

**BEFORE THE INDEPENDENT COMMISSIONERS APPOINTED BY  
CANTERBURY REGIONAL COUNCIL AND CHRISTCHURCH CITY COUNCIL**

**IN THE MATTER OF**      the Resource Management Act 1991

**AND**

**IN THE MATTER OF**      Applications by **SOL Quarries Limited** for all resource consents necessary to establish, operate, maintain and close an aggregate quarry at 93 Conservators Road and 133 Conservators Road, Yaldhurst, as an extension to an existing quarry at 81 Conservators Road, Yaldhurst.

CRC193563  
CRC193564  
CRC193773  
RMA/2019/373

---

**MEMORANDUM:  
CONDITIONS OF CONSENT**

**On behalf of:  
SOL Quarries Limited**

**2 March 2021**

---



## **INTRODUCTION**

1. In accordance with the Direction of the Independent Hearing Commissioners (the Commissioners) at the adjournment of the Hearing related to an application by SOL Quarries Ltd (SOL) for resource consents associated with the expansion of an existing Quarry, [CRC193563; CRC193564; CRC193773; and RMA/2019/373], statutory planning staff from Canterbury Regional Council (ECan), Christchurch City Council (CCC), and SOL have drafted and liaised in producing a suite of resource consent conditions.
2. The drafting of the suite of resource consent conditions has involved multiple electronic drafts, email correspondence, phone conversations, advice from expert technical witnesses and face-to-face meetings.
3. While the Conditions of Consent appended to the Memorandum: Conditions of Consent are the product of the consultative drafting process with ECan staff and CCC staff, they are submitted for and on behalf of SOL.
4. The Conditions of Consent [CRC193563; CRC193564; CRC193773; RMA/2019/373] contain a column of annotated comments by ECan and CCC, respectively.
5. This Memorandum is restricted to comment, on behalf of SOL, with respect to the annotated comments by ECan and CCC.

## **CANTERBURY REGIONAL COUNCIL**

### **CRC193563 – To use land for quarrying activities (extraction and cleanfilling)**

6. There is agreement between ECan and SOL with respect to the Conditions of Consent – CRC193563.
7. ECan staff have made comments with respect to Condition 35.
8. SOL agrees with the comments by ECan staff.

9. In particular, SOL agrees that the amended cleanfill acceptance and management procedures, clarified by the inclusion of a Flow Chart as an appendix (Schedule 2), provides a robust approach to the determination and management of acceptable cleanfill.
10. Agreement was also reached between ECan groundwater quality technical staff and SOL regarding the location of monitoring wells, including the downgradient groundwater quality monitoring bore (Bore #3) – Condition 40.
11. SOL and ECan have agreed to the inclusion of Condition 61(c) and Condition 61(d), which explicitly provide for:
  - i. the review of the Conditions of Consent in the event that the guideline document “*A Guide to the Management of Cleanfills*”: Ministry of the Environment (2002) is superseded (Condition 61(c)); and
  - ii. changes to the contaminant trigger levels in groundwater quality monitoring (Condition 49), should the maximum acceptable values or water quality standards, or the guideline values for aesthetic determinants in the Ministry of Health’s “*Drinking-water Standards for New Zealand 2005 (Revised 2018)*” change (Condition 61(d)).

#### **CRC193564 – To discharge contaminants to air**

12. With the exception of Condition 10 and Condition 12, ECan and SOL are in agreement with respect to the Conditions of Consent (CRC193564).
13. SOL has worked with ECan staff in the review, refinement, and amendment of the Conditions of CRC193564 as originally drafted.
14. However, the Council Reporting Officers, Ms McIntock for ECan, and Ms Bealey for CCC, have constantly expressed concerns as to whether the Consent Conditions proposed by SOL would be diligently given effect to, as they were dependent on 'human behaviour' (to use Ms Bealey's words; s 42A Report; para. 100) for their efficacy.

15. SOL would contend that it is usual for the effective compliance with Consent Conditions to be reliant on 'human behaviour'. It is quite simply not possible to remove the need for human behaviour in the exercise of resource consents and in ensuring compliance with the Conditions of Consent; rather, effective compliance with most Conditions of Consent is dependent on 'human behaviour' to varying degrees.
16. SOL considers the proposed Conditions of CRC193564:
  - i. are lawful in all regards; and
  - ii. provide certainty; and
  - iii. are relevant to the resource management issues under consideration; and
  - iv. are fair, reasonable, and practical; and
  - v. are able to be monitored.
17. With respect to the matter of 'human behaviour', SOL considers that the robustness and comprehensive nature of the Conditions addresses any perceived concerns regarding 'human behaviour'. While the Council Consent Officers may still hold a residual concern, there is agreement between experts as to the efficacy of the mitigation measures proposed by SOL.
18. In particular, there is agreement with respect to the professional opinion of the expert air quality consultants for SOL (Mr Bluett, PDP), ECan (Mr Chilton, Tonkin & Taylor) and CCC (Ms Harwood, Beca) regarding the availability of sufficient water for dust mitigation (200 m<sup>3</sup> per day – 365 days per annum), the effectiveness of the dust mitigation measures, including the proposed automated dust suppression system, and adequacy of the monitoring data, including the availability to ECan to real-time PM<sub>10</sub> and wind speed/direction data.
19. Despite the agreement of the air quality experts referred to above, the Consent Planner for ECan has commented on the final draft Conditions for CRC193564 ...

*... As discussed by Ms McLintock in her Supplementary s42A Report, the proposal is reliant on automated systems, diligent observations, and performance of a complex suite of conditions. Compliance is required at all times and over a long period, and while it has to be assumed that compliance is achieved subject to the imposition of conditions that address potential effects of the activity and which can be reasonably met, ECan remains that there is a degree of uncertainty as to*

*whether compliance can actually be achieved by the applicant at all times.*  
(Comment; CRC193564; Condition 10).

