



**SOL QUARRIES LTD:**

**DRAFT CONDITIONS OF RESOURCE CONSENTS – V7**

**5<sup>th</sup> June 2020**

**Amendments incorporating expert evidence and  
recommendations highlighted in RED**

**CHRISTCHURCH CITY COUNCIL RMA/2019/373**

**PROPOSED CONSENT CONDITIONS (RMA/2019/373)**

**TO ESTABLISH, COMMISSION AND OPERATE A GRAVEL QUARRY, WITH ASSOCIATED ACTIVITIES, AS AN  
EXTENSION OF AN EXISTING QUARRY, 93-133 CONSERVATORS ROAD, YALDHURST**

<b>GENERAL</b>	
<b>1.</b>	Except as required by subsequent conditions, the quarrying activity shall progress in accordance with the plans submitted with the application lodged on 12 <sup>th</sup> February 2019, any further information received on 12 <sup>th</sup> June 2019, <b>and the Quarry Setback Plan, dated 4<sup>th</sup> June 2020</b> . The Approved Consent Documentation has been entered into Council records as RMA/2019/373 and includes the stamped and approved plans RMA/2019/373, Plans 1 to ... .  <b>For clarity, there shall be NO quarry activities or operations within the area hatched red on the Quarry Setback plan, dated 4<sup>th</sup> June 2020.</b>
<b>2.</b>	The lapsing date for the purposes of Section 125 shall be 8 years from the date of granting of the consent.
<b>3.</b>	The duration of this consent shall be limited to a period of 20 years from the date of grant of consent, <b>including the 8-year lapse period</b> . The site is to be fully rehabilitated within the 20-year period.
<b>ENABLING WORKS AND MAINTENANCE</b>	
<b>4.</b>	Prior to excavation and processing of aggregate commencing on site, the following shall occur: <ol style="list-style-type: none"><li>1. Topsoil shall be stored in a bund at least three (3) metres in height along the north-eastern boundary as shown on Plan RMA/2019/373A. The bunding shall be grassed (low seed producing grass) or otherwise vegetated to reduce erosion losses.</li><li>2. <b>A one (1) metre high bund shall be constructed between the light vehicle accessway and the Quarry Pit as detailed in Plan RMA/2019/373A, attached to this consent.</b></li><li>3. The bunds shall have a slope of 1:3 (one vertical to three horizontal).</li><li>4. The bunds are to be grassed within the first grass growing season after construction (late summer March/April or spring September/October) to achieve 100% grass cover within 60 days after planting, using low-seed generating grass species which do not attract birds or insect species that in turn attract birds.</li><li>5. The grassed bunds shall be watered regularly, to suppress potential dust and to ensure grass cover is achieved.</li></ol>

5.	<p>Prior to excavating aggregate, the Consent Holder shall prepare and implement a Planting Plan, in the form of shelter-belt planting, in accordance with Selwyn District Council <i>Approved Planting Plan (December 2015)</i>, in consultation with CCC Senior Ecologist, and in accordance with Plan RMA/2019/373A and the Rough &amp; Milne Landscape &amp; Cross-section Plan (February 2020) appended to this Consent.</p> <p>The shelter-belt planting shall be undertaken along the following boundaries:</p> <ul style="list-style-type: none"> <li>i) the Quarry and the MacLeans Island Grassland Reserve;</li> <li>ii) the Quarry and the property at 133 Conservators Road (Stocks' property);</li> <li>iii) the Quarry and the property at 93 Conservators Road (Higgs' property); and</li> <li>iv) the Quarry light vehicle accessway and 21 Conservators Road (the Harewood Gravels Ltd property).</li> </ul> <p>The planting shall be initiated within 6-months of the grant of consent and will be maintained for the duration of the consent term.</p>
	<p><b>AUTOMATED DUST SUPPRESSION SYSTEM</b></p>
6.	<p>During the "Enabling Works", the Consent Holder shall design, install and commission an automated dust suppression sprinkler system. The automated system design and operating logic shall provide dust suppression in conditions which would otherwise result in "fugitive dust".</p> <p>The automated dust suppression system shall be triggered by the PM<sub>10</sub> dust monitor, which shall be located in accordance with Condition CRC193564 (14).</p> <p>The automated dust suppression system design concept and the definition of the parameters of use shall be designed in consultation with Canterbury Regional Council Officers.</p> <p>A description of the methods proposed to amend or fine-tune the operation of the automated dust suppression system shall be included in the system design concept.</p> <p>The automated dust suppression system shall be operated and maintained for the duration of the Consent.</p>
7.	<p>The Consent Holder <u>has</u> sealed the Heavy Vehicle Road, from the Guys Road entrance. Accordingly, the Consent Holder shall maintain the sealed Heavy Vehicle Road in good condition, including the infilling of potholes as required.</p> <p><i>Advise Note: As the Heavy Vehicle Road has been sealed, there is no potential for "fugitive dust" emanating from the Heavy Vehicle Road and the automated dust suppression system required by Condition 6, above, shall NOT be required to be installed along the length of the Heavy Vehicle Road.</i></p>
8.	<p>The Consent Holder has approval for the extraction of a maximum of 104 cubic metres of water per day from the Stockwater Race, which is to be re-aligned immediately adjacent to the northern and north-eastern boundaries of the Site, in accordance with Council Engineering Standards. The Consent Holder shall install an additional water storage tank sized to provide for the water extraction.</p>
9.	<p>The Christchurch City Council Resource Consent Monitoring Team shall be notified not less than 48 hours prior to the commencement of site enabling works, along with the contact</p>

	details (including after-hours contact details) of the person that will be responsible for implementing the Quarry Management Plan ('QMP').
10.	All topsoil, which is not used for bunding purposes shall be stockpiled for use in land rehabilitation on the site.
<b>RACE REALIGNMENT METHODOLOGY</b>	
11.	The stock water race will be realigned in accordance with Selwyn District Council guidelines (Standards W106 and W108). Selwyn District Council will be notified of the completion of the realignment and provided with the opportunity to carry out an inspection to confirm compliance.
<b>QUARRY OPERATION AND MANAGEMENT</b>	
12.	Solid waste shall be disposed of to an approved solid waste facility by an appropriately licensed operator. Solid waste shall be held in wheelie bins or similar appropriate containers designed to avoid attracting birds or rodents, to shelter the contents from rainfall, and to secure the water in the event of windy conditions.
13.	No blasting is authorised by this consent.
14.	The Consent Holder shall maintain a Complaints Register at the Quarry Site Office and make this available to the officers of the Christchurch City Council on request.
15.	<p>The operating hours of the site shall be:</p> <ul style="list-style-type: none"> <li>a) 06:30 to 1800 hours weekdays</li> <li>b) 06:30 to 1200 hours on Saturdays</li> </ul> <p>Provided that:</p> <ul style="list-style-type: none"> <li>c) No aggregate processing, including loading, crushing and screening, shall occur on - site prior to 0700 hours; and</li> <li>d) No heavy vehicles shall access the site prior to 0700 hours. The access gate on Guys Road is to be locked prior to this time.</li> </ul>
16.	No activities, other than dust mitigation measures shall take place on Sundays or public holidays.
17.	Should any archaeological material or sites be discovered during the course of work on the site, work in that area of the site shall stop immediately and the appropriate agencies including the New Zealand Historic Places Trust and the Mana Whenua shall be contacted immediately.
<b>QUARRY MANAGEMENT PLAN (QMP)</b>	
18.	The Consent Holder shall prepare, maintain and comply with a Quarry Management Plan (QMP).
19.	<b>Prior to any works commencing, the Consent Holder the QMP shall be prepared and submitted to Christchurch City Council, Attention: Compliance Manager, for review and certification at least 20 working days prior to any works on-site, including "Enabling Works". The applicant shall maintain and comply with the QMP throughout the life of the quarry operations.</b>
20.	<b>The QMP must be provided to Transpower NZ Ltd for certification at least 20 working days prior to being submitted to the Council.</b>

	<p>The QMP must be provided to Christchurch International Airport Ltd (CIAL) for certification at least 20 working days prior to being submitted to the Council.</p> <p>Note: The QOP should be sent to:</p> <p>Transpower at: <a href="mailto:transmission.corridor@transpower.co.nz">transmission.corridor@transpower.co.nz</a>  CIAL at: <a href="mailto:XXXX@cial.co.nz">XXXX@cial.co.nz</a></p>
21.	<p><b>Advise Note: The Quarry Management Plan (QMP) incorporates a number of Plans specifically addressing and codifying the range of policies, procedures, practices and measures associated with the Quarry Operation. The Plans are not discrete. Accordingly, the Plans are detailed in the overarching QMP.</b></p> <ul style="list-style-type: none"> <li>a. Operational Management Plan – operational management specifying day-to-day practices in accordance with the Health and Safety at Work (Mining Operations and Quarrying Operations) Regulations 2016.</li> <li>b. Quarry Dust Management Plan – specifying the monitoring and dust management practices and measures.</li> <li>c. Quarry Site Environmental Management Plan – specifying the environmental controls and practices, including cleanfill management, refuelling plant and equipment, and spill prevention and management.</li> <li>d. Quarry Rehabilitation Plan – the Quarry Rehabilitation Plan will be developed in accordance with Activity Specific Standard 17.8.3.14 “Quarry Site Rehabilitation” of the Christchurch District Plan (CDP), having regard to Policy 17.2.2.13 Policy - Quarry Site Rehabilitation, and in accordance with the “<i>Draft Quarry Rehabilitation Plan Guidance</i>” document prepared by Christchurch City Council and dated August 2018.</li> </ul>
22.	<p>The QMP shall:</p> <ul style="list-style-type: none"> <li>a) Describe the operation of the site in relation to its impact on the environment.</li> <li>b) Define the actions to be undertaken to ensure compliance with all conditions of this consent or in response to any incident that may impact adversely on the environment.</li> <li>c) Identify the staff member responsible for each action and specify the name, experience and qualifications of a person nominated by the site owner to supervise the implementation of and adherence to the QMP.</li> <li>d) Include details of the steps to be undertaken to correct any element of non-compliance.</li> <li>e) Including a code of conduct for drivers of vehicles and visitors to the site, including ensuring all heavy vehicle operators are aware of the heavy vehicle routes from the site to Pound Road.</li> <li>f) <i>Include details of the designated route to and from the Quarry and ensure that all drivers are aware that heavy vehicles shall not take Hasketts Road, School Road or the southern section of Guys Road (School Road to Ryans Road section) when accessing or exiting the Quarry, at any time.</i></li> <li>g) <i>Include details of the 3-strike warning system and driver ban should the drivers take the incorrect route.</i></li> </ul> <p><del>Include details of the “preferred route” and ensure that all drivers are aware that heavy vehicles are requested to not take Hasketts Road, School Road or the southern section of Guys Road (School Road to Ryans Road section) when accessing or exiting the Quarry, at any time.</del></p> <ul style="list-style-type: none"> <li>h) Details of the maintenance of the bunds.</li> <li>i) The operation of equipment to avoid excessive noise, to ensure compliance with conditions 27 to 29.</li> <li>j) The nature and staging of the quarrying activities, to be in accordance with the</li> </ul>

