>Waste Management Plan;</u></li> <li>v. <u>Works in the River Management Plan;</u></li> <li>vi. <u>Smoke Management Plan;</u></li> <li>vii. <u>Dust Management Plan; and</u></li> <li>viii. <u>Contaminated Land Remediation Action Plan</u></li> </ul> </li> <li>g. <u>Construction Methodology;</u></li> <li>h. <u>Training and Induction of Contractors and their Staff;</u></li> <li>i. <u>Subcontractor Management;</u></li> <li>j. <u>Monitoring and Site Inspections;</u></li> <li>k. <u>Conformance and Corrective / Preventative Actions;</u></li> <li>l. <u>Meetings Frequency and Purpose; and</u></li> <li>m. <u>Environmental Systems Reviews.</u></li> </ul>
	<b>EROSION AND SEDIMENT CONTROL PLAN</b>
5	<p><u>The purpose of the Erosion and Sediment Control Management Plan is to ensure that the consent holder implements appropriate measures, as defined by the Canterbury Regional Council's Erosion and Sediment Control Guidelines (2007) (an equivalent industry guideline), to minimise all actual or potential erosion and sediment effects arising from the construction works / activities authorised by these resource consents.</u></p> <p>The consent holder shall prepare an ESCP, subject to the following conditions:</p> <ul style="list-style-type: none"> <li>a. No less than one month before the commencement of any Construction</li> </ul>

	Works, a copy of the ESCP shall be submitted to the Canterbury Regional Council: Attention Regional Leader – Monitoring and Compliance for review and certification. All activities authorised by this consent shall be carried out in accordance with the ESCP.
	<p>b. Unless Canterbury Regional Council provides notice in writing that it is unable to certify the ESCP within 20 working days of receipt of a draft ESCP, it is deemed to be certified by the Canterbury Regional Council. For the purposes of this condition, "Certification" means that the ESCP contains all the information specified in Condition 5(c).</p> <p>c. The ESCP shall include but not be limited to:</p> <ul style="list-style-type: none"> <li>i. A list of the staff and / or experts responsible for reviewing the ESCP;</li> <li>ii. A description of staff training and induction requirements that will be undertaken to ensure that the ESCP is followed by all acting in accordance with these resource consents;</li> <li>iii. A description of the site and local receiving environment;</li> <li>iv. A site drainage plan;</li> <li>v. Details of any anticipated earth excavation requirements;</li> <li>vi. A schedule detailing the anticipated staging of the Construction Works including: <ul style="list-style-type: none"> <li>A. Site preparation works;</li> <li>B. Any equipment or plant mobilisation necessary for carrying out the construction works;</li> <li>C. Any field verification requirement.</li> </ul> </li> <li>vii. A detailed description of how run on and run off water will be managed within the construction site;</li> <li>viii. Measures to avoid or minimise any sediment entering exposed groundwater or the Rangitata River or being tracked onto roadways or neighbouring properties;</li> <li>ix. A detailed description of how water will be treated prior to disposal to the various receiving environments;</li> <li>x. Details of compliance checks, and any maintenance necessary to ensure that measures required under the ESCP or this consent are performing effectively.</li> <li>xi. Identification of persons responsible for carrying out the actions within the ESCP including their contact details;</li> <li>xii. A detailed description of how vegetation stripping and replanting would be undertaken to manage the area of disturbed ground that will be open throughout the construction works / activities authorised by these resource consents.</li> </ul> <p>d. The ESCP shall be prepared in accordance with:</p> <ul style="list-style-type: none"> <li>i. Environment Canterbury's "Erosion and Sediment Control Toolbox for the Canterbury Region" (ESCT) <a href="http://escanterbury.org.nz/">http://escanterbury.org.nz/</a>; or</li> <li>ii. An equivalent industry guideline. If an alternative guideline is used, the ESCP shall provide details of the relevant alternative methods used and an explanation of why they are more appropriate than the ESCT.</li> </ul> <p>e. Any amendments or revisions to the ESCP shall be submitted to Canterbury Regional Council: Attention Regional Leader – Monitoring and Compliance.</p>
6	During construction, all practicable measures shall be undertaken to minimise exposed groundwater.
	<b><u>AIR QUALITY</u></b>
6A.1	<p><b><u>General Controls</u></b></p> <p><b><u>The contaminants that may be discharged to air when the consent holder is undertaking works / activities in accordance with these resource consents are limited to emissions from the following activities:</u></b></p> <p><b><u>a. Earthworks and activities associated with the construction of the</u></b></p>

	<p><u>Proposal:</u></p> <ul style="list-style-type: none"> <li><u>b. Combustion of diesel to power stationary engines;</u></li> <li><u>c. Crushing and screening of aggregate;</u></li> <li><u>d. Concrete batching;</u></li> <li><u>e. Revegetation of pond surrounds; and</u></li> <li><u>f. The operation of the Klondyke Pond.</u></li> </ul>
6A.2	<p><u>There shall be no discharge of dust, smoke or the products of combustion, as a result of the exercise of this consent (either during construction or following the completion of all construction) that is noxious, dangerous, offensive or objectionable beyond the property boundaries of the construction site on which the discharge occurs, and which are not owned by the consent holder.</u></p>
6B.1	<p><u>Smoke Management Plan</u></p> <p><u>The purpose of the Smoke Management Plan is to describe the procedures to be used to monitor and minimise the effects of smoke generated during the construction of the Klondyke Pond.</u></p> <p><u>The SMP shall include:</u></p> <ul style="list-style-type: none"> <li><u>a. A list of the staff and / or experts responsible for implementing and reviewing the SMP;</u></li> <li><u>b. A description of the staff training and induction requirements that will be undertaken to ensure that the SMP is followed by all acting in accordance with these resource consents;</u></li> <li><u>c. A description of the site and the local receiving environment;</u></li> <li><u>d. A description of the burning methodology that will be employed by the consent holder and its contractors;</u></li> <li><u>e. A description of the smoke monitoring that will be undertaken when the consent holder undertakes burning activities; and</u></li> <li><u>f. A description of the weather conditions when burning activities can and cannot take place.</u></li> </ul>
6B.2	<p><u>The smoke monitoring required by condition 6B.1 (e) shall, as a minimum, include:</u></p> <ul style="list-style-type: none"> <li><u>a. Visual monitoring of the smoke at the downwind boundary of the construction site;</u></li> <li><u>b. If the visual monitoring conducted in accordance with condition 6B.1 (a) identifies that smoke is visible beyond the boundary of the construction site, visual monitoring at the closest downwind residences; and</u></li> <li><u>c. Wind speed and direction, as measured by the site meteorological monitoring instruments (installed in accordance with condition 6H.1).</u></li> </ul>
6C.1	<p><u>Dust Management Plan</u></p> <p><u>The purpose of the Dust Management Plan is to describe the procedures to be used to monitor and minimise the effects of dust generated during the construction and operation of the Klondyke Pond in order to comply with conditions 6A.2 and 6D.1 to 6G.2.</u></p> <p><u>The DMP shall include:</u></p> <ul style="list-style-type: none"> <li><u>a. A list of the staff and / or experts responsible for implementing and reviewing the DMP;</u></li> <li><u>b. A description of staff training and induction requirements that will be undertaken to ensure that the DMP is followed by all acting in accordance with these resource consents;</u></li> <li><u>c. A description of the site and the local receiving environment;</u></li> <li><u>d. The dust mitigation and prevention methods that will be implemented to achieve condition 6D.1;</u></li> <li><u>e. A description of the dust monitoring (that accords with conditions 6C.3 and 6H.1 to 6H.5) that will be undertaken by the consent holder during the construction works / activities associated with the Proposal;</u></li> <li><u>f. The contingency methods that will be used by the consent holder for controlling dust when the TSP and wind speed alert levels included</u></li> </ul>

	<u>within conditions 6D.2 to 6D.5 (inclusive) are exceeded.</u>
<u>6C.2</u>	<p><u>The dust monitoring required by condition this condition shall include, as a minimum:</u></p> <ul style="list-style-type: none"> <li><u>a. Continuous instrumental monitoring of total suspended particulates at one location. The instrument shall be installed and operated at a location that provides a representative sample of the TSP concentrations at the boundary of the construction site in the immediate vicinity of the closest house to the construction activity associated with the Klondyke Pond;</u></li> <li><u>b. An inspection of all actual and potential dust sources within the construction site at least once per day; and</u></li> <li><u>c. Wind speed and direction, as measured by the site meteorological monitoring instruments (installed in accordance with condition 6H.1 of these resource consents).</u></li> </ul>
<u>6D.1</u>	<p><u>General Dust Mitigation Measures</u></p> <p><u>The methods used to mitigate and prevent fugitive dust emissions shall include, as a minimum, the following:</u></p> <ul style="list-style-type: none"> <li><u>a. Carrying out earthworks in strips in the construction of the Klondyke Pond, where each strip is no more than 75 hectares in area;</u></li> <li><u>b. That all potentially dusty surfaces (including roads) shall be stabilised using (as necessary) one or more of the following methods:</u> <ul style="list-style-type: none"> <li><u>i. water;</u></li> <li><u>ii. chemical dust suppressants;</u></li> <li><u>iii. compaction;</u></li> <li><u>iv. straw mulching;</u></li> <li><u>v. temporary vegetation;</u></li> <li><u>vi. gravelling; or</u></li> <li><u>vii. other surface modification methods;</u></li> </ul> </li> <li><u>c. Existing vegetation is to be retained for as long as practicable and areas where works are complete shall be revegetated as soon as practicable;</u></li> <li><u>d. Vehicle speeds are to be controlled on site to not more than 20 kilometres per hour;</u></li> <li><u>e. The height and slope of stockpiles associated with the Proposal are not to exceed 3 m;</u></li> <li><u>f. Paved roads and yard areas are to be kept clean using either washing or vacuum sweepers;</u></li> <li><u>g. A rumble grid and a sealed area of road of at least 20 metres in length are to be provided prior to all the site exits onto public roads;</u></li> <li><u>h. Drop heights are to be minimised when loading and unloading vehicles; and</u></li> <li><u>i. An adequate on-site supply of water and equipment for watering all potentially dusty areas of the site shall be provided and maintained at all times.</u></li> </ul>
<u>6D.2</u>	<p><u>The consent holder:</u></p> <ul style="list-style-type: none"> <li><u>a. Shall review dust sources and dust control measures and implement additional dust control methods when TSP concentrations (as measured by the instrument installed and operated in accordance with condition 6H.1):</u> <ul style="list-style-type: none"> <li><u>i. Exceed a 1-hour average concentration of 200 µg/m<sup>3</sup>; or</u></li> <li><u>ii. Exceed a 24-hour average concentration of 80 µg/m<sup>3</sup>.</u></li> </ul> </li> <li><u>b. Shall cease the works / activities authorised by these resource consents when TSP concentrations:</u> <ul style="list-style-type: none"> <li><u>i. Exceed a 1-hour average concentration of 220 µg/m<sup>3</sup>; or</u></li> <li><u>ii. Exceed a 24-hour average concentration of 120 µg/m<sup>3</sup>.</u></li> </ul> </li> <li><u>c. May only recommence works once TSP concentrations, measured over two consecutive ten-minute periods, are less than 200 µg/m<sup>3</sup>.</u></li> </ul>
<u>6D.3</u>	<u>Dust sources and dust control measures shall be reviewed and additional dust</u>

	control measures shall be implemented when hourly average wind speeds exceed 5 (five) m/s and winds are blowing towards an inhabited dwelling located within 500m of construction activities and potential sources of dust.
6D.4	<p>The additional dust measures referred to in conditions 6D.2 and 6D.3 include, but are not limited to:</p> <ul style="list-style-type: none"> <li>a. Reducing vehicle speeds within the construction site;</li> <li>b. Increasing the water application rate on dusty surfaces within the construction site;</li> <li>c. Ceasing dusty activities within the construction site, such as the stripping and spreading of topsoil.</li> </ul>
6D.5	<p>Potentially dusty activities that are taking place within 500m downwind of an inhabited dwelling shall cease, except for dust mitigation activities, when gust wind speeds (two-minute average or less) exceed 10 m/s during two consecutive ten-minute periods. The term 'potentially dusty activities' means, for the purpose of these resource consents, the following activities:</p> <ul style="list-style-type: none"> <li>a. Stripping of potentially dusty materials such as topsoil and silt,</li> <li>b. Formation of embankments surrounding water storage facilities using soil or silt;</li> <li>c. Formation of soil and silt stockpiles;</li> <li>d. Spreading of topsoil;</li> <li>e. Movement or working of topsoil for the purpose of vegetating the embankments; and</li> <li>f. Placement of the clay for the pond lining.</li> </ul> <p>The potentially dusty activities may recommence when wind gusts (two-minute average or less) are less than 7.5 m/s during the previous two consecutive ten-minute periods.</p>
6E.1	<p><b>Concrete Batching Plant Specific Measures</b></p> <p>The capacity of any concrete batching plant used to construct the Proposal shall not exceed 70 cubic metres per hour.</p>
6E.2	<p>The consent holder shall take all practicable measures to minimise the discharge of dust from any concrete batching plant used to construct the Proposal. These measures shall include:</p> <ul style="list-style-type: none"> <li>a. The concrete batching plant cement silos are to be fitted with fabric filters to control the discharge of dust during filling and batching operations;</li> <li>b. The cement silo fabric filters are to be regularly maintained in order to maintain effective operation at all times in accordance with the manufacturer's instructions;</li> <li>c. The cement silos are to be fitted with over-fill warning devices;</li> <li>d. The filtration system on the cement silos operates at all times when the concrete batching plant is in operation;</li> <li>e. Aggregates being conveyed to and within the concrete batching plant are to be sprayed with water, as required, to minimise dust emissions;</li> <li>f. Fine aggregate materials such as crusher dust shall be stored in three sided bins;</li> <li>g. Cement transferred to trucks from the concrete batching plant is to be via an enclosed control system that collects and treats cement dust; and</li> <li>h. Any spillages associated with the handling of sand, aggregate or cement materials involved in the batching process shall be cleaned up as soon as practicable following the spill.</li> <li>i. Cement delivery trucks shall be covered.</li> </ul>
6F.1	<p><b>Crushing and Screening Specific Measures</b></p> <p>The rate of aggregate crushing and screening on site shall not exceed 200 tonnes per hour.</p>
6F.2	The consent holder shall take all practicable measures to minimise the discharge



	<p>of dust from crushing and screening aggregates. These measures shall include:</p> <ol style="list-style-type: none"> <li>Using water sprays on all transfer points and crushing and screening equipment;</li> <li>Wetting of the aggregate as required to reduce the discharge of dust to air; and</li> <li>Minimising 'drop heights' when the aggregates are being unloaded and/or stockpiled.</li> </ol>
6G.1	<p><b>Post Construction Mitigation Measures</b></p> <p>All exposed surfaces of soil on site at the completion of construction shall be stabilised either by being gravelled or planted. The objective of the stabilisation activities is to minimise the generation of dust from the sites where construction works / activities authorised by these resource consents have been undertaken.</p>
6G.2	<p>The internal banks of the Klondyke Pond shall be kept damp (by the use of measures such as sprinklers on the edge of the Klondyke Pond) when the Klondyke Pond is drawn down below the rock armouring layer and when it is not raining, to prevent the generation of dust.</p>
6H.1	<p><b>Air Quality Monitoring</b></p> <p>Prior to construction activities commencing on site, the consent holder shall install instruments capable of continuously monitoring and recording:</p> <ol style="list-style-type: none"> <li>The meteorological conditions, including wind speed, wind direction, rainfall, temperature and relative humidity. These instruments shall be maintained in good working order for the duration of these resource consents; and</li> <li>TSP's. This instrument shall be maintained in good working order for the duration of the construction works / activities associated with the Proposal, and shall be located on the south-eastern boundary of the Klondyke Pond, within the vicinity of the closest house to the construction activity</li> </ol>
6H.2	<p>The monitoring instruments installed in accordance with condition 6H.1(a) shall:</p> <ol style="list-style-type: none"> <li>Be installed at a height of at least six (6) metres above pre-construction ground level and in accordance with AS 2923- 1987 <i>Ambient Air Guide for Measurement of Horizontal Wind for Air Quality Applications</i>;</li> <li>Commence operating at least one month prior to the commencement of the construction works / activities authorised by these resource consents;</li> <li>Continuously record the meteorological conditions using an electronic data logging system with an averaging time for each parameter of not more than two minutes. The records collected shall be available to the consent holder in 'real time' and the logging system shall be able to send alerts via text message.</li> </ol>
6H.3	<p>The meteorological data recorded in accordance with conditions 6H.1(a) and 6H.2 shall be retained for the duration of these resource consents. Copies of the data shall be provided to the Canterbury Regional Council, Attention: Regional Leader - Compliance and Monitoring, upon request.</p>
6H.4	<p>The TSP monitoring instruments installed in accordance with condition 6H.1(b) shall:</p> <ol style="list-style-type: none"> <li>Be a continuous monitoring instrument capable of providing real time data;</li> <li>Be of an appropriate standard and quality (and shall include regular calibration of the monitoring equipment) to enable compliance with the TSP trigger levels set in Conditions 6D.2 and 6D.3 to be determined; and</li> <li>Continuously record TSP data using an electronic data logging system with an averaging time for each parameter of not more than two minutes. The TSP records shall be available to the consent holder in real time and the logging system shall be able to send alerts via text message.</li> </ol>

6H.5	<u>The TSP data recorded in accordance with conditions 6H.1(a) and 6H.3 shall be retained for the duration of the construction works / activities associated with the Proposal. Copies of the data shall be provided to the Canterbury Regional Council, Attention: Regional Leader: Compliance &amp; Monitoring, upon request.</u>
6H.6	<p><u>The Consent Holder shall prepare a report which summarises the meteorological and TSP monitoring data for the previous 12-month period and provide this to Canterbury Regional Council prior to 1 (March) each year. The summary report shall include the following information:</u></p> <ul style="list-style-type: none"> <li><u>a. Hourly and 24-hour average air temperature, wind speed, rainfall and relative humidity for the previous 12 months</u></li> <li><u>b. A summary of average, median, maximum and minimum 1 hour results for air temperature, wind speed, rainfall and relative humidity for each month</u></li> <li><u>c. A summary of average, median, maximum and minimum 24 hour results for air temperature, wind speed, rainfall and relative humidity for each month</u></li> <li><u>d. Hourly and 24-hour average TSP concentrations for the previous 12 months</u></li> <li><u>e. A summary of average, median and maximum hourly 1 hour and 24 hour average TSP concentrations for each month</u></li> <li><u>f. A summary of the number of exceedances recorded each month of the TSP concentration trigger values included in condition 6D.2 b and an explanation of the possible reason for the exceedance and any corrective actions taken.</u></li> <li><u>g. Windroses showing the 1-hour average wind speed and wind direction for each month</u></li> </ul>
9	Spoil sites shall be sown with grass within one month of the completion of Construction Works, if completed during period September through April. Should Construction Works be completed outside of this period, the embankments shall where necessary to prevent erosion be stabilised with suitable matting (or equivalent), and sown with grass no later than the following September.
	<b>HAZARDOUS SUBSTANCE MANAGEMENT</b>

10	<p>The consent holder shall prepare a Hazardous Substances Spill Management Plan (HSSMP): The HSSMP shall include but is not limited to:</p> <ul style="list-style-type: none"> <li>a. Identifying the hazardous substances that will be retained on the site during construction and the restrictions that apply to, and are to be followed, in relation to their storage and use;</li> <li>b. Identifying the potential situations and locations where hazardous substances may be accidentally spilled, and to ensure that the appropriate measures are implemented by the consent holder to ensure that all actual or potential hazardous substances effects arising from the construction activities are minimised. This includes, but is not limited to, measures to provide secondary containment around storage locations and refuelling sites, to minimise the extent of soil contamination and to prevent run-off of spilled liquids from reaching surface water bodies;</li> <li>c. A list of the staff and/or experts responsible for reviewing the HSSMP;</li> <li>d. A description of staff / expert training and induction requirements that will be undertaken to ensure that the HSSMP is followed by all acting in accordance with this resource consent;</li> <li>e. A description of the site and local receiving environment;</li> <li>f. The procedures that are to be followed for the use of the hazardous substances within the construction site, including the construction personnel that are authorised to use them;</li> <li>g. The minimum requirements for spill management kits that are to be distributed throughout the construction site and the procedures that are to apply to the disposal of used spill management materials; and</li> <li>h. The procedures for corrective action in the event of a spill.</li> </ul>
11	<p>The consent holder shall take all practicable measures to avoid spills of fuel or any other contaminants. In the event of a spill of fuel or any other hazardous substances, the following corrective action shall be undertaken but is not limited to:</p> <ul style="list-style-type: none"> <li>a. All practicable measures shall be taken to prevent the spill being discharged into land via the stormwater system;</li> <li>b. The spill shall be cleaned up as soon as practicable and any contaminants that accumulate in the stormwater system shall be removed and the spill area shall be inspected and cleaned, and measures shall be taken to prevent reoccurrence;</li> <li>c. <del>The consent holder shall provide the Canterbury Regional Council, Attention: Regional Leader Monitoring and Compliance, with the following information within 24 hours of a spill:</del> <ul style="list-style-type: none"> <li>i. <del>The date, time, location and estimated volume of the spill;</del></li> <li>ii. <del>The cause of the spill;</del></li> <li>iii. <del>The type of contaminant(s) spilled;</del></li> <li>iv. <del>Clean up procedures undertaken including evidence of appropriate disposal;</del></li> <li>v. <del>Details of the steps taken to control and remediate the effects of the spill on the receiving environment;</del></li> <li>vi. <del>An assessment of any potential effects of the spill; and</del></li> <li>vii. <del>Measures to be undertaken to prevent a reoccurrence.</del></li> </ul> </li> </ul>
12	<p><del>Any material, including sediment, hydrocarbons and other contaminants, removed in the exercising of this consent shall be disposed of at a location or facility authorised to receive such material.</del></p>
	<p><b>ACCIDENTAL DISCOVERY PROTOCOL - ARCHAEOLOGICAL MATERIALS</b></p>

13	<p>In the event of any discovery of archaeological material the consent holder shall immediately:</p> <ol style="list-style-type: none"> <li>Cease work within 10 metres of any part of the discovery and mark off the affected area;</li> <li>Advise the Canterbury Regional Council and Ashburton District Council of the discovery; and</li> <li>Advise Heritage New Zealand Pouhere Taonga of the discovery.</li> </ol>
14	<p>If the archaeological material is determined to be Koiwi Tangata (human bones) of Maori origin or taonga (treasured artefacts) by Heritage New Zealand Pouhere Taonga, the consent holder shall immediately:</p> <ol style="list-style-type: none"> <li>advise the office of Upoko Runanga o Arowhenua of the discovery; and</li> <li>consult Upoko Runanga o Arowhenua on any matters of tikanga (protocol) that are required in relation to the discovery and prior to the commencement of any investigation, and perform those requirements.</li> <li>Advise the New Zealand Police of the discovery in relation to Koiwi Tangata (human bones).</li> </ol>
15	<p>Iwi representatives, Canterbury Regional Council, Attention: Regional Leader-Monitoring and Compliance and Heritage New Zealand Pouhere Taonga <del>Trust</del> shall be afforded the opportunity to visit the site within three working days of the discovery (if and as they consider it necessary), and such persons shall be given a reasonable time to record and recover archaeological features discovered before work may recommence on the site. The site inspection shall occur within six working days of the discovery being made.</p>
16	<p>The consent holder may recommence any work if Heritage New Zealand Pouhere Taonga (following consultation with Kaitiaki Runanga if the material is of Maori origin) provides a statement in writing to the Council that appropriate action has been undertaken in relation to the archaeological material discovered.</p> <p><b>Advice Notes</b></p> <ol style="list-style-type: none"> <li><i>Under the Heritage New Zealand Pouhere Taonga Act 2014 an archaeological site is defined as any place associated with pre-1900 human activity, where there is material evidence relating to the history of New Zealand. For sites solely of Maori origin, this evidence may be in the form of accumulations of shell, bone, charcoal, burnt stones, etc. In later sites, artefacts such as bottles or broken glass, ceramics, metals, etc., may be found or evidence of old foundations, wells, drains, tailings, races or other structures. Human remains/koiwi may date to any historic period.</i></li> <li><i>It is unlawful for any person to destroy, damage, or modify the whole or any part of an archaeological site without the prior authority of Heritage New Zealand Pouhere Taonga. This is the case regardless of the legal status of the land on which the site is located, whether the activity is permitted under the District or Regional Plan or whether a resource or building consent has been granted. The Heritage New Zealand Pouhere Taonga Act 2014 provides for substantial penalties for unauthorised damage or destruction. An authority from Heritage New Zealand Pouhere Taonga <del>Trust</del> may be required.</i></li> </ol>
	<p><b>ACCIDENTAL DISCOVERY PROTOCOL – WASTE MATERIALS/CONTAMINATED SOILS</b></p>
<del>17</del>	<p><del>In the event of encountering visual or olfactory indicators of waste materials and/or soil contamination or an uncontrolled discharge of contaminants the consent holder or its contractors shall immediately comply with the Accidental Discovery Protocol (ADP). The ADP for unexpected contaminants shall include but not be limited to the following steps:</del></p> <ol style="list-style-type: none"> <li><del>Earthworks within ten metres of unexpected contaminants shall cease</del></li> </ol>

	<p><del>immediately; and</del></p> <p><del>b. Immediate steps shall be taken to minimise exposure of the contaminated material, including covering the contaminants with an impervious cover where practicable; and</del></p> <p><del>c. Notification of the Canterbury Regional Council, by a Suitably Qualified and Experienced Practitioner (SQEP), Attention: Contaminated Sites Manager, within 24 hours of the discovery;</del></p> <p><del>d. Earthworks within ten metres of unexpected contaminants shall not recommence until a (SQEP) confirms to Canterbury Regional Council, Attention: Regional Leader Monitoring and Compliance that it is safe to do so.</del></p> <p><del>e. The consent holder shall take all practicable steps to prevent the contaminated material becoming entrained in stormwater runoff.</del></p> <p><del>f. All records and documentation associated with the discovery shall be kept and copies shall be provided to the Canterbury Regional Council upon request.</del></p> <p><del>In the event of encountering visual or olfactory indicators of waste materials and/or soil contamination or an uncontrolled discharge of contaminants the consent holder or its contractors shall immediately comply with the Accidental Discovery Protocol (ADP). The ADP for unexpected contaminants shall comply with the HSSMP.</del></p>
	<b>ECOLOGICAL REFUGE PLANTING AND MANAGEMENT PLAN</b>
18	The consent holder shall prepare an Ecological Refuge Planting and Management Plan (ERPMP). The ERPMP shall be provided to the Canterbury Regional Council, Attention Regional Leader – Monitoring and Compliance at least three months prior to the commencement of construction works under this consent.
19	<p>The ERPMP shall meet the following objectives:</p> <p>a. To establish a permanent ecological refuge comprising six hectares of wetland, native plantings, and lizard habitat; and</p> <p>b. To provide receptor habitat for lizards to assist in meeting the objectives of the Lizard Management Plan (LMP) required under this consent.</p>
20	<p>The ERPMP shall include but not be limited to:</p> <p>a. A detailed plan that shows the area and location of the habitats to be created. The detailed plan shall give effect to the concept plan for the Refuge, which is attached as Plan CRC170651B, which forms part of this consent;</p> <p>b. The location, density and species of native plants to be planted in the Refuge;</p> <p>c. A requirement that all plants planted as part of the Refuge are grown from seeds collected from local, naturally occurring indigenous vegetation;</p> <p>d. A requirement for ongoing weed control at the refuge and the timing and methods for weed control;</p> <p>e. A schedule setting out the timing of the site preparation, planting and maintenance activities (including specifying when replacement plantings are needed, and when maintenance activities can cease);</p> <p>f. The methods for site preparation prior to planting, including stock exclusion and clearing and disposal of existing weeds;</p> <p>g. The planting methods to be employed in establishing the Refuge; and</p> <p>h. The monitoring activities (and their frequency and duration) that are to be conducted by the consent holder to monitor the success of the activities that are undertaken to establish and maintain the ecological refuge LMP.</p>
	<b>LIZARD MANAGEMENT PLAN</b>

21	The Consent Holder shall prepare and provide a Lizard Management Plan (LMP) to the Canterbury Regional Council, attention Regional Leader – Monitoring and Compliance at least three months prior to the commencement of construction works under this consent.
22	<p>The LMP shall set out detailed methods and timeframes to ensure that the following objectives are achieved:</p> <ul style="list-style-type: none"> <li>a. To provide an area of lizard habitat that is larger than one hectare and is consistent in size with the area identified on Plan CRC170652B as Open Shrubland with stone piles.</li> <li>b. To translocate lizards from the existing stone piles within the Klondyke Storage Dam's footprint to the Refuge using methods that will maximise the probability of survival and establishment of a viable population of lizards at the receptor habitat; and</li> <li>c. To monitor whether lizards have established successful populations at the receptor habitat.</li> </ul>
23	<p>The LMP shall include but not be limited to:</p> <ul style="list-style-type: none"> <li>a. The objectives set out in condition (22);</li> <li>b. Copies of, and a brief explanation of the permits secured under the Wildlife Act 1953 for the translocation of lizards from the Klondyke Storage Dam footprint to the Refuge and the conditions (if any) that apply to the relocation activities;</li> <li>c. A map showing the area, location and layout of the lizard habitat within the Refuge;</li> <li>d. The methods and timing to be employed by the consent holder for the removal of the existing stone piles from the footprint of the Klondyke Storage Dam and the re-establishment of stone piles within the Refuge;</li> <li>e. The methods and timing to be employed by the consent holder for translocating lizards to new or existing lizard habitat at the Refuge;</li> <li>f. The identification of suitable nearby unaffected lizard habitat to which lizards may be re-located, if such relocation proves necessary;</li> <li>g. The monitoring activities (and their frequency and duration) that are to be conducted by the consent holder to monitor the success of the activities that are undertaken to relocate the lizards and to establish and maintain a viable lizard habitat;</li> <li>h. Descriptions of the lizard habitat and fauna at the source site (the Klondyke Storage Dam) and the receptor site (being the Refuge); and</li> <li>i. Methods for collection of DNA from lizards captured for translocation.</li> </ul>
	<b>MONITORING OF ERPMP AND LMP</b>
24	The consent holder shall, at least three months prior to the commencement of any construction works authorised by this resource consent, appoint an appropriately qualified and experienced ecologist to undertake the monitoring required by the ERPMP and LMP.
25	The monitoring undertaken by the ecologist appointed in accordance with condition (24) shall occur at the frequency and using the methods set out in the ERPMP and LMP over the course of construction works / activities authorised by this resource consent, and shall continue for not less than five years after the stone pile and lizard relocation activities required by conditions (22) and (23) commence, and not less than three years after all construction is complete.