20. SOL does not disagree that the proposed dust suppression measures are ... *reliant on automated systems, diligent observations, and performance of a complex suite of conditions.*
21. However, SOL accepts and agrees with the position of the air quality experts for ECan, CCC and SOL, whereby ... *the effects of air discharges are likely to be insignificant, provided mitigation is implemented and adhered to at all times* (Mr Chilton, Tonkin & Taylor).
22. As Mr Chilton (for the CRC) also comments that the mitigation measures proposed by SOL are those that are routinely applied in the industry, are capable of being codified as enforceable consent conditions, and are "... *equal to or better than accepted good practice for a quarry of this size*".<sup>1</sup>
23. SOL has volunteered to provide the design of the automated dust suppression system to ECan for certification prior to works commencing on-site, and has volunteered to provide a real-time data link from the PM<sub>10</sub> and the wind speed/direction monitors to ECan, at all times.
24. Input to the design of the automated dust suppression system, together with the real-time data link will ensure the efficacy of dust mitigation and will enable accurate compliance monitoring.
25. It is the position of SOL that the Conditions relating to the dust mitigation measures, including the Conditions relating to the automated dust suppression system, are appropriate, are robust, are effective, are practical, and are able to be monitored with respect to compliance.
26. Accordingly, SOL does **not** agree with the position of ECan, with respect to Condition 10 (CRC193564). Rather, there is nothing to suggest that SOL will not diligently implement the dust mitigation, including the automated dust suppression system, at all times.

---

<sup>1</sup> Mr R Chilton, CRC air quality expert, CRC Section 42A Report

27. The position of ECan on **Condition 12**, including the legal opinion of Wynn Williams dated 17 December 2020, is comprehensively addressed by Ms Steven QC in her Closing Submissions, dated 23 December 2020, on behalf of SOL (para. 58 – 93; pp 11 – 16).
28. Ms Steven QC could not identify **any** legal principle that could be seen as an impediment to the combined use of the permitted water take and SOL's consented water take.
29. In regard to limiting the use of both the permitted take and consented take based on allocation limits, Ms Steven QC states ... *"Under the LWRP, the allocation framework only has any regulatory 'teeth' in relation to a water take and use for which resource consent is required. That is because there is no control able to be exerted by the CRC as to the extent to which the permitted allocations are taken advantage of and actually used.*

*There is no overriding cap on the volume of water able to be taken under this permitted activity rule, other than the property specific volumetric limits specified in the rule itself. The same applies to the statutory permitted takes authorised by s14(3)(b) of the RMA.*

*Accordingly, the use of the Consented Take in conjunction with the Permitted Take does not lead to an increase in the allocation of water (or an over-allocation) within the relevant catchment, which appears to be Ms McLintock's overriding concern."*

30. In 2015 the permitted take was the subject of a Certificate of Compliance, issued by ECan (CRC155101), dated 1 October 2015.
31. The consented groundwater take and use from the bore on the proposed Quarry was historically used by Readylawn (a commercial lawn operation) to irrigate grass simultaneously with the permitted water take and use on the adjacent land, namely the SOL Quarry.
32. On purchase of the proposed Quarry extension property a portion of the consented groundwater take and use consent was transferred to SOL (CRC203210), in the volume of 109.60 cubic metres per day (365 days a year).
33. Despite the commonality of land ownership and consent ownership, there is no regulatory or physical connection between the groundwater take and use from the bore authorised by the permitted activity (CoC) and the groundwater take and use from the bore authorised by the

resource consent (CRC213210). The groundwater take and use from the two (2) sources is independent, despite the fact that they are proposed to be used on one (1) “property” as defined in the CLWRP.

34. Ms Steven QC states the legality of the use of both groundwater take and use sources in para 78 through para 93 (pp. 14 – 16).
35. I would not repeat Ms Steven QC’s arguments further, other to refer to para 89 – 93 (p. 16), whereby Ms Steven QC concludes that SOL has access to three separate water sources:
  - i. the currently consented take,
  - ii. the permitted take, and
  - iii. the stock water race.
36. Using any combination of two of these sources at one time would satisfy the requirement by the air quality experts relating to 200 cubic metres of water per day (365 days a year).
37. With respect to Condition 12(a), SOL proposes that there must be **lawfully** access to a minimum of 200 cubic metres of water per day (365 days a year). It is significant that Condition 12(a) requires the “... *ability to **lawfully** take and use ...*” water for dust suppression and irrigation.
38. Condition 12(b) expands of the three (3) water sources referred to by Ms Steven QC and proceeds to identify a fourth option – “... *any other water source consented for the purpose of dust suppression and/or irrigation of the Site*”.
39. As such, SOL has four (4) potential options related to the supply of water for dust suppression and irrigation. Any combination of two (2) of the four (4) potential water sources will provide the requisite 200 cubic metres per day (365 days a year).
40. SOL does not agree with the position of ECan staff relating to the issue around water availability and certainty of supply (Comment; ECan; Condition 12).

41. With Ms Steven's response to Ms McIntock's concerns and the Wynn Williams opinion, SOL considers there to be certainty with respect to the availability and the source of the requisite water for dust suppression and irrigation.
42. With respect, SOL would conclude that the Commissioners may have the certainty that there will be a sufficient supply of water for dust suppression purposes.

**CRC193773 – To discharge contaminants (cleanfill) onto and into land where they may enter groundwater**

43. SOL and ECan are in full agreement with respect to all Conditions of Consent (CRC193773) as drafted by SOL and appended to this Memorandum.

**CHRISTCHURCH CITY COUNCIL**

**RMA/2019/373 – Land Use Consent – Quarry and Cleanfill Activities**

44. As at the date of submitting this Memorandum SOL had not received the comments from Ms Bealey, on behalf of CCC, to the final draft Conditions for Consent RMA/2019/373.
45. The comments in this Memorandum, on behalf of SOL, are based on an assessment of the suggestions and comments received from Ms Bealey on 23 February 2021.
46. I would advise that SOL has considered the suggestions from Ms Bealey received on 23 February 2021 and has incorporated a number of amendments, where considered appropriate, in the final Conditions. The amended Conditions have been provided to Ms Bealey for comment; however, to date final comments on behalf of CCC have not been received.
47. Accordingly, SOL reserves the right to provide an addendum to this Memorandum in order to address any matters raised by Ms Bealey in the final comments on behalf of CCC, particularly should the final comments raise any previously unidentified matter(s).