	<p>staging shown in Plan RMA/2019/373A of the approved consent documents.</p> <ul style="list-style-type: none"> <li>k) Details and staging of rehabilitation to ensure compliance with condition 57.</li> <li>l) The collection and response to complaints, to ensure compliance with condition 10.</li> <li>m) Dust control, including specific reference to the protection of the Transpower transmission lines and towers.</li> <li>n) Earthworks, including the construction of bunds, in proximity to the Transpower transmission lines and towers.</li> <li>o) Maintenance and watering of the bunds.</li> <li>p) Maintenance at all times of adequate electrical safety clearance as required by NZECP34 between buildings, structures, mobile plant and personnel working near the Transpower transmission lines and towers; and</li> <li>q) Maintenance of existing access arrangements to the Transpower transmission lines and towers.</li> <li>r) Demonstrate how bird strike management will be implemented to protect Christchurch International Airport Ltd (CIAL) operations.</li> <li>s) Details of the design and operation of any fixed lighting that may be installed at the Quarry, and the implementation of a lighting plan for submission to CIAL.</li> <li>t) Identify any other potential effects on CIAL and the management practices in place to minimise these effects.</li> </ul>
23.	<p><b>Heavy vehicles travelling to and from the quarry shall be instructed not to use Hasketts Road, School Road or the southern section of Guys Road (School Road to Ryans Road section), at all times.</b></p> <ul style="list-style-type: none"> <li>a) <b>To ensure all drivers are aware of the designated route, which avoids the use of Hasketts Road, School Road or the southern section of Guys Road (School Road to Ryans Road section), at all times, all drivers shall be inducted onto the site, have signed the induction acknowledgement and been provided with a copy of the Contractor Policy and Procedure Handbook, prior to driving heavy vehicles to the site. The Handbook shall include details of the designated route to be used when accessing and exiting the Quarry, and will include an instruction to not use Hasketts Road, School Road or the southern section of Guys Road (School Road to Ryans Road section), at all times. The Handbook will also detail the 3-strike warning system and driver ban, should drivers take the incorrect route. Evidence of this shall be made available to Council monitoring staff on request.</b></li> <li>b) <b>Appropriate signage shall be erected at the weighbridge and at the Heavy Vehicle exit reinforcing the requirement to turn left on to Guys Road during these hours and that vehicles shall not use Hasketts Road, School Road or the southern section of Guys Road (School Road to Ryans Road section). This signage must either be in accordance with the District Plan rules for signage or a separate resource consent for the signage must be obtained.</b></li> </ul>
24.	The QMP must specify the name, experience and qualifications of a person nominated by the owner to supervise the implementation of, and adherence to, the QMP.
25.	The QMP must include confirmation of the Consent Holder's liability insurance.
26.	The QMP shall include evidence that it has been developed in consultation with Transpower. A copy of any comments and recommendations made by Transpower shall be included before being submitted to CCC.
27.	The QMP shall include evidence that it has been developed in consultation with CIAL. A copy of any comments and recommendations made by CIAL shall be included before being

	submitted to CCC.
<b>28.</b>	All works (site preparation and operation/maintenance) shall be undertaken in accordance with the final certified QMP. The QMP may be amended and submitted to the Council for certification during the period of this consent as appropriate to improve management and contingency procedures.
<b>29.</b>	Any changes that are proposed to the QMP once works commence, shall be submitted to the Christchurch City Council, Attention: Compliance Manager, for certification no less than 10 working days prior to their implementation on site. The Plan and any revisions shall include best practicable options for achieving compliance with the conditions of consent.
<b>30.</b>	A copy of the QMP shall be kept in the Consent Holder's Office and the Quarry Site Office at all times.
<b>NOISE</b>	
<b>31.</b>	All construction activities from the subject site shall be designed and conducted to ensure that construction noise from the site complies with NZS 6803:1999 – Acoustics: Construction Noise.
<b>32.</b>	For the purposes of Condition 30 construction activities shall be defined as any work required to prepare the site for excavation and shall include site rehabilitation works. In particular, activity associated with the removal of trees, relocation of the water race, construction of earth mounds, and stripping/reinstatement of topsoil shall be considered construction activities.
<b>33.</b>	<p>The cumulative noise level from quarry and associated activities including vehicle movements on the quarry site and accessway shall not exceed the following levels at the notional boundary of any existing dwelling on a neighbouring site:</p> <ul style="list-style-type: none"> <li>a) Daytime (0700-1800): 50dB LAeq (1hr)</li> <li>b) Night-time (1800-0700): 40 dB LAeq (1hr)</li> </ul>
<b>34.</b>	<p>The Consent Holder shall employ appropriate measures to ensure that any discharge of dust is not noxious, dangerous, offensive or objectionable beyond the site boundary. These measures shall include, but are not limited to:</p> <ul style="list-style-type: none"> <li>a) Minimising the areas of exposed ground to 9-hectares. The Consent Holder shall ensure that the overburden of the next stage is only removed once quarrying of the current stage is nearing completion.</li> <li>b) Re-grassing (with low seed producing grass) bare areas such as bunds and rehabilitated areas as soon as practicable and in accordance with the details within the QMP.</li> <li>c) Carrying out land stripping and land restoration during favourable weather conditions and at times of least vulnerability to neighbours.</li> <li>d) Taking wind conditions into account in planning and carrying out work to minimise dust dispersion.</li> <li>e) Applying a speed restriction on all internal roads including the heavy vehicle access road and not exceeding 15km/hr at all times and erecting a sign at the entrance to the site advising of this.</li> <li>f) The installation and operation of an automated sprinkler system for dust suppression.</li> </ul> <p>It is noted that favourable weather conditions are those conditions when wind speeds are</p>

	forecast to be less than 5m/s over the course of the proceeding 24-hour period.
35.	The best practicable options shall be observed to ensure that dust emissions associated with activity at the site do not give rise to an adverse effect.
36.	Water shall be applied for the suppression of dust when required on the working areas of the loader operations and vehicle routes.
	<b>EXCAVATION</b>
37.	<p><b>Excavation shall not occur below an elevation of 40.10-metres above sea level in Stage One; 39.10-metres above sea level in Stage Two; and 38.10-metres above sea level in Stage Three. The Stages are defined in Plan RMA/2019/373A.</b></p> <p><del>The maximum depth of excavation shall be no deeper than 10 metres below natural ground level and the Consent Holder shall maintain at least one metre separation between the floor of the quarry and the highest groundwater level recorded on interpolated groundwater level at the site.</del></p>
38.	Once the final Quarry Pit depth and suitable working area on the Quarry Pit floor has been established all excavation of aggregates shall occur from the Quarry floor.
39.	Excavation shall be set back at least 6 metres from the site boundaries.
	<b>TRAFFIC</b>
40.	The activity shall be limited to a maximum of 300 heavy vehicle movements per day and 30 light vehicle movements per day.
41.	<p>All heavy vehicles exiting the site between the hours of 7:00am until 9:00am and 4:00pm until 6:00pm <b>shall not turn right and shall turn left from the site onto Guys Road</b>. The vehicle access shall be designed with control gates that are operated between these periods to ensure that heavy vehicles turn left when exiting the site.</p> <p>Signage shall be erected at the weighbridge and at the Heavy Vehicle exit reinforcing the requirement to turn left on to Guys Road during these hours. This signage must either be in accordance with the City Plan rules for signage or a separate resource consent for the signage must be obtained.</p> <p>The Consent Holder shall maintain records including a logbook of all vehicles exiting the site and weighbridge records. This logbook and weighbridge records shall be provided to Council's Compliance and Investigations Team on request.</p>
42.	Heavy vehicular access to the site shall be via the existing access road from Guys Road as shown in Plan RMA/2019/373A within the approved consent documents.
43.	There shall be no sales access to the site from Conservators Road. The access via Conservators Road shall be for light vehicles associated with staff only.
44.	Traffic monitoring shall be required to be undertaken on an annual basis. Monitoring shall be undertaken using count locations in accordance with the existing Quarry specifications, using Austroads or NZTA vehicle class.
	<b>HAZARDOUS SUBSTANCES</b>
45.	<p>To minimize the risk posed from Hazard Substance Spills:</p> <p>a) The Consent Holder shall take all practicable measures to avoid spills of fuel or any</p>

	<p>other contaminant within the site.</p> <ul style="list-style-type: none"> <li>b) There shall be no permanent storage of fuel or lubricants within the excavated pit. Where fixed plant occurs onsite, all fuel shall be stored in double skinned and/or fully contained tanks;</li> <li>c) In the event that there is standing water within the put, there shall be no refuelling within 20 metres of standing water or excavated land.</li> <li>d) All refuelling shall take place in accordance with the refuelling procedure which shall be provided to the Council's Team Leader Environmental Compliance for certification prior to activities commencing on the site.</li> <li>e) Fuel shall be stored securely or removed from the site overnight.</li> <li>f) A spill kit of suitable capacity shall be kept on site at all times.</li> <li>g) All refuelling carried out away from the fixed refuelling pad shall be undertaken by an approved refuelling operator.</li> </ul>
46.	In the event of a spill of fuel or any other contaminants, the Consent Holder shall clean up the spill as soon as practicable and take measures to prevent a recurrence.
47.	<p>The Consent Holder shall inform the Christchurch City Council's Team Leader Environmental Compliance within 24 hours of any spill event greater than 4 litres and shall provide the following information:</p> <ul style="list-style-type: none"> <li>a) The date, time, location and estimated volume of the spill</li> <li>b) The cause of the spill</li> <li>c) The type of contaminant(s) spilled</li> <li>d) Clean up procedures undertaken</li> <li>e) Details of the steps taken to control and remediate the effects of the spill on the receiving environment.</li> <li>f) An assessment of any potential effects of the spill and measures to be undertaken to prevent a recurrence.</li> </ul>
48.	<p>Stormwater from areas where hazardous substances are used or stored shall be managed as follows:</p> <ul style="list-style-type: none"> <li>a) All roof stormwater shall be isolated from sources of contaminants and discharged to ground;</li> <li>b) Stormwater from the refuelling pad will be contained in a suitably sized sump and shall be disposed of by an approved licensed hazardous wastes contractor.</li> <li>c) All hazardous substances storage shall ensure that no stormwater infiltration occurs.</li> </ul>
49.	All diesel delivery tankers shall park in a designated "Diesel Storage & Refuelling Area" when refilling the above ground diesel container.
50.	All areas of the site where hazardous substances may be stored, shall be sealed with impervious material that is resistant to chemical attack from the substance used or stored there.
<b>AIRPORT OPERATIONS</b>	
51.	A monitoring programme shall be established which provides for the on-going inspection of the Quarry, with particular regard to compliance with the Conditions of Consent pertaining to the avoidance of adverse effects relating to CIAL's assets, infrastructure and operations.
52.	The final landform shall be sown with low-seed generating grass species which do not attract birds or insect species that in turn attract birds, and managed in a way to minimize seed production and long-term dust issues associated with the Quarry operations.



<b>53.</b>	No activities shall take place in the base of the Quarry Pit floor which involve feeding or encouragement of birds. The quarry pit floor shall be managed to ensure that any surface ponding drains freely while rehabilitated areas shall be designed and finished to be free draining surfaces.
<b>54.</b>	All bins onsite must be closed and sealed with a flush fitting lid that cannot be propped open to avoid attracting birds or rodents, to shelter the contents from rainfall, and to secure the waste in the event of windy conditions. These bins must be used to store refuse and solid waste and shall be disposed of to an approved solid waste facility by an appropriately licenced operator.
<b>55.</b>	An emergency contact person responsible for on-site operations, and their contact details, shall be provided to Christchurch International Airport Limited (CIAL) prior to this consent being exercised. This will enable prompt contact to be made by CIAL with the Consent Holder for any issues that may arise on site which need urgent action to prevent conflict with airport operations including, but not limited to, dust generation, flare from any operations and bird management. If the emergency contact person should change during the exercise of this consent, the Consent Holder shall advise CIAL of the new contact details for the new emergency contact person.
<b>56.</b>	Any fixed lighting installed associated with quarrying operations shall be designed, installed and operated in such a way as to not distract aircraft pilots. The proposed lighting plan shall be submitted to CIAL for approval prior to any fixed lighting being installed. The plan must demonstrate compliance with the Civil Aviation Act 1990.
<b>57.</b>	Subject to arrangement with the Quarry Manager and compliance with SOL Quarry's Health, Safety and Environmental policies and procedures, CIAL's Planning Staff and/or Wildlife Management Officer, with or without CIAL Ornithological or Pest Management Consultants and their staff, may undertake Site Visit(s) for the purposes of pest bird monitoring or management and to check compliance with Conditions that relate to bird strike risk.
<b>TRANSPOWER OPERATIONS</b>	
<b>58.</b>	Without limiting the generality of Conditions 333-34, the Consent Holder shall: <ul style="list-style-type: none"> <li>a) Manage the consented activities so the discharge of dust and/or particulate matter does not create any dust hazard or nuisance to the Transpower transmission lines and towers which are within or close to the application site;</li> <li>b) Not deposit any excavated or other material under any or near any Transpower transmission line (including during the construction of the proposed bunds) where the distance from the ground to the conductors would be reduced to less than the minimum required by NZECP34 subsection 4.3.</li> <li>c) Not undertake any excavation within a horizontal distance of 20 metres of the outside edge of the foundations of any transmissions line tower (Note: the 20-metre restricted area is to be measured at existing ground level);</li> <li>d) Undertake excavations so there is a batter slope no steeper than 1(v):3(h) between the setback described above and the nearest excavation pit.</li> </ul>
<b>59.</b>	Before the bunds located on the boundary of the site closet to the Transpower transmission lines or constructed, the Consent Holder shall confirm that the proposed bunds will maintain minimum safe ground to conductor clearance distances. If necessary, the Consent Holder shall commission an electrical engineer, who is experienced with high voltage transmission lines, to undertake an assessment of the expected clearance between the ground and the conductors upon completion of the proposed bunds.