26	<p>The ecologist appointed in accordance with condition (24) shall prepare an annual report as follows:</p> <ol style="list-style-type: none"> <li>The report shall be prepared for the first four years of the monitoring required by condition (24) and then every two years thereafter until the completion of the monitoring; and</li> <li>All of the reports required by this condition shall be provided to the Canterbury Regional Council, attention Regional Leader – Monitoring and Compliance by no later than the 30th of June each year; and</li> <li>Each monitoring report shall assess whether the ERPMP and LMP are achieving the purposes set out in conditions (19), (20), (22), and (23); and</li> <li>If the findings of the ecologist are that changes to the LMP and/or the ERPMP are required, including any additional measures or actions to achieve the purposes of the ERPMP and LMP plans, they shall make recommendations to the consent holder as to the changes and/or additional measures or actions that are required.</li> </ol>
27	Where revisions are made to the ERPMP and /or LMP to give effect to the recommendations of the ecologist arising from condition (24) of this resource consent, the revisions shall be provided to the Canterbury Regional Council, attention Regional Leader – Monitoring and Compliance at least 10 working days prior to the ERPMP and /or LMP being amended.
	<b>DECOMMISSIONING</b>
28	Once the Construction Works have been completed the consent holder shall decommission the sediment and erosion measures required by condition 5. Erosion and sediment control measures shall not be decommissioned until the site is stabilised and the stormwater system for the developed site is functioning.
	<b>ADMINISTRATION</b>
29	<p>Pursuant to Section 128(1) of the Resource Management Act 1991, the Consent Authority may serve notice of its intention to review the conditions of this consent within a period of three months commencing on each anniversary of the date of issue of the consent for any of the following purposes:</p> <ol style="list-style-type: none"> <li>To deal with any adverse effects on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or</li> <li>To require the Consent Holder to adopt the best practicable option to mitigate any adverse effect upon the environment; or</li> <li>To deal with any other adverse effect on the environment on which the exercise of the consent may have any influence.</li> </ol>
30	<p>The lapsing date for the purposes of Section 125 of the Resource Management Act 1991 shall be 15 years from the date consent is issued.</p> <p><b>Advice note:</b> 'Exercised' is defined as implementing any requirements to operate this consent <u>and</u> undertaking the activity as described in these conditions and/or application documents.</p>
31	<b>This resource consent shall expire 35 years after it has commenced.</b>

**CRC170653: a land use consent to disturb, and to remove vegetation from, the bed of the Rangitata River for the purposes of constructing and the maintenance of a sluice outlet and fish bypass channel.**

	<b>GLOSSARY OF TERMS &amp; ABBREVIATIONS USED IN THIS RESOURCE CONSENT</b>
0	<p><b>Appropriately qualified and experienced expert(s)</b> means a person or persons:</p> <ol style="list-style-type: none"> <li>With a relevant and recognised tertiary qualification(s) to the topic being assessed;</li> <li>Whom is (are) recognised as a full member (or equivalent) of a relevant professional institution(s) (such as the Institution of Professional Engineers New Zealand), where such institutions exist;</li> <li>Has more than 10-years relevant experience in the topic being assessed; and</li> </ol> <p><b>Certifies and Certification</b> means a process whereby:</p> <ol style="list-style-type: none"> <li>The consent holder supplies a report, action plan, design plan, construction methodology, monitoring plan, commissioning plan, safety system or a management plan, and the Canterbury Regional Council appoints an appropriately qualified and experienced expert to assesses the documentation submitted to ensure that it achieves the requirements of the relevant condition(s) of consent;</li> <li>Should the documents supplied in accordance with condition 0(a), in the opinion of the expert appointed by the Council, achieve the intent of the relevant condition(s) of these resource consents, the Regional Leader: Compliance and Monitoring of the Canterbury Regional Council shall issue a written certificate to the consent holder confirming that the requirements of the relevant condition(s) have been satisfied;</li> <li>If the expert appointed by the Council is not satisfied that the documents supplied in accordance with condition (a) achieves requirements of the relevant condition(s), the Regional Leader: Compliance and Monitoring of the Canterbury Regional Council shall advise (in writing) the consent holder of the experts concerns and ask that the report, commissioning plan, monitoring plan, action plan, safety system or management plan be modified so as to address the concerns, and then be resubmitted;</li> <li>This process shall be repeated until the Regional Leader: Compliance and Monitoring of the Canterbury Regional Council is able (on the advice of the expert) to certify that the requirements of the applicable condition(s) of consent have been satisfied; and</li> </ol> <p><b>CLG</b> means the Community Liaison Group.</p> <p><b>CMP</b> means Construction Management Plan.</p> <p><b>Construction site</b> includes all areas, excluding gazetted and vested road reserves that contain formed roads, where construction works / activities authorised by these resource consents are being undertaken by the consent holder.</p> <p><b>Council</b> means the Canterbury Regional Council.</p> <p><b>EAP</b> means the Emergency Action Plan.</p> <p><b>ESCP</b> means Erosion and Sediment Control Plan.</p> <p><b>Fish screen</b> means the rotary fish screen and its associated bypass channel.</p> <p><b>FSVMP</b> means Fish Screen Verification Monitoring Plan</p> <p><b>Flood flow take</b> means a flood flow abstraction from the Rangitata River.</p> <p><b>HSSMP</b> means the Hazardous Substances Spill Management Plan</p> <p><b>Klondyke Pond</b> means the Lake Klondyke Water Storage Facility.</p> <p><b>km/hr</b> means kilometres per hour.</p> <p><b>l/s</b> means litres per second</p> <p><b>m<sup>3</sup></b> means cubic metres</p> <p><b>m<sup>3</sup>/s</b> means cubic metres per second</p> <p><b>m</b> means metre</p>

	<p><u>m/s means metres per second.</u></p> <p><u>mm/s means millimetres per second</u></p> <p><u>NZSOLD means New Zealand Society on Large Dams New Zealand.</u></p> <p><u>PPV means Peak Particle Velocity</u></p> <p><u>Reasonable Mixing Zone means, for the purposes of condition 18.0A, a reasonable mixing zone extending from the point of discharge from the Sluice Channel to a point that is 200 metres downstream of the discharge point.</u></p> <p><u>Regional Water Table means the upper surface of the full saturated groundwater system but does not, for the purposes of these resource consents, include perched groundwater (which is groundwater in saturated strata that occurs above the regional water table but is separated from it by a layer of unsaturated strata).</u></p> <p><u>RDR means the Rangitata Diversion Race.</u></p> <p><u>RDR mods means the modifications to the Rangitata Diversion Race.</u></p> <p><u>RL means the right bank when looking downstream.</u></p> <p><u>RMA means the Resource Management Act</u></p> <p><u>The Proposal means the Klondyke Pond, WWC, RDR mods, fish screen, SBR relocation, flood flow take and refuge, and all incidental work.</u></p> <p><u>TSP means total suspended particulate.</u></p> <p><u>WRMP means Works in the River Management Plan</u></p>
	<b><u>CERTIFICATION PROCESS</u></b>
<u>0A.1</u>	<p><u>Except where explicitly required otherwise by conditions of this consents, the consent holder shall:</u></p> <ol style="list-style-type: none"> <li><u>a. Engage an appropriately qualified and experienced independent expert (or experts) to prepare the management plans, design plans, construction methodology, monitoring plans, action plan, commissioning plan and safety system specified in the conditions of this consent using the draft versions of these plans (which are attached as Annexure B) as a base document;</u></li> <li><u>b. Provide drafts of each of the documents required by condition 0A.1 (a) to the Canterbury Regional Council, Attention Regional Leader - Monitoring and Compliance, not less than three months prior to construction works / activities commencing in accordance with these resource consents;</u></li> <li><u>c. Not commence any construction works / activities authorised by these resource consents until it has received a certificate from the Regional Leader: Compliance and Monitoring of the Canterbury Regional Council that the management plan, design plan, construction methodology, monitoring plan, action plan, commissioning plan or safety system is consistent with the applicable conditions of this consent;</u></li> <li><u>d. Adhere to and implement the certified version of the management plan, design plans, construction methodology, monitoring plan, action plan, commissioning plan or safety system;</u></li> <li><u>e. Submit any proposed variations to the management plans, design plans, construction methodology, action plan, safety system, monitoring plans and commissioning plan to the Regional Leader: Compliance and Monitoring of the Canterbury Regional Council, at least seven days prior to when the proposed change will be implemented by the consent holder. Any variations made shall not take effect until the Regional Leader: Compliance &amp; Monitoring of the Canterbury Regional Council certifies that the variations accord with the applicable conditions of the resource consent;</u></li> <li><u>f. Appoint an appropriately qualified and independent expert (or experts) to review the management plans, action plan, safety system, monitoring plans and commissioning plan at the frequency set out in these resource consents. Should the conditions of these resource consents not set a frequency, the reviews shall be conducted annually. Such reviews are to ensure that the management plans, action plan, safety system, monitoring plans and commissioning plan continue to achieve the conditions of these resource consents.</u></li> </ol>

	<p><u>g. Any changes made as a result of the reviews conducted in accordance with condition 0A.1(f) shall be submitted to the Canterbury Regional Council and shall not take effect until the Regional Leader: Compliance and Monitoring of the Canterbury Regional Council certifies that the changes accord with the applicable conditions of these resource consents;</u></p> <p><u>h. Pay the costs of the expert(s) appointed by the Canterbury Regional Council to certify the management plans, design plans, construction methodology, monitoring plans, commissioning plan, action plan and safety system (and any variations or changes thereto) in accordance with conditions 0A.1(c) and 0A.1(h); and</u></p> <p><u>i. Ensure that copies of the certified commissioning plan, design plans, construction methodology and management plans, monitoring plans, action plan, safety system and management plans set out in these conditions are available on site at all times during the construction works / activities authorised by this consent; and</u></p> <p><u>j. Ensure that all key personnel are to be made aware of the content and requirements / obligations of the management plans, action plan, safety system, commissioning plan and monitoring plans.</u></p>
<b>SCOPE</b>	
1	<p>The activities shall be limited to:</p> <ul style="list-style-type: none"> <li>a. Disturbance and excavation of the bed of the Rangitata River; and</li> <li>b. Removal of vegetation from the bed of the Rangitata River</li> </ul> <p>For the purposes of constructing a sluice outlet and fish bypass channel on land located at Shephards Bush Road, Monalto Road, Klondyke Road, and Klondyke Terrace, identified as the 'works area' on Plan CRC170653, which forms part of this consent, <u>and maintenance activities up to 500 metres upstream and downstream of this point.</u></p>
1A	<p><u>The Proposal shall be constructed, operated and maintained in accordance with the details contained within the following documents:</u></p> <ul style="list-style-type: none"> <li><u>a. The Assessment of Environmental Effects report prepared by Ryder Consulting Limited in July 2016 and entitled "Lake Klondyke: A Proposed Water Storage Facility, Assessment of Environmental Effects Report &amp; Resource Consent Application, Prepared for the Rangitata Diversion Race Management Limited, Date Finalised: July 2016"; and</u></li> <li><u>b. The Assessment of Environmental Effects report prepared by Ryder Consulting Limited in November 2017 and entitled "Proposed Rangitata Diversion Race Fish Screen and Supplementary Matters Resource Consent Application".</u></li> </ul> <p><u>except where modified by specific conditions set out in these resource consents or by the plans authorised by the building consent for the Proposal.</u></p>
<b>PRE-CONSTRUCTION</b>	
2	<p>The consent holder shall:</p> <ul style="list-style-type: none"> <li>a. be responsible for all the contracted operations relating to the exercise of this consent including the Construction Works; and</li> <li>b. ensure compliance with consent conditions.</li> </ul>
3	<p>Prior to commencement of any physical works required for the activities described in Condition (1) (hereafter referred to as the 'Construction Works') the consent holder or its agent or contractor shall arrange and conduct a pre-construction site meeting between the Canterbury Regional Council and all persons involved in the Construction Works. At a minimum, the following shall be covered at the meeting:</p> <ul style="list-style-type: none"> <li>a. Scheduling and staging of the Construction Works;</li> </ul>

	<ul style="list-style-type: none"> <li>b. Responsibilities of all relevant parties;</li> <li>c. Contact details for all relevant parties;</li> <li>d. Expectations regarding communication between all relevant parties;</li> <li>e. Procedures for implementing any changes to the Construction Works;</li> <li>f. Site inspection; and</li> <li>g. Confirmation that all persons involved in the Construction Works have copies of the contents of this consent document, the Erosion and Sediment Control Plan (ESCP) and all plans and methodologies associated with this consent.</li> </ul>
	<b>GENERAL</b>
4	<p>Prior to any works authorised by this consent being carried out in the period 1 September to 1 February, the consent holder shall ensure that:</p> <ul style="list-style-type: none"> <li>a. a suitably qualified and independent person inspects the proposed area of works, no earlier than eight days prior to any works being carried out, and locates any bird breeding sites of birds listed in Appendix A, which forms part of this consent;</li> <li>b. the person carrying out the inspection prepares a written report that identifies all the located bird breeding or nesting sites and provides copies of that report to the consent holder and the Canterbury Regional Council, attention Regional Leader - Monitoring and Compliance;</li> <li>c. the name and qualifications of the person carrying out the inspection are provided to the Canterbury Regional Council with the report;</li> <li>d. any person carrying out works authorised by this consent are informed of any bird breeding or nesting sites and their location; and</li> <li>e. where work ceases for more than eight days, the site shall be re-inspected for bird breeding and nesting sites in accordance with parts (a) to (d) of this condition</li> </ul>
5	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, except as identified by the inspection undertaken in accordance with condition (4) and detailed in the report. For the purposes of this condition birds are defined as those bird species listed in Appendix A, which forms part of this consent.
6	<p>To prevent the spread of pest species, including but not limited to Didymo, the consent holder shall ensure that activities authorised by this consent are undertaken in accordance with the Biosecurity New Zealand's hygiene procedures and that machinery shall be free of plants and plant seeds prior to use in the riverbed.</p> <p><b>Advice Note:</b> You can access the most current version of these procedures from the Biosecurity New Zealand website <a href="http://www.biosecurity.govt.nz">http://www.biosecurity.govt.nz</a></p>
7	<p>All practicable measures shall be undertaken to minimise:</p> <ul style="list-style-type: none"> <li>a. erosion of the bed and banks of the Rangitata River; and</li> <li>b. the discharge of sediment to the Rangitata River; as a result of the works.</li> </ul>
8	<p>All practicable measures shall be undertaken to prevent oil and fuel leaks from vehicles and machinery including but not limited to:</p> <ul style="list-style-type: none"> <li>a. There shall be no storage of fuel or refuelling of vehicles and machinery within 20 metres of the bed of a river.</li> <li>b. Fuel shall be stored securely or removed from site overnight</li> </ul> <p><b>Advice Note:</b> In addition to this consent, the consent holder will also need to ensure that the activity complies with LWRP Rule 5.145 (Refuelling in Lake and Riverbeds). If the activity does not comply with Rule 5.145 of the LWRP, an additional consent will be required pursuant to section 15 of the Resource Management Act 1991.</p>

9	<p>Works shall:</p> <ol style="list-style-type: none"> <li>not be carried out on Sundays or public holidays.</li> <li>only occur between the hours of 6:30 am and 8:00 pm inclusive</li> </ol> <p><b>Advice Note:</b> The consent holder should also check compliance with District Council regulations.</p>
	<b><u>COMPLAINTS REGISTER</u></b>
9A.1	<p><u>The consent holder shall keep a register of complaints lodged with it in respect of the exercise of these resource consents.</u></p> <p><u>The register prepared and maintained in accordance with this condition shall record the following details for each complaint that is made:</u></p> <ol style="list-style-type: none"> <li><u>The date and time of the complaint; and</u></li> <li><u>The name and contact details of the complainant (if they are provided to the consent holder) and a description of the complaint; and</u></li> <li><u>The investigations (if any) that the consent holder undertook in response to each complaint; and</u></li> <li><u>Any action that was undertaken to address the concerns raised in the complaint; and</u></li> <li><u>The feedback provided to each complainant.</u></li> </ol>
9A.2	<u>The consent holder shall forward a copy of the register prepared and maintained in accordance with condition 9A.1 to the Canterbury Regional Council, Attention RMA Compliance and Monitoring Manager within five (5) working days of receiving a request to do so from the Council.</u>
9A.3	<u>The consent holder shall appoint a Liaison Officer for the Proposal prior to any construction works / activities authorised by these resource consents commencing. The Liaison Officer shall be the point of contact for the public during construction of the Proposal. The name and contact details for the Liaison Officer shall be advertised at the main construction entrance for the Klondyke Pond.</u>
	<b><u>CONSTRUCTION MANAGEMENT PLAN</u></b>
9B.1	<u>The purpose of the Construction Management Plan is to describe the measures that will be implemented to ensure that all construction related environmental effects are avoided, minimised, or managed in accordance with the conditions of these resource consents and engineering / environmental best practice.</u>
9B.2	<p>The objectives of the CMP are to:</p> <ol style="list-style-type: none"> <li>Avoid and / or minimise the magnitude of the adverse effects generated during the construction activities and / or works authorised by these resource consents; and</li> <li>Provide clarity as to how the Proposal is to be constructed by setting out the: <ol style="list-style-type: none"> <li>Construction methodology that is to be employed to construct the Proposal; and</li> <li>Staging, timing, duration and monitoring of construction works and / or activities; and</li> <li>Measures that are to be applied, and when they are to be applied, to minimise the effects of the construction activities and / or works authorised by these resource consents. These measures shall include: <ul style="list-style-type: none"> <li>* A requirement that all construction works / activities be in accordance with the Canterbury Regional Council's ESCG (2007);</li> <li>* Measures necessary to provide for stormwater disposal and sediment removal;</li> <li>* The inclusion and / or maintenance of a vegetated strip (or other treatment system supported by the ESCG) between</li> </ul> </li> </ol> </li> </ol>

	<p>all areas of earthworks and water courses / water bodies / water races;</p> <ul style="list-style-type: none"> <li>* Controls on the siting of stockpiles to avoid sediment-entrained runoff entering water races / water courses / water bodies and to reduce the risk of fugitive dust emissions;</li> <li>* Measures to avoid the entrainment of oil, fuels or any other hazardous substances in stormwater, with particular emphasis on re-fuelling areas and repair areas; and</li> <li>* Requirements regarding the stabilisation and maintenance of all construction site entrances associated with the Proposal from public roads; and</li> </ul> <p>iv. The means by which stakeholders are to be kept informed of the construction works / activities being undertaken by the consent holder and/or its contractor(s).</p>
9B.3	<p>The CMP shall contain the following sections:</p> <ul style="list-style-type: none"> <li>a. Purpose and Scope</li> <li>b. Personnel, Team Structure, Contact Details and Responsibilities. This will include the 24-hour contact details for the following personnel: <ul style="list-style-type: none"> <li>i. The administrator of the complaints register (if required by conditions of this consent); and</li> <li>ii. The Liaison Officer (if required by conditions of this consent);</li> </ul> </li> <li>c. Environmental Policy and Environmental Management System;</li> <li>d. Resource Consent and Building Consent Requirements;</li> <li>e. Accidental Discovery Protocol (if required by conditions of this consent);</li> <li>f. Environmental Management Sub-Plans including, as a minimum, the following plans: <ul style="list-style-type: none"> <li>i. Erosion and Sediment Control Plan;</li> <li>ii. Hazardous Substances Spill Management Plan;</li> <li>iii. Vibration Management Plan;</li> <li>iv. Waste Management Plan;</li> <li>v. Works in the River Management Plan;</li> <li>vi. Smoke Management Plan;</li> <li>vii. Dust Management Plan; and</li> <li>viii. Contaminated Land Remediation Action Plan</li> </ul> </li> <li>g. Construction Methodology;</li> <li>h. Training and Induction of Contractors and their Staff;</li> <li>i. Subcontractor Management;</li> <li>j. Monitoring and Site Inspections;</li> <li>k. Conformance and Corrective / Preventative Actions;</li> <li>l. Meetings Frequency and Purpose; and</li> <li>m. Environmental Systems Reviews.</li> </ul>
	<b>Erosion and Sediment Control Plan</b>
10	<p><u>The purpose of the Erosion and Sediment Control Management Plan is to ensure that the consent holder implements appropriate measures, as defined by the Canterbury Regional Council's Erosion and Sediment Control Guidelines (2007) (an equivalent industry guideline), to minimise all actual or potential erosion and sediment effects arising from the construction works / activities authorised by these resource consents.</u></p> <p>The consent holder shall prepare an ESCP, subject to the following conditions:</p> <ul style="list-style-type: none"> <li>a. No less than one month before the commencement of any Construction Works, a copy of the ESCP shall be submitted to the Canterbury Regional Council: Attention Regional Leader – Monitoring and Compliance for review and certification. All activities authorised by this consent shall be carried out in accordance with the ESCP.</li> </ul>



	<p>b. Unless Canterbury Regional Council provides notice in writing that it is unable to certify the ESCP within 20 working days of receipt of a draft ESCP, it is deemed to be certified by the Canterbury Regional Council. For the purposes of this condition, "Certification" means that the ESCP contains all the information specified in Condition 4(c).</p> <p>c. The ESCP shall include but not be limited to:</p> <ul style="list-style-type: none"> <li>i. A list of the staff and / or experts responsible for reviewing the ESCP;</li> <li>ii. A description of staff training and induction requirements that will be undertaken to ensure that the ESCP is followed by all acting in accordance with these resource consents;</li> <li>iii. A description of the site and local receiving environment;</li> <li>iv. A site drainage plan;</li> <li>v. Details of any anticipated earth excavation requirements;</li> <li>vi. A schedule detailing the anticipated staging of the Construction Works including: <ul style="list-style-type: none"> <li>A. Site preparation works;</li> <li>B. Any equipment or plant mobilisation necessary for carrying out the construction works;</li> <li>C. Any field verification requirement.</li> </ul> </li> <li>vii. A detailed description of how run on and run off water will be managed within the construction site;</li> <li>viii. Measures to avoid or minimise any sediment entering exposed groundwater or the Rangitata River or being tracked onto roadways or neighbouring properties;</li> <li>ix. A detailed description of how water will be treated prior to disposal to the various receiving environments;</li> <li>x. Details of compliance checks, and any maintenance necessary to ensure that measures required under the ESCP or this consent are performing effectively.</li> <li>xi. Identification of persons responsible for carrying out the actions within the ESCP including their contact details;</li> <li>xii. A detailed description of how vegetation stripping and replanting would be undertaken to manage the area of disturbed ground that will be open throughout the construction works / activities authorised by this resource consent.</li> </ul> <p>d. The ESCP shall be prepared in accordance with:</p> <ul style="list-style-type: none"> <li>i. Environment Canterbury's "Erosion and Sediment Control Toolbox for the Canterbury Region" (ESCT) <a href="http://esct.canterbury.govt.nz/">http://esct.canterbury.govt.nz/</a>; or</li> <li>ii. An equivalent industry guideline. If an alternative guideline is used, the ESCP shall provide details of the relevant alternative methods used and an explanation of why they are more appropriate than the ESCT.</li> </ul> <p>e. Any amendments or revisions to the ESCP must be submitted to Canterbury Regional Council: Attention Regional Leader – Monitoring and Compliance.</p>
	<b>Hazardous Substance Management</b>
11	<p>The consent holder shall prepare a Hazardous Substances Spill Management Plan (HSSMP): The HSSMP shall include but is not limited to:</p> <ul style="list-style-type: none"> <li>a. Identifying the hazardous substances that will be retained on the site during construction and the restrictions that apply to, and are to be followed, in relation to their storage and use;</li> <li>b. Identifying the potential situations and locations where hazardous substances may be accidentally spilled, and to ensure that the appropriate measures are implemented by the consent holder to ensure that all actual or potential hazardous substances effects arising from the construction activities are minimised. This includes, but is not limited to, measures to</li> </ul>

	<p>provide secondary containment around storage locations and refuelling sites, to minimise the extent of soil contamination and to prevent run-off of spilled liquids from reaching surface water bodies;</p> <ul style="list-style-type: none"> <li>c. A list of the staff and/or experts responsible for reviewing the HSSMP;</li> <li>d. A description of staff / expert training and induction requirements that will be undertaken to ensure that the HSSMP is followed by all acting in accordance with these resource consents;</li> <li>e. A description of the site and local receiving environment;</li> <li>f. The procedures that are to be followed for the use of the hazardous substances within the construction site, including the construction personnel that are authorised to use them;</li> <li>g. The minimum requirements for spill management kits that are to be distributed throughout the construction site and the procedures that are to apply to the disposal of used spill management materials; and</li> <li>h. The procedures for corrective action in the event of a spill.</li> </ul>
12	<p>The consent holder shall take all practicable measures to avoid spills of fuel or any other contaminants. In the event of a spill of fuel or any other hazardous substances, the following corrective action shall be undertaken but is not limited to:</p> <ul style="list-style-type: none"> <li>a. All practicable measures shall be taken to prevent the spill being discharged into land via the stormwater system;</li> <li>b. The spill shall be cleaned up as soon as practicable and any contaminants that accumulate in the stormwater system shall be removed and the spill area shall be inspected and cleaned, and measures shall be taken to prevent reoccurrence;</li> <li><del>c. The consent holder shall provide the Canterbury Regional Council, Attention: Regional Leader Monitoring and Compliance, with the following information within 24 hours of a spill:</del> <ul style="list-style-type: none"> <li><del>i. The date, time, location and estimated volume of the spill;</del></li> <li><del>ii. The cause of the spill;</del></li> <li><del>iii. The type of contaminant(s) spilled;</del></li> <li><del>iv. Clean up procedures undertaken including evidence of appropriate disposal;</del></li> <li><del>v. Details of the steps taken to control and remediate the effects of the spill on the receiving environment;</del></li> <li><del>vi. An assessment of any potential effects of the spill; and</del></li> <li><del>i. Measures to be undertaken to prevent a reoccurrence.</del></li> </ul> </li> </ul>
<del>13</del>	<del>Any material, including sediment, hydrocarbons and other contaminants, removed in the exercising of this consent shall be disposed of at a location or facility authorised to receive such material.</del>
	<b>Works in the River Management Plan</b>
14	<p>The consent holder shall prepare and adhere to a 'works in the River Management Plan' (WRMP). The WRMP primary objective is to ensure that the appropriate measures, as defined by Canterbury Regional Council's Erosion and Sediment Control Toolbox for Canterbury are implemented by the consent holder such that all actual or potential riverbed effects arising from the construction and any recurrent maintenance activities are minimised.</p>
15	<p>The WRMP shall include but not be limited to:</p> <ul style="list-style-type: none"> <li>a. Identification of the staff and / or experts responsible for reviewing the WRMP;</li> <li>b. A description of staff training and induction requirements that will be undertaken to ensure that the WRMP is followed by all acting in accordance with these resource consents;</li> <li>c. A description of the site and local receiving environment;</li> </ul>

	<ul style="list-style-type: none"> <li>d. An assessment of flood events, water levels and their return periods;</li> <li>e. A requirement for the consent holder to monitor the weather throughout the construction of the Proposal and to set the necessary trigger events that are to be used as an early warning system (where work would be ceased and plant removed from the riverbed); and</li> <li>f. A description of how works (including any recurrent maintenance works that are conducted following the first filling of the Klondyke Storage Dam) in the Rangitata River shall be managed in order to minimise the risk of adverse environmental effects, and how those effects will be remedied and/or mitigated.</li> </ul>
16	A copy of the WRMP shall be provided to the Canterbury Regional Council, attention Regional Leader - Monitoring and Compliance; at least 10 days prior to the activities authorised under this consent commencing.
	<b>ACCIDENTAL DISCOVERY PROTOCOL - ARCHAEOLOGICAL MATERIALS</b>
17	<p>In the event of any discovery of archaeological material the consent holder shall immediately:</p> <ul style="list-style-type: none"> <li>a. Cease work within 10 metres of any part of the discovery and mark off the affected area;</li> <li>b. Advise the Canterbury Regional Council and Ashburton District Council of the discovery; and</li> <li>c. Advise Heritage New Zealand Pouhere Taonga of the discovery.</li> </ul>
18	<p>If the archaeological material is determined to be Koiwi Tangata (human bones) of Maori origin or taonga (treasured artefacts) by Heritage New Zealand Pouhere Taonga, the consent holder shall immediately:</p> <ul style="list-style-type: none"> <li>a. advise the office of Upoko Runanga o Arowhenua of the discovery; and</li> <li>b. consult Upoko Runanga o Arowhenua on any matters of tikanga (protocol) that are required in relation to the discovery and prior to the commencement of any investigation, and perform those requirements.</li> <li>c. Advise the New Zealand Police of the discovery in relation to Koiwi Tangata (human bones).</li> </ul>
19	Iwi representatives, Canterbury Regional Council, Attention: Regional Leader-Monitoring and Compliance and Heritage New Zealand Pouhere Taonga <del>Trust</del> shall be afforded the opportunity to visit the site within up to three working days of the discovery (if and as they consider it necessary), and such persons shall be given a reasonable time to record and recover archaeological features discovered before work may recommence on the site. The site inspection shall occur within six working days of the discovery being made.
20	<p>The consent holder may recommence any work if Heritage New Zealand Pouhere Taonga (following consultation with Kaitiaki Runanga if the material is of Maori origin) provides a statement in writing to the Council that appropriate action has been undertaken in relation to the archaeological material discovered.</p> <p><b>Advice Notes</b></p> <ol style="list-style-type: none"> <li>1. <i>Under the Heritage New Zealand Pouhere Taonga Act 2014 an archaeological site is defined as any place associated with pre-1900 human activity, where there is material evidence relating to the history of New Zealand. For sites solely of Maori origin, this evidence may be in the form of accumulations of shell, bone, charcoal, burnt stones, etc. In later sites, artefacts such as bottles or broken glass, ceramics, metals, etc., may be found or evidence of old foundations, wells, drains, tailings, races or other structures. Human remains/koiwi may date to any historic period.</i></li> <li>2. <i>It is unlawful for any person to destroy, damage, or modify the whole or any part of an archaeological site without the prior authority of Heritage New</i></li> </ol>

	<i>Zealand Pouhere Taonga. This is the case regardless of the legal status of the land on which the site is located, whether the activity is permitted under the District or Regional Plan or whether a resource or building consent has been granted. The Heritage New Zealand Pouhere Taonga Act 2014 provides for substantial penalties for unauthorised damage or destruction. An authority from Heritage New Zealand Pouhere Taonga <del>Trust</del> may be required.</i>
	<b>AFTER WORKS</b>
21	All accumulated debris and other waste material shall be removed from the site no later than 7 days after works have been completed.
22	The Canterbury Regional Council, Attention: Regional Leader - Monitoring and Compliance shall be notified within seven working days after the completion of any works authorised by this consent.
	<b>ADMINISTRATION</b>
23	<p>Pursuant to Section 128(1) of the Resource Management Act 1991, the Consent Authority may serve notice of its intention to review the conditions of this consent within a period of three months commencing on each anniversary of the date of issue of the consent for any of the following purposes:</p> <ul style="list-style-type: none"> <li>a. To deal with any adverse effects on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or</li> <li>b. To require the Consent Holder to adopt the best practicable option to mitigate any adverse effect upon the environment; or</li> <li>c. To deal with any other adverse effect on the environment on which the exercise of the consent may have any influence.</li> </ul>
24	<p>The lapsing date for the purposes of Section 125 of the Resource Management Act 1991 shall be 15 years from the date consent is issued.</p> <p><b>Advice note:</b> 'Exercised' is defined as implementing any requirements to operate this consent and undertaking the activity as described in these conditions and/or application documents.</p>
25	<b><u>This resource consent shall expire 35 years after it has commenced.</u></b>
	<p><b>Appendix A</b> - list of bird species referred to in bird nesting conditions (5) South Island</p> <p>Pied oystercatcher  Black stilt Pied stilt  Wrybill Banded dotterel Black-fronted dotterel Blue duck  Paradise shelduck Grey duck  NZ shoveler Grey teal NZ scaup  Black-billed gull Red-billed gull Caspian tern White-fronted tern Black-fronted tern White-winged Black tern  Australasian bittern Marsh crake Spotless crake  Cormorant/shag colonies Royal spoonbill  Crested grebe</p>