48. With the exception of Condition 15, Condition 34, and Condition 35, CCC and SOL are in agreement with respect to the Conditions of Consent (RMA/2019/373).
49. Condition 15 requires SOL to prepare and submit a Quarry Management Plan (QMP) to CCC for certification prior to any works occurring on-site.
50. SOL has mirrored the certification process agreed with ECan; however, from Ms Bealey's comments on the 23 February 2021 draft Conditions, CCC is seeking an extended process for certification. The process proposed by CCC would require SOL to submit and re-submit the QMP to CCC multiple time in order to address any/all matters to the satisfaction of a CCC staff member. In an extreme situation, where SOL and CCC were unable to agree with respect to the QMP SOL would be unable to exercise the Consent granted by the Commissioners.
51. SOL consider it appropriate that Council has an opportunity to identify and advise potential amendments to the QMP, however, this cannot be a circular loop. An extended certification process may result in a continuous loop of making amendments and submitting the QMP to Council for certification. This would mean the approval for the commencement of works and the exercise of the Consent is, in effect, delegated to a third party, a Council Officer – a condition which would be *ultra vires*. This applies to all Plans required by the consents.
52. SOL and ECan are agreed that the Conditions should not rely on a Management Plans as the ultimate determinant of compliance. Management Plans are a tool, the detailed contents of which are contained in the Conditions. However, SOL contends that the performance standard required to regulate the quarry operations and mitigate effects should be set in the core Conditions. Accordingly, as stated earlier, SOL has proposed Conditions which are:
- i. are lawful in all regards; and
  - ii. provide certainty; and
  - iii. are relevant to the resource management issues under consideration; and
  - iv. are fair, reasonable, and practical; and
  - v. are able to be monitored.
53. Put simply, the Conditions proposed by SOL are robust, targeted, detailed and enforceable.

54. In the 23 February 2021 draft Conditions relating to the Quarry Rehabilitation Plan (QRP) CCC sought a prescriptive process, including specified time frames, review process and details relating to the availability of cleanfill for the rehabilitation (Conditions 34 and 35).
55. SOL has considered the comments of Ms Bealey, on behalf of CCC, in the 23 February 2021 draft Conditions and incorporated a number of amendments which add to the QRP.
56. Accordingly, SOL has incorporated further details relating to the contents and the requirements of the QRP. The additional detail is based in the provisions of the *Quarry Rehabilitation Guidance*; CCC; 2018; and the *Winstone Aggregates Quarry Rehabilitation Management Plan*; August 2020. In particular, the Conditions require the QRP to include details of the quarrying and rehabilitation staging, the timeframe for rehabilitation, and the finished landform.
57. The amendments to Condition 34 and Condition 35 will ensure the QRP is a comprehensive guide to the rehabilitation of the proposed SOL quarry extension.
58. However, SOL does not consider that cleanfill availability is a matter to be included as a Condition of Consent. It is simply not possible to prescribe in a Condition of Consent the availability of cleanfill material over the duration of the Consent term, particularly as SOL has agreed to provide a specific review Condition in CRC193563 (Condition 61(c)) relating to any amendments to the national cleanfill acceptance criteria.
59. With respect to sourcing cleanfill, SOL has appointed a Business Development Manager; whose role includes maintaining existing Client relationships and sourcing new Clients. In doing so the Business Development Manager is tasked with sourcing cleanfill, even at a cost to SOL, to ensure compliance with the Conditions of Consent (infilling and rehabilitation).



Simon JM Hedley

For and on behalf of:  
**SOL Quarries Ltd**

Dated: 2 March 2021

**CRC193563 – To use land for quarrying activities (extraction and cleanfilling)**

	CONDITION	
	<b>LIMITS</b>	
1	<p>The activities authorised by this resource consent shall be limited to:</p> <ul style="list-style-type: none"> <li>a. Excavation of material, including topsoil and quarry gravels; and</li> <li>b. For the purpose of rehabilitation of the Quarry Pit, the deposition of: <ul style="list-style-type: none"> <li>i. Cleanfill; and</li> <li>ii. Overburden and topsoil stored within the bunds or on-site.</li> </ul> </li> </ul> <p>at 93 and 133 Conservators Road, legally described as Part RS 3579 and Lot 1 DP 82891 as shown on Plan CRC193564, attached to and forming part of this resource consent.</p> <p><b>Advice Note.</b>  <i>For the avoidance of doubt, no blasting or the use of a jaw crusher is authorised by this resource consent.</i></p>	
2	<p>Prior to the commencement of quarry activities authorised by Condition (1) of this resource consent the Consent Holder must implement the Enabling Works so defined in resource consents CRC193563; CRC193564; and CRC193773.</p>	
	<b>ENABLING WORKS</b>	
	<b>Quarry Management Plan</b>	
3	<ul style="list-style-type: none"> <li>a. At least 60 working days prior to the commencement of activities authorised in Condition (1), the Consent Holder must prepare and submit a Quarry Management Plan (QMP) to the Canterbury Regional Council, Attention: Regional Leader - Compliance Monitoring for certification. The QMP must: <ul style="list-style-type: none"> <li>i. Include a description of the content and purpose of the QMP; and</li> <li>ii. Include the name, experience and qualifications of the person(s) nominated by the Consent Holder to supervise the implementation of, and adherence to, the QMP; and</li> </ul> </li> </ul>	

	<ul style="list-style-type: none"> <li>iii. Provide 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 while undertaking the activities authorised in this resource consent; and</li> <li>iv. Provide details of the operation of the site, including details of staging of works, area, depth, cleanfilling activities and site rehabilitation; and</li> <li>v. Provide details of the on-site staff training procedures; and</li> <li>vi. Contain the following management plans, prepared in accordance with the conditions of this resource consent: <ul style="list-style-type: none"> <li>a. The Cleanfill Management Plan (Condition 8) of this resource consent; and</li> <li>b. The Quarry Operational Management Plan (Condition 9) of this resource consent; and</li> <li>c. The Site Environmental Management Plan (Condition 17) of this resource consent; and</li> <li>d. The Quarry Rehabilitation Plan (Condition 54) of this resource consent; and</li> <li>e. The Dust Management Plan prepared in accordance with resource consent CRC193564.</li> </ul> </li> </ul> <p>b. If the Consent Holder has not received a response from the Canterbury Regional Council, Attention: Regional Leader - Compliance Monitoring confirming certification of the QMP, <b>or</b> specifying recommended amendments to the QMP, within 60 working days of the date of submission under Condition (3)(a), or the period determined under Condition (3)(c), the QMP must be deemed to be certified.</p> <p>c. In considering the QMP for the purpose of certification, Canterbury Regional Council may, due to the scale or complexity of the QMP, <b>and</b> with the agreement of the Consent Holder, extend the time period for certification provided the extended time period does not exceed a further 60 working days.</p> <p>d. If the response from the Canterbury Regional Council is that Council is not able to certify the QMP, the Consent Holder must consider any reasons and recommendations provided by Council, amend the QMP accordingly, and resubmit</p>	
--	--	--