60.	Where landscaping is to be undertaken, all newly planted vegetation shall be only in low-seed generating grass species which do not attract birds or insect species that in turn attract birds.
61.	<p>Prior to the commencement of any activity authorised by the consent, the Consent Holder shall prepare and submit to the Council for certification, a Quarry Management Plan (QMP). The QMP shall include a section to ensure the protection of the Islington-Kiliwa B National Grid transmission lines. The QMP must be provided to Transpower NZ Ltd for its certification at least 20 working days prior to being submitted to the Council.</p> <p><b>Note:</b> The QMP should be sent to Transpower at: <a href="mailto:transmission.corridor@transpower.co.nz">transmission.corridor@transpower.co.nz</a></p>
62.	<p>The QMP must include the following (but is not limited to):</p> <ul style="list-style-type: none"> <li>a) The name, experience and qualifications of the person/s nominated by the Consent Holder to supervise the implementation of, and adherence to, the QMP.</li> <li>b) Details of the contractor's liability insurance held to cover any costs, direct or indirect, associated with any damage to the transmission lines, directly or indirectly caused by works undertaken to give effect to this consent.</li> <li>c) Procedures, methods and measures to demonstrate that all quarrying, infilling and site rehabilitation activities undertaken on the site will meet the safe distances within the New Zealand Electrical Code of Practice for Electrical Safe Distances 2001 (NZECP 34: 2001) or any subsequent revision of the code, including (but not limited to) those relating to: <ul style="list-style-type: none"> <li>i. Excavation and Construction near Towers (Section 2);</li> <li>ii. Ground to conductor clearances (Section 4);</li> <li>iii. Mobile Plant to conductor clearances (Section 5); and</li> <li>iv. People to conductor clearances (Section 9).</li> </ul> </li> <li>d) Details of any areas that are “out of bounds” within which additional management measures are required, such as fencing off, entry and exit hurdles, maximum height limits, or where a safety observer may be required (a safety observer will be at the Consent Holder’s cost.</li> <li>e) Demonstrate how the effects of dust (including any other material potentially resulting from construction activities able to cause material damage beyond normal wear and tear) on the transmission lines will be managed;</li> <li>f) Demonstrate how the existing transmission lines and support structures will remain accessible during and after quarrying activities; and</li> <li>g) Details of proposed contractor training for those working near the transmission lines.</li> </ul>
63.	<p>Any batter slope between the 20-metre setback (Condition 50) and the nearest excavation pit shall be designed by a qualified geotechnical professional, and erosion control measures employed and maintained as necessary, to ensure the long-term integrity of the slope. This is to ensure it does not compromise the stability / structural integrity of any transmission line support structure.</p> <p>This shall be confirmed in writing by the geotechnical professional and submitted to Transpower along with the proposed quarry designs for review at least 20 working days prior to Quarry activities occurring within 100-metres of the foundation of any transmission line tower, and at least 20 working days prior to being submitted to the Council for certification. Any comments provided by Transpower must be submitted to the Council.</p>

64.	No filling shall be undertaken within 20 metres of the centre line of the Islington-Kiliwa B National Grid transmission lines between the Tower Pylons.
65.	No mobile processing plant for aggregate crushing and screening shall be located closer than 100m from the centre line of the Islington-Kiliwa B National Grid transmission lines.
<b>REHABILITATION</b>	
66.	<p>The rehabilitation of the site shall be undertaken in stages, in accordance with a Quarry Rehabilitation Plan, submitted to Council for certification prior to any works associated with this Consent. The Quarry Rehabilitation Plan shall be prepared in accordance with the Christchurch City Council Guideline for Quarry Rehabilitation (August 2018).</p> <p>All areas where excavation works have been finalized are to be rehabilitated within 6 months of completing or ceasing aggregate extraction and cleanfilling within the area.</p> <p>Rehabilitation of the entire site shall be completed within 1-year of completion of excavation of the overall site; subject to ALL rehabilitation being completed no later than the expiry date of the consent. Rehabilitation includes the following:</p> <ul style="list-style-type: none"> <li>a) <b>Deconstruction of the bunds, using the topsoil as cover on the rehabilitated areas.</b></li> <li>b) The ground surface shall be restored by shaping the pit face and base to a stable slope being no steeper than one vertical to three horizontal.</li> <li>c) Topsoil shall be placed on the rehabilitated areas, with a minimum compacted depth of topsoil of 0.3 metres over the cleanfill base materials.</li> <li>d) The areas covered with topsoil shall be grassed using low-seed generating grass species which do not attract birds or insect species that in turn attract birds.</li> <li>e) All finished surfaces shall be designed and constructed to be free draining.</li> <li>f) <b>The finalised rehabilitated Quarry surface will be formed with a rolling contour and to a state which enables the property to be used for rural activities, including the grazing of stock.</b></li> <li>g) The rehabilitation of the site shall be undertaken so that a completed grass cover is achieved no later than 5 months from completion of all excavation and cleanfilling activities. Dust mitigation measures in accordance with this consent shall continue to be employed on site until this grass cover is achieved.</li> </ul>
67.	The finished depth of the rehabilitated quarry is to be maintained at least 1-metre above the highest recorded groundwater level.
68.	<b>The boundary shelter-belt plantings are NOT to be removed during the Quarry rehabilitation works or at the end of the Consent duration; rather the boundary shelter-belt plantings are to remain in-situ.</b>
69.	<p>The Consent Holder shall ensure that all material deposited in the excavated area is:</p> <ul style="list-style-type: none"> <li>a) Only material defined as 'cleanfill' in the Ministry for the Environment Publication "a guide to the Management of Cleanfill" (2002) and any subsequent variations of this publication'</li> <li>b) Checked by the Quarry Manager, or delegated staff member, prior to deposition in the pit. If the material is not classified as cleanfill, the Consent Holder shall remove the material from the excavated area immediately and arrange for the disposal of the material at any appropriate disposal facility.</li> <li>c) Deposited at natural ground level if the site is unmanned at the time of deposition. The material shall then be inspected before being placed into the pit; and</li> <li>d) Recorded in a logbook by the site manager. The logbook shall include a detailed record of all materials deposited into the cleanfill site and shall be provided to</li> </ul>

	Council on request.
<b>70.</b>	A Cleanfill Management Plan shall be prepared for the site in accordance with the Ministry for the Environment's "A Guide to the Management of Cleanfills" (2002). This plan shall be prepared in consultation with CIAL and submitted to Council prior to any backfilling occurring on the site.
	<b>REVIEW</b>
<b>71.</b>	Pursuant to Section 128 of the Resource Management Act 1991, the Christchurch City Council may, once per year, on any of the last five working days of October, serve notice of its intention to review the conditions of this consent for the purpose of dealing with any adverse effect on the environment and more particularly any effect associated with rehabilitation which may arise from the exercise of the consent and which is appropriate to deal with at a later stage.

**Advice notes:**

1. Prior to undertaking any cleanfilling on the site and in addition to resource consent, the applicant is also required to apply for a licence to use the site for the disposal of Cleanfill, under the Cleanfill Licensing Bylaw 2003.
2. The Council will require payment of its administrative charges in relation to monitoring, as authorised by the provisions of section 36 of the Resource Management Act 1991. At present the monitoring charges include:
  - a. a monitoring fee of \$434 to cover the cost of setting up a monitoring programme and carrying out site inspection to ensure compliance with the conditions of this consent and;
  - b. Time charged at an hourly rate of \$116 incl. GST if additional monitoring is required, including non-compliance with conditions.
3. All dust mitigation should be undertaken in accordance with RMA/2919/373, CRC193563 and the Dust Management Plan to be prepared as part of that consent.
4. The Team Leader of Christchurch City Council's Enforcement Inspections and Enforcement Unit is currently Craig Jorgensen, who can be contacted on (03) 941 6792 or [craig.jorgensen@ccc.govt.nz](mailto:craig.jorgensen@ccc.govt.nz)

# ENVIRONMENT CANTERBURY REGIONAL COUNCIL

## DRAFT RESOURCE CONSENT CONDITIONS CRC193563 – TO USE LAND FOR QUARRY ACTIVITIES

	LIMITS
1.	<p>The use of land shall be limited to:</p> <ul style="list-style-type: none"> <li>a) The extraction of aggregate and deposition of material within the property located at 93 - 133 Conservators Road, Yaldhurst, Christchurch, as labelled on Plan CRC193563A, attached to this consent; and</li> <li>b) The transition from the existing Quarry operations, consented in accordance with CRC155102; CRC162397; CRC162398; CRC184072; and CRC184073; and</li> <li>c) The excavation of land to facilitate the relocation of a water race as shown on Plan CRC193563A; and</li> <li>d) The construction of a three (3) metre high bund <b>and a one (1) metre high bund</b> within the site boundary <b>as detailed in Plan CRC193565A, attached to this consent;</b> and</li> <li>e) Maintenance of the bunds; <b>and</b></li> <li>f) <b>Shelter-belt planting in accordance with Plan CRC193565A, attached to this consent.</b></li> </ul> <p>Except as required by subsequent conditions, the quarrying activity shall progress in accordance with the plans submitted with the application lodged on 12<sup>th</sup> February 2019, any further information received on 12<sup>th</sup> June 2019, <b>and the Quarry Setback Plan, dated 4<sup>th</sup> June 2020.</b></p> <p><b>For clarity, there shall be NO quarry activities or operations within the area hatched red on the Quarry Setback plan, dated 4<sup>th</sup> June 2020.</b></p> <p>Note: For the purposes of this consent “maintenance” as described in condition (1)(d) of this consent includes, but is not limited to, repairs to the bunds</p> <p>Note: For the avoidance of doubt, no blasting is authorised by this consent.</p>
2.	<p>Excavation of material shall be undertaken in <b>four</b> <del>three</del> stages as follows:</p> <ul style="list-style-type: none"> <li>a) <b>A transition from the existing Quarry, whereby excavation occurs in Stage 1 of the Quarry extension simultaneously with processing and stockpiling within the boundary of the existing Quarry.</b></li> </ul> <p><b>NB: This condition does NOT extend the consent duration of the existing Quarry.</b></p> <ul style="list-style-type: none"> <li>b) Aggregate extraction shall commence in Stage 1, then Stage 2 and finally Stage 3 as shown on Plan CRC193563B, which forms part of this Consent. Extraction on future Stages shall not commence until the majority of the aggregate authorised to be removed from the active Stage has been extracted.</li> <li>c) The preparation of the following Stage shall only commence once quarrying on the active Stage is nearing completion.</li> <li>d) The quarry operation areas consisting of any areas under quarry operations, stockpile areas, areas stripped in preparation for excavation and areas under rehabilitation until they are returned to pasture, but excluding the Heavy and Light Vehicle Access Roads, shall not exceed nine hectares in total.</li> </ul>