**CRC170655: a water permit to take and use surface water at a rate not exceeding 0.5 cumecs from the RDR canals for construction purposes (i.e. dust suppression).**

1	<p>Water shall only be taken from the Rangitata Diversion Race canal located between <del>map reference NZTM2000: 1461632 mE 5145242 mN and 1462093 mE 5144893 mN coordinates: 43°49'59.16"S, 171°16'43.69"E; 43°50'10.46"S, 171°17'4.83"E.</del> on Plan CRC170655 which forms part of this consent.</p> <p><b>Advice note:</b> This consent does not authorise the taking of surface water from the Rangitata River, only the RDR canal and is covered under the consent holder's consents to take water which discharge into the canal.</p>
1A	<p><u>The Proposal shall be constructed, operated and maintained in accordance with the details contained within the following documents:</u></p> <ul style="list-style-type: none"> <li><u>a. The Assessment of Environmental Effects report prepared by Ryder Consulting Limited in July 2016 and entitled "Lake Klondyke: A Proposed Water Storage Facility, Assessment of Environmental Effects Report &amp; Resource Consent Application, Prepared for the Rangitata Diversion Race Management Limited, Date Finalised: July 2016"; and</u></li> <li><u>b. The Assessment of Environmental Effects report prepared by Ryder Consulting Limited in November 2017 and entitled "Proposed Rangitata Diversion Race Fish Screen and Supplementary Matters Resource Consent Application".</u></li> </ul> <p><u>except where modified by specific conditions set out in these resource consents or by the plans authorised by the building consent for the Proposal</u></p>
2	<p>Water may be taken under this consent at a rate not exceeding 500 litres per second and a volume not exceeding 43,200 cubic metres per day.</p>
3	<p>Water taken in accordance with conditions 5.7C and 5.7D shall only be used for construction purposes within the area shown on Plan A, which forms part of these resource consents, which includes:</p> <ul style="list-style-type: none"> <li>a. Dust suppression;</li> <li>b. Concrete batching;</li> <li>c. Vehicle/plant cleaning; and</li> <li><u>d. Storage in ponds able to store no more than 14,000 m<sup>3</sup>; and</u></li> <li>e. Firefighting.</li> </ul>
4	<p>The consent holder shall before the first exercise of this consent:</p> <ul style="list-style-type: none"> <li>a. Install a water meter(s) that: <ul style="list-style-type: none"> <li>i. has an international accreditation or 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 ten percent at a location(s) that will ensure the total take of water is measured; and</li> <li>ii. has 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), or which is telemetered, as specified in clause (b)(iii).</li> </ul> </li> <li>b. The recording device(s) shall: <ul style="list-style-type: none"> <li>i. 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</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>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 in a commonly used format and provide 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>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. No data in the recording device(s) shall be deliberately changed or deleted.</li> <li>c. The water meter and recording device(s) shall be accessible to the Canterbury Regional Council at all times for inspection and/or data retrieval.</li> <li>d. 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.</li> <li>e. All practicable measures shall be taken to ensure that the water meter and recording device(s) are fully functional at all times.</li> </ul>
5	<p>Within one month of the installation of the measuring or recording device(s), or any subsequent replacement measuring or recording device(s), and at five-yearly intervals thereafter, and at any time when requested by the Canterbury Regional Council, the consent holder shall provide a certificate to the Canterbury Regional Council, Attention: Regional Leader- Monitoring and Compliance, 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) has been 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 (5).</li> </ul>
6	<p>Pursuant to Section 128(1) of the Resource Management Act 1991, the Consent Authority may serve notice of its intention to review the conditions of this consent within a period of three months commencing on each anniversary of the date of issue of the consent for any of the following purposes:</p> <ul style="list-style-type: none"> <li>a. To deal with any adverse effects on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or</li> <li>b. To require the Consent Holder to adopt the best practicable option to mitigate any adverse effect upon the environment; or</li> <li>c. To deal with any other adverse effect on the environment on which the exercise of the consent may have any influence.</li> </ul>
7	<p>The lapsing date for the purposes of Section 125 of the Resource Management Act 1991 shall be 15 years from the date consent is issued.</p> <p><b>Advice note:</b> 'Exercised' is defined as implementing any requirements to operate this consent <u>and</u> undertaking the activity as described in these conditions and/or application documents.</p>

**CRC170656: a water permit to take groundwater for dewatering purposes. Dewatering will only be required on the lower terrace where earthworks are being undertaken to create the ecological habitat, *the works associated with the reservoir inlet and outlet structures and works associated with the Rangitata Diversion Race Canal modifications.***

1	Groundwater shall only be taken for dewatering purposes during the construction of the ecological refuge identified on Plan CRC170656, <u>the works associated with the reservoir inlet and outlet structures and works associated with the Rangitata Diversion Race Canal modifications authorised in CRC170652</u> , which forms part of this resource consent.
1A	<p><u>The Proposal shall be constructed, operated and maintained in accordance with the details contained within the following documents:</u></p> <ul style="list-style-type: none"> <li><u>a. The Assessment of Environmental Effects report prepared by Ryder Consulting Limited in July 2016 and entitled "Lake Klondyke: A Proposed Water Storage Facility, Assessment of Environmental Effects Report &amp; Resource Consent Application, Prepared for the Rangitata Diversion Race Management Limited, Date Finalised: July 2016"; and</u></li> <li><u>b. The Assessment of Environmental Effects report prepared by Ryder Consulting Limited in November 2017 and entitled "Proposed Rangitata Diversion Race Fish Screen and Supplementary Matters Resource Consent Application".</u></li> </ul> <p><u>except where modified by specific conditions set out in these resource consents or by the plans authorised by the building consent for the Proposal.</u></p>
2	All water taken in accordance with this resource consent shall be discharged in accordance with resource consent CRC170660.
3	All practicable measures shall be taken to avoid land subsidence on adjacent properties not owned by the applicant that may occur as a result of the dewatering activities.
4	The consent holder shall cease the dewatering operation or amend the dewatering procedure if there is evidence of land subsidence on adjacent properties that have occurred as a proven result of dewatering activities at the site.
5	<p>A record of all dewatering procedures that occur within the site shall be kept and provided to the Canterbury Regional Council on request. This record shall include:</p> <ul style="list-style-type: none"> <li>a. The date, time and duration of the water take;</li> <li>b. The rate of the groundwater take; and</li> <li>c. The location of the dewatering within the site.</li> </ul>
6	<p>Pursuant to Section 128(1) of the Resource Management Act 1991, the Consent Authority may serve notice of its intention to review the conditions of this consent within a period of three months commencing on each anniversary of the date of issue of the consent for any of the following purposes:</p> <ul style="list-style-type: none"> <li>a. To deal with any adverse effects on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or</li> <li>b. To require the Consent Holder to adopt the best practicable option to mitigate any adverse effect upon the environment; or</li> <li>c. To deal with any other adverse effect on the environment on which the exercise of the consent may have any influence.</li> </ul>



7	<p>The lapsing date for the purposes of Section 125 of the Resource Management Act 1991 shall be 15 years from the date consent is issued.</p> <p><b>Advice note:</b> 'Exercised' is defined as implementing any requirements to operate this consent <u>and</u> undertaking the activity as described in these conditions and/or application documents.</p>
---	--

**CRC170657: a water permit to dam up to 53M m<sup>3</sup> of water outside of the riverbed and associated modifications to the RDR canal.**

	<b><u>GLOSSARY OF TERMS &amp; ABBREVIATIONS USED IN THIS RESOURCE CONSENT</u></b>
0	<p><b><u>Appropriately qualified and experienced expert(s)</u></b> means a person or persons:</p> <ol style="list-style-type: none"> <li><u>With a relevant and recognised tertiary qualification(s) to the topic being assessed;</u></li> <li><u>Whom is (are) recognised as a full member (or equivalent) of a relevant professional institution(s) (such as the Institution of Professional Engineers New Zealand), where such institutions exist;</u></li> <li><u>Has more than 10-years relevant experience in the topic being assessed; and</u></li> <li><u>For the purposes of the conditions 8.0 to 8.3 and 24.0 to 25.4, is a suitably qualified 'Chartered Professional Engineer', with experience in the design, construction and documentation required for large dams in accordance with the NZSOLD New Zealand Dam Safety Guidelines 2015 (Table 2.1 Module 5).</u></li> </ol> <p><b><u>Certifies and Certification</u></b> means a process whereby:</p> <ol style="list-style-type: none"> <li><u>The consent holder supplies a report, action plan, design plan, construction methodology, monitoring plan, commissioning plan, safety system or a management plan, and the Canterbury Regional Council appoints an appropriately qualified and experienced expert to assesses the documentation submitted to ensure that it achieves the requirements of the relevant condition(s) of consent;</u></li> <li><u>Should the documents supplied in accordance with condition 0(a), in the opinion of the expert appointed by the Council, achieve the intent of the relevant condition(s) of these resource consents, the Regional Leader: Compliance and Monitoring of the Canterbury Regional Council shall issue a written certificate to the consent holder confirming that the requirements of the relevant condition(s) have been satisfied;</u></li> <li><u>If the expert appointed by the Council is not satisfied that the documents supplied in accordance with condition (a) achieves requirements of the relevant condition(s), the Regional Leader: Compliance and Monitoring of the Canterbury Regional Council shall advise (in writing) the consent holder of the experts concerns and ask that the report, commissioning plan, monitoring plan, action plan, safety system or management plan be modified so as to address the concerns, and then be resubmitted;</u></li> <li><u>This process shall be repeated until the Regional Leader: Compliance and Monitoring of the Canterbury Regional Council is able (on the advice of the expert) to certify that the requirements of the applicable condition(s) of consent have been satisfied; and</u></li> <li><u>For the purposes of 8.0 and 8.1, and 24.0 to 25.4, the expert appointed by the Council to certify the commissioning plan, monitoring plan, action plan, safety system or management plan shall be a suitably qualified professional engineer, with experience in the design, construction and documentation required for large dams in accordance with the NZSOLD New Zealand Dam Safety Guidelines 2015. The expert shall be independent of the consent holder, the designers of the Proposal and contractors appointed to construct the Proposal.</u></li> </ol> <p><b><u>CLG</u></b> means the Community Liaison Group.</p> <p><b><u>CMP</u></b> means Construction Management Plan.</p> <p><b><u>Construction site</u></b> includes all areas, excluding gazetted and vested road reserves that contain formed roads, where construction works / activities authorised by these resource consents are being undertaken by the consent holder.</p> <p><b><u>Council</u></b> means the Canterbury Regional Council.</p>

	<p><b>EAP</b> means the Emergency Action Plan.</p> <p><b>ESCP</b> means Erosion and Sediment Control Plan.</p> <p><b>Fish screen</b> means the rotary fish screen and its associated bypass channel.</p> <p><b>FSVMP</b> means Fish Screen Verification Monitoring Plan</p> <p><b>Flood flow take</b> means a flood flow abstraction from the Rangitata River.</p> <p><b>HSSMP</b> means the Hazardous Substances Spill Management Plan</p> <p><b>Klondyke Pond</b> means the Lake Klondyke Water Storage Facility.</p> <p><b>km/hr</b> means kilometres per hour.</p> <p><b>l/s</b> means litres per second</p> <p><b>m<sup>3</sup></b> means cubic metres</p> <p><b>m<sup>3</sup>/s</b> means cubic metres per second</p> <p><b>m</b> means metre</p> <p><b>m/s</b> means metres per second.</p> <p><b>mm/s</b> means millimetres per second</p> <p><b>NZSOLD</b> means New Zealand Society on Large Dams New Zealand.</p> <p><b>PPV</b> means Peak Particle Velocity</p> <p><b>Reasonable Mixing Zone</b> means, for the purposes of condition 18.0A, a reasonable mixing zone extending from the point of discharge from the Sluice Channel to a point that is 200 metres downstream of the discharge point.</p> <p><b>Regional Water Table</b> means the upper surface of the full saturated groundwater system but does not, for the purposes of these resource consents, include perched groundwater (which is groundwater in saturated strata that occurs above the regional water table but is separated from it by a layer of unsaturated strata).</p> <p><b>RDR</b> means the Rangitata Diversion Race.</p> <p><b>RDR mods</b> means the modifications to the Rangitata Diversion Race.</p> <p><b>RL</b> means the right bank when looking downstream.</p> <p><b>RMA</b> means the Resource Management Act</p> <p><b>The Proposal</b> means the Klondyke Pond, WWC, RDR mods, fish screen, SBR relocation, flood flow take and refuge, and all incidental work.</p> <p><b>TSP</b> means total suspended particulate.</p> <p><b>WRMP</b> means Works in the River Management Plan</p>
	<b>CERTIFICATION PROCESS</b>
0A.1	<p>Except where explicitly required otherwise by conditions of this consents, the consent holder shall:</p> <ol style="list-style-type: none"> <li>Engage an appropriately qualified and experienced independent expert (or experts) to prepare the management plans, design plans, construction methodology, monitoring plans, action plan, commissioning plan and safety system specified in the conditions of this consent using the draft versions of these plans (which are attached as Annexure B) as a base document;</li> <li>Provide drafts of each of the documents required by condition 0A(a) to the Canterbury Regional Council, Attention Regional Leader - Monitoring and Compliance, not less than three months prior to construction works / activities commencing in accordance with these resource consents;</li> <li>Not commence any construction works / activities authorised by these resource consents until it has received a certificate from the Regional Leader: Compliance and Monitoring of the Canterbury Regional Council that the management plan, design plan, construction methodology, monitoring plan, action plan, commissioning plan or safety system is consistent with the applicable conditions of this consent;</li> <li>For the purposes of conditions 8.0 to 8.3, and 24.0 to 25.4, the certifier shall confirm that documentation, design, system or processes produced in accordance with these conditions accords with good engineering practice and is consistent with the NZSOLD Dam Safety Guidelines 2015 and any updates, including any amendment or update that is current at the time of certification;</li> <li>Adhere to and implement the certified version of the management plan, design plans, construction methodology, monitoring plan, action plan, commissioning plan or safety system;</li> </ol>

	<p>f. <u>Submit any proposed variations to the management plans, design plans, construction methodology, action plan, safety system, monitoring plans and commissioning plan to the Regional Leader: Compliance and Monitoring of the Canterbury Regional Council, at least seven days prior to when the proposed change will be implemented by the consent holder. Any variations made shall not take effect until the Regional Leader: Compliance &amp; Monitoring of the Canterbury Regional Council certifies that the variations accord with the applicable conditions of the resource consent;</u></p> <p>g. <u>Appoint an appropriately qualified and independent expert (or experts) to review the management plans, action plan, safety system, monitoring plans and commissioning plan at the frequency set out in these resource consents. Should the conditions of these resource consents not set a frequency, the reviews shall be conducted annually. Such reviews are to ensure that the management plans, action plan, safety system, monitoring plans and commissioning plan continue to achieve the conditions of these resource consents.</u></p> <p>h. <u>Any changes made as a result of the reviews conducted in accordance with condition 0A.1(g) shall be submitted to the Canterbury Regional Council and shall not take effect until the Regional Leader: Compliance and Monitoring of the Canterbury Regional Council certifies that the changes accord with the applicable conditions of these resource consents;</u></p> <p>i. <u>Pay the costs of the expert(s) appointed by the Canterbury Regional Council to certify the management plans, design plans, construction methodology, monitoring plans, commissioning plan, action plan and safety system (and any variations or changes thereto) in accordance with conditions 0A.1(c) and 0A.1(h); and</u></p> <p>j. <u>Ensure that copies of the certified commissioning plan, design plans, construction methodology and management plans, monitoring plans, action plan, safety system and management plans set out in these conditions are available on site at all times during the construction works / activities authorised by this consent; and</u></p> <p>k. <u>Ensure that all key personnel are to be made aware of the content and requirements / obligations of the management plans, action plan, safety system, commissioning plan and monitoring plans.</u></p>
	<b>SCOPE</b>
1	All activities authorised by this consent shall be undertaken in general accordance with the Application submitted to Canterbury Regional Council on 15 July 2016, except where the Application and amendments are inconsistent with these conditions (in which case these conditions prevail.)
1A	<p><u>The Proposal shall be constructed, operated and maintained in accordance with the details contained within the following documents:</u></p> <p>a. <u>The Assessment of Environmental Effects report prepared by Ryder Consulting Limited in July 2016 and entitled “Lake Klondyke: A Proposed Water Storage Facility, Assessment of Environmental Effects Report &amp; Resource Consent Application, Prepared for the Rangitata Diversion Race Management Limited, Date Finalised: July 2016”; and</u></p> <p>b. <u>The Assessment of Environmental Effects report prepared by Ryder Consulting Limited in November 2017 and entitled “Proposed Rangitata Diversion Race Fish Screen and Supplementary Matters Resource Consent Application”.</u></p> <p><u>except where modified by specific conditions set out in these resource consents or by the plans authorised by the building consent for the Proposal.</u></p>
1B	<u>Should the consent holder wish to construct the Klondyke Pond in stages, the consent holder shall:</u>

	<p>a. <u>Notify the Council of the design and size of the first stage, and then each subsequent stage, not less than 12 months prior to construction of each stage commencing. Each notice, which is be in writing, shall demonstrate that the stage complies the parameters set out within the document prepared by Ryder Consulting Limited in July 2016 and entitled “Lake Klondyke: A Proposed Water Storage Facility, Assessment of Environmental Effects Report &amp; Resource Consent Application, Prepared for the Rangitata Diversion Race Management Limited, Date Finalised: July 2016”, except where modified by specific conditions set out in these resource consents or by the plans authorised by the building consent for the Proposal;</u></p> <p>b. <u>Notify the Council of the construction period that is envisaged for the first stage and each subsequent stage;</u></p> <p>c. <u>Provide a copy the notification required by conditions 1B(a) and 1B(b) to the land owners that about the construction site and the parties listed in <b>Annexure B</b> to these resource consents (being the submitters to the resource consent application for the Proposal); and</u></p> <p>d. <u>Construct the Fish screen, WWC (and the associated parking facilities and amenities) and the Refuge, and provide formal access to the margins of the Rangitata River (and the associated parking facilities) as part of the first stage.</u></p>
2	Water shall only be dammed within the land contained in Lot 2 of Deposited Plan 482124, Part Lot 1 of Deposited Plan 2767 and RS 36179, and the portion of Shepherds Bush Road that is to be stopped prior to the construction of the Klondyke Storage Dam (“the Dam”) as ‘Klondyke Storage Dam’ on Plan CRC170657 <u>(and is located adjacent to Montalto Road at or about map reference Topo50 BY19:6150-4409)</u> , which forms part of this consent.
3	The dammed water shall only be water authorised by take and use consents, held or lawfully exercised by the consent holder, limited runoff from the Dam embankments, and rainfall over the Dam.
4	The Dam shall be constructed in accordance with the approved Plans and Specifications as authorised by the approved Building Consent for the Dam, including any Minor Variations and/or Amendments to the Building Consent approved in advance by the Building Consent Authority.
5	The Dam shall be investigated, designed, constructed, commissioned, operated and maintained in accordance with the New Zealand Dam Safety Guidelines (May 2015 including any amendment or update or replacement edition) (hereafter referred to as the Guidelines) published by the New Zealand Society On Large Dams as pertains to a High Potential Impact <u>Category Classification</u> (PIC) dam.
6	<p><del>The Consent Holder shall, at its own cost, have the design documentation peer reviewed by an independent certifier for the purposes of determining whether the proposed building works will comply with the requirements of the Building Regulations (1992), the Guidelines and conditions (5), (7) to (11) of this consent. A copy of the reviewer’s comments and any additional amendments or comments from the Consent Holder as a result of the review; and a certificate stating that the design complies with the Building Regulations (1992) and the Guidelines; shall be provided to the Canterbury Regional Council, Attention Regional Leader – Monitoring and Compliance at least 20 working days prior to works commencing on the construction of the Dam.</del></p> <p><u>If the Klondyke Pond is to be constructed in stages, the consent holder shall prepare and implement the relevant management plans, design plans, construction methodology, monitoring plans, action plan, commissioning plan and safety system specified in the conditions of the associated resource consents for each stage. The certification process set out in condition <b>11</b> shall also apply to each stage.</u></p>

7	The Dam shall be fully lined with a system that includes a geomembrane, and the lining system shall be in accordance with the Guidelines.
	<b>MAXIMUM VOLUME AND WATER DEPTH</b>
8	The full supply or maximum normal operating level of the Dam (as defined by the Guidelines) shall not exceed 361 metres Reduced Level (RL) to <b>Lyttleton 1937 (LYTTHT1937)</b> vertical datum.
9	The maximum volume of water stored in the Dam at full supply or maximum normal operating level as defined by the Guidelines, shall not exceed 53.0 million cubic metres.
10	For the purposes of controlling the maximum depth of water, the construction of the Dam shall be limited to the following parameters: <ul style="list-style-type: none"> <li>a. The maximum dam embankment <del>height elevation</del>, as measured <del>from at the dam crest to the lowest structural fill elevation at the toe of the embankment (excluding any excess material that is placed on the embankment for non-structural reasons), shall not exceed 30.5 metres and the dam crest level</del> shall not exceed 362.5 metres RL; and</li> <li>b. The minimum freeboard shall be not be less than the larger of: <ul style="list-style-type: none"> <li>i. 1.5 metres above the full supply or maximum normal operating level; or.</li> <li>ii. The maximum value determined in accordance with the Guidelines during design flood and wind conditions, including appropriate coincident design scenarios with the reservoir level above full supply level.</li> </ul> </li> <li>c. <del>The reservoir invert shall not be less than 337.0 metres RL. The maximum depth of excavation shall not intercept the regional water table beneath the Klondyke Pond.</del></li> </ul>
	<b>SPILLWAY</b>
11	The spillway shall be designed to: <ul style="list-style-type: none"> <li>a. accommodate the maximum flow rate expected during <del>sluicing and</del> any emergency discharges, both in regard to flow rate and flow duration; and</li> <li>b. reduce as far as practicable the potential for scouring of the spillway channel and the river bed.</li> </ul>
	<b>CANAL MODIFICATIONS</b>
<u>11A.1</u>	<del>The consent holder shall maintain the existing emergency overflow spillway for the canal that is located immediately upstream of the BAFF screen, with the necessary modifications in regard to the level and width in order to accommodate any additional flows into the race.</del>
<u>11A.2</u>	<del>The areas of canal modification shall be visually inspected as part of existing routine monitoring regime.</del>
	<b>CERTIFICATION</b>
12	Where Conditions <b>(6), (15), (30)(e), (30)(f), (32), (40) and (41)</b> refer to 'certification by an independent certifier', this shall mean the following: <ul style="list-style-type: none"> <li>a. the certifier shall be a Chartered Professional Engineer (CPEng), suitably qualified and experienced in the design, construction, surveillance and documentation required for High PIC dams in accordance with the Guidelines, and shall be independent of the Consent Holder, dam designers and construction contractors;</li> <li>b. the certifier shall be authorised by Canterbury Regional Council, Attention Regional Leader – Monitoring and Compliance, as meeting Condition (12) (a);</li> <li>c. the Consent Holder is responsible for appointing the certifier and all costs of certification;</li> <li>d. the Consent Holder shall implement any documentation changes and</li> </ul>

	<p>remedial actions recommended by the certifier <u>as agreed between the Consent Holder and the certifier</u>; and</p> <p>e. the Consent Holder shall provide to the Canterbury Regional Council, Attention Regional Leader – Monitoring and Compliance, written certification from the certifier that the documentation, design, system or processes that are subject of the respective consent conditions are in accordance with good engineering practice and are consistent with the NZSOLD New Zealand Dam Safety Guidelines 2015 and any updates, including any amendment or update current at the time of certification.</p>
	<b>BUILDING CONSENT PLANS</b>
13	At least one month prior to the commencement of construction of the Dam, the Consent Holder shall provide to the Canterbury Regional Council, Attention Regional Leader – Monitoring and Compliance the approved Building Consent Plans and Specifications.
14	Within 12 months of the date that first filling of the Dam commences, detailed “as-built” engineering plans shall be provided to Canterbury Regional Council, Attention Regional Leader – Monitoring and Compliance.
	<b>CERTIFICATION PROCUREMENT</b>
15	<p><del>Prior to first filling of the Dam commencing, the Consent Holder shall obtain certification from an independent certifier that the construction of the Dam is in accordance with good engineering practice, including being entirely consistent with the Guidelines as pertains to a High PIC dam, and in accordance with the following requirements:</del></p> <p>a. <del>Certification of the design and construction of the dam shall certify that the investigations (e.g. geotechnical, seismic and flood hydrology assessments), the design parameters, assessments and details and construction including construction records are appropriate and consistent with the Guidelines for a High PIC dam.</del></p> <p>b. <del>This certificate shall be submitted to the Canterbury Regional Council, Attention Regional Leader – Monitoring and Compliance, 10 working days prior to commencing the first filling of the dam.</del></p>
	<b>WATER STORAGE COMMISSIONING PLAN</b>
16	<p>The Consent Holder shall prepare a comprehensive Water Storage Commissioning Plan (WSCP) for the Dam. The objectives of the WSCP shall be to minimise risks from the initial filling and other commissioning of the Dam, in accordance with the Guidelines for a High PIC dam. The WSCP shall be certified by peer review input by an independent certifier in accordance with the Guidelines and condition 17.</p> <p>The WSCP shall include (but not be limited to) provisions for:</p> <ol style="list-style-type: none"> <li>definition of the physical works that must be completed before commissioning can commence.</li> <li>definition of all parties involved and their responsibilities, the names of key personnel including backup personnel, and all personnel contact details.</li> <li>confirmation that all statutory requirements have been and will be met during commissioning.</li> <li>requirements for Designer input including inspections and input if performance is not as anticipated.</li> <li>the rate of reservoir filling, reservoir level hold points and their duration, and criteria for the continuation of reservoir filling.</li> <li>recording a set of initial (baseline) measurements for all instrumentation and survey marks immediately prior to commissioning.</li> <li>the establishment of expected performance ranges for instrumentation by the Designer, to provide a guide for evaluating actual dam performance during and following commissioning.</li> <li>commissioning procedures including at prescribed frequencies and/or reservoir elevations:</li> </ol>



	<ul style="list-style-type: none"> <li>i. walkover inspections to check for any indications of unexpected changes.</li> <li>ii. identification and measurement of seepage flows and clarity and changes in seepage behaviour.</li> <li>iii. measurement of piezometric pressures and groundwater levels.</li> <li>iv. measurement of settlements and deformations.</li> <li>v. inspections and/or monitoring of the dam.</li> <li>vi. reservoir shoreline and rip rap stability at specified hold points.</li> <li>i. testing of installed plant and equipment critical to dam safety (e.g. diversion gates from the Rangitata Diversion Race and low-level outlet gates) over an appropriate head and flow range including flushing and irrigation releases.</li> <li>j. testing of spillway and energy dissipation structure performance including but not limited to reinforced concrete chutes, stilling basins, rock lined channels and interface areas over an appropriate range of flow magnitude and duration.</li> <li>k. The recording and communication of monitored data, interpreting the monitored data, and evaluating the performance of the Dam against acceptable performance criteria.</li> <li>l. actions to be taken in the event of a developing actual or potential dam safety emergency.</li> <li>m. the duration of commissioning and handover procedures.</li> <li>n. for a comprehensive Commissioning Report to be prepared by the Designer including interpretation of all surveillance data and confirmation that all surveillance data is in accordance with design expectations and/or discussion on the resolution of any matter that is outside of design expectations. The commissioning report shall be provided to the Canterbury Regional Council, Attention Regional Leader – Monitoring and Compliance not more than 20 working days following the Designer certifying completion of commissioning.</li> </ul>
17	A copy of the WSCP that has been through the peer review process in accordance with the Guidelines and certified in accordance with condition 15, shall be provided to the Canterbury Regional Council, Attention Regional Leader – Monitoring and Compliance at least 20 working days before the first filling or partial filling of the Dam commencing.
18	The initial filling of the Dam shall be undertaken in accordance with the WSCP referred to in condition 16. A copy of the WSCP shall be held on site at all times during commissioning.
19	<p>During first filling of the Dam:</p> <ul style="list-style-type: none"> <li>a. The consent holder shall ensure that the Designer of the Dam is present as required and notes any faults observed, and again inspects the Dam within five days of first filling reaching full supply level for the first time. The Designer is required to complete a comprehensive commissioning report.</li> <li><del>b. The consent holder shall procure that during commissioning the Designer of the Dam records any faults or findings that could potentially lead to dam failure, and recommends appropriate remedial works or other course of action. A report of these findings and recommended remedial actions shall be prepared and a copy shall be provided to the Canterbury Regional Council, Attention: Regional Leader – Monitoring and Compliance, within one month of the inspection.</del></li> <li>c. The consent holder shall immediately undertake any remedial works or corrective action recommended by the Designer of the Dam and notify the Canterbury Regional Council, Attention Regional Leader – Monitoring and Compliance, within one week of completion.</li> </ul> <p><b>Advice note:</b> Any remedial works or corrective action recommended by clause (c), may be subject to requirements under the Resource Management Act (1991) and/or the Building Act (2004) and other legislation.</p>
	<b>CERTIFIED MANAGEMENT PLANS TO BE HELD ON SITE</b>
20	The Consent Holder shall ensure that a copy of this Consent, and a copy of the certified Emergency Action Plan, as required by Condition (39), are available on site at all times, and that all key personnel are made aware of the contents of each plan prior to first filling of the Dam.