	<p>the QMP to the Canterbury Regional Council, Attention: Regional Leader - Compliance Monitoring.</p> <p><b>Advice note.</b> <i>The certification process is confined to confirming that the Quarry Management Plan adequately gives effect to the relevant Condition(s) of this consent.</i></p>	
4	<p>a. The QMP, including the Management Plans referred to in Condition (3)(vi), must be reviewed and updated as necessary and at least every two years. Any amendments must be:</p> <ul style="list-style-type: none"> <li>i. For the purpose of applying best practicable measures to mitigate adverse effects resulting from the activities occurring on-site; or</li> <li>ii. For the purpose of improving the efficacy of the QMP; or</li> <li>iii. To ensure consistency with the conditions of this resource consent.</li> </ul> <p>b. The QMP must be submitted to Canterbury Regional Council, Attention: Regional Leader - Compliance Monitoring, for certification in accordance with Condition (3) prior to any amendment being implemented.</p>	
	<b>Remediation Action Plan (Remediation of Contamination)</b>	
5	<p>a. Prior to the commencement of quarrying activities on site in accordance with Condition (1), the Consent Holder must engage a Suitable Qualified and Experienced Practitioner (SQEP) to undertake a Detailed Site Investigation (DSI), prepare a Remediation Action Plan (RAP), and supervise remediation of the Site.</p> <p>b. The DSI and the RAP must be provided to the Canterbury Regional Council, Attention: Team Leader – Contaminated Sites and the Regional Manager Compliance Monitoring, at least 20 working days prior to the commencement of and remediation works on-site.</p> <p>c. The objective of the site remediation is for the background levels of contaminants to be equal to or less than the background levels of contaminants at the Site. For this purpose, the RAP must:</p>	

	<ul style="list-style-type: none"> <li>i. Include an outline of the approach to remediating the site including extent of remediation, remediation methodology and scheduling, contaminated material disposal location and validation sampling plan; and</li> <li>ii. Be prepared in accordance with the Ministry for the Environment <i>Contaminated Land Management Guidelines No. 1: Reporting on Contaminated Sites in New Zealand</i> (Revised 2011).</li> </ul>	
6	<ul style="list-style-type: none"> <li>a. Remediation works must be undertaken in accordance with the RAP.</li> <li>b. The Consent Holder must provide the Canterbury Regional Council, Attention: Contaminated Sites Team Leader and Attention: Regional Leader - Compliance Monitoring, a Site Validation Report (SVR) for certification to confirm that the site has been remediated in accordance with the RAP provided in accordance with Condition (5) and that the levels of soil contaminants at the Site are equal to or less than the background levels of contaminants at the Site.</li> <li>c. The SVR must: <ul style="list-style-type: none"> <li>i. Be prepared and undertaken by a the SQEP; and</li> <li>ii. Be prepared and undertaken in accordance with the Ministry for the Environment Contaminated land management guidelines <i>No. 5: Reporting on Contaminated Sites in New Zealand</i> (Revised 2011).</li> </ul> </li> <li>c. If the Consent Holder has not received a response from the Canterbury Regional Council, Attention: Regional Leader - Compliance Monitoring confirming certification of the SVR, <b>or</b> specifying reasons Council is unable to certify the SVR, within 15 working days of the date of submission under Condition (6)(b), the SVR must be deemed to be certified.</li> <li>d. If the response from the Canterbury Regional Council, Attention: Regional Leader - Compliance Monitoring is that Council is not able to certify the SVR, the consent holder must consider any reasons and recommendations, amend the SVR</li> </ul>	

	<p>accordingly, and resubmit an amended SVR to the Canterbury Regional Council, Attention: Regional Leader - Compliance Monitoring.</p> <p><b>Advice Note:</b> <i>The certification process shall include reviewing the SVR and ensuring that the potential soil contamination has been adequately delineated, remediated and validated.</i></p>	
7	<p>The Consent Holder must:</p> <ul style="list-style-type: none"> <li>a. Dispose of all material removed in accordance with Condition (7) off-site at a suitably licenced facility; and</li> <li>b. Provide the Canterbury Regional Council, Attention: Regional Leader - Compliance Monitoring with written confirmation of the disposal undertaken in accordance with Condition (7)(a) within ten working days of the disposal taking place.</li> </ul>	
	<b>Cleanfill Management Plan</b>	
8	<ul style="list-style-type: none"> <li>a. There must be no cleanfilling undertaken at the site unless a site specific Cleanfill Management Plan (CMP) has been prepared, certified by the Canterbury Regional Council in accordance with Condition (3) of this resource consent, and implemented for the site.</li> <li>b. The CMP must be retained on site at all times and the Consent Holder must ensure all appropriate personnel working on the site are made aware of and have access to it.</li> <li>c. The CMP must include: <ul style="list-style-type: none"> <li>i. A description of the content and purpose of the CMP; and</li> <li>ii. Demonstrate how Condition (34) to (40) of this resource consent will be complied with; and</li> <li>iii. Details of the operation of the site, including details of staging of works, area, depth, cleanfilling activities and site rehabilitation; and</li> <li>iv. Details of the on-site staff training procedures; and</li> <li>v. The contact details of the staff member(s) responsible for implementing the CMP; and</li> </ul> </li> </ul>	