3.	<p>Operation and location of crushing plant.</p> <p>a) No more than two (2) crushing plants shall be operating on the Quarry at any one time. A crushing plant includes, but is not limited to:</p> <ul style="list-style-type: none"> <li>i. Jaw crusher</li> <li>ii. Cone crusher</li> <li>iii. Powerscreen</li> </ul> <p>b) The crushing plants shall be located no closer than 350-metres from the boundary of the properties to the immediate north-east and east.</p>
4.	A maximum area of nine (9) hectares will be exposed for excavation at any one time.
5.	<p><b>Excavation shall not occur below an elevation of 40.10-metres above sea level in Stage One; 39.10-metres above sea level in Stage Two; and 38.10-metres above sea level in Stage Three. The Stages are defined in Plan CRC193565A.</b></p> <p><del>Excavation shall not occur below an elevation of ten (10) metres below natural ground level, or one (1) metre above seasonal high groundwater level (whichever is higher).</del></p>
6.	Excavation shall not occur within standing water.
7.	The Consent Holder shall survey the Site annually to determine the elevations of the Site relative to natural ground level, including the depth of excavation. The survey shall be undertaken by a registered surveyor. The survey results shall be to an accuracy of +/- 50 millimetres vertically. The results of such survey shall be provided to the Canterbury Regional Council, Attention: RMA Monitoring and Compliance Manager, in February of each year or otherwise on request.
8.	Setback distances of the quarry area shall be a minimum of 6 metres along all boundaries of the site.
9.	Access to the quarry excavation areas shall be secured by fencing and lockable gates.
10.	No activities shall take place in the base of the Quarry Pit floor which involve the feeding or encouragement of birds. The Quarry Pit floor shall be managed to ensure that any surface ponding drains freely, while rehabilitated areas shall be designed and finished to be free draining surfaces.
11.	<p>The operating hours of the site shall be:</p> <ul style="list-style-type: none"> <li>a) 06:30 to 1800 hours weekdays</li> <li>b) 06:30 to 1200 hours on Saturdays</li> </ul> <p>Provided that:</p> <ul style="list-style-type: none"> <li>c) No aggregate processing, including loading, crushing and screening, shall occur on - site prior to 0700 hours; and</li> <li>d) No heavy vehicles shall access the site prior to 0700 hours. The access gate on Guys Road is to be locked prior to this time.</li> </ul>
12.	No activities, other than dust mitigation measures shall take place on Sundays or public holidays.
	<b>PRIOR TO WORKS</b>
13.	Prior to commencing works, the Consent Holder shall provide a copy of this resource consent to all persons undertaking activities authorised by this consent and explain to those persons how to comply with the consent conditions.

<p>14.</p>	<p><b>At least 20 working days</b> prior to the commencement of any activity authorised by the consent, the Consent Holder shall prepare and submit to Environment Canterbury Regional Council, Attention: Manager, Compliance, a Quarry Management Plan (QMP) for certification. The QMP shall incorporate a Operational Management Plan, a Quarry Dust Management Plan, <b>a Quarry Rehabilitation Plan</b>, and a Quarry Site Environmental Management Plan. The QMP shall include sections that ensure the protection of the Islington-Kiliwa B National Grid transmission lines.</p> <p>The QMP shall include procedures, practices and measures specifically designed to ensure that all quarrying, infilling and site rehabilitation works avoid any increased potential for the risk associated with bird strike, the potential distraction of aircraft and pilots from fixed lighting, and the potential for quarry related dust to affect CIAL infrastructure or operations.</p> <p>The QMP must be provided to Transpower NZ Ltd for certification at least 20 working days prior to being submitted to the Council.</p> <p>The QMP must be provided to Christchurch International Airport Ltd (CIAL) for certification at least 20 working days prior to being submitted to the Council.</p> <p>Note: The QOP should be sent to:</p> <p>Transpower at: <a href="mailto:transmission.corridor@transpower.co.nz">transmission.corridor@transpower.co.nz</a>  CIAL at: <a href="mailto:XXXX@cial.co.nz">XXXX@cial.co.nz</a></p> <p><b>Advise Note:</b> The Quarry Management Plan (QMP) incorporates a number of Plans specifically addressing and codifying the range of policies, procedures, practices and measures associated with the Quarry Operation. The Plans are not discrete. Accordingly, the Plans are detailed in the overarching QMP.</p> <ul style="list-style-type: none"> <li>e. Operational Management Plan – operational management specifying day-to-day practices in accordance with the Health and Safety at Work (Mining Operations and Quarrying Operations) Regulations 2016.</li> <li>f. Quarry Dust Management Plan – specifying the monitoring and dust management practices and measures.</li> <li>g. Quarry Site Environmental Management Plan – specifying the environmental controls and practices, including cleanfill management, refuelling plant and equipment, and spill prevention and management.</li> <li>h. <b>Quarry Rehabilitation Plan – the Quarry Rehabilitation Plan will be developed in accordance with Activity Specific Standard 17.8.3.14 “Quarry Site Rehabilitation” of the Christchurch District Plan (CDP), having regard to Policy 17.2.2.13 Policy - Quarry Site Rehabilitation, and in accordance with the “Draft Quarry Rehabilitation Plan Guidance” document prepared by Christchurch City Council and dated August 2018.</b></li> </ul>
<p>15.</p>	<p>The QMP must include the following (but is not limited to):</p> <ul style="list-style-type: none"> <li>a) The name, experience and qualifications of the person/s nominated by the Consent Holder to supervise the implementation of, and adherence to, the QMP.</li> <li>b) Details of the contractor's liability insurance held to cover any costs, direct or indirect, associated with any damage to the transmission lines, directly or indirectly caused by works undertaken to give effect to this consent.</li> <li>c) Procedures, methods and measures to demonstrate that all quarrying, infilling and site rehabilitation activities undertaken on the site will meet the safe distances within the New Zealand Electrical Code of Practice for Electrical Safe Distances 2001 (NZECP 34: 2001) or any subsequent revision of the code, including (but not limited to) those</li> </ul>

	<p>relating to:</p> <ul style="list-style-type: none"> <li>i. Excavation and Construction near Towers (Section 2);</li> <li>ii. Ground to conductor clearances (Section 4);</li> <li>iii. Mobile Plant to conductor clearances (Section 5); and</li> <li>iv. People to conductor clearances (Section 9).</li> </ul> <p>d) Details of any areas that are “out of bounds” within which additional management measures are required, such as fencing off, entry and exit hurdles, maximum height limits, or where a safety observer may be required (a safety observer will be at the Consent Holder’s cost.</p> <p>e) Demonstrate how the effects of dust (including any other material potentially resulting from construction activities able to cause material damage beyond normal wear and tear) on the transmission lines will be managed;</p> <p>f) Demonstrate how the existing transmission lines and support structures will remain accessible during and after quarrying activities; and</p> <p>g) Details of proposed contractor training for those working near the transmission lines.</p> <p>h) Demonstrate how bird strike management will be implemented to protect Christchurch International Airport Ltd (CIAL) operations.</p> <p>i) Details of the design and operation of any fixed lighting that may be installed at the Quarry, and the implementation of a lighting plan for submission to CIAL.</p> <p>j) Identify any other potential effects on CIAL and the management practices in place to minimise these effects.</p>
16.	All activities are to be undertaken in accordance with the details of the Operational Management Plan, incorporated in the Quarry Management Plan (QMP).
	<b>AUTOMATED DUST SUPPRESSION SYSTEM</b>
17.	<p><b>During the “Enabling Works”, the Consent Holder shall design, install and commission an automated dust suppression sprinkler system. The automated system design and operating logic shall provide dust suppression in conditions which would otherwise result in “fugitive dust”.</b></p> <p><b>The automated dust suppression system shall be triggered by the PM<sub>10</sub> dust monitor, which shall be located in accordance with Condition CRC193564 (14).</b></p> <p><b>The automated dust suppression system design concept and the definition of the parameters of use shall be designed in consultation with Canterbury Regional Council Officers.</b></p> <p><b>A description of the methods proposed to amend or fine-tune the operation of the automated dust suppression system shall be included in the system design concept.</b></p> <p><b>The automated dust suppression system shall be operated and maintained for the duration of the Consent.</b></p>
18.	<p><b>The Consent Holder <u>has</u> sealed the Heavy Vehicle Road, from the Guys Road entrance. Accordingly, the Consent Holder shall maintain the sealed Heavy Vehicle Road in good condition, including the infilling of potholes as required.</b></p> <p><b><i>Advise Note: As the Heavy Vehicle Road has been sealed, there is no potential for “fugitive dust” emanating from the Heavy Vehicle Road and the automated dust suppression system required by Condition 17, above, shall NOT be required to be installed along the length of the Heavy Vehicle Road.</i></b></p>



<b>19.</b>	<b>The Consent Holder has approval for the extraction of a maximum of 104 cubic metres of water per day from the Stockwater Race, which is to be re-aligned immediately adjacent to the northern and north-eastern boundaries of the Site, in accordance with Council Engineering Standards. The Consent Holder shall install an additional water storage tank sized to provide for the water extraction.</b>
<b>20.</b>	Blasting does not occur in the Quarry, at any time.
<b>21.</b>	<p>The Consent Holder shall not undertake any excavation within a horizontal distance of 20-metres of the outside edge of the foundations of any transmission line tower.</p> <p>Note: The restricted area is to be measured at existing ground level. A robust physical barrier is to be installed to ensure this 20-metre setback is complied with.</p>
<b>22.</b>	<p>The Consent Holder shall:</p> <ul style="list-style-type: none"> <li>a) Manage the consented activities so the discharge of dust and/or particulate matter does not create any dust hazard or nuisance to Islington-Kikiwa B and associated National Grid structures located within or adjacent to the site.</li> <li>b) Ensure that the vertical distance from the ground to the conductors will not be reduced to less than the minimum required by NZECP34 subsection 4.3.1 outlined in Table 4.</li> </ul> <p>Note: this applies to all activities including the temporary stockpiles and bunds. Where such activities are otherwise proposed as part of this resource consent and the required clearance distances cannot be achieved then exclusion distances from the centreline of the transmission line will be applied to ensure that the requirements of NZECP34 are met.</p> <ul style="list-style-type: none"> <li>c) Undertake excavations so there is a batter slope no steeper than 1(v):3(h) between the setback described in Condition 18 and the nearest excavation pit.</li> </ul>
<b>23.</b>	Any batter slope between the 20-metre setback (Condition 18) and the nearest excavation pit shall be designed by a qualified geotechnical professional, and erosion control measures employed and maintained as necessary, to ensure the long-term integrity of the slope. This is to ensure it does not compromise the stability / structural integrity of any transmission line support structure. This shall be confirmed in writing by the geotechnical professional and submitted to Transpower along with the proposed quarry designs for review at least 20 working days prior to Quarry activities occurring within 100-metres of the foundation of any transmission line tower, and at least 20 working days being submitted to the Council for approval. Any comments provided by Transpower must be submitted to the Council.
<b>24.</b>	No filling shall be undertaken within 20 metres of the centre line of the Islington-Kiliwa B National Grid transmission lines between Towers ISL-KIK-A0018 and ISL-KIK-B0017.
<b>25.</b>	<p>Before any quarry activities commence on site, the Consent Holder shall commission an electrical engineer, who is experienced with high voltage transmission lines, to undertake an assessment of:</p> <ul style="list-style-type: none"> <li>a) The existing clearances between the ground and the conductors; and</li> <li>b) The expected clearances between the ground and the conductors upon completion of the earthworks.</li> </ul>
<b>26.</b>	No mobile processing plant for aggregate crushing and screening shall be located closer than 100m from the centre line of the Islington-Kiliwa B National Grid transmission lines.
<b>27.</b>	The Consent Holder shall adopt the following procedures and practices specifically designed