	The operation of the Dam and associated activities shall be undertaken in accordance with the certified Dam Safety Management System at all times. The Consent Holder shall maintain on site at all times all aspects of the Dam Safety Management System that relate to operation and surveillance of all aspects of the Dam.
	<b>PUBLIC LIABILITY INSURANCE</b>
21	The consent holder shall, at least three months prior to <del>construction the initial filling</del> of the Dam under this resource consent, and at all times thereafter, have in place public liability insurance on terms suitable (in all respects) to the Canterbury Regional Council.
22	The public liability insurance required by Condition (21) shall be sufficient to cover all reasonable insurable contingent risks associated with the construction and operation of the Dam, including offsite impacts to third party property, including but not limited to any assets, infrastructure or otherwise of the Canterbury Regional Council, Ashburton District Council, Transpower, Kiwirail, Rangitata Water Limited and the New Zealand Transport Authority, associated with any reasonable foreseeable failure of any part of the proposed dam, together with a reasonable provision for reconstruction and reinstatement; and the proceeds of the insurance policy shall be applied for those purposes only.
23	The public liability insurance required by condition (21) shall be on the following terms: <ul style="list-style-type: none"> <li>a. The Canterbury Regional Council <del>and Ashburton District Council</del> shall be an additional insured party of the insurance policy with respect to liability arising out of the actions of the consent holder and able to enforce its terms;</li> <li>b. The Consent Holder shall ensure that the insurer is required to copy all relevant information regarding the insurance to the Canterbury Regional Council <del>and Ashburton District Council</del>. This obligation includes an express term that the insurer must immediately notify the Canterbury Regional Council <del>and Ashburton District Council</del> of any non- performance of the terms of insurance by the Consent Holder.</li> <li>c. In the event of non-performance of any term of the insurance, the Canterbury Regional Council or <del>Ashburton District Council</del> shall be given the opportunity to rectify the non-performance before the insurance is cancelled.</li> </ul>
24	The Consent Holder shall supply to Canterbury Regional Council: Attention Regional Leader Monitoring and Compliance, a Certificate of Currency within 10 working days after any premium payment is due.
25	The consent holder shall, prior to arranging the public liability insurance required by Condition (21), obtain advice from an appropriately qualified and experienced expert within the insurance industry (that is independent of the consent holder) to determine the limit of indemnity and coverage required to be provided for by the insurance policy. In providing that advice, that person is to ensure the purpose of the policy is met, which is to provide coverage and protection in the instance of a failure of the works authorised under this consent to third parties whose properties and possessions may be damaged.
26	The consent holder shall provide a copy of the advice required by condition (25) to the Regional Leader - Monitoring and Compliance at the Canterbury Regional Council for review and comment. The consent holder shall, when establishing the public liability insurance required by condition (21), take account of, and provide for any comments and suggestions that are made by the Canterbury Regional Council.
27	<del>If the parties cannot agree on the terms of insurance cover, the coverage, or indemnity value, the dispute shall be referred to arbitration.</del>
28	The limits of indemnity and coverage and terms of the public liability insurance policy put in place as a requirement of condition (22) are to be reviewed, by the consent holder, at least once every three years. If that review results in amendment or alteration to the insurance cover, then the consent holder shall provide a copy of the review and recommendations to the Canterbury Regional Council, Attention: Regional Leader - Monitoring and Compliance for certification

	that the amendments still achieve the requirements of conditions (21), (22) and (23). Any amendments to the insurance cover may only occur after the consent holder has received the Regional Council's certification.
	<b>DAM SAFETY MANAGEMENT SYSTEM</b>
29	The Consent Holder shall engage a suitably experienced and qualified professional engineer to prepare a Dam Safety Management System (DSMS), in accordance with the Guidelines for a High PIC dam. The Objectives of the DSMS shall be to minimise risks from the ongoing operation of the Dam.
30	<p>The documented DSMS shall be strictly in accordance with the Guidelines for a High PIC dam and shall include but not be limited to the following components, in accordance with the Guidelines:</p> <ol style="list-style-type: none"> <li>The governance structures that are to be put in place and personnel who will implement the directions from the governance structures, including but not limited to details of appropriate management, training and information management systems;</li> <li>Dam and reservoir operation and maintenance; including monitoring of the performance of the liner that is chosen for the Dam;</li> <li>The surveillance protocols to be applied and the frequency of the associated surveillance activities, including but not limited to data review, trigger (design basis performance) and alert (recorded data set) levels, provisions for data telemetry and monitoring of the performance of the liner that is chosen for the Dam, as well as a requirement to ensure that surveillance activities are carried out by appropriately qualified and experienced people;</li> <li>Appurtenant Structures and Gate and Valve Systems, including but not limited to procedures for inspection, maintenance and testing of gates, valves and other dam and reservoir safety systems;</li> <li>The approach to be adopted for the annual Intermediate Dam Safety Reviews (which are to be completed by an 'independent technical advisor' (where the term 'independent technical advisor' is as per the definition set out within the Guidelines);</li> <li>The approach to be adopted for the 5-yearly (five) Comprehensive Dam Safety Reviews, which are to be completed by an independent, experienced and qualified dam safety expert;</li> <li>The triggers for special inspections and dam safety reviews, and the approach to be adopted for such inspections and reviews, including providing for the immediate inspection of the Dam and its associated components and accessory structures as soon as practicable after any earthquake causing shaking with an intensity of VII (Very Strong) on the Modified Mercalli Scale at or in close proximity to the Dam;</li> <li>The emergency preparedness systems that are to be established, and the frequency for any training exercises associated with the same;</li> <li>Identifying, managing and resolving potential and/or confirmed dam safety issues; and</li> <li>information management, including the reporting to the Canterbury Regional Council, attention: Regional Leader – Monitoring and Compliance, of the results of any safety reviews, including provision of copies of all <del>Annual</del> <b>Intermediate</b> Dam Safety Review and Comprehensive Dam Safety Review reports; and</li> <li>The frequency of, and approach to be adopted in auditing the DSMS and the outcomes of the reviews and any associated recommendations / actions.</li> </ol>
31	The DSMS shall be certified by an independent certifier as complying with conditions (29) and (30) of this consent. Such certification shall be provided to the Canterbury Regional Council, Attention Regional Leader – Monitoring and Compliance, prior to first filling of the dam commencing.

32	<p>The DSMS shall be reviewed as follows:</p> <ol style="list-style-type: none"> <li>The consent holder shall appoint a suitably qualified 'Chartered Professional Engineer', with experience in the design, construction and documentation required for large dams in accordance with the Guidelines to undertake the review of the DSMS;</li> <li>The reviews shall be undertaken <del>within three months of first filling reaching full supply level for the first time and</del> every twelve months thereafter for the first two years of operation of the Dam. The review of the DSMS shall then be timed to coincide with the five-yearly Comprehensive Dam Safety Reviews. <del>Additional reviews shall also be undertaken whenever a trigger event (as defined within the DSMS) occurs;</del></li> <li>The reviews shall evaluate the DSMS, the results of any inspections and any monitoring data and communications to or from the Ashburton District Council and the Canterbury Regional Council; and</li> <li>The results of the review shall be recorded in writing and forwarded to the Canterbury Regional Council, Attention: Regional Leader: Compliance and Monitoring within one month of each review being completed.</li> <li>The DSMS shall be re-certified by an independent certifier after any change that is more than a minor or inconsequential change, and not less than once every five years. Such re-certifications shall be provided to the Canterbury Regional Council: Attention Regional Leader – Monitoring and Compliance within fifteen working days of re-certification. <u>Note: re-certification will happen as a minimum with the CDSR, and reported with the CDSR</u></li> </ol>
33	<p>Each of the IDSR and CDSR required under conditions (30)(e) and (f) shall include a review of the terrace stability and the actual and potential retreat associated with river erosion of the high terrace situated between the Dam and the Rangitata River. The reviews shall clearly outline the potential requirements for river engineering and/or terrace stability works should they be necessary and the timeframe required for any works to be completed.</p>
34	<p>A copy of each IDSR and CDSR required under conditions (30)(e) and (f), including the additional review required under condition (33) shall be forwarded to the Canterbury Regional Council: Attention Regional Leader – Monitoring and Compliance within 30 days of the completion of each report.</p>
35	<p>In the event that the inspections required by conditions (30)(e) and (f) of this Consent show, in the opinion of the Engineer, that there is an actual or potential dam safety concern, the consent holder shall immediately:</p> <ol style="list-style-type: none"> <li>Report the event to the Canterbury Regional Council: Attention Regional Leader – Monitoring and Compliance; and the Ashburton District Council, Attention: Roading and Street Services manager; and</li> <li>Consult a Chartered Professional Engineer (CPEng) who is suitably qualified and experienced in the design, construction, and maintenance of High PIC dams who shall be employed to take responsibility for: <ol style="list-style-type: none"> <li>further inspection of the Dam;</li> <li>the identification of remedial action required;</li> <li>the recording of the details of the inspection, reasons for the fault and remedial action required, in a report, a copy of which shall be forwarded to the Canterbury Regional Council: Attention Regional Leader – Monitoring and Compliance, and the Ashburton District Council, Attention: Roading and Street Services Manager, within one month of the inspection; and</li> </ol> </li> <li><u>Undertaking</u> any required remedial works or corrective action; and</li> <li>The consent holder shall notify the Canterbury Regional Council: Attention Regional Leader – Monitoring and Compliance, and the Ashburton District Council, Attention: Roading and Street Services Manager, within one week of completion of the remedial action referred to above.</li> </ol> <p><b>Advice note:</b> Any remedial works or corrective action recommended by clause</p>

	<i>(c), may be subject to requirements under the Resource Management Act (1991) and/or the Building Act (2004) and other legislation.</i>
	<b>EMERGENCY ACTION PLAN</b>
36	<p>No less than 40 working days before the first filling of the Dam, an Emergency Action Plan (EAP) shall be provided to the:</p> <ol style="list-style-type: none"> <li>Canterbury Regional Council: Attention Regional Leader – Monitoring and Compliance;</li> <li>Canterbury Regional Council – Attention Harbourmaster;</li> <li>Canterbury Regional Council – Attention Flood Controller;</li> <li>Canterbury Regional Council - Regional Engineer;</li> <li>Ashburton District Council,</li> <li><u>Timaru District Council;</u></li> <li>the Canterbury District Health Board;</li> <li>NZ Police;</li> <li>Fire and Emergency New Zealand;</li> <li>KiwiRail; and</li> <li>the NZ Transport Agency.</li> </ol> <p>Any input to the EAP those organisations provide shall be taken into account within the EAP by the Consent Holder prior to submission under condition (40).</p>
37	<p>The purpose of the EAP is to minimise the potential for dam failure through pre-planned or pre-conceived interventions and / or actions should a dam safety incident or emergency arise, and, in the event that a dam failure cannot be prevented, to minimise the effects of the dam failure on people, property and the environment. For the avoidance of doubt, these interventions and/or actions includes the emergency discharge to the Rangitata River as authorised under consent CRC182541.</p>
38	<p>The EAP shall be prepared in consultation with the Civil Defence Emergency Management Group, including the Ashburton District Council, <u>the Timaru District Council,</u> the Canterbury Regional Council, and shall, be consistent with the Guidelines for a High PIC dam, and any Civil Emergency Management Group Plan governing the Regional and District Councils pursuant to the Civil Defence Emergency Management Act 2002 or any replacement legislation.</p>
39	<p>The EAP shall be in accordance with Module 6 of the Guidelines for a High PIC dam and be based on the final dam design, and include (but not be limited to):</p> <ol style="list-style-type: none"> <li>Maps of the areas of land identified (via modelling) as being subject to inundation in the event of abnormal or excess flow release from the Dam, and contact details for residents within those areas, and strategic infrastructure providers with infrastructure in those areas, where they can be ascertained. Inundation mapping will include illustration of inundation areas at scales sufficient for the identification of areas at risk and include inundation tables which show at key locations (e.g. dwellings, roads, key infrastructure and the like): <ol style="list-style-type: none"> <li>The arrival time of the first flood waters;</li> <li>The arrival time of the peak flood level;</li> <li>The <del>peak velocity and</del> depth velocity (DV) parameter;</li> <li>The peak flood elevation above mean sea level; and</li> <li>Flood levels as relative depths at key locations (e.g. bridges, dwellings) and the time at which key structures may become unusable.</li> </ol> </li> <li>The contingency plans to be implemented by the consent holder for alerting: people and strategic infrastructure providers with infrastructure within the identified areas of inundation; and the relevant Civil Defence authorities; of the risk of such events.</li> <li>A procedure <u>that links with District or Regional Emergency Management Plans or Emergency Evacuation Plans</u> for the identification and implementation of alternative access routes for vehicles in the event of</li> </ol>



	<p>inundation or damage to a State Highway or local road, including procedures to close roads and divert vehicles away from the potential dam-break flood inundation zone in a dam safety emergency.</p> <p>d. Notification procedures.</p>
40	The EAP shall be certified by an independent certifier as complying with conditions (36) to (39) of this consent. Such certification shall be provided to the Canterbury Regional Council, Attention Regional Leader – Monitoring and Compliance, no less than 20 working days before the first filling of the dam commencing.
40	The EAP shall be certified by an independent certifier as complying with conditions (36) to (39) of this consent. Such certification shall be provided to the Canterbury Regional Council, Attention Regional Leader – Monitoring and Compliance, no less than 20 working days before the first filling of the dam commencing.
41	<p>In addition to the first certification of the EAP required under condition (4), the consent holder shall appoint an independent certifier to review the EAP when it reviews the DSMS (refer to condition (32) for the frequency of the reviews). The review shall be timed to coincide with the review of the Civil Defence Emergency Management Group Plan and shall consider, as a minimum, the currency of:</p> <ul style="list-style-type: none"> <li>a. The inundation modelling, including whether the downstream environment has changed since the modelling was last undertaken;</li> <li>b. The contact details for the downstream landowners and the notification procedures; and</li> </ul> <p>The actions identified within the EAP.</p>
42	The response to, and management of, any emergencies associated with the activities authorised by this consent shall be undertaken in accordance with the EAP and a copy of the EAP and this resource consent shall be made available to every person involved in the operation and maintenance of the Dam.
43	<p>In the event of a dam safety emergency, including internal events, potential emergencies and imminent failure, the consent holder shall immediately:</p> <ul style="list-style-type: none"> <li>a. enact the EAP to the level appropriate to the event; and</li> </ul> <p>contact a Chartered Professional Engineer (CPEng) who is suitably qualified and experienced in the design, construction, and maintenance of High PIC dams who shall complete a report detailing the cause of the incident and the action taken. A copy of this report shall be forwarded to the Canterbury Regional Council: Attention Regional Leader – Monitoring and Compliance, and the Ashburton District Council, Attention: Roading and Street Services Manager, within one month of the event.</p>
	<b><u>WATER QUALITY MANAGEMENT PLAN</u></b>
<u>43A.1</u>	<p><u>The purpose of the Water Quality Monitoring Plan is to:</u></p> <ul style="list-style-type: none"> <li><u>a. Reassess the key water and sediment characteristics of the Klondyke Pond in advance of allowing activities where humans may come into contact with water from the Klondyke Pond (such as kayaking); and</u></li> <li><u>b. Set out the monitoring, management and reporting approaches to be undertaken by the consent holder in relation to the discharge of water from the Klondyke Pond to the WWC.</u></li> </ul>
<u>43A.2</u>	<p><u>The objective of the WQMP is to ensure that any discharge from the Klondyke Pond to the Rangitata River:</u></p> <ul style="list-style-type: none"> <li><u>a. Meets the water quality standards prescribed by Clause 11 of the Water Conservation (Rangitata River) Order 2006 and any other appropriate water quality standard for the Rangitata River under flood flow conditions; and</u></li> <li><u>b. Does not make water in the River unsuitable for contact recreation and does not pose any potential risk to human health as a result of contact with the water discharged from the Klondyke Pond.</u></li> </ul>

43A.3	<p>The WQMP shall establish a monitoring regime that includes:</p> <ul style="list-style-type: none"> <li>a. <u>Water quality monitoring of the Klondyke Pond, with the following components:</u> <ul style="list-style-type: none"> <li>i. <u>Temperature, which shall include:</u> <ul style="list-style-type: none"> <li>* <u>Continuous monitoring at two depths within the Klondyke Pond, the first not more than 1 m from the surface of the water, with the second being not more than 1 m from the bottom of the Klondyke Pond. The second sample shall be taken in close proximity to the outlet from the Klondyke Pond to the discharge channel;</u></li> <li>** <u>Temperature monitoring in late summer / early autumn to determine the level of vertical stratification in Lake Klondyke;</u></li> </ul> </li> <li>ii. <u>Nutrients, including dissolved organic carbon, dissolved inorganic nitrogen and dissolved reactive phosphorus;</u></li> <li>iii. <u>Dissolved oxygen;</u></li> <li>iv. <u>pH;</u></li> <li>v. <u>E.coli; and</u></li> <li>vi. <u>Clarity and colour.</u></li> </ul> </li> <li>b. <u>Cyanobacteria and E.coli monitoring, with the following components:</u> <ul style="list-style-type: none"> <li>i. <u>Monitoring of the phytoplankton population to determine the presence of cyanobacteria taxa and their densities or biovolumes;</u></li> <li>ii. <u>Fortnightly samples of the water in the Klondyke Pond to determine the presence of cyanobacteria (type and density or biovolume) and E.coli (expressed as a concentration) from November to March;</u></li> <li>iii. <u>Sampling for E.coli (expressed as a concentration) the week prior to holiday weekends from April to October.</u></li> <li>iv. <u>Other than that required by condition 43A.3(b)(iii), there will be no monitoring for recreation water quality outside the irrigation season and / or when the WWC is closed.</u></li> </ul> </li> </ul>
	<b>ONGOING ENGAGEMENT</b>
44	The consent holder shall establish and resource a Community Liaison Group (CLG) for the duration of this consent and shall as a minimum invite, in writing, its members and any other parties that express an interest in being involved in the CLG to annual meetings.
45	<p>The annual meetings conducted in accordance with condition (44) are for:</p> <ul style="list-style-type: none"> <li>a. The consent holder to update the interested parties on the construction of the Proposal, its on-going operation, and on the outcomes of the monitoring conducted in accordance with consents CRC170651 to CRC170662, CRC182535 to CRC182631;</li> <li>b. The interested parties to provide feedback and comment on environmental issues related to the exercise of this consent and consents CRC170651 to CRC170662, CRC182535 to CRC182631;</li> </ul> <p>The consent holder to provide details of any known additional existing irrigated land subject to intensification, and any known extensions to the existing irrigation network (to enable water to be supplied to unirrigated land) that are to be supplied water from the Dam. For the purposes of this consent condition, the term 'existing' shall mean 'as at the date when the resource consent commences'.</p>
46	The annual meetings conducted in accordance with condition (44) shall be held in a suitable venue in the month of June each year. The interested parties shall include, but need not be limited to, representatives of Te Rūnanga o Ngāi Tahu, Te Rūnanga o Arowhenua, the Ashburton District Council, Canterbury Regional Council, and Central South Island Fish and Game.
47	The interested parties invited to the annual meetings required by condition (44) shall be provided with a copy the documents, reports and reviews produced in accordance with this consent, excluding any parts of the reports that the consent holder and Canterbury Regional Council, Attention: Regional Leader - Monitoring & Compliance agree are confidential and / or commercially sensitive. Copies of the reports shall be issued with the written invitations, and shall also be available at the annual meeting.



48	<p>The meetings required by condition (44) need not occur if:</p> <ol style="list-style-type: none"> <li>The parties listed in the condition (46) advise (in writing) the consent holder and the Canterbury Regional Council, Attention: Regional Leader - Monitoring and Compliance that the meeting is not required; or</li> <li>The consent holder advises (in writing) the Canterbury Regional Council, Attention: Regional leader - Monitoring and Compliance that there has been no response from any of the parties listed in condition (46) to an invitation to meet.</li> </ol>
49	<p>The consent holder shall keep a record of the meetings held in accordance with condition (44). The record shall list the names of those who attended the meetings, the main topics of discussion and any agreed outcomes / areas of disagreement. The consent holder shall forward a copy of the meeting record to the Canterbury Regional Council, Attention: Regional Leader - Monitoring and Compliance (on request) and to the meeting participants no later than four weeks after the meeting being held.</p>
49A	<p><b><u>Engagement Over Draft Reports</u></b>  <u>In addition to the requirements of conditions 44 to 49 of these resource consents, the consent holder shall:</u></p> <ol style="list-style-type: none"> <li><u>Forward draft copies of the documents prepared in accordance with the Works in the River Management Plan, the Water Quality Management Plan and the Fish Screen Verification Management Plan conditions of this consent to the Chair of Te Rūnanga o Arowhenua and Central South Island Fish and Game for their review and comment at least 6-weeks prior to the documents being submitted to the Canterbury Regional Council for certification. Any comments made by Te Rūnanga o Arowhenua and Central South Island Fish and Game shall be considered by the authors of the documents, and are to be attached as an appendix to the reports that are submitted to the Canterbury Regional Council for certification in accordance with condition 6.0; and</u></li> <li><u>Forward final (certified) copies of all monitoring reports produced in accordance with 18.4 and 20.5 of these resource consents to Te Rūnanga o Arowhenua and Central South Island Fish and Game at the same time that the reports are forwarded to the Canterbury Regional Council.</u></li> </ol>
	<b>WATERFOWL</b>
50	<p>The consent holder shall work with Fish and Game Central South Island to develop and then implement measures to actively deter waterfowl from using the Dam over the first two weeks of each year's duck hunting season, to reduce the likelihood of it becoming a waterfowl refuge. Methods to deter birds may include physical disturbance (by boat or unpiloted aerial vehicle), bird scaring devices (such as propane guns), or other methods as necessary.</p>
51	<p>The consent holder shall carry out quarterly counts of the number of Canada Geese on the surface of the Dam. Should the number of Canada Geese on the Dam be consistently at nuisance levels (being more than an average of 100 birds), the consent holder shall carry out culls to reduce Canada Geese numbers to levels deemed acceptable by the expert.</p> <p><b><i>Advice note:</i></b> <i>When any culling of waterfowl occurs, care should be exercised to ensure that no damage to the dam liner occurs, e.g. bullet or shotgun shell damage.</i></p>
52	<p>The requirement for Canada Geese culls (triggered by the consent holder complying with condition (51) of this consent) ceases if, in the opinion of an appropriately qualified and experienced expert, the numbers of Canada Geese on the surface of the Dam are no longer consistently at, or above, nuisance levels.</p>
	<b>ADMINISTRATION</b>

53	<p>Pursuant to Section 128(1) of the Resource Management Act 1991, the Consent Authority may serve notice of its intention to review the conditions of this consent within a period of three months commencing on each anniversary of the date of issue of the consent for any of the following purposes:</p> <ul style="list-style-type: none"> <li>a. To deal with any adverse effects on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or</li> <li>b. To require the Consent Holder to adopt the best practicable option to mitigate any adverse effect upon the environment; or</li> <li>c. To deal with any other adverse effect on the environment on which the exercise of the consent may have any influence.</li> </ul>
54	<p>The lapsing date for the purposes of Section 125 of the Resource Management Act 1991 shall be 15 years from the date consent is issued.</p> <p><b>Advice note:</b> 'Exercised' is defined as implementing any requirements to operate this consent <u>and</u> undertaking the activity as described in these conditions and/or application documents.</p>
55	<p><u>This resource consent shall expire 35 years after it has commenced.</u></p>

**CRC170659: a discharge consent to discharge contaminants to air from the combustion of diesel.**

1	The discharge into air shall be only combustion products from the operation of <del>four</del> stationary <del>37-kW</del> diesel generators <u>with a combined energy output not exceeding 200kw</u> , located on land located at Shephards Bush Road, Monalto Road, Klondyke Road, and Klondyke Terrace, identified as the 'works area' on Plan CRC170659, which forms part of this consent.
1A	<p><u>The Proposal shall be constructed, operated and maintained in accordance with the details contained within the following documents:</u></p> <p><u>a. The Assessment of Environmental Effects report prepared by Ryder Consulting Limited in July 2016 and entitled "Lake Klondyke: A Proposed Water Storage Facility, Assessment of Environmental Effects Report &amp; Resource Consent Application, Prepared for the Rangitata Diversion Race Management Limited, Date Finalised: July 2016"; and</u></p> <p><u>b. The Assessment of Environmental Effects report prepared by Ryder Consulting Limited in November 2017 and entitled "Proposed Rangitata Diversion Race Fish Screen and Supplementary Matters Resource Consent Application".</u></p> <p><u>except where modified by specific conditions set out in these resource consents or by the plans authorised by the building consent for the Proposal.</u></p>
2	The discharge of combustion products shall not have a noxious, dangerous, offensive or objectionable effect beyond the boundary of the 'works area'.
3	The opacity of any of the discharges shall not be darker than the Ringelmann Shade 1 as determined in accordance with the New Zealand Standard NZS 5201:1973, except for a period not exceeding two minutes in each hour of operation.
4	The sulphur content of the diesel fuel burned in the generators shall not exceed 0.001 percent by weight (10 ppm)
5	<p>The generators shall be maintained at least once every year, by a suitably qualified person competent in the maintenance of such appliances. This maintenance shall include:</p> <p>a. Adjustment if necessary of the fuel into air ratio to ensure compliance with Condition (3); and</p> <p>b. Testing of the ratio of combustion gases discharged, i.e., carbon monoxide, carbon dioxide and oxygen.</p> <p>Maintenance reports shall be prepared and retained, and copies shall be provided to the Canterbury Regional Council upon request.</p>
6	<p>Pursuant to Section 128(1) of the Resource Management Act 1991, the Consent Authority may serve notice of its intention to review the conditions of this consent within a period of three months commencing on each anniversary of the date of issue of the consent for any of the following purposes:</p> <p>a. To deal with any adverse effects on the environment which may arise from the exercise of the consent and which it is appropriate to deal</p>

	<p>with at a later stage; or</p> <p>b. To require the Consent Holder to adopt the best practicable option to mitigate any adverse effect upon the environment; or</p> <p>c. To deal with any other adverse effect on the environment on which the exercise of the consent may have any influence.</p>
7	<p>The lapsing date for the purposes of Section 125 of the Resource Management Act 1991 shall be 15 years from the date consent is issued.</p> <p><b>Advice note:</b> 'Exercised' is defined as implementing any requirements to operate this consent <u>and</u> undertaking the activity as described in these conditions and/or application documents.</p>
8	<p><u>This resource consent shall expire 35 years after it has commenced.</u></p>

**CRC170660: to discharge construction-phase stormwater and dewatering water to land via sediment retention ponds and soakage pits.**

1	<p>The activity authorised by this resource consent shall be only the discharge of:</p> <ol style="list-style-type: none"> <li>construction phase stormwater; and</li> <li>groundwater taken for dewatering in accordance with consent CRC170656;</li> </ol> <p>generated during the development of the Klondyke Storage Dam within the land parcels legally described as Lot 2 DP 482124, Part Lot 1 DP 2767 and RS 36179 <u>(which is located adjacent to Montalto Road at or about map reference Topo50 BY19:6150-4409)</u>, as shown on Plan CRC170660 labelled as “Works Area”, attached to and forming part of this resource consent.</p>
1A	<p><u>The Proposal shall be constructed, operated and maintained in accordance with the details contained within the following documents:</u></p> <ol style="list-style-type: none"> <li><u>The Assessment of Environmental Effects report prepared by Ryder Consulting Limited in July 2016 and entitled “Lake Klondyke: A Proposed Water Storage Facility, Assessment of Environmental Effects Report &amp; Resource Consent Application, Prepared for the Rangitata Diversion Race Management Limited, Date Finalised: July 2016”;</u> and</li> <li><u>The Assessment of Environmental Effects report prepared by Ryder Consulting Limited in November 2017 and entitled “Proposed Rangitata Diversion Race Fish Screen and Supplementary Matters Resource Consent Application”.</u></li> </ol> <p><u>except where modified by specific conditions set out in these resource consents or by the plans authorised by the building consent for the Proposal.</u></p>
2	<p>Construction phase stormwater generated within the worked areas, and dewatering water shall be directed to sediment retention ponds located within the area labelled as “Works Area” on Plan CRC170660.</p>
3	<p>The discharge of construction phase stormwater and dewatering water generated under this consent shall not:</p> <ol style="list-style-type: none"> <li>Exacerbate flooding on surrounding sites; and</li> <li>Be discharged directly to groundwater.</li> <li>Be discharged directly to surface water.</li> </ol>
4	<p>Pursuant to Section 128(1) of the Resource Management Act 1991, the Consent Authority may serve notice of its intention to review the conditions of this consent within a period of three months commencing on each anniversary of the date of issue of the consent for any of the following purposes:</p> <ol style="list-style-type: none"> <li>To deal with any adverse effects on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or</li> <li>To require the Consent Holder to adopt the best practicable option to mitigate any adverse effect upon the environment; or</li> <li>To deal with any other adverse effect on the environment on which the exercise of the consent may have any influence.</li> </ol>
5	<p>The lapsing date for the purposes of Section 125 of the Resource Management Act 1991 shall be 15 years from the date consent is issued.</p> <p><b>Advice note:</b> ‘Exercised’ is defined as implementing any requirements to operate this consent <u>and</u> undertaking the activity as described in these conditions and/or application documents.</p>

**CRC170662: to temporarily discharge water and sediment in the Rangitata River as a result of the works to be undertaken under resource consent CRC170653.**

1	The activities shall be limited to the discharge of sediment and water generated as a result of the works carried out as authorised under consent CRC170653.
1A	<p><u>The Proposal shall be constructed, operated and maintained in accordance with the details contained within the following documents:</u></p> <p>a. <u>The Assessment of Environmental Effects report prepared by Ryder Consulting Limited in July 2016 and entitled "Lake Klondyke: A Proposed Water Storage Facility, Assessment of Environmental Effects Report &amp; Resource Consent Application, Prepared for the Rangitata Diversion Race Management Limited, Date Finalised: July 2016"; and</u></p> <p>b. <u>The Assessment of Environmental Effects report prepared by Ryder Consulting Limited in November 2017 and entitled "Proposed Rangitata Diversion Race Fish Screen and Supplementary Matters Resource Consent Application".</u></p> <p><u>except where modified by specific conditions set out in these resource consents or by the plans authorised by the building consent for the Proposal.</u></p>
2	The discharge shall only occur to the Rangitata River adjacent to the works area identified on Plan CRC170662.
3	<p>All practicable measures shall be undertaken to minimise:</p> <p>a. erosion of the bed and banks of the Rangitata River; and</p> <p>b. the amount of sediment discharged of sediment to the Rangitata River.</p>
4	<p>Pursuant to Section 128(1) of the Resource Management Act 1991, the Consent Authority may serve notice of its intention to review the conditions of this consent within a period of three months commencing on each anniversary of the date of issue of the consent for any of the following purposes:</p> <p>a. To deal with any adverse effects on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or</p> <p>b. To require the Consent Holder to adopt the best practicable option to mitigate any adverse effect upon the environment; or</p> <p>c. To deal with any other adverse effect on the environment on which the exercise of the consent may have any influence.</p>
5	<p>The lapsing date for the purposes of Section 125 of the Resource Management Act 1991 shall be 15 years from the date consent is issued.</p> <p><b>Advice note:</b> 'Exercised' is defined as implementing any requirements to operate this consent and undertaking the activity as described in these conditions and/or application documents.</p>

**CRC182535: to discharge water from the take authorised under CRC182536 and suspended sediment to the river via the fish bypass return;**

1	The discharge shall only be water and sediment from the fish bypass channel authorised under Consent CRC182536, or any subsequent replacement consent.
1A	<p><u>The Proposal shall be constructed, operated and maintained in accordance with the details contained within the following documents:</u></p> <p>a. <u>The Assessment of Environmental Effects report prepared by Ryder Consulting Limited in July 2016 and entitled "Lake Klondyke: A Proposed Water Storage Facility, Assessment of Environmental Effects Report &amp; Resource Consent Application, Prepared for the Rangitata Diversion Race Management Limited, Date Finalised: July 2016"; and</u></p> <p>b. <u>The Assessment of Environmental Effects report prepared by Ryder Consulting Limited in November 2017 and entitled "Proposed Rangitata Diversion Race Fish Screen and Supplementary Matters Resource Consent Application".</u></p> <p><u>except where modified by specific conditions set out in these resource consents or by the plans authorised by the building consent for the Proposal.</u></p>
2	<p><del>The discharge shall occur into the Rangitata River at or about map reference NZTM2000: 1458275 mE 5151564 mN.</del></p> <p><u>Water discharged to the Rangitata River from the bypass channel associated with the Fish Screen shall not exceed 5 m<sup>3</sup>/s and shall occur at map reference NZMS 260 J36 6820 1320 (NZTM Topo50 BY19 5827 5158).</u></p>
2A	<u>Water may only be discharged in accordance with condition 2 where the consent holder has surrendered resource consent CRC180975.</u>
3	<p>Pursuant to Section 128(1) of the Resource Management Act 1991, the Consent Authority may serve notice of its intention to review the conditions of this consent within a period of three months commencing on each anniversary of the date of issue of the consent for any of the following purposes:</p> <ol style="list-style-type: none"> <li>To deal with any adverse effects on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or</li> <li>To require the Consent Holder to adopt the best practicable option to mitigate any adverse effect upon the environment; or</li> <li>To deal with any other adverse effect on the environment on which the exercise of the consent may have any influence.</li> </ol>
4	<p>The lapsing date for the purposes of Section 125 of the Resource Management Act 1991 shall be 15 years from the date consent is issued.</p> <p><b>Advice note:</b> 'Exercised' is defined as implementing any requirements to operate this consent <u>and</u> undertaking the activity as described in these conditions and/or application documents.</p>
5	<u>This resource consent shall expire 35 years after it has commenced.</u>