	<ul style="list-style-type: none"> <li>vi. Details of the actions to be undertaken to ensure compliance with the conditions of this resource consent and actions to be undertaken in response to any incident that may adversely affect the environment; and</li> <li>vii. The steps to be undertaken to correct incidences of non-compliance with the conditions of this consent; and</li> <li>viii. A description of operational procedures and monitoring that will be used to prevent unauthorised cleanfill material from entering the site; and</li> <li>ix. A list of acceptable cleanfill material as defined in Condition (34) of this resource consent; and</li> <li>x. How rejected cleanfill material will be stored pending its removal to an authorised landfill or approved disposal facility; and</li> <li>xi. The maximum length of time that rejected material can be stored on site pending its removal; and</li> <li>xii. Construction procedures to ensure the long-term stability of cleanfill areas; and</li> <li>xiii. Procedures for improving and/or reviewing the CMP; and</li> <li>xiv. Procedures for recording and responding to complaints.</li> </ul> <p><b>Advice Note:</b></p> <ul style="list-style-type: none"> <li>a. <i>The certification process is confined to confirming that the Cleanfill Management Plan adequately gives effect to the relevant Condition(s).</i></li> <li>b. <i>For the avoidance of doubt, the CMP forms a part of the Quarry Management Plan (QMP). Accordingly, "certification" will occur under Condition (3) of this resource consent.</i></li> </ul>	
	<b>Quarry Operational Management Plan</b>	
9	<p>Prior to the commencement of any activity authorised by this consent, the Consent Holder shall submit a Quarry Operational Management Plan (QOMP) to the Canterbury Regional Council, Attention: Regional Leader - Compliance Monitoring. The QOMP must:</p> <ul style="list-style-type: none"> <li>a. Include the construction drawings and procedures, methods and measures to address the matters identified in Condition (10), Condition (11) and Condition (12) of this consent; and</li> </ul>	



	<p>b. Describe the procedures and practices designed to avoid any adverse effects associated with the Quarry operations on Christchurch International Airport Ltd (CIAL) assets, infrastructure and/or operations, as detailed in Condition (13), Condition (14), Condition (15), and Condition (16) of this consent.</p> <p><b>Advice Note:</b> <i>The Quarry Operations 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, and the Islington- Kikiwa B line crosses the access road off Conservators Road; and the Quarry is within the CIAL Airport Hazard Mitigation Overlay in the Christchurch District Plan.</i></p>	
10	<p>The QOMP must include:</p> <p>a. Procedures, methods and measures to demonstrate that all quarrying, cleanfilling 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 revisions thereof, including those 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); and</li> </ul> <p>b. Details of any areas 'out of bounds' with 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); and</p> <p>c. 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; and</p> <p>d. Demonstrate how the existing transmission lines and support structures will remain accessible during and after quarrying activities; and</p> <p>e. Details of proposed training for Quarry staff working near the transmission lines; and</p>	

	<p>f. Procedures, practices and measures designed to ensure that all quarrying, cleanfilling and site rehabilitation activities undertaken on site avoid any increased potential for the risks 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; and</p> <p>g. Demonstrate how bird strike management will be implemented to protect CIAL operations; and</p> <p>h. 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; and</p> <p>i. Identify any other potential effects on CIAL and the management practices in place to minimise these effects; and</p> <p>j. Evidence that the Consent Holder has submitted the draft QMP and QOMP to CIAL and Transpower for feedback <b>and</b> any feedback received from Transpower and CIAL and been considered and incorporated in the QMP and QOMP.</p> <p><b>Advice Note:</b> <i>The evidence referred to in Condition (10)(a) is defined as a copy of an Electrical Engineer's report, prepared by a suitably qualified and experienced Electrical Engineer, confirming that the separation distances from Transpower NZ Limited assets have been met.</i></p>	
11	<p>Where landscaping is to be undertaken as part of the quarry rehabilitation, all newly planted low-seed generating grass species which do not attract birds or insect species that in turn attract birds, shall:</p> <ol style="list-style-type: none"> <li>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>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> </ol>	

12	<p>The Consent Holder shall:</p> <ul style="list-style-type: none"> <li>a. Not undertake cleanfilling within a horizontal distance of 20 metres from the outside edge of the Islington-Kiliwa B National Grid transmission lines between Towers ISL-KIK-A0018 and ISL-KIK-B0017.</li> </ul> <p><b>Advice Note:</b></p> <ul style="list-style-type: none"> <li>a. <i>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.</i></li> <li>b. <i>The restricted area (within 20 metres of the towers) 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.</i></li> </ul>	
13	<p>The Consent Holder shall adopt 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 no activities take place in the base of the Quarry Pit floor which involve the feeding or encouragement of birds; and</li> <li>b. Managing the Quarry Pit floor to ensure that any surface ponding drains freely, while rehabilitated areas shall be designed and finished to be free draining surfaces; and</li> <li>c. Ensure there are no permanent waterbodies creates as a result of quarrying operations or site rehabilitation practices; and</li> <li>d. All quarrying and site rehabilitation works will provide for appropriate drainage, ensuring the potential for temporary standing water is minimised, particularly after rainfall events. There will be no ponding of water for more than 48 hours; and</li> <li>e. 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; and</li> <li>f. 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 contracted and the waste disposed of to an approved waste-transfer station; and</li> </ul>	

	<p>g. Fixed lighting shall not be installed on the Quarry.</p> <p><b>NB:</b> 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 confirmation of compliance with CIAL aircraft safety standards prior to the install of any fixed lighting.</p> <p>i. With respect to a Lighting Plan, if the Consent Holder has not received a response from CIAL within 20 working days of the date of submission under Condition 23, the Lighting Plan must be deemed to be acceptable to CIAL and may be implemented.</p> <p>ii. In the event that CIAL proposes amendments to the Lighting Plan, the Consent Holder must amend the Lighting Plan in order to ensure the safety of aircraft and the CIAL operations.</p>	
14	<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>	
15	<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 contracted and the waste disposed of to an approved waste-transfer station by an appropriately licenced operator.</p>	
16	<p>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.</p>	