	<p>to avoid any adverse effects associated with the Quarry operations on CIAL assets, infrastructure and/or operations:</p> <ol style="list-style-type: none"> <li>1. Ensure there are NO permanent waterbodies created as a result of quarrying operations or site rehabilitation practices.</li> <li>2. All quarrying and site rehabilitation works will provide for appropriate drainage, ensuring the potential for temporary standing water is minimised, particularly after rainfall events.</li> <li>3. All quarry operations that require revegetation shall utilise low-seed generating grass species which do not attract birds or insect species that in turn attract birds.</li> <li>4. All waste and rubbish on-site shall be managed through the use of a covered skip. The waste skip shall be emptied monthly by an approved contractor and the waste disposed of to an approved waste-transfer station.</li> <li>5. Fixed lighting shall not be installed on the Quarry. However, in the unlikely event that fixed lighting is required as a result of Health &amp; Safety legislative requirements for quarrying operations, the fixed lighting shall be installed and operated in such a way as to not distract aircraft pilots. The Consent Holder shall submit a Lighting Plan to CIAL for approval prior to the install of any fixed lighting.</li> <li>6. The Consent Holder shall install and operation real-time dust monitors on the boundary of the Quarry. The dust monitors shall provide a real-time alert to Quarry management relating to any fugitive dust events. These measures and the requirements for real-time dust monitoring shall be codified in the Quarry Management Plan (QMP).</li> </ol>
28.	<p>An emergency contact person responsible for on-site operations, and their contact details shall be provided to CIAL prior to this consent being exercised.</p> <p>If the emergency contact person should change during the exercise of this consent, the Consent Holder shall advise CIAL of the new contact details of the emergency person.</p>
29.	<p>Prior to the commencement of quarrying, a Quarry Rehabilitation Plan shall be submitted to the Canterbury Regional Council, Attention: RMA Monitoring and Compliance Manager. The rehabilitation requirements listed in the Plan shall include but not be limited to:</p> <ol style="list-style-type: none"> <li>a) Backfilling of the area with cleanfill to a minimum of two metres above the deepest excavation level undertaken in compliance with 'A Guide to the Management of Cleanfills' published by the Ministry for the Environment 2002;</li> <li>b) Where possible exposed surfaces will be top-soiled and planted with low-seed producing grass which do not attract birds in order to avoid the potential for bird strike at CIAL, once the area has been rehabilitated;</li> <li>c) Stabilisation of quarry faces to a slope of no more than 1:3 (vertical: horizontal);</li> <li>d) <b>The finalised rehabilitated Quarry surface will be formed with a rolling contour and to a state which enables the property to be used for rural activities, including the grazing of stock;</b> and</li> <li>e) All mobile and fixed machinery will be removed.</li> </ol>
30.	<p>All refuse bins onsite must be closed and sealed with a flush fitting lid that cannot be propped open to avoid attracting birds or rodents, to shelter the contents from rainfall, and to secure the waste in the event of windy conditions. These bins shall be used to store all refuse and all solid waste. The waste skip shall be required to be emptied monthly by an approved</p>

	contracted and the waste disposed of to an approved waste-transfer station by an appropriately licenced operator.
<b>STOCKWATER RACE REALIGNMENT</b>	
<b>31.</b>	The stock water race will be realigned in accordance with Selwyn District Council guidelines (Standards W106 and W108). Selwyn District Council will be notified of the completion of the realignment and provided with the opportunity to carry out an inspection to confirm compliance.
<b>BUNDS</b>	
<b>32.</b>	<p>Prior to extracting aggregate, topsoil which has not been removed from the site for remediation, shall be removed from the site and stored in a bund at least 3-metres in height along the north-eastern boundary as shown on Plan CRC193563A.</p> <p><b>Prior to extracting aggregate, a bund shall be formed, to a height of 1-metre, along the boundary of the light vehicle accessway and the Quarry Pit, for health and safety reasons, as shown on Plan CRC193563A.</b></p> <p>The bunding shall be planted with low-seed generating grass species which do not attract birds or insect species that in turn attract birds. The bund will be constructed and planted at least two weeks before the water race is diverted.</p>
<b>33.</b>	<p><b>Prior to excavating aggregate, the Consent Holder shall prepare and implement a Planting Plan, in the form of shelter-belt planting, in accordance with Selwyn District Council Approved Planting Plan (December 2015), in consultation with CCC Senior Ecologist, and in accordance with Plan CRC193563A and the Rough &amp; Milne Landscape &amp; Cross-section Plan (February 2020) appended to this Consent.</b></p> <p><b>The shelter-belt planting shall be undertaken along the following boundaries:</b></p> <ul style="list-style-type: none"> <li><b>i) the Quarry and the MacLeans Island Grassland Reserve;</b></li> <li><b>ii) the Quarry and the property at 133 Conservators Road (Stocks' property);</b></li> <li><b>iii) the Quarry and the property at 93 Conservators Road (Higgs' property); and</b></li> <li><b>iv) the Quarry light vehicle accessway and 21 Conservators Road (the Harewood Gravels Ltd property).</b></li> </ul> <p><b>The planting shall be initiated within 6-months of the grant of consent and will be maintained for the duration of the consent term.</b></p>
<b>GROUNDWATER MONITORING</b>	
<b>34.</b>	The Consent Holder shall measure and record groundwater levels at least once every 14 days over winter months (June to September) and monthly for the remainder of the year by measuring water levels within bores M35/0958 and/or M35/0947 which are located within Lot 1 DP 82891. The Consent Holder shall provide the groundwater level information to the Canterbury Regional Council within 7 days of the measurement being taken if the groundwater levels are measured above the historical high. If the groundwater levels are not measured as being above a historical high, records may be provided to the Canterbury Regional Council annually or on request. Where the water table has been measured within 1 metre of the base of the excavation, excavation will cease until further monitoring shows the separation from the base of the excavation and groundwater levels is more than 1 metre.

<b>35.</b>	Groundwater samples shall be collected from a minimum of one upgradient and two downgradient wells screened near the water table once per month and submitted to the Canterbury Regional Council, Attention: RMA Monitoring and Compliance Manager. It is acceptable to use the same wells for water level and quality monitoring. Groundwater samples shall be collected by a suitably qualified practitioner and analysed by an accredited laboratory.
<b>36.</b>	Groundwater shall be analysed for the contaminants as shown in Table 1.
<b>37.</b>	<p>If the results of analysis of samples taken in accordance with condition (30) show that any of the concentrations of contaminants or values or parameters exceed those given in Table 1, the Consent Holder shall:</p> <ul style="list-style-type: none"> <li>a) Obtain a second sample of groundwater from the bore's samples in accordance with condition (31), and obtain a sample of groundwater from the up-gradient bore specified in condition (30); and</li> <li>b) Have these samples analysed within a period of not more than one month from the previous analysis in accordance with condition (32).</li> </ul>
<b>38.</b>	The Consent Holder shall provide a copy of the groundwater monitoring report to CIAL.
<b>MITIGATION</b>	
<b>39.</b>	<p>If the results of analysis of groundwater in down-gradient bores sampled in accordance with condition (31) show that the concentration of any contaminant analysed or the value of any parameter exceeds the value specified in Table 2, the Consent Holder shall:</p> <ul style="list-style-type: none"> <li>a) Notify the Canterbury Regional Council within 48 hours of receipt of the laboratory results of the exceedance;</li> <li>b) As soon as practicable (but no later than 48 hours from receipt of the laboratory results confirming the exceedance), inform down hydraulic-gradient well owners within 1 kilometre of the site boundary of the results; and</li> <li>c) Undertake an investigation to determine the potential cause of the breach, including reviewing the site conditions and material to determine potential sources of contaminants, undertake follow up sampling within 14 days of the initial laboratory results and include neighbouring wells (if access is granted), and provide a quantitative risk assessment to the Canterbury Regional Council within 14 days of receipt of additional sampling.</li> <li>d) If, following the additional sampling and risk assessment, the concentrations of contaminants within the down gradient monitoring wells exceed the values specified in Tables 1 and 2, then the Consent Holder shall undertake measures to reduce the concentration of the contaminant(s) in groundwater to within normal accepted levels as soon as practicable. <ul style="list-style-type: none"> <li>i. Any material removed in accordance with the above shall be disposed of at an appropriate facility, and the Consent Holder shall provide the Canterbury Regional Council with written confirmation of such disposal within 10 working days.</li> <li>ii. Following the implementation of any measures taken in compliance with (d) above, a validation sample shall be taken from the same bore as the previous sample. The validation sample shall be analysed to determine the concentration of any contaminants for which the concentrations in Table 2 were exceeded in the previous sample. Results of this analysis shall be reported to the Canterbury Regional Council within two working days of receipt of the results by the Consent Holder.</li> <li>iii. If the results obtained in accordance with (ii) show that the concentrations of contaminants or parameters analysed do not exceed the maximum values specified in Table 2 then, notwithstanding condition (31), further samples</li> </ul> </li> </ul>

	<p>shall be taken thereafter from the same bore as described in condition (31).</p> <p>If the results obtained in accordance with (ii) show the concentrations of contaminants do exceed those specified in Table 2, then the Consent Holder shall undertake notifications and implement further measures as set out in (a), (b) and (c) and (d).</p>
	<b>CLEANFILL AND REHABILITATION</b>
40.	<p>Aggregate extraction shall be conducted in stages from west to east. Within six months of completing a stage or ceasing aggregate extraction of a stage, the ground surface shall be restored by shaping the pit face and base to a stable slope being no steeper than one vertical to three horizontal.</p> <p>Topsoil shall be placed on the shaped areas, with a minimum compacted depth of topsoil of 0.3 metres over the base. The areas covered with topsoil shall be planted with low-seed generating grass species which do not attract birds or insect species that in turn attract birds.</p> <p><b>The finalised rehabilitated Quarry surface will be formed with a rolling contour and to a state which enables the property to be used for rural activities, including the grazing of stock.</b></p>
41.	The final landform shall be sown with a suitable low-seed generating grass species which do not attract birds or insect species that in turn attract birds, so as to minimise any potential to attract birds and cause bird strike issues at Christchurch International Airport.
42.	<b>The boundary shelter-belt plantings are NOT to be removed during the Quarry rehabilitation works or at the end of the Consent duration; rather the boundary shelter-belt plantings are to remain in-situ.</b>
43.	Cleanfill material shall not be deposited in areas of exposed groundwater or standing water within the Quarry Pit.
44.	Cleanfill sourced from off-site shall consist only of material defined as being Acceptable Cleanfill Material as set out in Section 4.2 of the Ministry for the Environment's publication 'A Guide to the Management of Cleanfills' dated January 2002.
45.	Cleanfill material shall not include plaster board, hydro-excavated waste, treated timber, general construction and demolition waste, infectious, or any other leachable materials.
46.	The material deposited in the quarry excavation shall not contain more than 3 percent vegetative matter by volume.
47.	Any contractor responsible for excavation of the cleanfill at its source and for its transportation to the site shall not deposit cleanfill at this site without having signed a formal agreement with the Consent Holder that the deposited cleanfill will meet the acceptance criteria specified in conditions (43 – 45).
48.	A Cleanfill Management Plan shall be prepared for the site in accordance with the Ministry for the Environment's "A Guide to the Management of Cleanfills" (2002). The Consent Holder shall submit this plan to The Manager prior to any backfilling occurring at the site.
	<b>OPERATION MANAGEMENT PLAN</b>

49.	<p>Prior to the commencement of any activity authorised by this consent, the Consent Holder shall submit an Operations Management Plan to the Canterbury Regional Council, Attention: RMA Monitoring and Compliance Manager. In particular, the Operations Management Plan shall include the construction drawings and procedures, methods and measures to address the following:</p> <ul style="list-style-type: none"> <li>a. Dust control, including specific reference to the protection of overhead transmission lines and towers;</li> <li>b. Earthworks;</li> <li>c. Maintenance at all times of adequate electrical safety clearances as required by NZECP34 between buildings, structures, earthworks, mobile plant, personnel working near the transmission lines and the conductors of the overhead transmission lines. Maintenance of existing access arrangements to the transmission lines and towers; and</li> <li>d. Potential adverse effects on the structural integrity of the transmission line towers from changes to the drainage and runoff characteristics during the post site development.</li> </ul> <p><b>Advice Note:</b> The operation management plan is required because one of Transpower's transmission lines (Islington - Kikiwa B) traverses the site and associated support structures are located within the site. The Islington- Kikiwa B line also crosses the access road off Conservators Road.</p> <p>The OMP shall codify the following procedures and practices specifically designed to avoid any adverse effects associated with the Quarry operations on CIAL assets, infrastructure and/or operations:</p> <ul style="list-style-type: none"> <li>a. Ensure there are NO permanent waterbodies created as a result of quarrying operations or site rehabilitation practices.</li> <li>b. Provide appropriate drainage, ensuring the potential for temporary standing water is minimised, particularly after rainfall events, with respect to all quarrying and site rehabilitation works.</li> <li>c. Utilise low-seed generating grass species which do not attract birds or insect species that in turn attract birds for all quarry operations that require revegetation.</li> <li>d. Manage all waste and rubbish on-site through the use of a covered skip. Ensure the waste skip shall be emptied monthly by an approved contractor and the waste disposed of to an approved waste-transfer station.</li> <li>e. In the unlikely event that fixed lighting is required as a result of Health &amp; Safety legislative requirements for quarrying operations, the fixed lighting shall be installed and operated in such a way as to not distract aircraft pilots. The Consent Holder shall submit a Lighting Plan to CIAL for approval prior to the install of any fixed lighting.</li> <li>f. Install and operate real-time dust monitors on the boundary of the Quarry, providing a real-time alert to Quarry management relating to any fugitive dust events.</li> </ul>
50.	<p>The Operation Management Plan must specify the name, experience and qualifications of a person nominated by the owner to supervise the implementation of, and adherence to, the Operation Management Plan.</p>
51.	<p>The Operation Management Plan must include details of the contractor's liability insurance held to cover any costs, direct or indirect, associated with damage to the Islington - Kikiwa B transmission line and associated support structures located within the site.</p>
52.	<p>No activities authorised by the consents are to be undertaken without the Operation Management Plan first being submitted to the Canterbury Regional Council, Attention: RMA</p>