**CRC182536: For a non-consumptive take of up to 5 cumecs of water from the Rangitata River associated with the operation of a fish screen;**

1	<p>Water diverted from the Rangitata River <u>at surface water abstraction point SWAP J36/0020 (at or about map reference NZTM2000: 1457979mE 5152788mN)</u> shall:</p> <ol style="list-style-type: none"> <li>Not exceed a diversion rate of 5 m<sup>3</sup>/s;</li> <li>Be diverted for the purposes of operating a fish bypass at or about map reference NZTM2000: 1458480 mE 5151553 mN <del>map reference</del>; and</li> <li>Be discharged in accordance with consent CRC182535 or any subsequent replacement.</li> </ol>
1A	<p><u>The Proposal shall be constructed, operated and maintained in accordance with the details contained within the following documents:</u></p> <ol style="list-style-type: none"> <li><u>The Assessment of Environmental Effects report prepared by Ryder Consulting Limited in July 2016 and entitled "Lake Klondyke: A Proposed Water Storage Facility, Assessment of Environmental Effects Report &amp; Resource Consent Application, Prepared for the Rangitata Diversion Race Management Limited, Date Finalised: July 2016"; and</u></li> <li><u>The Assessment of Environmental Effects report prepared by Ryder Consulting Limited in November 2017 and entitled "Proposed Rangitata Diversion Race Fish Screen and Supplementary Matters Resource Consent Application".</u></li> </ol> <p><u>except where modified by specific conditions set out in these resource consents or by the plans authorised by the building consent for the Proposal.</u></p>
2	<p>Notwithstanding condition (1)(a), whenever:</p> <ol style="list-style-type: none"> <li>The mean flow in the Rangitata River for the 24-hour period ending at noon on any one day falls below 132.6 m<sup>3</sup>/s, the diversion of water from the Rangitata River in accordance with this consent shall not exceed 3 m<sup>3</sup>/s;</li> <li>The mean flow in the Rangitata River for the 24-hour period ending at noon on any one day is between 132.6 m<sup>3</sup>/s and 142.6 m<sup>3</sup>/s, the diversion of water from the Rangitata River in accordance with this consent shall not exceed 4 m<sup>3</sup>/s; and</li> </ol> <p>The mean flow in the Rangitata River for the 24-hour period ending at noon on any one day is above 142.6 m<sup>3</sup>/s, the diversion of water from the Rangitata River in accordance with this consent shall not exceed 5 m<sup>3</sup>/s</p>
3	<p>The flows referred to in condition (2) shall be the flow estimated by the Canterbury Regional Council in the Rangitata River at the Klondyke recorder site at map reference NZTM2000: 1456739 mE 5153169 mN.</p>
4	<p>The consent holder shall before the first exercise of this consent:</p> <ol style="list-style-type: none"> <li> <ol style="list-style-type: none"> <li>install a water meter(s) that has an international accreditation or 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 <del>five-ten</del> percent <del>as part of the pump-outlet plumbing, or within the mainline distribution system</del>, at a location(s) that will ensure the total take of water is measured; and</li> <li>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), or which is telemetered, as specified in clause (b)(iii).</li> </ol> </li> <li>The recording device(s) shall: <ol style="list-style-type: none"> <li>be set to wrap the data from the measuring device(s) such that the</li> </ol> </li> </ol>

	<p>oldest data will be automatically overwritten by the newest data (i.e. cyclic recording); and</p> <ul style="list-style-type: none"> <li>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 in a commonly used format and provide 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>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.</li> <li>iv. No data in the recording device(s) shall be deliberately changed or deleted.</li> </ul> <ul style="list-style-type: none"> <li>c. The water meter and recording device(s) shall be accessible to the Canterbury Regional Council at all times for inspection and/or data retrieval.</li> <li>d. 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.</li> <li>e. All practicable measures shall be taken to ensure that the water meter and recording device(s) are fully functional at all times.</li> </ul>
5	<p>Within one month of the installation of the measuring or recording device(s), or any subsequent replacement measuring or recording device(s), and at five-yearly intervals thereafter, and at any time when requested by the Canterbury Regional Council, the consent holder shall provide a certificate to the Canterbury Regional Council, Attention: Regional Leader- Monitoring and Compliance, 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) has been 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 (4).</li> </ul>
6	<p>The consent holder shall surrender consent CRC180974 prior to the first exercise of this consent.</p>
7	<p>Pursuant to Section 128(1) of the Resource Management Act 1991, the Consent Authority may serve notice of its intention to review the conditions of this consent within a period of three months commencing on each anniversary of the date of issue of the consent for any of the following purposes:</p> <ul style="list-style-type: none"> <li>a. To deal with any adverse effects on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or</li> <li>b. To require the Consent Holder to adopt the best practicable option to mitigate any adverse effect upon the environment; or</li> <li>c. To deal with any other adverse effect on the environment on which the exercise of the consent may have any influence.</li> </ul>
8	<p>The lapsing date for the purposes of Section 125 of the Resource Management Act 1991 shall be 15 years from the date consent is issued.</p> <p><b>Advice note:</b> 'Exercised' is defined as implementing any requirements to operate this consent <u>and</u> undertaking the activity as described in these conditions and/or application documents.</p>
	<p><b>This resource consent shall expire 35 years after it has commenced.</b></p>

**CRC182537: to disturb the bed of the Rangitata River for the construction of the fish bypass outlet;**

	<b><u>GLOSSARY OF TERMS &amp; ABBREVIATIONS USED IN THIS RESOURCE CONSENT</u></b>
<b><u>0</u></b>	<p><b><u>Appropriately qualified and experienced expert(s)</u></b> means a person or persons:</p> <ol style="list-style-type: none"> <li><u>With a relevant and recognised tertiary qualification(s) to the topic being assessed;</u></li> <li><u>Whom is (are) recognised as a full member (or equivalent) of a relevant professional institution(s) (such as the Institution of Professional Engineers New Zealand), where such institutions exist;</u></li> <li><u>Has more than 10-years relevant experience in the topic being assessed;</u> and</li> </ol> <p><b><u>Certifies and Certification</u></b> means a process whereby:</p> <ol style="list-style-type: none"> <li><u>The consent holder supplies a report, action plan, design plan, construction methodology, monitoring plan, commissioning plan, safety system or a management plan, and the Canterbury Regional Council appoints an appropriately qualified and experienced expert to assesses the documentation submitted to ensure that it achieves the requirements of the relevant condition(s) of consent;</u></li> <li><u>Should the documents supplied in accordance with condition 0(a), in the opinion of the expert appointed by the Council, achieve the intent of the relevant condition(s) of these resource consents, the Regional Leader: Compliance and Monitoring of the Canterbury Regional Council shall issue a written certificate to the consent holder confirming that the requirements of the relevant condition(s) have been satisfied;</u></li> <li><u>If the expert appointed by the Council is not satisfied that the documents supplied in accordance with condition (a) achieves requirements of the relevant condition(s), the Regional Leader: Compliance and Monitoring of the Canterbury Regional Council shall advise (in writing) the consent holder of the experts concerns and ask that the report, commissioning plan, monitoring plan, action plan, safety system or management plan be modified so as to address the concerns, and then be resubmitted;</u></li> <li><u>This process shall be repeated until the Regional Leader: Compliance and Monitoring of the Canterbury Regional Council is able (on the advice of the expert) to certify that the requirements of the applicable condition(s) of consent have been satisfied;</u></li> </ol> <p><b><u>CLG</u></b> means the Community Liaison Group.</p> <p><b><u>CMP</u></b> means Construction Management Plan.</p> <p><b><u>Construction site</u></b> includes all areas, excluding gazetted and vested road reserves that contain formed roads, where construction works / activities authorised by these resource consents are being undertaken by the consent holder.</p> <p><b><u>Council</u></b> means the Canterbury Regional Council.</p> <p><b><u>EAP</u></b> means the Emergency Action Plan.</p> <p><b><u>ESCP</u></b> means Erosion and Sediment Control Plan.</p> <p><b><u>Fish screen</u></b> means the rotary fish screen and its associated bypass channel.</p> <p><b><u>FSVMP</u></b> means Fish Screen Verification Monitoring Plan</p> <p><b><u>Flood flow take</u></b> means a flood flow abstraction from the Rangitata River.</p> <p><b><u>HSSMP</u></b> means the Hazardous Substances Spill Management Plan</p> <p><b><u>Klondyke Pond</u></b> means the Lake Klondyke Water Storage Facility.</p> <p><b><u>km/hr</u></b> means kilometres per hour.</p> <p><b><u>l/s</u></b> means litres per second</p> <p><b><u>m<sup>3</sup></u></b> means cubic metres</p> <p><b><u>m<sup>3</sup>/s</u></b> means cubic metres per second</p> <p><b><u>m</u></b> means metre</p> <p><b><u>m/s</u></b> means metres per second.</p> <p><b><u>mm/s</u></b> means millimetres per second</p> <p><b><u>NZSOLD</u></b> means New Zealand Society on Large Dams New Zealand.</p>

	<p><b>PPV</b> means Peak Particle Velocity</p> <p><b>Reasonable Mixing Zone</b> means, for the purposes of condition 18.0A, a reasonable mixing zone extending from the point of discharge from the Sluice Channel to a point that is 200 metres downstream of the discharge point.</p> <p><b>Regional Water Table</b> means the upper surface of the full saturated groundwater system but does not, for the purposes of these resource consents, include perched groundwater (which is groundwater in saturated strata that occurs above the regional water table but is separated from it by a layer of unsaturated strata).</p> <p><b>RDR</b> means the Rangitata Diversion Race.</p> <p><b>RDR mods</b> means the modifications to the Rangitata Diversion Race.</p> <p><b>RL</b> means the right bank when looking downstream.</p> <p><b>RMA</b> means the Resource Management Act</p> <p><b>The Proposal</b> means the Klondyke Pond, WWC, RDR mods, fish screen, SBR relocation, flood flow take and refuge, and all incidental work.</p> <p><b>TSP</b> means total suspended particulate.</p> <p><b>WRMP</b> means Works in the River Management Plan</p>
	<b>CERTIFICATION PROCESS</b>
<b>OA.1</b>	<p>Except where explicitly required otherwise by conditions of this consents, the consent holder shall:</p> <ol style="list-style-type: none"> <li>Engage an appropriately qualified and experienced independent expert (or experts) to prepare the management plans, design plans, construction methodology, monitoring plans, action plan, commissioning plan and safety system specified in the conditions of this consent using the draft versions of these plans (which are attached as Annexure B) as a base document;</li> <li>Provide drafts of each of the documents required by condition OA(a) to the Canterbury Regional Council, Attention Regional Leader - Monitoring and Compliance, not less than three months prior to construction works / activities commencing in accordance with these resource consents;</li> <li>Not commence any construction works / activities authorised by these resource consents until it has received a certificate from the Regional Leader: Compliance and Monitoring of the Canterbury Regional Council that the management plan, design plan, construction methodology, monitoring plan, action plan, commissioning plan or safety system is consistent with the applicable conditions of this consent;</li> <li>Adhere to and implement the certified version of the management plan, design plans, construction methodology, monitoring plan, action plan, commissioning plan or safety system;</li> <li>Submit any proposed variations to the management plans, design plans, construction methodology, action plan, safety system, monitoring plans and commissioning plan to the Regional Leader: Compliance and Monitoring of the Canterbury Regional Council, at least seven days prior to when the proposed change will be implemented by the consent holder. Any variations made shall not take effect until the Regional Leader: Compliance &amp; Monitoring of the Canterbury Regional Council certifies that the variations accord with the applicable conditions of the resource consent;</li> <li>Appoint an appropriately qualified and independent expert (or experts) to review the management plans, action plan, safety system, monitoring plans and commissioning plan at the frequency set out in these resource consents. Should the conditions of these resource consents not set a frequency, the reviews shall be conducted annually. Such reviews are to ensure that the management plans, action plan, safety system, monitoring plans and commissioning plan continue to achieve the conditions of these resource consents.</li> <li>Any changes made as a result of the reviews conducted in accordance with condition OA(f) shall be submitted to the Canterbury Regional Council and shall not take effect until the Regional Leader: Compliance and Monitoring of the Canterbury Regional Council certifies that the changes accord with the applicable conditions of these resource consents;</li> </ol>

	<p><u>h. Pay the costs of the expert(s) appointed by the Canterbury Regional Council to certify the management plans, design plans, construction methodology, monitoring plans, commissioning plan, action plan and safety system (and any variations or changes thereto) in accordance with conditions 0A(c) and 0A(h); and</u></p> <p><u>i. Ensure that copies of the certified commissioning plan, design plans, construction methodology and management plans, monitoring plans, action plan, safety system and management plans set out in these conditions are available on site at all times during the construction works / activities authorised by this consent; and</u></p> <p><u>j. Ensure that all key personnel are to be made aware of the content and requirements / obligations of the management plans, action plan, safety system, commissioning plan and monitoring plans.</u></p>
0A.2	<u>Notwithstanding conditions 0A(c), 0A(e), 0A(f) and 0A(h), if the consent holder has not received a written response from the Canterbury Regional Council on or after the 30<sup>th</sup> working day of it providing a management plan, monitoring plan, action plan, commissioning plan or safety system for certification (or variations / changes to these documents), the works / activities authorized by these resource consents may commence in accordance with the document that was provided to the Council.</u>
	<b>SCOPE</b>
1	The activity shall be limited to the use of land to disturb the bed of the Rangitata River for the construction of a fish bypass outlet, at or about map reference NZTM2000: 1458275 mE 5151564 mN.
1A	<p><u>The Proposal shall be constructed, operated and maintained in accordance with the details contained within the following documents:</u></p> <p><u>a. The Assessment of Environmental Effects report prepared by Ryder Consulting Limited in July 2016 and entitled "Lake Klondyke: A Proposed Water Storage Facility, Assessment of Environmental Effects Report &amp; Resource Consent Application, Prepared for the Rangitata Diversion Race Management Limited, Date Finalised: July 2016"; and</u></p> <p><u>b. The Assessment of Environmental Effects report prepared by Ryder Consulting Limited in November 2017 and entitled "Proposed Rangitata Diversion Race Fish Screen and Supplementary Matters Resource Consent Application".</u></p> <p><u>Except where modified by specific conditions set out in these resource consents or by the plans authorised by the building consent for the Proposal.</u></p>
	<b>PRE-CONSTRUCTION</b>
2	<p>The consent holder shall:</p> <p>a. be responsible for all the contracted operations relating to the exercise of this consent including the Construction Works; and</p> <p>b. ensure compliance with consent conditions.</p>
3	<p>Prior to commencement of any physical works required for the activities described in Condition (1) (hereafter referred to as the 'Construction Works') the consent holder or its agent or contractor shall arrange and conduct a pre-construction site meeting between the Canterbury Regional Council and all persons involved in the Construction Works. At a minimum, the following shall be covered at the meeting:</p> <p>a. Scheduling and staging of the Construction Works;</p> <p>b. Responsibilities of all relevant parties;</p> <p>c. Contact details for all relevant parties;</p> <p>d. Expectations regarding communication between all relevant parties;</p> <p>e. Procedures for implementing any changes to the Construction Works;</p> <p>f. Site inspection; and</p> <p>g. Confirmation that all persons involved in the Construction Works have</p>

	copies of the contents of this consent document, the Erosion and Sediment Control Plan (ESCP) and all plans and methodologies associated with this consent.
	<b>GENERAL</b>
4	<p>Prior to any works authorised by this consent being carried out in the period 1 September to 1 February, the consent holder shall ensure that:</p> <ul style="list-style-type: none"> <li>a. a suitably qualified and independent person inspects the proposed area of works, no earlier than eight days prior to any works being carried out, and locates any bird breeding sites of birds listed in Appendix A, which forms part of this consent;</li> <li>b. the person carrying out the inspection prepares a written report that identifies all the located bird breeding or nesting sites and provides copies of that report to the consent holder and the Canterbury Regional Council, attention Regional Leader – Monitoring and Compliance;</li> <li>c. the name and qualifications of the person carrying out the inspection are provided to the Canterbury Regional Council with the report;</li> <li>d. any person carrying out works authorised by this consent are informed of any bird breeding or nesting sites located; and</li> <li>e. where work ceases for more than eight days, the site will be re-inspected for bird breeding and nesting sites in accordance with parts (a) to (d) of this condition.</li> </ul>
5	<p>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, except as identified by the inspection undertaken in accordance with condition (5) and detailed in the report. For the purposes of this condition birds are defined as those bird species listed in Appendix A, which forms part of this consent.</p>
6	<p>To prevent the spread of pest species, including but not limited to Didymo, the consent holder shall ensure that activities authorised by this consent are undertaken in accordance with the Biosecurity New Zealand's hygiene procedures and that machinery shall be free of plants and plant seeds prior to use in the riverbed.</p> <p><b>Advice Note:</b> You can access the most current version of these procedures from the Biosecurity New Zealand website <a href="http://www.biosecurity.govt.nz">http://www.biosecurity.govt.nz</a></p>
7	<p>All practicable measures shall be undertaken to minimise:</p> <ul style="list-style-type: none"> <li>a. erosion of the bed and banks of the Rangitata River; and</li> <li>b. the discharge of sediment to the Rangitata River; as a result of the works.</li> </ul>
8	<p>All practicable measures shall be undertaken to prevent oil and fuel leaks from vehicles and machinery including but not limited to:</p> <ul style="list-style-type: none"> <li>a. There shall be no storage of fuel or refuelling of vehicles and machinery within 20 metres of the bed of a river.</li> <li>b. Fuel shall be stored securely or removed from site overnight</li> </ul> <p><b>Advice Note:</b> In addition to this consent, the consent holder will also need to ensure that the activity complies with Canterbury Land and Water Regional Plan (LWRP) Rule 5.145 (Refuelling in Lake and Riverbeds). If the activity does not comply with Rule 5.175 of the LWRP, an additional consent will be required pursuant to section 15 of the Resource Management Act 1991.</p>



9	<p>Works shall:</p> <ol style="list-style-type: none"> <li>not be carried out on Sundays or public holidays.</li> <li>only occur between the hours of 6:30 am and 8:00 pm inclusive</li> </ol> <p><b>Advice Note:</b> The consent holder should also check compliance with the relevant District Council regulations.</p>
	<b>COMPLAINTS REGISTER</b>
9A.1	<p>The consent holder shall keep a register of complaints lodged with it in respect of the exercise of these resource consents.</p> <p>The register prepared and maintained in accordance with this condition shall record the following details for each complaint that is made:</p> <ol style="list-style-type: none"> <li>The date and time of the complaint; and</li> <li>The name and contact details of the complainant (if they are provided to the consent holder) and a description of the complaint; and</li> <li>The investigations (if any) that the consent holder undertook in response to each complaint; and</li> <li>Any action that was undertaken to address the concerns raised in the complaint; and</li> <li>The feedback provided to each complainant.</li> </ol>
9A.2	<p>The consent holder shall forward a copy of the register prepared and maintained in accordance with condition 9A.1 to the Canterbury Regional Council, Attention RMA Compliance and Monitoring Manager within five (5) working days of receiving a request to do so from the Council.</p>
9A.3	<p>The consent holder shall appoint a Liaison Officer for the Proposal prior to any construction works / activities authorised by these resource consents commencing. The Liaison Officer shall be the point of contact for the public during construction of the Proposal. The name and contact details for the Liaison Officer shall be advertised at the main construction entrance for the Klondyke Pond.</p>
	<b>CONSTRUCTION MANAGEMENT PLAN</b>
9B.1	<p>The purpose of the Construction Management Plan is to describe the measures that will be implemented to ensure that all construction related environmental effects are avoided, minimised, or managed in accordance with the conditions of these resource consents and engineering / environmental best practice.</p>
9B.2	<p>The objectives of the CMP are to:</p> <ol style="list-style-type: none"> <li>Avoid and / or minimise the magnitude of the adverse effects generated during the construction activities and / or works authorised by these resource consents; and</li> <li>Provide clarity as to how the Proposal is to be constructed by setting out the: <ol style="list-style-type: none"> <li>Construction methodology that is to be employed to construct the Proposal; and</li> <li>Staging, timing, duration and monitoring of construction works and / or activities; and</li> <li>Measures that are to be applied, and when they are to be applied, to minimise the effects of the construction activities and / or works authorised by these resource consents. These measures shall include: <ul style="list-style-type: none"> <li>* A requirement that all construction works / activities be in accordance with the Canterbury Regional Council's ESCG (2007);</li> <li>* Measures necessary to provide for stormwater disposal and sediment removal;</li> </ul> </li> </ol> </li> </ol>



	<ul style="list-style-type: none"> <li>* The inclusion and / or maintenance of a vegetated strip (or other treatment system supported by the ESCG) between all areas of earthworks and water courses / water bodies / water races;</li> <li>* Controls on the siting of stockpiles to avoid sediment-entrained runoff entering water races / water courses / water bodies and to reduce the risk of fugitive dust emissions;</li> <li>* Measures to avoid the entrainment of oil, fuels or any other hazardous substances in stormwater, with particular emphasis on re-fuelling areas and repair areas; and</li> <li>* Requirements regarding the stabilisation and maintenance of all construction site entrances associated with the Proposal from public roads; and</li> </ul> <p>iv. The means by which stakeholders are to be kept informed of the construction works / activities being undertaken by the consent holder and/or its contractor(s).</p>
9B.3	<p>The CMP shall contain the following sections:</p> <ul style="list-style-type: none"> <li>a. Purpose and Scope</li> <li>b. Personnel, Team Structure, Contact Details and Responsibilities. This will include the 24-hour contact details for the following personnel: <ul style="list-style-type: none"> <li>i. The administrator of the complaints register (if required by conditions of this consent); and</li> <li>ii. The Liaison Officer (if required by conditions of this consent);</li> </ul> </li> <li>c. Environmental Policy and Environmental Management System;</li> <li>d. Resource Consent and Building Consent Requirements;</li> <li>e. Accidental Discovery Protocol (if required by conditions of this consent);</li> <li>f. Environmental Management Sub-Plans including, as a minimum, the following plans: <ul style="list-style-type: none"> <li>i. Erosion and Sediment Control Plan;</li> <li>ii. Hazardous Substances Spill Management Plan;</li> <li>iii. Vibration Management Plan;</li> <li>iv. Waste Management Plan;</li> <li>v. Works in the River Management Plan;</li> <li>vi. Smoke Management Plan;</li> <li>vii. Dust Management Plan; and</li> <li>viii. Contaminated Land Remediation Action Plan</li> <li>ix. Construction Methodology;</li> </ul> </li> <li>h. Training and Induction of Contractors and their Staff;</li> <li>i. Subcontractor Management;</li> <li>j. Monitoring and Site Inspections;</li> <li>k.- Conformance and Corrective / Preventative Actions;</li> <li>l. Meetings Frequency and Purpose; and</li> <li>m. Environmental Systems Reviews.</li> </ul>
	<b>Erosion and Sediment Control Plan</b>
10	<p><u>The purpose of the Erosion and Sediment Control Management Plan is to ensure that the consent holder implements appropriate measures, as defined by the Canterbury Regional Council's Erosion and Sediment Control Guidelines (2007) (an equivalent industry guideline), to minimise all actual or potential erosion and sediment effects arising from the construction works / activities authorised by these resource consents.</u></p> <p>The consent holder shall prepare an ESCP, subject to the following conditions:</p> <ul style="list-style-type: none"> <li>a. No less than one month before the commencement of any Construction Works, a copy of the ESCP shall be submitted to the Canterbury Regional Council: Attention Regional Leader – Monitoring and Compliance for review and certification. All activities authorised by this consent must be carried out in accordance with the ESCP;</li> <li>b. Unless Canterbury Regional Council provides notice in writing that it is unable to certify the ESCP within 20 working days of receipt of a draft</li> </ul>

	<p>ESCP, it is deemed to be certified by the Canterbury Regional Council. For the purposes of this condition, "Certification" means that the ESCP contains all the information specified in Condition 5(c);</p> <p>c. The ESCP shall include:</p> <ul style="list-style-type: none"> <li>i. A list of the staff and / or experts responsible for reviewing the ESCP;</li> <li>ii. A description of staff training and induction requirements that will be undertaken to ensure that the ESCMP is followed by all acting in accordance with these resource consents;</li> <li>iii. A description of the site and local receiving environment;</li> <li>iv. A site drainage plan;</li> <li>v. Details of any anticipated earth excavation requirements;</li> <li>vi. A schedule detailing the anticipated staging of the Construction Works including: <ul style="list-style-type: none"> <li>A. Site preparation works;</li> <li>B. Any equipment or plant mobilisation necessary for carrying out the construction works;</li> <li>C. Any field verification requirement.</li> </ul> </li> <li>vii. A detailed description of how run on and run off water will be managed within the construction site;</li> <li>viii. Measures to avoid or minimise any sediment entering exposed groundwater or the Rangitata River or being tracked onto roadways or neighbouring properties;</li> <li>ix. A detailed description of how water will be treated prior to disposal to the various receiving environments;</li> <li>x. Details of compliance checks, and any maintenance necessary to ensure that measures required under the ESCP or this consent are performing effectively;</li> <li>xi. Identification of persons responsible for carrying out the actions within the ESCP including their contact details;</li> <li>xii. A detailed description of how vegetation stripping and replanting would be undertaken to manage the area of disturbed ground that will be open throughout the construction works / activities authorised by these resource consents.</li> </ul> <p>d. The ESCP shall be prepared in accordance with:</p> <ul style="list-style-type: none"> <li>i. Environment Canterbury's "Erosion and Sediment Control Toolbox for the Canterbury Region" (ESCT) <a href="http://esccanterbury.co.nz/">http://esccanterbury.co.nz/</a> ; or</li> <li>ii. An equivalent industry guideline. If an alternative guideline is used, the SMP shall provide details of the relevant alternative methods used and an explanation of why they are more appropriate than the ESCT.</li> </ul> <p>e. Any amendments or revisions to the ESCP must be submitted to Canterbury Regional Council: Attention Regional Leader – Monitoring and Compliance.</p>
	<b>Hazardous Substance Management</b>
11	<p>The consent holder shall prepare a Hazardous Substances Spill Management Plan (HSSMP): The HSSMP shall include but is not limited to:</p> <ul style="list-style-type: none"> <li>a. Identifying the hazardous substances that will be retained on the site during construction and the restrictions that apply to, and are to be followed, in relation to their storage and use;</li> <li>b. Identifying the potential situations and locations where hazardous substances may be accidentally spilled, and to ensure that the appropriate measures are implemented by the consent holder to ensure that all actual or potential hazardous substances effects arising from the construction activities are minimised. This includes, but is not limited to, measures to provide secondary containment around storage locations and refuelling sites, to minimise the extent of soil contamination and to prevent run-off of spilled liquids from reaching surface water bodies;</li> <li>c. A list of the staff and/or experts responsible for reviewing the HSSMP;</li> <li>d. A description of staff / expert training and induction requirements that will be undertaken to ensure that the HSSMP is followed by all acting in</li> </ul>

	<p>accordance with these resource consents;</p> <ul style="list-style-type: none"> <li>e. A description of the site and local receiving environment;</li> <li>f. The procedures that are to be followed for the use of the hazardous substances within the construction site, including the construction personnel that are authorised to use them;</li> <li>g. The minimum requirements for spill management kits that are to be distributed throughout the construction site and the procedures that are to apply to the disposal of used spill management materials; and</li> <li>h. The procedures for corrective action in the event of a spill.</li> </ul>
12	<p>The consent holder shall take all practicable measures to avoid spills of fuel or any other contaminants. In the event of a spill of fuel or any other hazardous substances, the following corrective action shall be undertaken but is not limited to:</p> <ul style="list-style-type: none"> <li>a. All practicable measures shall be taken to prevent the spill being discharged into land via the stormwater system;</li> <li>b. The spill shall be cleaned up as soon as practicable and any contaminants that accumulate in the stormwater system shall be removed and the spill area shall be inspected and cleaned, and measures shall be taken to prevent reoccurrence;</li> <li><del>c. The consent holder shall provide the Canterbury Regional Council, Attention: Regional Leader Monitoring and Compliance, with the following information within 24 hours of a spill:</del> <ul style="list-style-type: none"> <li><del>i. The date, time, location and estimated volume of the spill;</del></li> <li><del>ii. The cause of the spill;</del></li> <li><del>iii. The type of contaminant(s) spilled;</del></li> <li><del>iv. Clean up procedures undertaken including evidence of appropriate disposal;</del></li> <li><del>v. Details of the steps taken to control and remediate the effects of the spill on the receiving environment;</del></li> <li><del>vi. An assessment of any potential effects of the spill; and</del></li> <li><del>vii. Measures to be undertaken to prevent a reoccurrence.</del></li> </ul> </li> </ul>
13	<p><del>Any material, including sediment, hydrocarbons and other contaminants, removed in the exercising of this consent shall be disposed of at a location or facility authorised to receive such material.</del></p>
	<p><b>WORKS IN THE RIVER MANAGEMENT PLAN</b></p>
14	<p>The consent holder shall prepare and adhere to a 'works in the River Management Plan' (WRMP). The WRMP primary objective is to ensure that the appropriate measures, as defined by Canterbury Regional Council's Erosion and Sediment Control Toolbox for Canterbury are implemented by the consent holder such that all actual or potential riverbed effects arising from the construction and any recurrent maintenance activities are minimised.</p>
15	<p>The WRMP shall include:</p> <ul style="list-style-type: none"> <li>a. Identification of the staff and / or experts responsible for reviewing the WRMP;</li> <li>b. A description of staff training and induction requirements that will be undertaken to ensure that the WRMP is followed by all acting in accordance with these resource consents;</li> <li>c. A description of the site and local receiving environment;</li> <li>d. An assessment of flood events, water levels and their return periods;</li> <li>e. A requirement for the consent holder to monitor the weather throughout the construction of the Proposal and to set the necessary trigger events that are to be used as an early warning system (where work would be ceased and plant removed from the riverbed); and</li> <li>f. A description of how works (including any recurrent maintenance works that are conducted following the first filling of the Klondyke Storage Dam) in the Rangitata River will be managed in order to minimise the risk of</li> </ul>

	adverse environmental effects, and how those effects will be remedied and/or mitigated.
16	<del>A copy of the WRMP shall be provided to the Canterbury Regional Council, attention Regional Leader – Monitoring and Compliance, at least 10 days prior to the activities authorised under this consent commencing.</del>
	<b>ACCIDENTAL DISCOVERY PROTOCOL - ARCHAEOLOGICAL MATERIALS</b>
17	In the event of any discovery of archaeological material the consent holder shall immediately: <ul style="list-style-type: none"> <li>a. Cease work within 10 metres of any part of the discovery and mark off the affected area;</li> <li>b. Advise the Canterbury Regional Council and Ashburton District Council of the discovery; and</li> <li>c. Advise Heritage New Zealand Pouhere Taonga of the discovery.</li> </ul>
18	If the archaeological material is determined to be Koiwi Tangata (human bones) of Maori origin or taonga (treasured artefacts) by Heritage New Zealand Pouhere Taonga, the consent holder shall immediately: <ul style="list-style-type: none"> <li>a. Advise the office of Upoko Runanga o Arowhenua of the discovery;</li> <li>b. Consult Upoko Runanga o Arowhenua on any matters of tikanga (protocol) that are required in relation to the discovery and prior to the commencement of any investigation, and perform those requirements; and</li> <li>c. Advise the New Zealand Police of the discovery in relation to Koiwi Tangata (human bones).</li> </ul>
19	Iwi representatives, Canterbury Regional Council, Attention: RMA Monitoring and Compliance Manager and Heritage New Zealand Pouhere Taonga <del>Trust</del> shall be afforded the opportunity to visit the site within up to three working days of the discovery (if and as they consider it necessary), and such persons shall be given a reasonable time to record and recover archaeological features discovered before work may recommence on the site. The site inspection shall occur within 6 working days of the discovery being made.
20	The consent holder may recommence any work if Heritage New Zealand Pouhere Taonga (following consultation with Kaitiaki Runanga if the material is of Maori origin) provides a statement in writing to the Council that appropriate action has been undertaken in relation to the archaeological material discovered. <p><b>Advice Notes</b></p> <ol style="list-style-type: none"> <li>1. Under the Heritage New Zealand Pouhere Taonga Act 2014 an archaeological site is defined as any place associated with pre-1900 human activity, where there is material evidence relating to the history of New Zealand. For sites solely of Maori origin, this evidence may be in the form of accumulations of shell, bone, charcoal, burnt stones, etc. In later sites, artefacts such as bottles or broken glass, ceramics, metals, etc., may be found or evidence of old foundations, wells, drains, tailings, races or other structures. Human remains/koiwi may date to any historic period.</li> <li>2. It is unlawful for any person to destroy, damage, or modify the whole or any part of an archaeological site without the prior authority of Heritage New Zealand Pouhere Taonga. This is the case regardless of the legal status of the land on which the site is located, whether the activity is permitted under the District or Regional Plan or whether a resource or building consent has been granted. The Heritage New Zealand Pouhere Taonga Act 2014 provides for substantial penalties for unauthorised damage or destruction. An authority from Heritage New Zealand Pouhere Taonga <del>Trust</del> may be required.</li> </ol>
	<b>AFTER WORKS</b>
21	All accumulated debris and other waste material shall be removed from the site.