	Site Environmental Management Plan (SEMP)	
17	<p>a. The Site Environmental Management Plan (SEMP) forms a section of the Quarry Management Plan (QMP), in accordance with Condition (3) of this consent.</p> <p>b. The SEMP must:</p> <ul style="list-style-type: none"> <li>i. Demonstrate how Condition (18) of this consent will be complied with; and</li> <li>ii. Contain a description of the content and purpose of the SEMP; and</li> <li>iii. Document measures to prevent leaks and avoid spills of fuels or any other hazardous substance; and</li> <li>iv. Set out procedures to be undertaken in the event of a spill of fuel or any hazardous substance in accordance with Condition (18), including: <ul style="list-style-type: none"> <li>a. Emergency contact information for the Canterbury Regional Council Pollution Hotline; and</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; and</li> <li>c. Instructions for operating the spill kit kept on site in accordance with Condition (20); and</li> <li>d. Instructions for removing and disposing of contaminated material excavated during the remediation works under Condition (6) in a manner suitable to ensure no contamination of ground water or surface water occurs; and</li> </ul> </li> <li>v. Detail contingency measures to be used on site; and</li> <li>vi. Include a Spill Response Plan; and</li> <li>vii. Detail instructions for removing and disposing of all material potentially contaminated or contaminated by a spill; and</li> <li>viii. Details for reporting and recording spills; and</li> <li>ix. Set out staff training requirements for responding to spills.</li> </ul> <p><b>Advice note:</b> The SEMP will be certified through the certification of the QMP in Condition (3) of this consent.</p>	

	<p><b>Advice Note.</b> <i>The storage of hazardous substances should be managed in accordance with Section 9 of the Resource Management Act 1991 and the Hazardous Substances and New Organisms Act 1996 and any related Regulations.</i></p>	
18	<p>a. The Consent Holder must take all practicable measures to prevent leaks and avoid spills of fuel or any other hazardous substances in accordance with the SEMP, including the following measures:</p> <ul style="list-style-type: none"> <li>i. No refuelling within 20 metres of flowing water; and</li> <li>ii. No refuelling or maintenance of vehicles or machinery can occur on the quarry pit floor, with the exception of the mobile plant; and</li> <li>iii. No storage of fuels or lubricants for vehicles and machinery within the quarry pit; and</li> <li>iv. Appropriate servicing and maintenance of vehicles and machinery such that they do not result in leaks or spills; and</li> <li>v. Only undertaking refuelling or maintenance on vehicles or machinery on impervious hardstand surfaces or using a drip tray under the refuelling point; and</li> <li>vi. Training all staff involved in the refuelling or maintenance activities in the use of spill kits.</li> </ul> <p>b. In the event of a spill of fuel or any other hazardous substance, the consent holder shall:</p> <ul style="list-style-type: none"> <li>i. Clean up the spill as soon as practicable and take measures taken to prevent a reoccurrence; and</li> <li>ii. Inform the CRC, Attention: Regional Leader - Compliance Monitoring within 24 hours of a spill event exceeding four litres and provide the following information: <ul style="list-style-type: none"> <li>a. The date, time, location and estimated volume of the spill; and</li> <li>b. The cause of the spill; and</li> <li>c. The type of hazardous substance(s) spilled; and</li> <li>d. Clean up actions undertaken; and</li> <li>e. Details of the steps taken to control and remediate the effects of the spill on the receiving environment; and</li> </ul> </li> </ul>	

	<p>f. An assessment of any potential effects on the environment of the spill; and</p> <p>g. Measures to be undertaken to prevent a reoccurrence of the spill.</p> <p>c. The Consent Holder shall maintain a record of all spills on site and provide this to the Canterbury Regional Council in September of each year or on request.</p>	
	<b>Pre-commencement Site Meeting</b>	
19	<p>At least 20 working days prior to commencement of each of the activities authorised in Condition (1), the Consent Holder or their agent must arrange and conduct a Pre-commencement Site Meeting with the Canterbury Regional Council. At a minimum, the following must be covered at the meeting:</p> <ul style="list-style-type: none"> <li>i. Scheduling and staging of the works, including the proposed start date; and</li> <li>ii. Responsibilities of all relevant parties; and</li> <li>iii. Contact details for all relevant parties; and</li> <li>iv. Expectations regarding communication between all relevant parties; and</li> <li>v. Site inspections; and</li> <li>vi. Confirmation that the automated dust suppression system has been installed and commissioned in accordance with resource consent CRC193564; and</li> <li>vii. Confirmation that all relevant parties have copies of the contents of these consent documents and all associated management plans.</li> </ul> <p><b>Advice Note:</b> The Pre-commencement Site Meeting referred to above may be held in conjunction with the Pre-commencement Site Meetings required by Consents CRC193773; CRC193564 and RMA/2019/373.</p>	
20	<p>At least 20 working days prior to the commencement of quarry activities authorised in Condition (1), the Consent Holder shall inform the Canterbury Regional Council, Attention: Regional Leader - Compliance Monitoring in writing of the start date of works.</p>	
21	<p>Prior to the commencement of the quarrying and cleanfilling activities authorised in Condition (1) commencing, all personnel working on the site shall be made aware of and have access to:</p>	

	<ul style="list-style-type: none"> <li>a. The contents of this resource consent document; and</li> <li>b. The Quarry Management Plan, prepared in accordance with Condition (3) of this resource consent and retained on site at all times; and</li> <li>c. Resource consents CRC193564 and CRC193773 and all associated documents.</li> </ul>	
22	<p>The activities authorised under Condition (1) of this resource consent shall only commence once the Certification of the Water Supply detailed under resource consent CRC193564 has been finalised.</p> <p><b>Advice note:</b> <i>Certification is confined to confirming the availability of a minimum of 200 m<sup>3</sup> per day (365 days per annum) for dust suppression and irrigation associated with the quarry activities.</i></p>	
	<b>Operational Parameters</b>	
23	<ul style="list-style-type: none"> <li>a. The perimeter of the quarry site must be surrounded by secure fencing, with lockable access gates; and</li> <li>b. The Consent Holder must ensure that warning notices are erected and maintained at all entrances to the site; and</li> <li>c. Warning notices must be able to be read from a distance of five metres; and</li> <li>d. The warning notices must state: <ul style="list-style-type: none"> <li>i. Name of the site; and</li> <li>ii. Name of the owner of the site; and</li> <li>iii. Name of the Quarry Manager and a contact telephone number; and</li> <li>iv. Groundwater is vulnerable to contamination; and</li> <li>v. Only inert cleanfill materials may be deposited at this site; and</li> <li>vi. General refuse and hazardous waste must not be dumped at this site.</li> </ul> </li> </ul>	
24	Excavations must be undertaken in three (3) interconnected and related stages as shown on Plan CRC193563A. The Consent Holder must ensure that the maximum unconsolidated area shall be limited at any one time to:	