	Monitoring and Compliance Manager, and all activities are to be undertaken in accordance with the approved plan.
53.	No activity authorised by the consent shall be undertaken unless the Consent Holder has provided adequate evidence that the minimum safe distances required by NZECP 34:2001 will be met or that Transpower NZ Limited has provided written confirmation to The Manager of it consenting to those distances being reduced. A copy of the electrical engineer's report confirming that the distances have been met is to be submitted to Transpower NZ Limited.
54.	Where landscaping is to be undertaken, all newly planted low-seed generating grass species which do not attract birds or insect species that in turn attract birds, must: <ul style="list-style-type: none"> <li>a. Be setback by a horizontal distance of at least 12 metres either side (total of 24 metres) from the centre line of all Transpower transmission lines; and</li> <li>b. When fully-grown, not come within 5 metres of the said Transpower transmission lines and not be able to fall within 5 metres of the said transmission lines.</li> </ul>
<b>SPILLS AND REFUELLING</b>	
55.	The Consent Holder shall take all practicable measures to avoid spills of fuel or any other hazardous substance within the site. In the event of a spill of fuel or any other hazardous substance, the Consent Holder shall: <ul style="list-style-type: none"> <li>a. Clean up the spill as soon as practicable, inspect and clean the spill area, and take measures to prevent a recurrence;</li> <li>b. Inform Canterbury Regional Council, Attention: RMA Monitoring and Compliance Manager within 24 hours of a spill event and provide the following information: <ul style="list-style-type: none"> <li>i. The date, time, location and estimated volume of the spill;</li> <li>ii. The cause of the spill;</li> <li>iii. The type of hazardous substance(s) spilled;</li> <li>iv. Clean up procedures undertaken;</li> <li>v. Details of the steps taken to control and remediate the effects of the spill on the receiving environment;</li> <li>vi. An assessment of any potential effects of the spill; and</li> <li>vii. Measures to be undertaken to prevent a recurrence.</li> </ul> </li> </ul>
56.	When refuelling: <ul style="list-style-type: none"> <li>a. There shall be no refuelling within 20 metres of flowing water;</li> <li>b. The pump shall be attended at all times during refuelling;</li> <li>c. Refuelling shall only be undertaken using: <ul style="list-style-type: none"> <li>i. an up to 500 litre double skinned tank with an electric pump contained inside the tank's outer skin; and</li> <li>ii. a double skinned hose line with a transparent outer skin and an auto shut off nozzle;</li> <li>iii. A "spill mat" capable of absorbing oil and petroleum products, and of a minimum size of 1.5 metres by 1.5 metres, shall be positioned under the fill point in order to intercept any spill from the nozzle.</li> <li>iv. The "spill mat" detailed in clause iii shall be replaced following the absorbance of spills with a cumulative volume of 10 litres or more or if otherwise damaged to such a state that it can no longer adequately intercept and absorb any spills.</li> <li>v. A spill kit, that is capable of absorbing the quantity of oil and petroleum products that may be spilt on site at any one time, shall be kept on site at all times.</li> <li>vi. A written spill response plan ("the Plan") shall be developed and communicated to all persons undertaking activities authorised by this consent and a copy kept on site at all times. The plan shall detail the methods and processes to be used by the Consent Holder to clean up a spill and shall</li> </ul> </li> </ul>

	<p>include, but not be limited to:</p> <ul style="list-style-type: none"> <li>a. emergency contact information for the Canterbury Regional Council Pollution Hotline;</li> <li>b. emergency contact information for a waste management service provider with appropriate qualifications and equipment for cleaning up spills of oil and petroleum products;</li> <li>c. instructions for operating the spill kit kept on site in accordance with clause (v);</li> <li>d. instructions for removing and disposing of contaminated material in a manner suitable to ensure no contamination of ground water or surface water occurs.</li> </ul>
<b>57.</b>	<p>The Consent Holder shall comply with the “permitted activity” provisions of the Canterbury Land and Water Regional Plan - Rule 5.181, at all times, specifically:</p> <ul style="list-style-type: none"> <li>a. The substance is approved under the Hazardous Substances and New Organisms Act 1996 and the storage and use of the substance is in accordance with all conditions of the approval; and</li> <li>b. A current inventory of all hazardous substances on the site is maintained, and a copy of the inventory shall be made available to the CRC or emergency services on request; and</li> <li>c. For hazardous substances stored or held on or over land, all areas or installations used to store or hold hazardous substances are inspected at least once per month or annually if the site is outside of any area or zone identified in a proposed or operative district plan for residential, commercial or industrial purposes and is unstaffed, and repaired or maintained if any defects are found that may compromise the containment of the hazardous substance; and</li> <li>d. For hazardous substances stored or held in a container located in or under land: <ul style="list-style-type: none"> <li>i. if there has been any physical loss of product, then the Canterbury Regional Council shall be notified within 24 hours of confirmation of the loss; and</li> <li>ii. records of stock reconciliations over the past 12 months shall be made available to the CRC upon request. If requested, a copy of the stock reconciliation and the most recent certification of the container shall be provided to the CRC within five working days; and</li> </ul> </li> <li>e. For substances stored within a Group or Community Drinking-water Protection Zone as set out in Schedule 1: <ul style="list-style-type: none"> <li>i. all hazardous substances on a site are stored under cover in a facility which is designed, constructed and managed to contain a leak or spill and allow the leaked or spilled substance to either be collected or lawfully disposed of; and</li> <li>ii. spill kits to contain or absorb a spilled substance are located with the storage facility and use areas at all times and</li> </ul> </li> <li>f. Except where the storage was lawfully established before 4 July 2004 and the maximum quantity stored has not increased since that date, or the storage relates to transformers and other equipment associated with electricity infrastructure, the substances shall not be stored within: <ul style="list-style-type: none"> <li>i. 20 m of a surface waterbody or a bore used for water abstraction; or</li> <li>ii. 250 m of a known active fault that has a recurrence period of less than 10,000 years, and the land is: <ul style="list-style-type: none"> <li>a. over an unconfined or semi-confined aquifer; or</li> <li>b. within 50 m of a permanently or intermittently flowing river or a lake.</li> </ul> </li> </ul> </li> </ul>



58.	The Consent Holder shall prepare and submit a report to the Canterbury Regional Council, Attention: RMA Monitoring and Compliance Manager by September each year, providing information on the progression of site rehabilitation.
<b>TANGATA WHENUA</b>	
59.	<p>In the event of any discovery of archaeological material:</p> <ol style="list-style-type: none"> <li>The Consent Holder shall immediately: <ol style="list-style-type: none"> <li>Cease earthmoving operations in the affected area and mark off the affected area; and</li> <li>Advise the Canterbury Regional Council of the disturbance; and</li> <li>Advise Heritage New Zealand of the disturbance.</li> </ol> </li> <li>If the archaeological material is determined to be Koiwi Tangata (human bones) or taonga (treasured artefacts) by Heritage New Zealand, the Consent Holder shall immediately advise the office of the appropriate runanga (office contact information can be obtained from the Canterbury Regional Council) of the discovery.</li> <li>If the archaeological material is determined to be Koiwi Tangata (human bones) by Heritage New Zealand, the Consent Holder shall immediately advise the New Zealand Police of the disturbance.</li> <li>Work may recommence if Heritage New Zealand (following consultation with runanga if the site is of Maori origin) provides a statement in writing to the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager that appropriate action has been undertaken in relation to the archaeological material discovered. The Canterbury Regional Council shall advise the Consent Holder on written receipt from Heritage New Zealand that work can recommence.</li> </ol> <p><b>Advice Note:</b> This may be in addition to any agreements that are in place between the Consent Holder and the Papatipu Runanga. (Cultural Site Accidental Discovery Protocol).</p> <p><b>Advice Note:</b> Under the Historic Places Act 1993 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. 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. 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 Historic Places Act provides for substantial penalties for unauthorised damage or destruction.</p>
<b>ADMINISTRATION</b>	
60.	<p>The Canterbury Regional Council may, once per year, on the last five working days of May or October of each year, serve notice of its intention to review the conditions of this consent for the purposes of:</p> <ol style="list-style-type: none"> <li>Dealing with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage;</li> <li>Complying with the requirements of a relevant rule in an operative regional plan; or</li> <li>Requiring the Consent Holder to conduct monitoring instead of, or in addition to, that required by the consent.</li> </ol>
61.	The duration of this consent shall be limited to a period of 20 years from the date of grant of consent, <b>including the 8-year lapse period</b> . The site is to be fully rehabilitated within the 20-year period.

The lapsing date for the purpose of Section 125 of the Resource Management Act (1991) shall be 8-years from the date of the grant of Consent.

**Table 1. Contaminants and trigger concentrations for screening test**

Contaminant or property	Trigger value
Alkalinity	100 mg/L as CaCO <sub>3</sub>
Ammonia	1.5 mg/L
OR Ammoniacal Nitrogen	1.2 mg/L
Conductivity	50 uS/M
Faecal coliform bacteria	1 per 100 millilitres
Hardness (= Calcium + Magnesium)	100 mg/L
pH	<6.5 or >8.5
Total petroleum hydrocarbons	Above laboratory screen levels

**Table 2. Contaminants and trigger concentrations for full test**

Contaminant	Concentration 50% MAV/AGV
Dissolved Aluminium	0.05 mg/L or greater than measured upstream levels, whichever is the highest.
Dissolved Arsenic	0.005 mg/L
Dissolved Boron	0.7 mg/L
Dissolved Cadmium	0.002 mg/L
Chloride	125 mg/L or greater than measured upstream levels, whichever is the highest.
Dissolved Chromium	0.025 mg/L
Dissolved Copper	0.5 mg/L
Dissolved Iron	0.1 mg/L or greater than measured upstream levels, whichever is the highest.
Dissolved Lead	0.005 mg/L
Dissolved Manganese	0.02 mg/L or greater than measured upstream levels, whichever is the highest.
Dissolved Nickel	0.04 mg/L
Nitrate-Nitrogen	5.6 mg/L
Sodium	100 mg/L or greater than measured upstream levels, whichever is the highest.
Sulphate	125 mg/L or greater than measured upstream levels, whichever is the highest.

TABLE 4 MINIMUM SAFE DISTANCES OF CONDUCTORS FROM THE GROUND

Circuit voltage	Vertical distance to ground (m)			Radial distance (m)
	Across or along roads or driveways	Any other land traversable by vehicles (including mobile plant) but excluding across or along roads or driveways	Any land not traversable by vehicles (including mobile plant) due to its inaccessibility (e.g. steepness or swampiness)	
Not Exceeding 1 kV and insulated				
Not Exceeding 1 kV	5.5	4.0	2.7	2
Exceeding 1 kV but not exceeding 33 kV	5.5	5.0	4.5	2
Exceeding 33 kV but not exceeding 110 kV	6.5	5.5	4.5	2
Exceeding 110 kV but not exceeding 220 kV	6.5	6.5	5.5	3
Exceeding 220 kV a.c. or d.c.	7.5	7.5	6.0	4.5
	8.0	8.0	6.5	5

- NOTES:
- (a) Voltages are a.c. except where specified as d.c.
  - (b) The term ground includes any unroofed elevated area accessible to plant or vehicles.
  - (c) Distances specified in Table 4 are for conductors that have fully undergone mechanical creep (permanent elongation). This is deemed to have occurred after 10 years in service.