22	The Canterbury Regional Council, Attention: Regional Leader - Monitoring and Compliance shall be notified within seven working days after the completion of any works authorised by this consent.
	<b>ADMINISTRATION</b>
23	<p>Pursuant to Section 128(1) of the Resource Management Act 1991, the Consent Authority may serve notice of its intention to review the conditions of this consent within a period of three months commencing on each anniversary of the date of issue of the consent for any of the following purposes:</p> <ul style="list-style-type: none"> <li>a. To deal with any adverse effects on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or</li> <li>b. To require the Consent Holder to adopt the best practicable option to mitigate any adverse effect upon the environment; or</li> <li>c. To deal with any other adverse effect on the environment on which the exercise of the consent may have any influence.</li> </ul>
24	<p>The lapsing date for the purposes of Section 125 of the Resource Management Act 1991 shall be 15 years from the date consent is issued.</p> <p><b>Advice note:</b> 'Exercised' is defined as implementing any requirements to operate this consent <u>and</u> undertaking the activity as described in these conditions and/or application documents.</p>
25	<u>This resource consent shall expire 35 years after it has commenced.</u>
	<p><b>Appendix A</b> - list of bird species referred to in bird nesting conditions (5) South Island</p> <p>Pied oystercatcher  Black stilt Pied stilt  Wrybill Banded dotterel Black-fronted dotterel Blue duck  Paradise shelduck Grey duck  NZ shoveler Grey teal NZ scaup  Black-billed gull Red-billed gull Caspian tern White-fronted tern Black-fronted tern  White-winged Black tern  Australasian bittern Marsh crake Spotless crake  Cormorant/shag colonies Royal spoonbill  Crested grebe</p>

**CRC182538: to temporarily discharge sediment to the Rangitata River as a result of the construction and maintenance of the fish bypass outlet;**

1	The activities shall be limited to the discharge of sediment and water generated as a result of the works carried out as authorised under consents CRC182537 and CRC182539, or any subsequent replacements.
1A	<p><u>The Proposal shall be constructed, operated and maintained in accordance with the details contained within the following documents:</u></p> <p><u>a. The Assessment of Environmental Effects report prepared by Ryder Consulting Limited in July 2016 and entitled "Lake Klondyke: A Proposed Water Storage Facility, Assessment of Environmental Effects Report &amp; Resource Consent Application, Prepared for the Rangitata Diversion Race Management Limited, Date Finalised: July 2016"; and</u></p> <p><u>b. The Assessment of Environmental Effects report prepared by Ryder Consulting Limited in November 2017 and entitled "Proposed Rangitata Diversion Race Fish Screen and Supplementary Matters Resource Consent Application".</u></p> <p><u>except where modified by specific conditions set out in these resource consents or by the plans authorised by the building consent for the Proposal.</u></p>
2	The discharge shall only occur to the Rangitata River at or about map reference NZTM2000: 1458275 mE 5151564 mN <u>and for maintenance activities up to 500 metres upstream and downstream of this point.</u>
3	<p>All practicable measures shall be undertaken to minimise:</p> <p>a. erosion of the bed and banks of the Rangitata River; and</p> <p>b. the amount of sediment discharged of sediment to the Rangitata River.</p>
4	<p>Pursuant to Section 128(1) of the Resource Management Act 1991, the Consent Authority may serve notice of its intention to review the conditions of this consent within a period of three months commencing on each anniversary of the date of issue of the consent for any of the following purposes:</p> <p>a. To deal with any adverse effects on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or</p> <p>b. To require the Consent Holder to adopt the best practicable option to mitigate any adverse effect upon the environment; or</p> <p>c. To deal with any other adverse effect on the environment on which the exercise of the consent may have any influence.</p>
5	<p>The lapsing date for the purposes of Section 125 of the Resource Management Act 1991 shall be 15 years from the date consent is issued.</p> <p><b>Advice note:</b> 'Exercised' is defined as implementing any requirements to operate this consent <u>and</u> undertaking the activity as described in these conditions and/or application documents.</p>
6	<u>This resource consent shall expire 35 years after it has commenced.</u>



**CRC182539: to extract gravel for the construction and periodic maintenance of the fish bypass outlet;**

	<b><u>GLOSSARY OF TERMS &amp; ABBREVIATIONS USED IN THIS RESOURCE CONSENT</u></b>
<b><u>0</u></b>	<p><b><u>Appropriately qualified and experienced expert(s)</u></b> means a person or persons:</p> <ol style="list-style-type: none"> <li><u>With a relevant and recognised tertiary qualification(s) to the topic being assessed;</u></li> <li><u>Whom is (are) recognised as a full member (or equivalent) of a relevant professional institution(s) (such as the Institution of Professional Engineers New Zealand), where such institutions exist;</u></li> <li><u>Has more than 10-years relevant experience in the topic being assessed;</u> and</li> </ol> <p><b><u>Certifies and Certification</u></b> means a process whereby:</p> <ol style="list-style-type: none"> <li><u>The consent holder supplies a report, action plan, design plan, construction methodology, monitoring plan, commissioning plan, safety system or a management plan, and the Canterbury Regional Council appoints an appropriately qualified and experienced expert to assesses the documentation submitted to ensure that it achieves the requirements of the relevant condition(s) of consent;</u></li> <li><u>Should the documents supplied in accordance with condition 0(a), in the opinion of the expert appointed by the Council, achieve the intent of the relevant condition(s) of these resource consents, the Regional Leader: Compliance and Monitoring of the Canterbury Regional Council shall issue a written certificate to the consent holder confirming that the requirements of the relevant condition(s) have been satisfied;</u></li> <li><u>If the expert appointed by the Council is not satisfied that the documents supplied in accordance with condition (a) achieves requirements of the relevant condition(s), the Regional Leader: Compliance and Monitoring of the Canterbury Regional Council shall advise (in writing) the consent holder of the experts concerns and ask that the report, commissioning plan, monitoring plan, action plan, safety system or management plan be modified so as to address the concerns, and then be resubmitted;</u></li> <li><u>This process shall be repeated until the Regional Leader: Compliance and Monitoring of the Canterbury Regional Council is able (on the advice of the expert) to certify that the requirements of the applicable condition(s) of consent have been satisfied; and</u></li> </ol> <p><b><u>CLG</u></b> means the Community Liaison Group.</p> <p><b><u>CMP</u></b> means Construction Management Plan.</p> <p><b><u>Construction site</u></b> includes all areas, excluding gazetted and vested road reserves that contain formed roads, where construction works / activities authorised by these resource consents are being undertaken by the consent holder.</p> <p><b><u>Council</u></b> means the Canterbury Regional Council.</p> <p><b><u>EAP</u></b> means the Emergency Action Plan.</p> <p><b><u>ESCP</u></b> means Erosion and Sediment Control Plan.</p> <p><b><u>Fish screen</u></b> means the rotary fish screen and its associated bypass channel.</p> <p><b><u>FSVMP</u></b> means Fish Screen Verification Monitoring Plan</p> <p><b><u>Flood flow take</u></b> means a flood flow abstraction from the Rangitata River.</p> <p><b><u>HSSMP</u></b> means the Hazardous Substances Spill Management Plan</p> <p><b><u>Klondyke Pond</u></b> means the Lake Klondyke Water Storage Facility.</p> <p><b><u>km/hr</u></b> means kilometres per hour.</p> <p><b><u>l/s</u></b> means litres per second</p> <p><b><u>m<sup>3</sup></u></b> means cubic metres</p> <p><b><u>m<sup>3</sup>/s</u></b> means cubic metres per second</p> <p><b><u>m</u></b> means metre</p> <p><b><u>m/s</u></b> means metres per second.</p> <p><b><u>mm/s</u></b> means millimetres per second</p> <p><b><u>NZSOLD</u></b> means New Zealand Society on Large Dams New Zealand.</p>



	<p><b>PPV</b> means Peak Particle Velocity</p> <p><b>Reasonable Mixing Zone</b> means, for the purposes of condition 18.0A, a reasonable mixing zone extending from the point of discharge from the Sluice Channel to a point that is 200 metres downstream of the discharge point.</p> <p><b>Regional Water Table</b> means the upper surface of the full saturated groundwater system but does not, for the purposes of these resource consents, include perched groundwater (which is groundwater in saturated strata that occurs above the regional water table but is separated from it by a layer of unsaturated strata).</p> <p><b>RDR</b> means the Rangitata Diversion Race.</p> <p><b>RDR mods</b> means the modifications to the Rangitata Diversion Race.</p> <p><b>RL</b> means the right bank when looking downstream.</p> <p><b>RMA</b> means the Resource Management Act</p> <p><b>The Proposal</b> means the Klondyke Pond, WWC, RDR mods, fish screen, SBR relocation, flood flow take and refuge, and all incidental work.</p> <p><b>TSP</b> means total suspended particulate.</p> <p><b>WRMP</b> means Works in the River Management Plan</p>
	<b>CERTIFICATION PROCESS</b>
<b>0A</b>	<p>Except where explicitly required otherwise by conditions of this consents, the consent holder shall:</p> <ol style="list-style-type: none"> <li>Engage an appropriately qualified and experienced independent expert (or experts) to prepare the management plans, design plans, construction methodology, monitoring plans, action plan, commissioning plan and safety system specified in the conditions of this consent using the draft versions of these plans (which are attached as Annexure B) as a base document;</li> <li>Provide drafts of each of the documents required by condition 0A(a) to the Canterbury Regional Council, Attention Regional Leader - Monitoring and Compliance, not less than three months prior to construction works / activities commencing in accordance with these resource consents;</li> <li>Not commence any construction works / activities authorised by these resource consents until it has received a certificate from the Regional Leader: Compliance and Monitoring of the Canterbury Regional Council that the management plan, design plan, construction methodology, monitoring plan, action plan, commissioning plan or safety system is consistent with the applicable conditions of this consent;</li> <li>Adhere to and implement the certified version of the management plan, design plans, construction methodology, monitoring plan, action plan, commissioning plan or safety system;</li> <li>Submit any proposed variations to the management plans, design plans, construction methodology, action plan, safety system, monitoring plans and commissioning plan to the Regional Leader: Compliance and Monitoring of the Canterbury Regional Council, at least seven days prior to when the proposed change will be implemented by the consent holder. Any variations made shall not take effect until the Regional Leader: Compliance &amp; Monitoring of the Canterbury Regional Council certifies that the variations accord with the applicable conditions of the resource consent;</li> <li>Appoint an appropriately qualified and independent expert (or experts) to review the management plans, action plan, safety system, monitoring plans and commissioning plan at the frequency set out in these resource consents. Should the conditions of these resource consents not set a frequency, the reviews shall be conducted annually. Such reviews are to ensure that the management plans, action plan, safety system, monitoring plans and commissioning plan continue to achieve the conditions of these resource consents.</li> <li>Any changes made as a result of the reviews conducted in accordance with condition 0A(f) shall be submitted to the Canterbury Regional Council and shall not take effect until the Regional Leader: Compliance</li> </ol>

	<p>and Monitoring of the Canterbury Regional Council certifies that the changes accord with the applicable conditions of these resource consents;</p> <p><u>h. Pay the costs of the expert(s) appointed by the Canterbury Regional Council to certify the management plans, design plans, construction methodology, monitoring plans, commissioning plan, action plan and safety system (and any variations or changes thereto) in accordance with conditions 0A(c) and 0A(h); and</u></p> <p><u>i. Ensure that copies of the certified commissioning plan, design plans, construction methodology and management plans, monitoring plans, action plan, safety system and management plans set out in these conditions are available on site at all times during the construction works / activities authorised by this consent; and</u></p> <p><u>j. Ensure that all key personnel are to be made aware of the content and requirements / obligations of the management plans, action plan, safety system, commissioning plan and monitoring plans.</u></p>
	<b>SCOPE</b>
1	The activity shall be limited to the use of land to extract gravel for the construction and periodic maintenance of a fish bypass outlet. The works to be carried out shall be located at or about map reference NZTM2000: 1458275 mE 5151564 mN <u>and for maintenance activities up to 500 metres upstream and downstream of this point.</u>
1A	<p><u>The Proposal shall be constructed, operated and maintained in accordance with the details contained within the following documents:</u></p> <p><u>a. The Assessment of Environmental Effects report prepared by Ryder Consulting Limited in July 2016 and entitled "Lake Klondyke: A Proposed Water Storage Facility, Assessment of Environmental Effects Report &amp; Resource Consent Application, Prepared for the Rangitata Diversion Race Management Limited, Date Finalised: July 2016"; and</u></p> <p><u>b. The Assessment of Environmental Effects report prepared by Ryder Consulting Limited in November 2017 and entitled "Proposed Rangitata Diversion Race Fish Screen and Supplementary Matters Resource Consent Application".</u></p> <p><u>except where modified by specific conditions set out in these resource consents or by the plans authorised by the building consent for the Proposal.</u></p>
	<b>PRE-CONSTRUCTION</b>
2	<p>The consent holder shall:</p> <p>a. be responsible for all the contracted operations relating to the exercise of this consent including the Construction Works; and</p> <p>b. ensure compliance with consent conditions.</p>
3	<p>Prior to commencement of any physical works required for the activities described in Condition (1) (hereafter referred to as the 'Construction Works') the consent holder or its agent or contractor shall arrange and conduct a pre-construction site meeting between the Canterbury Regional Council and all persons involved in the Construction Works. At a minimum, the following shall be covered at the meeting:</p> <p>a. Scheduling and staging of the Construction Works;</p> <p>b. Responsibilities of all relevant parties;</p> <p>c. Contact details for all relevant parties;</p> <p>d. Expectations regarding communication between all relevant parties;</p> <p>e. Procedures for implementing any changes to the Construction Works;</p> <p>f. Site inspection; and</p> <p>g. Confirmation that all persons involved in the Construction Works have copies of the contents of this consent document, the Erosion and Sediment Control Plan (ESCP) and all plans and methodologies associated with this consent.</p>

	GENERAL
4	<p>Prior to any works authorised by this consent being carried out in the period 1 September to 1 February, the consent holder shall ensure that:</p> <ol style="list-style-type: none"> <li>a suitably qualified and independent person inspects the proposed area of works, no earlier than eight days prior to any works being carried out, and locates any bird breeding sites of birds listed in Appendix A, which forms part of this consent;</li> <li>the person carrying out the inspection prepares a written report that identifies all the located bird breeding or nesting sites and provides copies of that report to the consent holder and the Canterbury Regional Council, attention Regional Leader - Monitoring and Compliance;</li> <li>the name and qualifications of the person carrying out the inspection are provided to the Canterbury Regional Council with the report;</li> <li>any person carrying out works authorised by this consent are informed of any bird breeding or nesting sites located; and</li> <li>where work ceases for more than eight days, the site will be re-inspected for bird breeding and nesting sites in accordance with parts (a) to (d) of this condition</li> </ol>
5	<p>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, except as identified by the inspection undertaken in accordance with condition (5) and detailed in the report. For the purposes of this condition birds are defined as those bird species listed in Appendix A, which forms part of this consent.</p>
6	<p>To prevent the spread of pest species, including but not limited to Didymo, the consent holder shall ensure that activities authorised by this consent are undertaken in accordance with the Biosecurity New Zealand's hygiene procedures and that machinery shall be free of plants and plant seeds prior to use in the riverbed.</p> <p><b>Advice Note:</b> You can access the most current version of these procedures from the Biosecurity New Zealand website <a href="http://www.biosecurity.govt.nz">http://www.biosecurity.govt.nz</a></p>
7	<p>All practicable measures shall be undertaken to minimise:</p> <ol style="list-style-type: none"> <li>erosion of the bed and banks of the Rangitata River; and</li> <li>the discharge of sediment to the Rangitata River; as a result of the works.</li> </ol>
8	<p>All practicable measures shall be undertaken to prevent oil and fuel leaks from vehicles and machinery including but not limited to:</p> <ol style="list-style-type: none"> <li>There shall be no storage of fuel or refuelling of vehicles and machinery within 20 metres of the bed of a river; and</li> <li>Fuel shall be stored securely or removed from site overnight.</li> </ol> <p><b>Advice Note:</b> In addition to this consent, the consent holder will also need to ensure that the activity complies with Canterbury Land and Water Regional Plan (LWRP) Rule 5.145 (Refuelling in Lake and Riverbeds). If the activity does not comply with Rule 5.175 of the LWRP, an additional consent will be required pursuant to section 15 of the Resource Management Act 1991.</p>
9	<p>Works shall:</p> <ol style="list-style-type: none"> <li>not be carried out on Sundays or public holidays; and</li> <li>only occur between the hours of 6:30 am and 8:00 pm inclusive.</li> </ol> <p><b>Advice Note:</b> The consent holder should also check compliance with the relevant District Council regulations.</p>
	<b>COMPLAINTS REGISTER</b>
9A.1	<p><u>The consent holder shall keep a register of complaints lodged with it in respect of the exercise of these resource consents.</u></p> <p><u>The register prepared and maintained in accordance with this condition shall record the following details for each complaint that is made:</u></p>

	<ul style="list-style-type: none"> <li>a. <u>The date and time of the complaint; and</u></li> <li>b. <u>The name and contact details of the complainant (if they are provided to the consent holder) and a description of the complaint; and</u></li> <li>c. <u>The investigations (if any) that the consent holder undertook in response to each complaint; and</u></li> <li>d. <u>Any action that was undertaken to address the concerns raised in the complaint; and</u></li> <li>e. <u>The feedback provided to each complainant.</u></li> </ul>
<u>9A.2</u>	<u>The consent holder shall forward a copy of the register prepared and maintained in accordance with condition 9A.1 to the Canterbury Regional Council, Attention RMA Compliance and Monitoring Manager within five (5) working days of receiving a request to do so from the Council.</u>
<u>9A.3</u>	<u>The consent holder shall appoint a Liaison Officer for the Proposal prior to any construction works / activities authorised by these resource consents commencing. The Liaison Officer shall be the point of contact for the public during construction of the Proposal. The name and contact details for the Liaison Officer shall be advertised at the main construction entrance for the Klondyke Pond.</u>
	<b><u>CONSTRUCTION MANAGEMENT PLAN</u></b>
<u>9B.1</u>	<u>The purpose of the Construction Management Plan is to describe the measures that will be implemented to ensure that all construction related environmental effects are avoided, minimised, or managed in accordance with the conditions of these resource consents and engineering / environmental best practice.</u>
<u>9B.2</u>	<p>The objectives of the CMP are to:</p> <ul style="list-style-type: none"> <li>a. Avoid and / or minimise the magnitude of the adverse effects generated during the construction activities and / or works authorised by these resource consents; and</li> <li>b. Provide clarity as to how the Proposal is to be constructed by setting out the: <ul style="list-style-type: none"> <li>i. Construction methodology that is to be employed to construct the Proposal; and</li> <li>ii. Staging, timing, duration and monitoring of construction works and / or activities; and</li> <li>iii. Measures that are to be applied, and when they are to be applied, to minimise the effects of the construction activities and / or works authorised by these resource consents. These measures shall include: <ul style="list-style-type: none"> <li>* A requirement that all construction works / activities be in accordance with the Canterbury Regional Council's ESCG (2007);</li> <li>* Measures necessary to provide for stormwater disposal and sediment removal;</li> <li>* The inclusion and / or maintenance of a vegetated strip (or other treatment system supported by the ESCG) between all areas of earthworks and water courses / water bodies / water races;</li> <li>* Controls on the siting of stockpiles to avoid sediment-entrained runoff entering water races / water courses / water bodies and to reduce the risk of fugitive dust emissions;</li> <li>* Measures to avoid the entrainment of oil, fuels or any other hazardous substances in stormwater, with particular emphasis on re-fuelling areas and repair areas; and</li> <li>* Requirements regarding the stabilisation and maintenance of all construction site entrances associated with the Proposal from public roads; and</li> </ul> </li> <li>iv. The means by which stakeholders are to be kept informed of the construction works / activities being undertaken by the consent</li> </ul> </li> </ul>

	holder and/or its contractor(s).
9B.3	<p>The CMP shall contain the following sections:</p> <ul style="list-style-type: none"> <li>a. Purpose and Scope</li> <li>b. Personnel, Team Structure, Contact Details and Responsibilities. This will include the 24-hour contact details for the following personnel: <ul style="list-style-type: none"> <li>i. The administrator of the complaints register (if required by conditions of this consent); and</li> <li>ii. The Liaison Officer (if required by conditions of this consent);</li> </ul> </li> <li>c. Environmental Policy and Environmental Management System;</li> <li>d. Resource Consent and Building Consent Requirements;</li> <li>e. Accidental Discovery Protocol (if required by conditions of this consent);</li> <li>f. Environmental Management Sub-Plans including, as a minimum, the following plans: <ul style="list-style-type: none"> <li>i. Erosion and Sediment Control Plan;</li> <li>ii. Hazardous Substances Spill Management Plan;</li> <li>iii. Vibration Management Plan;</li> <li>iv. Waste Management Plan;</li> <li>v. Works in the River Management Plan;</li> <li>vi. Smoke Management Plan;</li> <li>vii. Dust Management Plan; and</li> <li>viii. Contaminated Land Remediation Action Plan</li> </ul> </li> <li>g. Construction Methodology;</li> <li>h. Training and Induction of Contractors and their Staff;</li> <li>i. Subcontractor Management;</li> <li>j. Monitoring and Site Inspections;</li> <li>k.- Conformance and Corrective / Preventative Actions;</li> <li>l. Meetings Frequency and Purpose; and</li> <li>m. Environmental Systems Reviews.</li> </ul>
	<b>Erosion and Sediment Control Plan</b>
10	<p>The purpose of the Erosion and Sediment Control Management Plan is to ensure that the consent holder implements appropriate measures, as defined by the Canterbury Regional Council's Erosion and Sediment Control Guidelines (2007) (an equivalent industry guideline), to minimise all actual or potential erosion and sediment effects arising from the construction works / activities authorised by these resource consents.</p> <p>The consent holder shall prepare an ESCP, subject to the following conditions:</p> <ul style="list-style-type: none"> <li>a. No less than one month before the commencement of any Construction Works, a copy of the ESCP shall be submitted to the Canterbury Regional Council: Attention Regional Leader – Monitoring and Compliance for review and certification. All activities authorised by this consent must be carried out in accordance with the ESCP;</li> <li>b. Unless Canterbury Regional Council provides notice in writing that it is unable to certify the ESCP within 20 working days of receipt of a draft ESCP, it is deemed to be certified by the Canterbury Regional Council. For the purposes of this condition, "Certification" means that the ESCP contains all the information specified in Condition 5(c);</li> <li>c. The ESCP shall include: <ul style="list-style-type: none"> <li>i. A list of the staff and / or experts responsible for reviewing the ESCP;</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>ii. A description of staff training and induction requirements that will be undertaken to ensure that the ESCMP is followed by all acting in accordance with these resource consents;</li> <li>iii. A description of the site and local receiving environment;</li> <li>iv. A site drainage plan;</li> <li>v. Details of any anticipated earth excavation requirements;</li> <li>vi. A schedule detailing the anticipated staging of the Construction Works including: <ul style="list-style-type: none"> <li>A. Site preparation works;</li> <li>B. Any equipment or plant mobilisation necessary for carrying out the construction works; and</li> <li>C. Any field verification requirement.</li> </ul> </li> <li>vii. A detailed description of how run on and run off water will be managed within the construction site;</li> <li>viii. Measures to avoid or minimise any sediment entering exposed groundwater or the Rangitata River or being tracked onto roadways or neighbouring properties;</li> <li>ix. A detailed description of how water will be treated prior to disposal to the various receiving environments;</li> <li>x. Details of compliance checks, and any maintenance necessary to ensure that measures required under the ESCP or this consent are performing effectively;</li> <li>xi. Identification of persons responsible for carrying out the actions within the ESCP including their contact details; and</li> <li>xii. A detailed description of how vegetation stripping and replanting would be undertaken to manage the area of disturbed ground that will be open throughout the construction works / activities authorised by these resource consents.</li> <li>d. The ESCP shall be prepared in accordance with: <ul style="list-style-type: none"> <li>i. Environment Canterbury's "Erosion and Sediment Control Toolbox for the Canterbury Region" (ESCT) <a href="http://escscanterbury.co.nz/">http://escscanterbury.co.nz/</a> ; or</li> <li>ii. An equivalent industry guideline. If an alternative guideline is used, the SMP shall provide details of the relevant alternative methods used and an explanation of why they are more appropriate than the ESCT.</li> </ul> </li> <li>e. Any amendments or revisions to the ESCP must be submitted to Canterbury Regional Council: Attention Regional Leader – Monitoring and Compliance.</li> </ul>
	<b>HAZARDOUS SUBSTANCE MANAGEMENT</b>
11	<p>The consent holder shall prepare a Hazardous Substances Spill Management Plan (HSSMP): The HSSMP shall include but is not limited to:</p> <ul style="list-style-type: none"> <li>a. Identifying the hazardous substances that will be retained on the site during construction and the restrictions that apply to, and are to be followed, in relation to their storage and use;</li> <li>b. Identifying the potential situations and locations where hazardous substances may be accidentally spilled, and to ensure that the appropriate measures are implemented by the consent holder to ensure that all actual or potential hazardous substances effects arising from the construction activities are minimised. This includes, but is not limited to, measures to provide secondary containment around storage locations and refuelling sites, to minimise the extent of soil contamination and to prevent run-off of spilled liquids from reaching surface water bodies;</li> <li>c. A list of the staff and/or experts responsible for reviewing the HSSMP;</li> </ul>



	<ul style="list-style-type: none"> <li>d. A description of staff / expert training and induction requirements that will be undertaken to ensure that the HSSMP is followed by all acting in accordance with these resource consents;</li> <li>e. A description of the site and local receiving environment;</li> <li>f. The procedures that are to be followed for the use of the hazardous substances within the construction site, including the construction personnel that are authorised to use them;</li> <li>g. The minimum requirements for spill management kits that are to be distributed throughout the construction site and the procedures that are to apply to the disposal of used spill management materials; and</li> <li>h. The procedures for corrective action in the event of a spill.</li> </ul>
12	<p>The consent holder shall take all practicable measures to avoid spills of fuel or any other contaminants. In the event of a spill of fuel or any other hazardous substances, the following corrective action shall be undertaken but is not limited to:</p> <ul style="list-style-type: none"> <li>a. All practicable measures shall be taken to prevent the spill being discharged into land via the stormwater system;</li> <li>b. The spill shall be cleaned up as soon as practicable and any contaminants that accumulate in the stormwater system shall be removed and the spill area shall be inspected and cleaned, and measures shall be taken to prevent reoccurrence;</li> <li><del>c. The consent holder shall provide the Canterbury Regional Council, Attention: Regional Leader Monitoring and Compliance, with the following information within 24 hours of a spill:</del> <ul style="list-style-type: none"> <li><del>i. The date, time, location and estimated volume of the spill;</del></li> <li><del>ii. The cause of the spill;</del></li> <li><del>iii. The type of contaminant(s) spilled;</del></li> <li><del>iv. Clean up procedures undertaken including evidence of appropriate disposal;</del></li> <li><del>v. Details of the steps taken to control and remediate the effects of the spill on the receiving environment;</del></li> <li><del>vi. An assessment of any potential effects of the spill; and</del></li> <li><del>i. Measures to be undertaken to prevent a reoccurrence.</del></li> </ul> </li> </ul>
13	<del>Any material, including sediment, hydrocarbons and other contaminants, removed in the exercising of this consent shall be disposed of at a location or facility authorised to receive such material.</del>
	<b>WORKS IN THE RIVER MANAGEMENT PLAN</b>
14	The consent holder shall prepare and adhere to a 'works in the River Management Plan' (WRMP). The WRMP primary objective is to ensure that the appropriate measures, as defined by Canterbury Regional Council's Erosion and Sediment Control Toolbox For Canterbury are implemented by the consent holder such that all actual or potential riverbed effects arising from the construction and any recurrent maintenance activities are minimised.
15	<p>The WRMP shall include:</p> <ul style="list-style-type: none"> <li>a. Identification of the staff and / or experts responsible for reviewing the WRMP;</li> </ul>