	<ul style="list-style-type: none"> <li>a. Nine hectares for the total quarrying activities area, defined as including the internal unsealed roading network, the Crushing Area, the excavated Quarry Pit, the area stripped in preparation for quarrying; the active Cleanfill Area, and the area currently undergoing rehabilitation.</li> <li>b. Two hectares at any one time for the active quarrying operations area, defined as the Crushing Area, the excavated Quarry Pit and the active Cleanfill Area.</li> <li>c. During the transition from the existing Quarry that is consented under CRC184073, to the new Quarry (CRC193563), and at any other time, the maximum unconsolidated area must not exceed a combined total 9 hectares, comprising the unconsolidated area of both the existing and new quarries.</li> </ul>	
25	<ul style="list-style-type: none"> <li>a. The operating hours of the site shall be: <ul style="list-style-type: none"> <li>i. 06:30 am to 18:00 pm on weekdays; and</li> <li>ii. 06:30 am to 12:00 pm on Saturdays.</li> </ul> </li> <li>b. Provided that: <ul style="list-style-type: none"> <li>i. No aggregate processing, including loading, crushing and screening, shall occur on the site prior to 07:00 am at any time; and</li> <li>ii. No heavy vehicles shall access or leave the site prior to 07:00 am. The access gate on Guys Road shall be locked at all times prior to 07:00 am.</li> <li>iii. No heavy vehicle shall access the Heavy Vehicle Access Road prior to 7:00 am.</li> </ul> </li> </ul> <p><b>Advice Note:</b>  <i>In order to ensure compliance with Condition (25)(b)(iii), the Consent Holder will construct a swing arm gate proximate to the Weighbridge preventing access to the Heavy Vehicle Access Road prior to 7:00 am daily.</i></p>	

26	No activities other than dust mitigation measures shall be undertaken on Sundays, public holidays or outside of quarry operating hours.	
	<b>QUARRY OPERATIONS</b>	
	<b>Excavation and Extraction</b>	
27	Prior to undertaking the activities authorised in Condition (1) of this resource consent, the Consent Holder shall establish a surveyed datum point at natural ground level in an area that will not be excavated. This point shall be used to certify the depth of excavation at any point within the site described in Condition (1).	
28	<p>a. The Consent Holder shall survey the site prior to site preparation works described in Condition (1) of this resource consent, and annually thereafter to determine the elevations of the site relative to Lyttelton Vertical Datum 1937, including the depth of excavations.</p> <p>b. The survey referred to in Condition 28(a):</p> <ul style="list-style-type: none"> <li>i. Must be undertaken by a Registered Surveyor; and</li> <li>ii. Results shall be to an accuracy of +/- 50 millimetres vertically; and</li> <li>iii. Results of each survey shall be provided to the Team Leader Compliance, Canterbury Regional Council, in September of each year or on request.</li> </ul>	c.
29	<p>Excavation of aggregate and deposition of cleanfill must only occur where the quarry floor maintains at least one metre separation depth to the highest groundwater level. This shall be achieved by ensuring the base of the quarry is no deeper than:</p> <ul style="list-style-type: none"> <li>a. 40.1 metres above Lyttelton Vertical Datum 1937 in Stage One; and</li> <li>b. 39.1 metres above Lyttelton Vertical Datum 1937 in Stage Two; and</li> <li>c. 38.1 metres above Lyttelton Vertical Datum 1937 in Stage Three; and</li> </ul>	

	as shown on Plan CRC193563A.	
30	<p>The Consent holder must:</p> <ul style="list-style-type: none"> <li>a. Produce a contour map showing: <ul style="list-style-type: none"> <li>i. The surveyed maximum quarry depth relative to Lyttelton Vertical Datum 1937; and</li> <li>ii. The highest groundwater levels for the site monitored in accordance with Condition (41) to (47) of this resource consent relative to mean sea level; and</li> </ul> </li> <li>b. Provide the contour map to the Team Leader Compliance, Canterbury Regional Council, in September of each year or on request.</li> </ul>	
31	Once the final pit depth and suitable working area on the pit floor has been established all excavation of aggregates shall occur from the quarry face in a west to east direction.	
32	No excavations or extractions shall occur within standing water.	
	<b>Community Quarry Liaison Group</b>	
33	<p>The Consent Holder must facilitate the establishment of a Community Quarry Liaison Group (CQLG) in accordance with the following requirements:</p> <ul style="list-style-type: none"> <li>a. The CQLG must initially comprise up to two representatives of the Consent Holder, and the Consent Holder must invite one representative of the Christchurch City Council, one representative of the Canterbury Regional Council, one representative of the residents along Conservators Road, and representatives of the relevant Kaitiaki Rūnanga.</li> <li>b. The purpose of the CQLG is to: <ul style="list-style-type: none"> <li>i. Facilitate the engagement on an on-going and regular basis about matters associated with the quarrying operations as they relate to consent compliance; and</li> </ul> </li> </ul>	