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## PROPOSED RESOURCE CONSENT CONDITIONS CRC193772 – TO DIVERT WATER

	LIMITS
1.	<p>The works authorised by this consent shall be limited to:</p> <ul style="list-style-type: none"> <li>a) The take of water from the Paparua Stockwater Race; and</li> <li>b) The discharge of water from the Paparua Stockwater Race into a new channel</li> </ul> <p>to the northern and eastern boundary of Part RS 3579, 133 Conservators Road, Yaldhurst, as shown on Plan CRC193772A, which forms part of this consent, in accordance with the authority granted by Selwyn District Council.</p>
2.	Water shall be diverted from the water race as stated in Condition (1) of this consent at Point A, and discharged into the new channel at Point A. The water race will re-join the original race at Point B, as shown on Plan CRC193772A, which forms part of this consent.
3.	The new channel shall have the same capacity as the channel to be decommissioned.
4.	The take and discharge shall not prevent the passage of fish. The old channel shall remain viable for habitation of fish until after the new channel is completed and proven to be habitable.
	STOCKWATER RACE REALIGNMENT
5.	The stock water race will be realigned in accordance with Selwyn District Council guidelines (Standards W106 and W108). Selwyn District Council will be notified of the completion of the realignment and provided with the opportunity to carry out an inspection to confirm compliance.
6.	The stockwater race will be realigned in accordance with the Methodology and mitigation measures specified in the Aquatic Ecology Ltd Report “ <i>Assessment of Environmental Effects: Paparua Stockwater Race (PSR) Diversion</i> ”, AEL Report No. 192; May 2019.
	CONSTRUCTION MANAGEMENT PLAN
7.	<p>The take and discharge of water shall occur in accordance with a Construction Management Plan. The Construction Management Plan shall outline the methods to be employed to ensure compliance with the conditions of this consent and shall include but not be limited to:</p> <ul style="list-style-type: none"> <li>a) A map showing the location of the new channel and take and discharge points;</li> <li>b) A schedule of works, which includes but is not limited to a proposed timeframe of works;</li> <li>c) A description of the methods to minimise the discharge of sediment into the drain;</li> <li>d) A description of the measures to be undertaken to minimise adverse effects on property, amenity values, wildlife, vegetation and other values.</li> </ul>
	DURING WORKS
8.	The discharge of water into the new channel shall only occur once all surfaces of the drain are stabilised and vegetated.
9.	Vehicles and machinery shall not enter flowing water.
10.	Machinery shall be free of plants and plant seeds prior to use in the stockwater race.

	ADMINISTRATION
11.	<p>The Canterbury Regional Council may, once per year, on the last five working days of May or October of each year, serve notice of its intention to review the conditions of this consent for the purposes of:</p> <ul style="list-style-type: none"> <li>d. Dealing with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage;</li> <li>e. Complying with the requirements of a relevant rule in an operative regional plan; or</li> <li>f. Requiring the Consent Holder to conduct monitoring instead of, or in addition to, that required by the consent.</li> </ul>
12.	<p>The duration of this consent shall be limited to a period of 20 years from the date of grant of consent, <b>including the 8-year lapse period</b>. The site is to be fully rehabilitated within the 20-year period.</p> <p>The lapsing date for the purpose of Section 125 of the Resource Management Act (1991) shall be 8-years from the date of the grant of Consent.</p>

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**PROPOSED RESOURCE CONSENT CONDITIONS CRC193773 – TO DISCHARGE CONTAMINANTS TO LAND**

	<b>LIMITS</b>
<b>1.</b>	<p>The discharge of contaminants to land, associated with a cleanfill operation, where they may enter water shall only be associated with a quarry located at Lot 1 DP 82891, 93 - 133 Conservators Road, Yaldhurst, Christchurch, as labelled on Plan CRC193564A.</p> <p>Except as required by subsequent conditions, the quarrying activity shall progress in accordance with the plans submitted with the application lodged on 12<sup>th</sup> February 2019, any further information received on 12<sup>th</sup> June 2019, <b>and the Quarry Setback Plan, dated 4<sup>th</sup> June 2020.</b></p> <p><b>For clarity, there shall be NO quarry activities or operations within the area hatched red on the Quarry Setback plan, dated 4<sup>th</sup> June 2020.</b></p>
<b>2.</b>	<p>Prior to undertaking any cleanfill operation on the Site, the Consent Holder will apply for a Cleanfill Licence from Christchurch City Council, authorising the use of the site for the disposal of Cleanfill, under the Cleanfill Licensing Bylaw 2003. The Consent Holder will apply to renew the Cleanfill Licence annually.</p>
<b>3.</b>	<p>Cleanfill material shall not be deposited in areas of exposed groundwater or standing water within the Quarry Pit.</p>
<b>4.</b>	<p><b>The maximum depth of the cleanfill operations shall be no deeper than an elevation of 40.10-metres above sea level in Stage One; 39.10-metres above sea level in Stage Two; and 38.10-metres above sea level in Stage Three. The Stages are defined in Plan CRC193773A. The Consent Holder shall maintain at least one (1) metre separation between the floor of the Quarry and the highest groundwater level recorded on the Site.</b></p>
<b>5.</b>	<p>Cleanfill shall consist only of material defined as being Acceptable Cleanfill Material as set out in Section 4.2 of the Ministry for the Environment's publication 'A Guide to the Management of Cleanfills', dated January 2002.</p>
<b>6.</b>	<p>Cleanfill material shall not include plaster board, hydro-excavated waste, treated timber, general construction and demolition waste, infectious, or any other leachable materials.</p>
<b>7.</b>	<p>The material deposited as cleanfill shall not contain more than 3 percent vegetative matter by volume.</p>
<b>8.</b>	<p>Any contractor responsible for excavation of the Cleanfill at its source and for its transportation to the site shall not deposit Cleanfill at this site without having signed a formal agreement with the Consent Holder that the deposited Cleanfill will meet the acceptance criteria specified in Conditions 5, 6 and 7.</p>
<b>9.</b>	<p>A Cleanfill Management Plan shall be prepared for the site in accordance with the Ministry for the Environment's "A Guide to the Management of Cleanfills" (2002). The Consent Holder shall submit this plan to Canterbury Regional Council, Attention: RMA Monitoring and Compliance Manager prior to any cleanfill operations commencing at the Site.</p>
<b>10.</b>	<p>The Consent Holder will maintain a record of Cleanfill material that includes the source of Cleanfill and date of deposition. This record shall be submitted to Environment Canterbury upon request.</p>

	<b>ADMINISTRATION</b>
<b>11.</b>	<p>The Canterbury Regional Council may, once per year, on the last five working days of May or October of each year, serve notice of its intention to review the conditions of this consent for the purposes of:</p> <ul style="list-style-type: none"> <li>a. Dealing with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage;</li> <li>b. Complying with the requirements of a relevant rule in an operative regional plan; or</li> <li>c. Requiring the Consent Holder to conduct monitoring instead of, or in addition to, that required by the consent.</li> </ul>
<b>12.</b>	<p>The duration of this consent shall be limited to a period of 20 years from the date of grant of consent, <b>including the 8-year lapse period</b>. The site is to be fully rehabilitated within the 20-year period.</p> <p>The lapsing date for the purpose of Section 125 of the Resource Management Act (1991) shall be 8-years from the date of the grant of Consent.</p>

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**PROPOSED RESOURCE CONSENT CONDITIONS CRC193564 – TO DISCHARGE CONTAMINANTS TO AIR**

	LIMITS
1.	<p>The discharge of contaminants to air shall only be particulate matter from:</p> <ul style="list-style-type: none"> <li>a) The site enabling works;</li> <li>b) Site preparation and overburden removal;</li> <li>c) Construction of earth bunds;</li> <li>d) Extraction of material;</li> <li>e) Processing and crushing of material;</li> <li>f) Stockpiling of material;</li> <li>g) Loading and transportation of material; and</li> <li>h) Site rehabilitation works;</li> </ul> <p>associated with a quarry located at Lot 1 DP 82891, 93 - 133 Conservators Road, Yaldhurst, Christchurch, as labelled on Plan CRC193564A, attached to this consent.</p> <p>Except as required by subsequent conditions, the quarrying activity shall progress in accordance with the plans submitted with the application lodged on 12<sup>th</sup> February 2019, any further information received on 12<sup>th</sup> June 2019, <b>and the Quarry Setback Plan, dated 4<sup>th</sup> June 2020.</b></p> <p><b>For clarity, there shall be NO quarry activities or operations within the area hatched red on the Quarry Setback plan, dated 4<sup>th</sup> June 2020.</b></p> <p>For the avoidance of doubt, no blasting is authorised by this consent.</p>
2.	<p>The discharge of contaminants to air associated with the operation and location of crushing plant shall be limited to:</p> <ul style="list-style-type: none"> <li>a) No more than two (2) crushing plants shall be operating on the Quarry at any one time. A crushing plant includes, but is not limited to: <ul style="list-style-type: none"> <li>a. Jaw crusher</li> <li>b. Cone crusher</li> <li>c. Powerscreen</li> </ul> </li> <li>b) The crushing plants shall be located no closer than 350-metres from the boundary of the properties to the immediate north-east and east, <b>in accordance with Plan CRC193564A.</b></li> </ul>
3.	<p>The discharge shall not cause suspended or deposited particulate matter, which is offensive or objectionable, beyond the boundary of the property on which the consent is exercised, as shown on Plan CRC193564A.</p>
4.	<p><b>During the “Enabling Works”, the Consent Holder shall design, install and commission an automated dust suppression sprinkler system. The automated system design and operating logic shall provide dust suppression in conditions which would otherwise result in “fugitive dust”.</b></p> <p><b>The automated dust suppression system shall be triggered by the PM<sub>10</sub> dust monitor, which shall be located in accordance with Condition CRC193564 (14).</b></p> <p><b>The automated dust suppression system design concept and the definition of the parameters of use shall be designed in consultation with Canterbury Regional</b></p>



	<p><b>Council Officers.</b></p> <p>A description of the methods proposed to amend or fine-tune the operation of the automated dust suppression system shall be included in the system design concept.</p> <p>The automated dust suppression system shall be operated and maintained for the duration of the Consent.</p>
5.	<p>The Consent Holder <u>has</u> sealed the Heavy Vehicle Road, from the Guys Road entrance. Accordingly, the Consent Holder shall maintain the sealed Heavy Vehicle Road in good condition, including the infilling of potholes as required.</p> <p><i>Advise Note: As the Heavy Vehicle Road has been sealed, there is no potential for "fugitive dust" emanating from the Heavy Vehicle Road and the automated dust suppression system required by Condition 4, above, shall NOT be required to be installed along the length of the Heavy Vehicle Road.</i></p>
6.	<p>The Consent Holder has approval for the extraction of a maximum of 104 cubic metres of water per day from the Stockwater Race, which is to be re-aligned immediately adjacent to the northern and north-eastern boundaries of the Site, in accordance with Council Engineering Standards. The Consent Holder shall install an additional water storage tank sized to provide for the water extraction.</p>
7.	<p>The Consent Holder shall maintain a record of any complaints relating to suspended or deposited particulate matter discharged from the quarry. For each complaint, the record shall include:</p> <ol style="list-style-type: none"> <li>The location where the particulates were detected by the complainant;</li> <li>The date and time when the particulates were detected;</li> <li>A description of the wind speed and wind direction when particulates were detected;</li> <li>The most likely cause of the particulates detected; and</li> <li>Any action taken by the Consent Holder.</li> </ol>
8.	<p>The operating hours of the site shall be:</p> <ol style="list-style-type: none"> <li>06:30 to 1800 hours weekdays</li> <li>06:30 to 1200 hours on Saturdays</li> </ol> <p>Provided that:</p> <ol style="list-style-type: none"> <li>No aggregate processing, including loading, crushing and screening, shall occur on - site prior to 0700 hours; and</li> <li>No heavy vehicles shall access the site prior to 0700 hours. The access gate on Guys Road is to be locked prior to this time.</li> </ol>
9.	<p>No activities, other than dust mitigation measures shall take place on Sundays or public holidays.</p>
	<p><b>PRIOR TO EXCAVATION OF AGGREGATE</b></p>
10.	<p>At least 72 hours before the commencement of works, the Consent Holder shall inform the Canterbury Regional Council, Attention: RMA Monitoring and Compliance Manager, in writing of the start date of the works.</p>