	<ul style="list-style-type: none"> <li>b. A description of staff training and induction requirements that will be undertaken to ensure that the WRMP is followed by all acting in accordance with these resource consents;</li> <li>c. A description of the site and local receiving environment;</li> <li>d. An assessment of flood events, water levels and their return periods;</li> <li>e. A requirement for the consent holder to monitor the weather throughout the construction of the Proposal and to set the necessary trigger events that are to be used as an early warning system (where work would be ceased and plant removed from the riverbed); and</li> <li>f. A description of how works (including any recurrent maintenance works that are conducted following the first filling of the Klondyke Storage Dam) in the Rangitata River will be managed in order to minimise the risk of adverse environmental effects, and how those effects will be remedied and/or mitigated.</li> </ul>
16	<del>A copy of the WRMP shall be provided to the Canterbury Regional Council, attention Regional Leader – Monitoring and Compliance, at least 10 days prior to the activities authorised under this consent commencing.</del>
	<b>ACCIDENTAL DISCOVERY PROTOCOL - ARCHAEOLOGICAL MATERIALS</b>
17	<p>In the event of any discovery of archaeological material the consent holder shall immediately:</p> <ul style="list-style-type: none"> <li>a. Cease work within 10 metres of any part of the discovery and mark off the affected area;</li> <li>b. Advise the Canterbury Regional Council and Ashburton District Council of the discovery; and</li> <li>c. Advise Heritage New Zealand Pouhere Taonga of the discovery.</li> </ul>
18	<p>If the archaeological material is determined to be Kōiwi Tangata (human bones) of Māori origin or taonga (treasured artefacts) by Heritage New Zealand Pouhere Taonga, the consent holder shall immediately:</p> <ul style="list-style-type: none"> <li>a. advise the office of Upoko Runanga o Arowhenua of the discovery;</li> <li>b. consult Upoko Runanga o Arowhenua on any matters of tikanga (protocol) that are required in relation to the discovery and prior to the commencement of any investigation, and perform those requirements; and</li> <li>c. Advise the New Zealand Police of the discovery in relation to Kōiwi Tangata (human bones).</li> </ul>
19	<p>Iwi representatives, Canterbury Regional Council, Attention: RMA Monitoring and Compliance Manager and Heritage New Zealand Pouhere Taonga <del>Trust</del> shall be afforded the opportunity to visit the site within up to three working days of the discovery (if and as they consider it necessary), and such persons shall be given a reasonable time to record and recover archaeological features discovered before work may recommence on the site. The site inspection shall occur within 6 working days of the discovery being made.</p>
20	<p>The consent holder may recommence any work if Heritage New Zealand Pouhere Taonga (following consultation with Kaitiaki Runanga if the material is of Māori origin) provides a statement in writing to the Council that appropriate action has been undertaken in relation to the archaeological material discovered.</p> <p><b>Advice Notes</b></p> <p>1. Under the Heritage New Zealand Pouhere Taonga Act 2014 an</p>

	<p><i>archaeological site is defined as any place associated with pre-1900 human activity, where there is material evidence relating to the history of New Zealand. For sites solely of Maori origin, this evidence may be in the form of accumulations of shell, bone, charcoal, burnt stones, etc. In later sites, artefacts such as bottles or broken glass, ceramics, metals, etc., may be found or evidence of old foundations, wells, drains, tailings, races or other structures. Human remains/koiwi may date to any historic period.</i></p> <p>2. <i>It is unlawful for any person to destroy, damage, or modify the whole or any part of an archaeological site without the prior authority of Heritage New Zealand Pouhere Taonga. This is the case regardless of the legal status of the land on which the site is located, whether the activity is permitted under the District or Regional Plan or whether a resource or building consent has been granted. The Heritage New Zealand Pouhere Taonga Act 2014 provides for substantial penalties for unauthorised damage or destruction. An authority from Heritage New Zealand Pouhere Taonga <b>Trust</b> may be required.</i></p>
	<b>AFTER WORKS</b>
21	All accumulated debris and other waste material shall be removed from the site.
22	The Canterbury Regional Council, Attention: Regional Leader - Monitoring and Compliance shall be notified within seven working days after the completion of any works authorised by this consent.
	<b>ADMINISTRATION</b>
23	<p>Pursuant to Section 128(1) of the Resource Management Act 1991, the Consent Authority may serve notice of its intention to review the conditions of this consent within a period of three months commencing on each anniversary of the date of issue of the consent for any of the following purposes:</p> <ul style="list-style-type: none"> <li>a. To deal with any adverse effects on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or</li> <li>b. To require the Consent Holder to adopt the best practicable option to mitigate any adverse effect upon the environment; or</li> <li>c. To deal with any other adverse effect on the environment on which the exercise of the consent may have any influence.</li> </ul>
24	<p>The lapsing date for the purposes of Section 125 of the Resource Management Act 1991 shall be 15 years from the date consent is issued.</p> <p><b>Advice note:</b> 'Exercised' is defined as implementing any requirements to operate this consent <u>and</u> undertaking the activity as described in these conditions and/or application documents.</p>
25	<b><u>This resource consent shall expire 35 years after it has commenced.</u></b>
	<p><b>Appendix A</b> - list of bird species referred to in bird nesting conditions (5) South Island</p> <p>Pied oystercatcher  Black stilt Pied stilt  Wrybill Banded dotterel Black-fronted dotterel Blue duck  Paradise shelduck Grey duck  NZ shoveler Grey teal NZ scaup  Black-billed gull Red-billed gull Caspian tern White-fronted tern Black-fronted tern  White-winged Black tern  Australasian bittern Marsh crake Spotless crake  Cormorant/shag colonies Royal spoonbill  Crested grebe</p>

**CRC182540: to use land for earthworks over an aquifer; to be incorporated within GRC170652**

	<b>GLOSSARY OF TERMS &amp; ABBREVIATIONS USED IN THIS RESOURCE CONSENT</b>
0	<p><b>Appropriately qualified and experienced expert(s)</b> means a person or persons:</p> <ol style="list-style-type: none"> <li>With a relevant and recognised tertiary qualification(s) to the topic being assessed;</li> <li>Whom is (are) recognised as a full member (or equivalent) of a relevant professional institution(s) (such as the Institution of Professional Engineers New Zealand), where such institutions exist;</li> <li>Has more than 10-years relevant experience in the topic being assessed; and</li> </ol> <p><b>Certifies and Certification</b> means a process whereby:</p> <ol style="list-style-type: none"> <li>The consent holder supplies a report, action plan, design plan, construction methodology, monitoring plan, commissioning plan, safety system or a management plan, and the Canterbury Regional Council appoints an appropriately qualified and experienced expert to assesses the documentation submitted to ensure that it achieves the requirements of the relevant condition(s) of consent;</li> <li>Should the documents supplied in accordance with condition 0(a), in the opinion of the expert appointed by the Council, achieve the intent of the relevant condition(s) of these resource consents, the Regional Leader: Compliance and Monitoring of the Canterbury Regional Council shall issue a written certificate to the consent holder confirming that the requirements of the relevant condition(s) have been satisfied;</li> <li>If the expert appointed by the Council is not satisfied that the documents supplied in accordance with condition (a) achieves requirements of the relevant condition(s), the Regional Leader: Compliance and Monitoring of the Canterbury Regional Council shall advise (in writing) the consent holder of the experts concerns and ask that the report, commissioning plan, monitoring plan, action plan, safety system or management plan be modified so as to address the concerns, and then be resubmitted;</li> <li>This process shall be repeated until the Regional Leader: Compliance and Monitoring of the Canterbury Regional Council is able (on the advice of the expert) to certify that the requirements of the applicable condition(s) of consent have been satisfied; and</li> </ol> <p><b>CLG</b> means the Community Liaison Group.</p> <p><b>CMP</b> means Construction Management Plan.</p> <p><b>Construction site</b> includes all areas, excluding gazetted and vested road reserves that contain formed roads, where construction works / activities authorised by these resource consents are being undertaken by the consent holder.</p> <p><b>Council</b> means the Canterbury Regional Council.</p> <p><b>EAP</b> means the Emergency Action Plan.</p> <p><b>ESCP</b> means Erosion and Sediment Control Plan.</p> <p><b>Fish screen</b> means the rotary fish screen and its associated bypass channel.</p> <p><b>FSVMP</b> means Fish Screen Verification Monitoring Plan</p> <p><b>Flood flow take</b> means a flood flow abstraction from the Rangitata River.</p> <p><b>HSSMP</b> means the Hazardous Substances Spill Management Plan</p> <p><b>Klondyke Pond</b> means the Lake Klondyke Water Storage Facility.</p> <p><b>km/hr</b> means kilometres per hour.</p> <p><b>l/s</b> means litres per second</p> <p><b>m<sup>3</sup></b> means cubic metres</p> <p><b>m<sup>3</sup>/s</b> means cubic metres per second</p> <p><b>m</b> means metre</p> <p><b>m/s</b> means metres per second.</p> <p><b>mm/s</b> means millimetres per second</p> <p><b>NZSOLD</b> means New Zealand Society on Large Dams New Zealand.</p>

	<p><b>PPV</b> means Peak Particle Velocity</p> <p><b>Reasonable Mixing Zone</b> means, for the purposes of condition 18.0A, a reasonable mixing zone extending from the point of discharge from the Sluice Channel to a point that is 200 metres downstream of the discharge point.</p> <p><b>Regional Water Table</b> means the upper surface of the full saturated groundwater system but does not, for the purposes of these resource consents, include perched groundwater (which is groundwater in saturated strata that occurs above the regional water table but is separated from it by a layer of unsaturated strata).</p> <p><b>RDR</b> means the Rangitata Diversion Race.</p> <p><b>RDR mods</b> means the modifications to the Rangitata Diversion Race.</p> <p><b>RL</b> means the right bank when looking downstream.</p> <p><b>RMA</b> means the Resource Management Act</p> <p><b>The Proposal</b> means the Klondyke Pond, WWC, RDR mods, fish screen, SBR relocation, flood flow take and refuge, and all incidental work.</p> <p><b>TSP</b> means total suspended particulate.</p> <p><b>WRMP</b> means Works in the River Management Plan</p>
	<b>CERTIFICATION PROCESS</b>
0A.1	<p>Except where explicitly required otherwise by conditions of this consents, the consent holder shall:</p> <ol style="list-style-type: none"> <li>Engage an appropriately qualified and experienced independent expert (or experts) to prepare the management plans, design plans, construction methodology, monitoring plans, action plan, commissioning plan and safety system specified in the conditions of this consent using the draft versions of these plans (which are attached as Annexure B) as a base document;</li> <li>Provide drafts of each of the documents required by condition 0A.1(a) to the Canterbury Regional Council, Attention Regional Leader - Monitoring and Compliance, not less than three months prior to construction works / activities commencing in accordance with these resource consents;</li> <li>Not commence any construction works / activities authorised by these resource consents until it has received a certificate from the Regional Leader: Compliance and Monitoring of the Canterbury Regional Council that the management plan, design plan, construction methodology, monitoring plan, action plan, commissioning plan or safety system is consistent with the applicable conditions of this consent;</li> <li>Adhere to and implement the certified version of the management plan, design plans, construction methodology, monitoring plan, action plan, commissioning plan or safety system;</li> <li>Submit any proposed variations to the management plans, design plans, construction methodology, action plan, safety system, monitoring plans and commissioning plan to the Regional Leader: Compliance and Monitoring of the Canterbury Regional Council, at least seven days prior to when the proposed change will be implemented by the consent holder. Any variations made shall not take effect until the Regional Leader: Compliance &amp; Monitoring of the Canterbury Regional Council certifies that the variations accord with the applicable conditions of the resource consent;</li> <li>Appoint an appropriately qualified and independent expert (or experts) to review the management plans, action plan, safety system, monitoring plans and commissioning plan at the frequency set out in these resource consents. Should the conditions of these resource consents not set a frequency, the reviews shall be conducted annually. Such reviews are to ensure that the management plans, action plan, safety system, monitoring plans and commissioning plan continue to achieve the conditions of these resource consents.</li> <li>Any changes made as a result of the reviews conducted in accordance with condition 0A.1(f) shall be submitted to the Canterbury Regional Council and shall not take effect until the Regional Leader: Compliance and Monitoring of the Canterbury Regional Council certifies that the</li> </ol>

	<p><u>changes accord with the applicable conditions of these resource consents;</u></p> <p>h. <u>Pay the costs of the expert(s) appointed by the Canterbury Regional Council to certify the management plans, design plans, construction methodology, monitoring plans, commissioning plan, action plan and safety system (and any variations or changes thereto) in accordance with conditions 0A.1(c) and 0A.1(h); and</u></p> <p>i. <u>Ensure that copies of the certified commissioning plan, design plans, construction methodology and management plans, monitoring plans, action plan, safety system and management plans set out in these conditions are available on site at all times during the construction works / activities authorised by this consent; and</u></p> <p>j. <u>Ensure that all key personnel are to be made aware of the content and requirements / obligations of the management plans, action plan, safety system, commissioning plan and monitoring plans.</u></p>
	<b>SCOPE</b>
1	<p>The works shall be limited to the use of land to:</p> <p>a. Excavate material; and</p> <p>b. Deposit material</p> <p>for the purposes of and to the extent required for construction of modification of a canal and fish screen area and associated infrastructure on land, on Klondyke Terrace, labelled as the 'Works area' on Plan CRC182540, which forms part of this consent.</p>
1A	<p><u>The Proposal shall be constructed, operated and maintained in accordance with the details contained within the following documents:</u></p> <p>a. <u>The Assessment of Environmental Effects report prepared by Ryder Consulting Limited in July 2016 and entitled "Lake Klondyke: A Proposed Water Storage Facility, Assessment of Environmental Effects Report &amp; Resource Consent Application, Prepared for the Rangitata Diversion Race Management Limited, Date Finalised: July 2016"; and</u></p> <p>b. <u>The Assessment of Environmental Effects report prepared by Ryder Consulting Limited in November 2017 and entitled "Proposed Rangitata Diversion Race Fish Screen and Supplementary Matters Resource Consent Application".</u></p> <p><u>except where modified by specific conditions set out in these resource consents or by the plans authorised by the building consent for the Proposal.</u></p>
	<b>PRE-CONSTRUCTION</b>
2	<p>The consent holder shall:</p> <p>a. be responsible for all the contracted operations relating to the exercise of this consent including the Construction Works; and</p> <p>b. ensure compliance with consent conditions.</p>
3	<p>Prior to commencement of any physical works required for the activities described in Condition (1) (hereafter referred to as the 'Construction Works') the consent holder or its agent or contractor shall arrange and conduct a pre-construction site meeting between the Canterbury Regional Council and all persons involved in the Construction Works. At a minimum, the following shall be covered at the meeting:</p> <p>a. Scheduling and staging of the Construction Works;</p> <p>b. Responsibilities of all relevant parties;</p> <p>c. Contact details for all relevant parties;</p>

	<ul style="list-style-type: none"> <li>d. Expectations regarding communication between all relevant parties;</li> <li>e. Procedures for implementing any changes to the Construction Works;</li> <li>f. Site inspection; and</li> <li>g. Confirmation that all persons involved in the Construction Works have copies of the contents of this consent document, the Erosion and Sediment Control Plan (ESCP) and all plans and methodologies associated with this consent.</li> </ul>
4	Erosion and sediment control measures recommended in the ESCP prepared under Condition (5) shall be installed before any excavation occurs on site.
	<b><u>COMPLAINTS REGISTER</u></b>
4A.1	<p><u>The consent holder shall keep a register of complaints lodged with it in respect of the exercise of these resource consents.</u></p> <p><u>The register prepared and maintained in accordance with this condition shall record the following details for each complaint that is made:</u></p> <ul style="list-style-type: none"> <li><u>a. The date and time of the complaint; and</u></li> <li><u>b. The name and contact details of the complainant (if they are provided to the consent holder) and a description of the complaint; and</u></li> <li><u>c. The investigations (if any) that the consent holder undertook in response to each complaint; and</u></li> <li><u>d. Any action that was undertaken to address the concerns raised in the complaint; and</u></li> <li><u>e. The feedback provided to each complainant.</u></li> </ul>
4A.2	<u>The consent holder shall forward a copy of the register prepared and maintained in accordance with condition 4A.1 to the Canterbury Regional Council, Attention RMA Compliance and Monitoring Manager within five (5) working days of receiving a request to do so from the Council.</u>
4A.3	<u>The consent holder shall appoint a Liaison Officer for the Proposal prior to any construction works / activities authorised by these resource consents commencing. The Liaison Officer shall be the point of contact for the public during construction of the Proposal. The name and contact details for the Liaison Officer shall be advertised at the main construction entrance for the Klondyke Pond.</u>
	<b><u>CONSTRUCTION MANAGEMENT PLAN</u></b>
4B.1	<u>The purpose of the Construction Management Plan is to describe the measures that will be implemented to ensure that all construction related environmental effects are avoided, minimised, or managed in accordance with the conditions of these resource consents and engineering / environmental best practice.</u>
4B.2	<p><u>The objectives of the CMP are to:</u></p> <ul style="list-style-type: none"> <li><u>a. Avoid and / or minimise the magnitude of the adverse effects generated during the construction activities and / or works authorised by these resource consents; and</u></li> <li><u>b. Provide clarity as to how the Proposal is to be constructed by setting out the:</u> <ul style="list-style-type: none"> <li><u>i. Construction methodology that is to be employed to construct the Proposal; and</u></li> <li><u>ii. Staging, timing, duration and monitoring of construction works and / or activities; and</u></li> <li><u>iii. Measures that are to be applied, and when they are to be applied, to minimise the effects of the construction activities and / or works authorised by these resource consents. These measures shall include:</u> <ul style="list-style-type: none"> <li><u>* A requirement that all construction works / activities be in</u></li> </ul> </li> </ul> </li> </ul>



	<p>accordance with the Canterbury Regional Council's ESCG (2007):</p> <ul style="list-style-type: none"> <li>* Measures necessary to provide for stormwater disposal and sediment removal;</li> <li>* The inclusion and / or maintenance of a vegetated strip (or other treatment system supported by the ESCG) between all areas of earthworks and water courses / water bodies / water races;</li> <li>* Controls on the siting of stockpiles to avoid sediment-entrained runoff entering water races / water courses / water bodies and to reduce the risk of fugitive dust emissions;</li> <li>* Measures to avoid the entrainment of oil, fuels or any other hazardous substances in stormwater, with particular emphasis on re-fuelling areas and repair areas; and</li> <li>* Requirements regarding the stabilisation and maintenance of all construction site entrances associated with the Proposal from public roads; and</li> </ul> <p>iv. The means by which stakeholders are to be kept informed of the construction works / activities being undertaken by the consent holder and/or its contractor(s).</p>
4B.3	<p>The CMP shall contain the following sections:</p> <ul style="list-style-type: none"> <li>a. Purpose and Scope</li> <li>b. Personnel, Team Structure, Contact Details and Responsibilities. This will include the 24-hour contact details for the following personnel: <ul style="list-style-type: none"> <li>j. The administrator of the complaints register (if required by conditions of this consent); and</li> <li>ii. The Liaison Officer (if required by conditions of this consent);</li> </ul> </li> <li>c. Environmental Policy and Environmental Management System;</li> <li>d. Resource Consent and Building Consent Requirements;</li> <li>e. Accidental Discovery Protocol (if required by conditions of this consent);</li> <li>f. Environmental Management Sub-Plans including, as a minimum, the following plans: <ul style="list-style-type: none"> <li>i. Erosion and Sediment Control Plan;</li> <li>ii. Hazardous Substances Spill Management Plan;</li> <li>iii. Vibration Management Plan;</li> <li>iv. Waste Management Plan;</li> <li>v. Works in the River Management Plan;</li> <li>vi. Smoke Management Plan;</li> <li>vii. Dust Management Plan; and</li> <li>viii. Contaminated Land Remediation Action Plan</li> </ul> </li> <li>g. Construction Methodology;</li> <li>h. Training and Induction of Contractors and their Staff;</li> <li>i. Subcontractor Management;</li> <li>j. Monitoring and Site Inspections;</li> <li>k.- Conformance and Corrective / Preventative Actions;</li> <li>l. Meetings Frequency and Purpose; and</li> <li>m. Environmental Systems Reviews.</li> </ul>
	<b>EROSION AND SEDIMENT CONTROL PLAN</b>
5	<p>The purpose of the Erosion and Sediment Control Management Plan is to ensure that the consent holder implements appropriate measures, as defined by the Canterbury Regional Council's Erosion and Sediment Control Guidelines (2007) (an equivalent industry guideline), to minimise all actual or potential erosion and sediment effects arising from the construction works / activities authorised by these resource consents.</p> <p>The consent holder shall prepare an ESCP, subject to the following conditions:</p>



	<p>a. No less than one month before the commencement of any Construction Works, a copy of the ESCP shall be submitted to the Canterbury Regional Council: Attention Regional Leader – Monitoring and Compliance for review and certification. All activities authorised by this consent must be carried out in accordance with the ESCP;</p>
	<p>b. Unless Canterbury Regional Council provides notice in writing that it is unable to certify the ESCP within 20 working days of receipt of a draft ESCP, it is deemed to be certified by the Canterbury Regional Council. For the purposes of this condition, “Certification” means that the ESCP contains all the information specified in Condition 5(c);</p> <p>c. The ESCP shall include:</p> <ul style="list-style-type: none"> <li>i. A list of the staff and / or experts responsible for reviewing the ESCP;</li> <li>ii. A description of staff training and induction requirements that will be undertaken to ensure that the ESCMP is followed by all acting in accordance with these resource consents;</li> <li>iii. A description of the site and local receiving environment;</li> <li>iv. A site drainage plan;</li> <li>v. Details of any anticipated earth excavation requirements;</li> <li>vi. A schedule detailing the anticipated staging of the Construction Works including: <ul style="list-style-type: none"> <li>A. Site preparation works;</li> <li>B. Any equipment or plant mobilisation necessary for carrying out the construction works;</li> <li>C. Any field verification requirement.</li> </ul> </li> <li>vii. A detailed description of how run on and run off water will be managed within the construction site;</li> <li>viii. Measures to avoid or minimise any sediment entering exposed groundwater or the Rangitata River or being tracked onto roadways or neighbouring properties;</li> <li>ix. A detailed description of how water will be treated prior to disposal to the various receiving environments;</li> <li>x. Details of compliance checks, and any maintenance necessary to ensure that measures required under the ESCP or this consent are performing effectively;</li> <li>xi. Identification of persons responsible for carrying out the actions within the ESCP including their contact details; and</li> <li>xii. A detailed description of how vegetation stripping and replanting would be undertaken to manage the area of disturbed ground that will be open throughout the construction works / activities authorised by these resource consents.</li> </ul> <p>d. The ESCP shall be prepared in accordance with:</p> <ul style="list-style-type: none"> <li>i. Environment Canterbury’s “Erosion and Sediment Control Toolbox for the Canterbury Region” (ESCT) <a href="http://esccanterbury.co.nz/">http://esccanterbury.co.nz/</a> ; or</li> <li>ii. An equivalent industry guideline. If an alternative guideline is used, the SMP shall provide details of the relevant alternative methods used and an explanation of why they are more appropriate than the ESCT.</li> </ul> <p>e. Any amendments or revisions to the ESCP must be submitted to Canterbury Regional Council: Attention Regional Leader – Monitoring and Compliance.</p>

6	During construction, all practicable measures shall be undertaken to minimise exposed groundwater.
	<b>AIR QUALITY</b>
6A.1	<p><b>General Controls</b></p> <p>The contaminants that may be discharged to air when the consent holder is undertaking works / activities in accordance with these resource consents are limited to emissions from the following activities:</p> <ol style="list-style-type: none"> <li>Earthworks and activities associated with the construction of the Proposal;</li> <li>Combustion of diesel to power stationary engines;</li> <li>Crushing and screening of aggregate;</li> <li>Concrete batching;</li> <li>Revegetation of pond surrounds; and</li> <li>The operation of the Klondyke Pond.</li> </ol>
6A.2	There shall be no discharge of dust, smoke or the products of combustion, as a result of the exercise of this consent (either during construction or following the completion of all construction) that is noxious, dangerous, offensive or objectionable beyond the property boundaries of the construction site on which the discharge occurs, and which are not owned by the consent holder.
6B.1	<p><b>Smoke Management Plan</b></p> <p>The purpose of the Smoke Management Plan is to describe the procedures to be used to monitor and minimise the effects of smoke generated during the construction of the Klondyke Pond.</p> <p>The SMP shall include:</p> <ol style="list-style-type: none"> <li>A list of the staff and / or experts responsible for implementing and reviewing the SMP;</li> <li>A description of the staff training and induction requirements that will be undertaken to ensure that the SMP is followed by all acting in accordance with these resource consents;</li> <li>A description of the site and the local receiving environment;</li> <li>A description of the burning methodology that will be employed by the consent holder and its contractors;</li> <li>A description of the smoke monitoring that will be undertaken when the consent holder undertakes burning activities; and</li> <li>A description of the weather conditions when burning activities can and cannot take place.</li> </ol>
6B.2	<p>The smoke monitoring required by condition 6B.1 (e) shall, as a minimum, include:</p> <ol style="list-style-type: none"> <li>Visual monitoring of the smoke at the downwind boundary of the construction site;</li> <li>If the visual monitoring conducted in accordance with condition 6B.1 (a) identifies that smoke is visible beyond the boundary of the construction site, visual monitoring at the closest downwind residences; and</li> <li>Wind speed and direction, as measured by the site meteorological monitoring instruments (installed in accordance with condition 6H.1).</li> </ol>
6C.1	<p><b>Dust Management Plan</b></p> <p>The purpose of the Dust Management Plan is to describe the procedures to be used to monitor and minimise the effects of dust generated during the construction and operation of the Klondyke Pond in order to comply with conditions 6A.2 and 6D.1 to 6G.2.</p> <p>The DMP shall include:</p> <ol style="list-style-type: none"> <li>A list of the staff and / or experts responsible for implementing and reviewing the DMP;</li> </ol>

	<ul style="list-style-type: none"> <li>b. A description of staff training and induction requirements that will be undertaken to ensure that the DMP is followed by all acting in accordance with these resource consents;</li> <li>c. A description of the site and the local receiving environment;</li> <li>d. The dust mitigation and prevention methods that will be implemented to achieve condition 6D.1;</li> <li>e. A description of the dust monitoring (that accords with conditions 6C.3 and 6H.1 to 6H.5) that will be undertaken by the consent holder during the construction works / activities associated with the Proposal;</li> <li>f. The contingency methods that will be used by the consent holder for controlling dust when the TSP and wind speed alert levels included within conditions 6D.2 to 6D.5 (inclusive) are exceeded.</li> </ul>
6C.2	<p>The dust monitoring required by condition this condition shall include, as a minimum:</p> <ul style="list-style-type: none"> <li>a. Continuous instrumental monitoring of total suspended particulates at one location. The instrument shall be installed and operated at a location that provides a representative sample of the TSP concentrations at the boundary of the construction site in the immediate vicinity of the closest house to the construction activity associated with the Klondyke Pond;</li> <li>b. An inspection of all actual and potential dust sources within the construction site at least once per day; and</li> <li>c. Wind speed and direction, as measured by the site meteorological monitoring instruments (installed in accordance with condition 6H.1 of these resource consents).</li> </ul>
6D.1	<p><b>General Dust Mitigation Measures</b></p> <p>The methods used to mitigate and prevent fugitive dust emissions shall include, as a minimum, the following:</p> <ul style="list-style-type: none"> <li>a. Carrying out earthworks in strips in the construction of the Klondyke Pond, where each strip is no more than 75 hectares in area;</li> <li>b. That all potentially dusty surfaces (including roads) shall be stabilised using (as necessary) one or more of the following methods: <ul style="list-style-type: none"> <li>i. water;</li> <li>ii. chemical dust suppressants;</li> <li>iii. compaction;</li> <li>iv. straw mulching;</li> <li>v. temporary vegetation;</li> <li>vi. gravelling; or</li> <li>vii. other surface modification methods;</li> </ul> </li> <li>c. Existing vegetation is to be retained for as long as practicable and areas where works are complete shall be revegetated as soon as practicable;</li> <li>d. Vehicle speeds are to be controlled on site to not more than 20 kilometres per hour;</li> <li>e. The height and slope of stockpiles associated with the Proposal are not to exceed 3 m;</li> <li>f. Paved roads and yard areas are to be kept clean using either washing or vacuum sweepers;</li> <li>g. A rumble grid and a sealed area of road of at least 20 metres in length are to be provided prior to all the site exits onto public roads;</li> <li>h. Drop heights are to be minimised when loading and unloading vehicles; and</li> <li>i. An adequate on-site supply of water and equipment for watering all potentially dusty areas of the site shall be provided and maintained at all times.</li> </ul>
6D.2	<p>The consent holder:</p> <ul style="list-style-type: none"> <li>a. Shall review dust sources and dust control measures and implement additional dust control methods when TSP concentrations (as measured by the instrument installed and operated in accordance with condition</li> </ul>

	<p>6H.1):</p> <p>i. Exceed a 1-hour average concentration of 200 µg/m<sup>3</sup>; or</p> <p>ii. Exceed a 24-hour average concentration of 80 µg/m<sup>3</sup>.</p> <p>b. Shall cease the works / activities authorised by these resource consents when TSP concentrations:</p> <p>i. Exceed a 1-hour average concentration of 220 µg/m<sup>3</sup>; or</p> <p>ii. Exceed a 24-hour average concentration of 120 µg/m<sup>3</sup>.</p> <p>c. May only recommence works once TSP concentrations, measured over two consecutive ten-minute periods, are less than 200 µg/m<sup>3</sup>.</p>
6D.3	Dust sources and dust control measures shall be reviewed and additional dust control measures shall be implemented when hourly average wind speeds exceed 5 (five) m/s and winds are blowing towards an inhabited dwelling located within 500m of construction activities and potential sources of dust.
6D.4	<p>The additional dust measures referred to in conditions 6D.2 and 6D.3 include, but are not limited to:</p> <p>a. Reducing vehicle speeds within the construction site;</p> <p>b. Increasing the water application rate on dusty surfaces within the construction site;</p> <p>c. Ceasing dusty activities within the construction site, such as the stripping and spreading of topsoil.</p>
6D.5	<p>Potentially dusty activities that are taking place within 500m downwind of an inhabited dwelling shall cease, except for dust mitigation activities, when gust wind speeds (two-minute average or less) exceed 10 m/s during two consecutive ten-minute periods. The term 'potentially dusty activities' means, for the purpose of these resource consents, the following activities:</p> <p>a. Stripping of potentially dusty materials such as topsoil and silt,</p> <p>b. Formation of embankments surrounding water storage facilities using soil or silt;</p> <p>c. Formation of soil and silt stockpiles;</p> <p>d. Spreading of topsoil;</p> <p>e. Movement or working of topsoil for the purpose of vegetating the embankments; and</p> <p>f. Placement of the clay for the pond lining.</p> <p>The potentially dusty activities may recommence when wind gusts (two-minute average or less) are less than 7.5 m/s during the previous two consecutive ten-minute periods.</p>
6E.1	<p>Concrete Batching Plant Specific Measures</p> <p>The capacity of any concrete batching plant used to construct the Proposal shall not exceed 70 cubic metres per hour.</p>
6E.2	<p>The consent holder shall take all practicable measures to minimise the discharge of dust from any concrete batching plant used to construct the Proposal. These measures shall include:</p> <p>a. The concrete batching plant cement silos are to be fitted with fabric filters to control the discharge of dust during filling and batching operations;</p> <p>b. The cement silo fabric filters are to be regularly maintained in order to maintain effective operation at all times in accordance with the manufacturer's instructions;</p> <p>c. The cement silos are to be fitted with over-fill warning devices;</p> <p>d. The filtration system on the cement silos operates at all times when the concrete batching plant is in operation;</p> <p>e. Aggregates being conveyed to and within the concrete batching plant are to be sprayed with water, as required, to minimise dust emissions;</p> <p>f. Fine aggregate materials such as crusher dust shall be stored in three sided bins;</p>