11.	<p>The Site shall be bunded as follows:</p> <ul style="list-style-type: none"> <li>a) A three-metre high, 15-metre wide continuous bund shall be formed along the north-eastern boundary of the property, located in accordance with Plan CRC193564A;</li> <li>b) The bund shall be constructed using the topsoil and overburden stripped from the site;</li> <li>c) The bund shall be planted with low seed producing grass as soon as practicable after construction;</li> <li>d) The bund shall be watered to suppress potential particulate matter discharge until the grass cover has been established;</li> <li>e) The grass cover shall be maintained through the duration of the consent and shall be replanted in any areas which die-off or are destroyed;</li> <li>f) The bund shall be in place prior to the excavation of aggregate.</li> </ul>
12.	<p><b>Prior to excavating aggregate, the Consent Holder shall prepare and implement a Planting Plan, in the form of shelter-belt planting, in accordance with Selwyn District Council Approved Planting Plan (December 2015), in consultation with CCC Senior Ecologist, and in accordance with Plan CRC193564A and the Rough &amp; Milne Landscape &amp; Cross-section Plan (February 2020) appended to this Consent.</b></p> <p><b>The shelter-belt planting shall be undertaken along the following boundaries:</b></p> <ul style="list-style-type: none"> <li>i) the Quarry and the MacLeans Island Grassland Reserve;</li> <li>ii) the Quarry and the property at 133 Conservators Road (Stocks' property);</li> <li>iii) the Quarry and the property at 93 Conservators Road (Higgs' property); and</li> <li>iv) the Quarry light vehicle accessway and 21 Conservators Road (the Harewood Gravels Ltd property).</li> </ul> <p><b>The planting shall be initiated within 6-months of the grant of consent and will be maintained for the duration of the consent term.</b></p>
13.	<p>Prior to the exercise of this consent, the Consent Holder shall install and maintain equipment onsite that accurately monitors and records wind speed and direction. The Consent Holder shall keep accurate records of wind speed and direction throughout the period when quarry activities occur at the site.</p> <p>The anemometer shall be installed at a height of 10m above ground level in accordance with the guidance for siting weather stations in AS 3580.14, except where otherwise approved in writing by the Canterbury Regional Council.</p> <p>When wind speeds measured by the on-site anemometer exceed 5 m/s (1 hour average) the applicant shall begin watering down all unconsolidated surfaces hourly, and apply dust suppressant during the hours of operation if additionally required.</p> <p>The record of wind speed and direction shall be provided to the Canterbury Regional Council on request.</p>
14.	<p>Prior to the exercise of this consent, the Consent Holder shall install and maintain equipment onsite that accurately monitors and records modular air quality for the</p>

	measurement of quarry related dust and particulate matter. The equipment shall provide real-time particulate measurement of PM <sub>10</sub> with a measurement range of 0-60,000 µg/m <sup>3</sup> .
15.	<p>Prior to the exercise of this consent, the Consent Holder shall:</p> <ul style="list-style-type: none"> <li>a) Install automated water sprinklers at all areas with potential to discharge windblown dust, which shall be activated when wind speeds measured in accordance with Condition 7 exceed 5 m/s (1-hour average).</li> </ul> <p>A sign shall be posted on the site entrances at Conservators and Guys Roads with contact details, including mobile telephone number of the Site Manager / Quarry Manager.</p>
16.	<p>The Consent Holder shall ensure that any access road used for the transportation of heavy machinery associated with the quarry, within Lot 1 DP 82891 or Lot 1 DP 70568, is sealed <b>for the full length</b> <del>for at least 250 metres</del> from Guys Road, prior to first use of the access road. <b>The Consent Holder shall maintain the Heavy Vehicle Road in good condition, including the infilling of potholes required.</b></p>
<b>EXCAVATION AND REHABILITATION</b>	
17.	<p>Excavation of material shall be undertaken in three stages as follows:</p> <ul style="list-style-type: none"> <li>a) Aggregate extraction shall commence in Stage 1, then Stage 2 and finally Stage 3 as shown on Plan CRC193563B, which forms part of this Consent. Extraction on future Stages shall not commence until the majority of the aggregate authorised to be removed from the active Stage has been extracted.</li> <li>b) The preparation of the following Stage shall only commence once quarrying on the active Stage is nearing completion.</li> <li>c) The quarry operation areas consisting of any areas under quarry operations, stockpile areas, areas stripped in preparation for excavation and areas under rehabilitation until they are returned to pasture, but excluding the Heavy and Light Vehicle Access Roads, shall not exceed nine hectares in total.</li> </ul>
18.	<p>The Consent Holder shall take all practicable measures to prevent the discharge of particulate matter from stockpiles. This shall include but not be limited to:</p> <ul style="list-style-type: none"> <li>a) Limiting the height of stockpiles to no more than seven metres with no more than 15,000 cubic metres in any one stockpile at any one time;</li> <li>b) After the initial site preparation, locating the base of stockpiles at least three metres below natural ground level;</li> <li>c) Sowing any long-term overburden stockpiles with low-seed generating grass species which do not attract birds or insect species that in turn attract birds; and</li> <li>d) Spraying stockpiles with water as a dust suppressant, as required.</li> </ul> <p><b>Advice Note:</b> 'Long term' is defined as the stockpile not being moved for at least two months.</p>
19.	<p>The Consent Holder shall take all practicable measures to minimise the discharge of dust from the site. These measures shall include but not be limited to:</p> <ul style="list-style-type: none"> <li>a) Minimising the areas of exposed ground;</li> <li>b) Revegetating bare areas such as bunds, overburden stockpiles, and rehabilitated</li> </ul>

	<p>areas, as soon as practicable, using low-seed generating grass species which do not attract birds or insect species that in turn attract birds;</p> <ul style="list-style-type: none"> <li>c) Carrying out land stripping and land restoration during favourable weather conditions and at times of least vulnerability to neighbouring properties;</li> <li>d) Taking wind conditions into account in planning and carrying out work to minimise dust dispersion;</li> <li>e) Using water as a dust suppressant on all disturbed surfaces including extraction areas, roads and stockpiles, when required;</li> <li>f) Applying a speed restriction on all internal and access roads of 15 kilometres per hour at all times;</li> <li>g) Minimising the drop heights and not overloading when transporting material;</li> <li>h) Maintaining internal roads on a regular basis so that they are free of pot holes and have a surface cover of clean chip containing minimal fine material; and</li> <li>i) No more than two processing crushing and screening plants located on the site;</li> <li><del>j) The sealed portion of the access route from Guys Road as shown on Plan CRC193564A, shall be washed and swept each day, Monday to Friday, to ensure the accumulation of dust is kept to a minimum.</del></li> <li>k) Using industry standard water or mist sprayers fixed on the crushing and screening plants when the processing of aggregate products generates fugitive dust, subject to the appropriateness of applying water or mist spray to the specific aggregate product. In circumstances where fugitive dust is generated and the use of water or mist sprayers is not appropriate for a specific aggregate product, production shall cease in accordance with Condition 13(e).</li> <li>l) <b>The design, install, commission, operation and maintenance of an automated dust suppression sprinkler system. The automated system design and operating logic shall provide dust suppression in conditions which would otherwise result in "fugitive dust" in accordance with Condition 4 and Condition 14.</b></li> <li>m) <b>The Consent Holder shall maintain the sealed Heavy Vehicle Road in good condition, infilling potholes as required.</b></li> </ul> <p><b>Advice Note:</b> Excessive water use can affect the ability of aggregate products to meet the required engineering specifications and can affect the ability of screening and crushing plant to process gravel.</p>
20.	<p>Potentially dusty activities, except for dust mitigation activities, taking place on the site shall cease when average wind speed (ten-minute average), exceeds ten (10) metres per second during two consecutive ten-minute periods during dry weather conditions such that dust is being lifted from the site. Potentially dusty activities are defined as:</p> <ul style="list-style-type: none"> <li>a) Stripping of topsoil;</li> <li>b) Formation of bunds;</li> <li>c) Formation of soil stockpiles;</li> <li>d) Spreading of topsoil; and</li> <li>e) Crushing and screening of aggregate in circumstances where fugitive dust is generated, and no water or mist sprayers are used on the crushing and screening plants in accordance with Condition 12 (l).</li> </ul>

21.	<b>The boundary shelter-belt plantings are NOT to be removed during the Quarry rehabilitation works or at the end of the Consent duration; rather the boundary shelter-belt plantings are to remain in-situ.</b>
<b>QUARRY MANAGEMENT PLAN</b>	
22.	<p>The Consent Holder shall compile and maintain a 'Quarry Management Plan' (QMP). The QMP shall include, but not be limited to:</p> <ul style="list-style-type: none"> <li>a) The actions required to ensure compliance with the conditions of this consent;</li> <li>b) Identification of the persons responsible for carrying out all actions in relation to meeting the requirements of this consent;</li> <li>c) The frequency and triggers for water spray application and water cart operation;</li> <li>d) Details of actions to be taken in response to non-compliance with condition (2) of this consent.</li> </ul>
23.	<p>The QMP shall:</p> <ul style="list-style-type: none"> <li>a) Be reviewed and updated at least once every five years for the duration of the consent;</li> <li>b) Be retained on the site at all times; and</li> <li>c) Be forwarded within one month prior to the exercise of this consent to the Canterbury Regional Council Attention: RMA Compliance and Enforcement Manager (The Manager). Any updated versions of the QMP shall be forwarded to The Manager within 30 days of completing a review.</li> </ul>
<b>RECORDS</b>	
24.	<p>The Consent Holder shall keep a record of:</p> <ul style="list-style-type: none"> <li>a) Times when operations occur on site; and</li> <li>b) The type of operations undertaken.</li> <li>c) The daily number and type (class) of heavy truck movements to and from the site.</li> </ul> <p>This record shall be provided to Canterbury Regional Council on request.</p>
25.	<p>A record of all complaints relating to contaminants discharged to air from the site and associated activities shall be maintained and shall include:</p> <ul style="list-style-type: none"> <li>a) The location where the contaminants were detected by the complainant;</li> <li>b) The date and time when the contaminants were detected;</li> <li>c) A description of the wind speed and wind direction when the contaminants were detected by the complainant;</li> <li>d) The most likely cause of the contaminants detected; and</li> <li>e) Any corrective actions undertaken by the Consent Holder to avoid, remedy, or mitigate the effects of the contaminants detected by the complainant.</li> </ul> <p>The record shall be provided to the Canterbury Regional Council on request.</p>
<b>ADMINISTRATION</b>	
26.	<p>The Canterbury Regional Council may, once per year, on any of the last five working days of May or October, serve notice of its intention to review the conditions of this consent for the purposes of:</p>

	<ul style="list-style-type: none"> <li>a) Dealing with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage;</li> <li>b) Complying with the requirements of a relevant rule in an operative regional plan; or</li> <li>c) Requiring the Consent Holder to conduct monitoring instead of, or in addition to, that required by the consent.</li> </ul>
<b>27.</b>	<p>The duration of this consent shall be limited to a period of 20 years from the date of grant of consent, <b>including the 8-year lapse period</b>. The site is to be fully rehabilitated within the 20-year period.</p> <p>The lapsing date for the purpose of Section 125 of the Resource Management Act 1991 shall be 8-years after the date of the grant of Consent.</p>

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