	<p>g. <u>Cement transferred to trucks from the concrete batching plant is to be via an enclosed control system that collects and treats cement dust; and</u></p> <p>h. <u>Any spillages associated with the handling of sand, aggregate or cement materials involved in the batching process shall be cleaned up as soon as practicable following the spill.</u></p> <p>i. <u>Cement delivery trucks shall be covered.</u></p>
<u>6F.1</u>	<p><u>Crushing and Screening Specific Measures</u></p> <p><u>The rate of aggregate crushing and screening on site shall not exceed 200 tonnes per hour.</u></p>
<u>6F.2</u>	<p><u>The consent holder shall take all practicable measures to minimise the discharge of dust from crushing and screening aggregates. These measures shall include:</u></p> <p>a. <u>Using water sprays on all transfer points and crushing and screening equipment;</u></p> <p>b. <u>Wetting of the aggregate as required to reduce the discharge of dust to air; and</u></p> <p>c. <u>Minimising 'drop heights' when the aggregates are being unloaded and/or stockpiled.</u></p>
<u>6G.1</u>	<p><u>Post Construction Mitigation Measures</u></p> <p><u>All exposed surfaces of soil on site at the completion of construction shall be stabilised either by being gravelled or planted. The objective of the stabilisation activities is to minimise the generation of dust from the sites where construction works / activities authorised by these resource consents have been undertaken.</u></p>
<u>6G.2</u>	<p><u>The internal banks of the Klondyke Pond shall be kept damp (by the use of measures such as sprinklers on the edge of the Klondyke Pond) when the Klondyke Pond is drawn down below the rock armouring layer and when it is not raining, to prevent the generation of dust.</u></p>
<u>6H.1</u>	<p><u>Air Quality Monitoring</u></p> <p><u>Prior to construction activities commencing on site, the consent holder shall install instruments capable of continuously monitoring and recording:</u></p> <p>a. <u>The meteorological conditions, including wind speed, wind direction, rainfall, temperature and relative humidity. These instruments shall be maintained in good working order for the duration of these resource consents; and</u></p> <p>b. <u>TSP's. This instrument shall be maintained in good working order for the duration of the construction works / activities associated with the Proposal, and shall be located on the south-eastern boundary of the Klondyke Pond, within the vicinity of the closest house to the construction activity.</u></p>
<u>6H.2</u>	<p><u>The monitoring instruments installed in accordance with condition 6H.1(a) shall:</u></p> <p>a. <u>Be installed at a height of at least six (6) metres above pre-construction ground level and in accordance with AS 2923- 1987 <i>Ambient Air Guide for Measurement of Horizontal Wind for Air Quality Applications</i>;</u></p> <p>b. <u>Commence operating at least one month prior to the commencement of the construction works / activities authorised by these resource consents;</u></p> <p>c. <u>Continuously record the meteorological conditions using an electronic data logging system with an averaging time for each parameter of not more than two minutes. The records collected shall be available to the consent holder in 'real time' and the logging system shall be able to send alerts via text message.</u></p>
<u>6H.3</u>	<p><u>The meteorological data recorded in accordance with conditions 6H.1(a) and 6H.2 shall be retained for the duration of these resource consents. Copies of the data shall be provided to the Canterbury Regional Council, Attention: Regional Leader - Compliance and Monitoring, upon request.</u></p>

6H.4	<p>The TSP monitoring instruments installed in accordance with condition 6H.1(b) shall:</p> <ul style="list-style-type: none"> <li>a. Be a continuous monitoring instrument capable of providing real time data;</li> <li>b. Be of an appropriate standard and quality (and shall include regular calibration of the monitoring equipment) to enable compliance with the TSP trigger levels set in Conditions 6D.2 and 6D.3 to be determined; and</li> <li>c. Continuously record TSP data using an electronic data logging system with an averaging time for each parameter of not more than two minutes. The TSP records shall be available to the consent holder in real time and the logging system shall be able to send alerts via text message.</li> </ul>
6H.5	<p>The TSP data recorded in accordance with conditions 6H.1(a) and 6H.3 shall be retained for the duration of the construction works / activities associated with the Proposal. Copies of the data shall be provided to the Canterbury Regional Council, Attention: Regional Leader: Compliance &amp; Monitoring, upon request.</p>
6H.6	<p>The Consent Holder shall prepare a report which summarises the meteorological and TSP monitoring data for the previous 12-month period and provide this to Canterbury Regional Council prior to 1 (March) each year. The summary report shall include the following information:</p> <ul style="list-style-type: none"> <li>a. Hourly and 24-hour average air temperature, wind speed, rainfall and relative humidity for the previous 12 months</li> <li>b. A summary of average, median, maximum and minimum 1 hour results for air temperature, wind speed, rainfall and relative humidity for each month</li> <li>c. A summary of average, median, maximum and minimum 24 hour results for air temperature, wind speed, rainfall and relative humidity for each month</li> <li>d. Hourly and 24-hour average TSP concentrations for the previous 12 months</li> <li>e. A summary of average, median and maximum hourly 1 hour and 24 hour average TSP concentrations for each month</li> <li>f. A summary of the number of exceedances recorded each month of the TSP concentration trigger values included in condition 6D.2 b and an explanation of the possible reason for the exceedance and any corrective actions taken.</li> <li>g. Windroses showing the 1-hour average wind speed and wind direction for each month</li> </ul>
<b>CONSTRUCTION</b>	
7	<p>Any imported materials for the Construction Works shall comprise of clean material(s). For the purposes of this consent, 'clean materials' are defined as material not sourced from a site listed on Canterbury Regional Council's Listed Land Use Register and/or Schedule 3 of the Land and Water Regional Plan.</p>
8	<p>No maintenance of vehicles, refuelling or fuel storage shall take place in or within 20 metres of the excavated area, exposed groundwater or any water course.</p>
9	<p>Spoil sites shall be sown with grass within one month of the completion of Construction Works, if completed during period September through April. Should Construction Works be completed outside of this period, the embankments will where necessary to prevent erosion, be stabilised with suitable matting (or equivalent), and sown with grass no later than the following September.</p>
<b>HAZARDOUS SUBSTANCE MANAGEMENT</b>	
10	<p>The consent holder shall prepare a Hazardous Substances Spill Management Plan (HSSMP): The HSSMP shall include but is not limited to:</p> <ul style="list-style-type: none"> <li>a. Identifying the hazardous substances that will be retained on the site</li> </ul>



	<p>during construction and the restrictions that apply to, and are to be followed, in relation to their storage and use;</p> <p>b. Identifying the potential situations and locations where hazardous substances may be accidentally spilled, and to ensure that the appropriate measures are implemented by the consent holder to ensure that all actual or potential hazardous substances effects arising from the construction activities are minimised. This includes, but is not limited to, measures to provide secondary containment around storage locations and refuelling sites, to minimise the extent of soil contamination and to prevent run-off of spilled liquids from reaching surface water bodies;</p> <p>c. A list of the staff and/or experts responsible for reviewing the HSSMP;</p> <p>d. A description of staff / expert training and induction requirements that will be undertaken to ensure that the HSSMP is followed by all acting in accordance with these resource consents;</p> <p>e. A description of the site and local receiving environment;</p> <p>f. The procedures that are to be followed for the use of the hazardous substances within the construction site, including the construction personnel that are authorised to use them;</p> <p>g. The minimum requirements for spill management kits that are to be distributed throughout the construction site and the procedures that are to apply to the disposal of used spill management materials; and</p> <p>h. The procedures for corrective action in the event of a spill.</p>
11	<p>The consent holder shall take all practicable measures to avoid spills of fuel or any other contaminants. In the event of a spill of fuel or any other hazardous substances, the following corrective action shall be undertaken, including but not limited to:</p> <p>a. All practicable measures shall be taken to prevent the spill being discharged into land via the stormwater system;</p> <p>b. The spill shall be cleaned up as soon as practicable and any contaminants that accumulate in the stormwater system shall be removed and the spill area shall be inspected and cleaned, and measures shall be taken to prevent reoccurrence; and</p> <p>c. <del>The consent holder shall provide the Canterbury Regional Council, Attention: Regional Leader Monitoring and Compliance, with the following information within 24 hours of a spill:</del></p> <p style="padding-left: 40px;">i. <del>The date, time, location and estimated volume of the spill;</del></p> <p style="padding-left: 40px;">ii. <del>The cause of the spill;</del></p> <p style="padding-left: 40px;">iii. <del>The type of contaminant(s) spilled;</del></p> <p style="padding-left: 40px;">iv. <del>Clean up procedures undertaken including evidence of appropriate disposal;</del></p> <p style="padding-left: 40px;">v. <del>Details of the steps taken to control and remediate the effects of the spill on the receiving environment;</del></p> <p style="padding-left: 40px;">vi. <del>An assessment of any potential effects of the spill; and</del></p> <p style="padding-left: 40px;">vii. <del>Measures to be undertaken to prevent a reoccurrence.</del></p>
12	<del>Any material, including sediment, hydrocarbons and other contaminants, removed in the exercising of this consent shall be disposed of at a location or facility authorised to receive such material.</del>
	<b>ACCIDENTAL DISCOVERY PROTOCOL - ARCHAEOLOGICAL MATERIALS</b>
13	<p>In the event of any discovery of archaeological material the consent holder shall immediately:</p> <p>a. Cease work within 10 metres of any part of the discovery and mark off the</p>



	<p>affected area;</p> <p>b. Advise the Canterbury Regional Council and Ashburton District Council of the discovery; and</p> <p>c. Advise Heritage New Zealand Pouhere Taonga of the discovery.</p>
14	<p>If the archaeological material is determined to be Koiwi Tangata (human bones) of Maori origin or taonga (treasured artefacts) by Heritage New Zealand Pouhere Taonga, the consent holder shall immediately:</p> <p>a. advise the office of Upoko Runanga o Arowhenua of the discovery;</p> <p>b. consult Upoko Runanga o Arowhenua on any matters of tikanga (protocol) that are required in relation to the discovery and prior to the commencement of any investigation, and perform those requirements; and</p> <p>c. advise the New Zealand Police of the discovery in relation to Koiwi Tangata (human bones).</p>
15	<p>Iwi representatives, Canterbury Regional Council, Attention: RMA Monitoring and Compliance Manager and Heritage New Zealand Pouhere Taonga <del>Trust</del> shall be afforded the opportunity to visit the site within up to three working days of the discovery (if and as they consider it necessary), and such persons shall be given a reasonable time to record and recover archaeological features discovered before work may recommence on the site. The site inspection shall occur within 6 working days of the discovery being made.</p>
16	<p>The consent holder may recommence any work if Heritage New Zealand Pouhere Taonga (following consultation with Kaitiaki Runanga if the material is of Maori origin) provides a statement in writing to the Council that appropriate action has been undertaken in relation to the archaeological material discovered.</p> <p><b>Advice Notes</b></p> <p>1. Under the Heritage New Zealand Pouhere Taonga Act 2014 an archaeological site is defined as any place associated with pre-1900 human activity, where there is material evidence relating to the history of New Zealand. For sites solely of Maori origin, this evidence may be in the form of accumulations of shell, bone, charcoal, burnt stones, etc. In later sites, artefacts such as bottles or broken glass, ceramics, metals, etc., may be found or evidence of old foundations, wells, drains, tailings, races or other structures. Human remains/koiwi may date to any historic period.</p> <p>2. It is unlawful for any person to destroy, damage, or modify the whole or any part of an archaeological site without the prior authority of Heritage New Zealand Pouhere Taonga. This is the case regardless of the legal status of the land on which the site is located, whether the activity is permitted under the District or Regional Plan or whether a resource or building consent has been granted. The Heritage New Zealand Pouhere Taonga Act 2014 provides for substantial penalties for unauthorised damage or destruction. An authority from Heritage New Zealand Pouhere Taonga <del>Trust</del> may be required.</p>
	<p><b>ACCIDENTAL DISCOVERY PROTOCOL – WASTE MATERIALS/CONTAMINATED SOILS</b></p>
17	<p><del>In the event of encountering visual or olfactory indicators of waste materials and/or soil contamination or an uncontrolled discharge of contaminants the consent holder or its contractors shall immediately comply with the Accidental Discovery Protocol (ADP). The ADP for unexpected contaminants shall include but not be limited to the following steps:</del></p> <p>a. <del>Earthworks within ten metres of unexpected contaminants shall cease immediately; and</del></p> <p>b. <del>Immediate steps shall be taken to minimise exposure of the contaminated material, including covering the contaminants with an impervious cover where practicable; and</del></p> <p>c. <del>Notification of the Canterbury Regional Council, by a Suitably Qualified and Experienced Practitioner (SQEP), Attention: Contaminated Sites</del></p>

	<p>Manager, within 24 hours of the discovery;</p> <p>d. <del>Earthworks within ten metres of unexpected contaminants shall not recommence until a (SQEP) confirms to Canterbury Regional Council, Attention: Regional Leader Monitoring and Compliance that it is safe to do so;</del></p> <p>e. <del>The consent holder shall take all practicable steps to prevent the contaminated material becoming entrained in stormwater runoff.</del></p> <p>f. <del>All records and documentation associated with the discovery shall be kept and copies shall be provided to the Canterbury Regional Council upon request.</del></p> <p><u>In the event of encountering visual or olfactory indicators of waste materials and/or soil contamination or an uncontrolled discharge of contaminants the consent holder or its contractors shall immediately comply with the Accidental Discovery Protocol (ADP). The ADP for unexpected contaminants shall comply with the HSSMP.</u></p>
	<b>DECOMMISSIONING</b>
18	Once the Construction Works have been completed the consent holder shall decommission the sediment and erosion measures required by condition (6) of this consent. Erosion and sediment control measures shall not be decommissioned until the site is stabilised and the stormwater system for the developed site is functioning.
	<b>ADMINISTRATION</b>
19	<p>Pursuant to Section 128(1) of the Resource Management Act 1991, the Consent Authority may serve notice of its intention to review the conditions of this consent within a period of three months commencing on each anniversary of the date of issue of the consent for any of the following purposes:</p> <ul style="list-style-type: none"> <li>a. To deal with any adverse effects on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or</li> <li>b. To require the Consent Holder to adopt the best practicable option to mitigate any adverse effect upon the environment; or</li> <li>c. To deal with any other adverse effect on the environment on which the exercise of the consent may have any influence.</li> </ul>
20	<p>The lapsing date for the purposes of Section 125 of the Resource Management Act 1991 shall be 15 years from the date consent is issued.</p> <p><b>Advice note:</b> 'Exercised' is defined as implementing any requirements to operate this consent <u>and</u> undertaking the activity as described in these conditions and/or application documents.</p>
21	<u>This resource consent shall expire 35 years after it has commenced.</u>

**CRC182541: the emergency discharge of water to the Rangitata River;**

1	The discharge shall only be the emergency discharge of water that has been dammed in the Klondyke Storage Dam, which is authorised under consent CRC170657 or any replacement consent.	
1A	<p>The Proposal shall be constructed, operated and maintained in accordance with the details contained within the following documents:</p> <p>a. The Assessment of Environmental Effects report prepared by Ryder Consulting Limited in July 2016 and entitled "Lake Klondyke: A Proposed Water Storage Facility, Assessment of Environmental Effects Report &amp; Resource Consent Application, Prepared for the Rangitata Diversion Race Management Limited, Date Finalised: July 2016"; and</p> <p>b. The Assessment of Environmental Effects report prepared by Ryder Consulting Limited in November 2017 and entitled "Proposed Rangitata Diversion Race Fish Screen and Supplementary Matters Resource Consent Application".</p> <p>except where modified by specific conditions set out in these resource consents or by the plans authorised by the building consent for the Proposal.</p>	
2	The discharge shall occur into the Rangitata River via the emergency spillway <u>or the lower level gate to the outlet channel as identified</u> on the approved Building Consents Plans required under consent CRC170657.	
2A	<u>With regard to the 10 yearly full gate opening required by condition 3B, discharges shall be preceded by a five-minute warning flow of 0.2 m³/s and shall be progressively increased to a full discharge flow over a 30-minute period.</u>	
3	The emergency discharge of water shall occur in accordance with the requirements set out in the Emergency Action Plan for the Dam, as set out in consent CRC170657 or any replacement consent.	
3A	The consent holder shall erect suitable signage at the point of discharge to the river and at common points of recreational access to the river, warning of the potential for sudden increases in flow, and shall devise communication systems to warn known users of the river of the potential for a release. The signage and communication systems shall be developed with recreational user groups of the river including, as a minimum, Rangitata Rafts, Peel Forest Outdoor Centre, White Water New Zealand, Jet Boating New Zealand and ECan River Engineering (Hilary Fraser, Area Engineer Southern)	
3B	Discharges that are required for periodic testing of equipment <u>related to the outlet gate to the Rangitata River</u> as required by the New Zealand Dam Safety Guidelines shall be undertaken as set out below:	
	Test	Minimum flow in the Rangitata River (m³/s)
	6 monthly minimal opening of the gate (cracking the gate)	140
	5 yearly opening of gate to 15 % of maximum	250
	10 yearly full opening of gate (full flow of up to 40.7 m³/s)	250

4	<p>Pursuant to Section 128(1) of the Resource Management Act 1991, the Consent Authority may serve notice of its intention to review the conditions of this consent within a period of three months commencing on each anniversary of the date of issue of the consent for any of the following purposes:</p> <ul style="list-style-type: none"> <li>a. To deal with any adverse effects on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or</li> <li>b. To require the Consent Holder to adopt the best practicable option to mitigate any adverse effect upon the environment; or</li> <li>c. To deal with any other adverse effect on the environment on which the exercise of the consent may have any influence.</li> </ul>
5	<p>The lapsing date for the purposes of Section 125 of the Resource Management Act 1991 shall be 15 years from the date consent is issued.</p> <p><b>Advice note:</b> 'Exercised' is defined as implementing any requirements to operate this consent <u>and</u> undertaking the activity as described in these conditions and/or application documents.</p>
5A	<p><u>This resource consent shall expire 35 years after it has commenced.</u></p>

**CRC182542: to change conditions of CRC011237 to enable an alternative fish screen design consisting of ~~either a Mechanical Rotary Fish Screen or a permeable rock bund and infiltration gallery;~~**

**(note below text in italics represents the existing wording of CRC011237)**

1	The maximum rate at which water may be taken and diverted shall be 30.7 cubic metres per second (m <sup>3</sup> /s), such that the combined take with that from the South Ashburton River (CRC011245) does not exceed 35.4 cubic metres per second. Water shall be taken in accordance with the Water Abstraction Restriction Levels and minimum flow provisions outlined in the following tables:				
	Permitted Rate of Water Abstraction for the period 1 <sup>st</sup> September to 31 <sup>st</sup> May:				
	Flow (m <sup>3</sup> /s) at Klondyke	RDR	Other Irrigation	Other Stockwater	Residual Flow in River
	64.0 – 60.1	30.7	0.3	1.0	32.0 – 28.1
	60.0 – 50.1	26.2	0.3	1.0	32.5 – 22.6
	50.0 – 43.1	21.8	0.2	1.0	27.0 – 20.1
	43.0 – 40.1	18.9	0.1	1.0	23.0 – 20.1
	40.0 – 38.1	16.9	0.1	1.0	22.0 – 20.1
	38.0 – 36.1	14.9	0.1	1.0	22.0 – 20.1
	36.0 – 34.1	12.9	0.1	1.0	22.0 – 20.1
	34.0 – 32.1	10.9	0.1	1.0	22.0 – 20.1
	Permitted Rate of Water Abstraction for the period 1 <sup>st</sup> June to 31 <sup>st</sup> August:				
	Flow (m <sup>3</sup> /s) at Klondyke	RDR	Other Irrigation	Other Stockwater	Residual Flow in River
	Above 64	30.7	Nil	1.0	GT 32.3
	64 – 60.1	30.7	Nil	1.0	32.3 – 28.4
	60 – 50.1	26.5	Nil	1.0	32.5 – 22.6
	50 – 40.1	21.5	Nil	1.0	27.5 – 17.6
	40 – 38.1	22.0	Nil	1.0	17.0 – 15.1
	38 – 36.1	20.0	Nil	1.0	17.0 – 15.1
	36 – 34.1	18.0	Nil	1.0	17.0 – 15.1
	34 – 32.1	16.0	Nil	1.0	17.0 – 15.1

	32 – 30.1	14.0	Nil	1.0	17.0 – 15.1
2	The consent holder shall measure and record the rate at which water is taken and diverted at not greater than 30 minute intervals and shall make such records available to Canterbury Regional Council upon request.				
3	The consent holder shall, within six months of the commencement of this consent and thereafter maintain a notice at or about map reference NZMS 260 J36:678-144 warning of the dangers of swimming and boating close to the intake structure.				
4	The consent holder shall ensure that the rock weir does not significantly impede the passage of trout, salmon and native fish.				
5	<p>Until 1 August 20<del>19</del><sup>21</sup>, or when the replacement fish screen referred to in conditions to (10) is fully operational, the consent holder shall take such measures as are appropriate to ensure that, so far as is reasonably practicable, juvenile salmon are excluded from the body of the diversion race and are returned to the river. To that end:</p> <ul style="list-style-type: none"> <li>a. Within 18 months from the commencement of this consent the consent holder shall install and commission a Bio-acoustic Fish Guidance system for the purpose of diverting, as far as practicable, migrating salmon smolt to the Rangitata River. That system shall be generally as outlined in the evidence presented on 14 February 2003 by Charles Paul Mitchell, Consultant Biologist;</li> <li>b. Within three years of the commencement of this consent the consent holder shall provide the consent authority with a report, prepared by a person appropriately qualified and experienced in freshwater fisheries biology, detailing the extent to which the system referred to in paragraph (a) above is meeting the object of this condition and making recommendations, if such are thought by that person to be necessary, as to the way in which that object may better be met;</li> <li>c. At any time within the fourth year of this consent and during every fourth year thereafter the consent authority may review this condition (pursuant to section 128) for the purpose of determining what steps should be taken by the consent holder so as better to achieve the object of this condition;</li> <li>d. The consent holder may at any time apply to the consent authority for a change to this condition, but for the sole purpose of the better achievement of its object.</li> </ul>				
6	Prior to 1 August 20 <del>19</del> <sup>21</sup> , the consent holder shall construct a fish screen that shall be installed, operated and maintained <del>on the intake</del> to ensure that fish are prevented from entering any of the irrigation infrastructure downstream of the screen.				
7	The fish screen referred to in condition (6) shall be designed to comply with the following design specifications as defined in NIWA (2007) Fish Screening: Good Practice Guidelines for Canterbury (hereafter referred to as the Good Practice Guidelines) and/or Schedule 2 of the Canterbury Land and Water Regional Plan				

	<p><u>or subsequent amendments specifically:</u></p> <ol style="list-style-type: none"> <li>Location as close as practical to the Rangitata River;</li> <li>Mesh screen size equal to or less than 3mm mesh (side of square) or 2mm slot width;</li> <li>An average approach <u>and/or</u> through screen velocity (<math>\pm 10\%</math>) of less than 0.12 m/s;</li> <li>The sweep velocity past the fish screen elements shall be greater than the approach velocity;</li> <li>A fish bypass channel shall be designed and operated that is effective in attracting and conveying fish away from the screens and down a bypass channel unharmed;</li> <li>Fish bypass channel is designed and operated for continuous flow connection back to a flowing braid of the Rangitata River;</li> <li>Screening materials shall not have sharp or protruding surfaces that could damage fish coming into contact with them; and</li> <li>An Operations and Maintenance programme that will ensure the screen meets the effectiveness criteria in the Good Practice Guidelines and specifically includes: <ol style="list-style-type: none"> <li>mechanisms to monitor and clean screening surfaces to ensure they do not become clogged with material; and</li> <li>a programme to monitor and detect any damage to screening surfaces, seals, and movement operation of the screens.</li> </ol> </li> </ol>
8	The fish exclusion device referred to in condition (6) shall be designed or supplied by a person with experience in freshwater ecology and fish screening techniques, who shall ensure that the design achieves the design criteria specified in conditions (6) and (7), and that the device is fully designed in accordance with the Good Practice Guidelines and/or Schedule 2 of the Land and Water Regional Plan <u>or subsequent amendments</u> .
9	Prior to the installation of the fish screen, a report containing final design plans that demonstrates how the fish screen will meet the performance criteria specified in conditions (6) and (7) of this consent, and an operation and maintenance plan for the fish screen, shall be provided to Canterbury Regional Council, Attention Regional Leader – Monitoring and Compliance.
10	After installation of the fish screen referred to in condition (6), a certificate shall be supplied by a suitably qualified expert in freshwater ecology and fish screen design stating that the fish screen has been installed and is operating in accordance with the design specifications, in accordance with conditions (6) and (7)). The certificate shall be provided to Canterbury Regional Council, Attention Regional Leader – Monitoring and Compliance no later than one month after the commissioning of the fish screen.
<u>10A</u>	<u>The consent holder shall undertake monitoring and maintenance (as required) of the fish bypass discharge point to ensure the passage of fish from the bypass return channel to the main river flow at all times.</u>
<u>10B</u>	<p><u>Pursuant to Section 128(1) of the Resource Management Act 1991, the Consent Authority may serve notice of its intention to review the conditions of this consent within a period of three months commencing on each anniversary of the date of issue of the consent for any of the following purposes:</u></p> <ol style="list-style-type: none"> <li><u>To deal with any adverse effects on the environment which may arise</u></li> </ol>



	<p><u>from the exercise of the consent and which it is appropriate to deal with at a later stage; or</u></p> <p>b. <u>To require the Consent Holder to adopt the best practicable option to mitigate any adverse effect upon the environment; or</u></p> <p><u>To deal with any other adverse effect on the environment on which the exercise of the consent may have any influence.</u></p>
11	The term of this consent shall be 35 years.

**CRC170654: Water permit to abstract 10m<sup>3</sup>/s from the Rangitata River to fill the Klondyke Storage pond;**

<u>1</u>	<p>The Proposal shall be operated and maintained in accordance with the details contained within the following documents:</p> <ul style="list-style-type: none"> <li>a. <u>The Assessment of Environmental Effects report prepared by Ryder Consulting Limited in July 2016 and entitled “Lake Klondyke: A Proposed Water Storage Facility, Assessment of Environmental Effects Report &amp; Resource Consent Application, Prepared for the Rangitata Diversion Race Management Limited, Date Finalised: July 2016”; and</u></li> <li>b. <u>The Assessment of Environmental Effects report prepared by Ryder Consulting Limited in November 2017 and entitled “Proposed Rangitata Diversion Race Fish Screen and Supplementary Matters Resource Consent Application”.</u></li> </ul> <p>except where modified by specific conditions set out in these resource consents or by the plans authorised by the building consent for the Proposal.</p>
<u>2</u>	<p><u>Water shall only be taken from the Rangitata River into the Rangitata Diversion Race, from the Klondyke intake structure at surface water abstraction point (SWAP) J36/0020 at or about map reference NZTM2000: 1457979mE 5152788mN.</u></p>
<u>3</u>	<p><u>Water may only be taken from the Rangitata River at a rate not exceeding 10 m<sup>3</sup>/s.</u></p>
<u>4</u>	<p><u>Water taken in accordance with these resource consents shall be used for the same purposes specified in consents CRC011237, CRC011245, CRC143165, CRC182536 and CRC182630 or any resource consents that replace those consents.</u></p>
<u>5</u>	<p><u>Notwithstanding condition 3, whenever:</u></p> <ul style="list-style-type: none"> <li>a. <u>The <del>mean</del> flow in the Rangitata River <del>for the 24-hour period ending at noon on any one day</del> falls below 132.6 m<sup>3</sup>/s, the taking of water from the Rangitata River in accordance with conditions 2 and 3 shall cease;</u></li> <li>b. <u>The <del>mean</del> flow in the Rangitata River <del>for the 24-hour period</del> falls below 142.6 m<sup>3</sup>/s, then the rate of water abstracted from the Rangitata River in accordance with conditions 2 and 3 shall reduce to that shown on the attached Graph CRC170654, which is attached to, (refer to Annexure A) and forms part of these resource consents; and</u></li> <li>c. <u>The Canterbury Regional Council issues a notice to the consent holder advising that the Council wishes to measure the flow in the Rangitata River, the taking of water from the Rangitata River in accordance with conditions 2 and 3 shall cease for up to 48 hours.</u></li> </ul>
<u>6</u>	<p><u>The flows referred to in condition 5 shall be the flow estimated by the Canterbury Regional Council in the Rangitata River at the Klondyke recorder site at map reference NZTM2000: 1456739 mE 5153169 mN.</u></p>
<u>7</u>	<p><u>The consent holder shall surrender resource consent CRC134808 prior to it taking water in accordance with conditions 2 to 6.</u></p>
<u>8</u>	<p><u>The consent holder shall before the first exercise of this consent:</u></p> <ul style="list-style-type: none"> <li>a. <u>Install a water meter(s) that:</u> <ul style="list-style-type: none"> <li>i. <u>has an international accreditation or 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 ten</u></li> </ul> </li> </ul>

	<p>percent at a location(s) that will ensure the total take of water is measured; and</p> <p>ii. <u>has 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), or which is telemetered, as specified in clause (b)(iii).</u></p> <p>b. <u>The recording device(s) shall:</u></p> <p>i. <u>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</u></p> <p>ii. <u>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 in a commonly used format and provide to the Canterbury Regional Council upon request in a form and to a standard specified in writing by the Canterbury Regional Council; or</u></p> <p>iii. <u>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. No data in the recording device(s) shall be deliberately changed or deleted.</u></p>
<u>9</u>	<p><u>The water metering and storage devices required by condition 8 shall be:</u></p> <p>a. <u>Accessible to the Canterbury Regional Council at all times for inspection and/or data retrieval;</u></p> <p>b. <u>Installed and maintained throughout the duration of the consent in accordance with the manufacturer's instructions; and</u></p> <p>c. <u>Kept fully functional at all times, to the extent that is practicable.</u></p>
<u>10</u>	<p><u>Within one month of the installation of the measuring or recording device(s), or any subsequent replacement measuring or recording device(s), and at five-yearly intervals thereafter, and at any time when requested by the Canterbury Regional Council, the consent holder shall provide a certificate to the Canterbury Regional Council, Attention: Regional Leader- Monitoring and Compliance, signed by a suitably qualified person certifying, and demonstrating by means of a clear diagram, that:</u></p> <p>a. <u>The measuring and recording device(s) has been installed in accordance with the manufacturer's specifications; and</u></p> <p>b. <u>Data from the recording device(s) can be readily accessed and/or retrieved in accordance with condition 8.</u></p>
<u>11</u>	<p><u>Pursuant to Section 128(1) of the Resource Management Act 1991, the Consent Authority may serve notice of its intention to review the conditions of this consent within a period of three months commencing on each anniversary of the date of issue of the consent for any of the following purposes:</u></p> <p>a. <u>To deal with any adverse effects on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or</u></p> <p>b. <u>To require the Consent Holder to adopt the best practicable option to mitigate any adverse effect upon the environment; or</u></p> <p>c. <u>To deal with any other adverse effect on the environment on which the exercise of the consent may have any influence.</u></p>

12	<p>The lapsing date for the purposes of Section 125 of the Resource Management Act 1991 shall be 15 years from the date consent is issued.</p> <p><b><i>Advice note:</i></b> 'Exercised' is defined as implementing any requirements to operate this consent and undertaking the activity as described in these conditions and/or application documents.</p>
13	<p>This resource consent shall expire 35 years after it has commenced.</p>