	<ul style="list-style-type: none"> <li>ii. Promote the flow of information between the local community and the Consent Holder so as to, wherever possible, address any consent compliance issues that may arise; and</li> <li>iii. Facilitate discussions on the results of consent compliance monitoring and any matters that may arise as a result of the monitoring.</li> </ul> <p><b>Advice Note:</b> <i>This condition only governs the initial establishment for the purposes of convening the first meeting of the CLG. The consent Holder acknowledges that it will be for the residents along Conservators Road to decide whether or not they want to become involved. On-going membership will also be determined by the CQLG.</i></p> <ul style="list-style-type: none"> <li>c. The consent holder must ensure that members of the CQLG are provided with the opportunity and facilities to meet: <ul style="list-style-type: none"> <li>ii. At least 30 working days prior to the start of any <i>site preparation</i> activities; and</li> <li>iii. Not less frequently than six-monthly during the first four years of quarrying operations and annually thereafter, unless all members of the CQLG agree there is no need for a meeting.</li> </ul> </li> <li>d. If the Consent Holder, in progressing any element of the quarry, wishes to call a meeting of the CQLG to obtain community input, the meeting regime may be shifted to accommodate such a request.</li> <li>e. The time, date and venue of proposed meetings must be notified to members of the CQLG at least 15 working days prior to the meeting date.</li> <li>f. Minutes of the CQLG meetings must be kept by the Consent Holder and be made publicly available.</li> <li>g. The Consent Holder must engage an independent chairperson to facilitate CQLG meetings.</li> <li>h. The Consent Holder must meet the reasonable administrative costs of the CQLG meetings (e.g. meeting invitations; meeting venue; preparation of meeting minutes) and facilitation of meetings by an independent chair.</li> </ul>	
--	---	--

	<p><b>Advice Note:</b> <i>In the event that it is not possible to establish a CQLG or convene meetings through lack of interest or participation from the residents, then such failure to do so will not be deemed a breach of these conditions. Should the residents wish to re-establish meetings after a period of inactivity then the conditions above shall continue to apply.</i></p>	
	<b>Cleanfilling</b>	
34	<p>Material deposited in the excavated area for the purpose of cleanfilling the excavated quarry must:</p> <ul style="list-style-type: none"> <li>a. Only include material defined as cleanfill in accordance with the document – “A Guide to Cleanfill Management”; MfE; 2002; and</li> <li>b. Not contain more than 3% vegetative matter; and</li> <li>c. Only include material that meets the Canterbury Regional Council regulatory background levels for the site (SOL Quarry) which are described in: <ul style="list-style-type: none"> <li>i. <i>Background concentrations of selected trace elements in Canterbury soils. Addendum 1: Additional samples and Timaru specific background levels. Environment Canterbury Report R07/1/2, Trace Elements Level 2: Regional – Recent for Heavy Metals; or</i></li> <li>ii. <i>Buckland, S., Ellis, H.K., and Salter, R.T. (1998). Organochlorines in New Zealand: Ambient concentrations of selected organochlorines in soils. Wellington, New Zealand: Ministry for the Environment. ISBN 0-478-09034-X; or</i></li> <li>iii. <i>Tonkin &amp; Taylor (2007). Background Concentrations of polycyclic aromatic hydrocarbons in Christchurch urban soils. Environment Canterbury Report R07/19.); and</i></li> </ul> </li> <li>d. Not be deposited into groundwater or standing water; and</li> <li>e. Be located at least one metre above the highest groundwater level as determined under the Conditions of this resource consent.</li> </ul>	

	<p><b>Advice Note:</b></p> <ol style="list-style-type: none"> <li>1. <i>The Consent Holder may use Canterbury Maps as a <b>tool</b> to determine whether a source site has the same background levels of contaminants as the SOL Quarry. However, matching the background levels of the source site to the SOL Quarry does not mean the material is acceptable as cleanfill. Rather, the process to determine acceptability of the material to be deposited is described by Condition (35).</i></li> <li>2. <i>A definition of cleanfill is attached as Schedule 1.</i></li> </ol>	
35	<p>The Consent Holder must adhere to the following process related to the determination of the acceptability of cleanfill materials, <b>prior</b> to the acceptance of the first load of cleanfill from a site:</p> <ol style="list-style-type: none"> <li>a. The Consent Holder must request a Cleanfill Declaration for each site from which it is proposed to dispose of cleanfill from all Clients. The Cleanfill Declaration must include details of: <ol style="list-style-type: none"> <li>i. The name of the Client and the company delivering the material; and</li> <li>ii. The date for the deposition of the first load of cleanfill materials; and</li> <li>iii. The physical address of the site the material is sourced from; and</li> <li>iv. A description of the material; and</li> <li>v. Details of the site showing that trace element concentrations are equivalent or less than background levels, a LLUR statement, any available preliminary site investigations, detailed site investigations, remedial action and site validation reports; and</li> <li>vi. Any authorisation under which the material is to be removed from the source site (e.g. resource consent); and</li> <li>vii. The approximate weight or volume of the delivered material; and</li> <li>viii. A signed declaration or formal agreement between the Client delivering cleanfill to the site and the Consent Holder that the deposited material meets the acceptance criteria specified in Condition (20) of this resource consent.</li> </ol> </li> <li>b. The Consent Holder must ensure that the Cleanfill Declaration be provided to the SOL Quarry Administration Manager at least 24-hours prior to the arrival of the first load of cleanfill materials at the SOL Quarry.</li> </ol>	<p>Improvements have been made to the conditions relating to cleanfill acceptance and management to provide a more robust approach. A process flow chart was included as Schedule 2, which will provide clarity for the processes to be followed for cleanfill acceptance.</p> <p>While ECan considers that the process is still relatively complex, which leaves the door open for human error, the proposed approach is consistent with the discussions that ECan and SOL Quarries Ltd have had over the course of the hearing.</p>

	<p>c. The Consent Holder must follow the process outlined in Schedule 2 of this resource consent, and as set out in Conditions (35)(d) to (f), for the acceptance of cleanfill at the SOL Quarry Site.</p> <p>d. Independently of Condition (35)(a) and Condition (35)(b) above, The Consent Holder must review Canterbury Maps GIS database to determine that background levels at the source site are less than, or equal to, the Canterbury Regional Council regulatory background levels at the SOL Quarry site. If the background levels at the source site exceed the Canterbury Regional Council regulatory background levels at the SOL Quarry Site, the materials must not be accepted unless the owner of the material source site (Client) provides an investigation report from a SQEP confirming the contamination concentration of select trace elements referred to in Condition (34)(c) in the material to be deposited are at or below the Canterbury Regional Council regulatory background levels at the SOL Quarry site.</p> <p>e. If the soils to be deposited have regulatory background levels that are either equivalent or less than the background levels at the SOL Quarry site, the Consent Holder must review the CRC Listed Land Use Register (LLUR) to identify potentially hazardous land uses, either current or historical.</p> <ul style="list-style-type: none"> <li>i. If the site is not registered on the LLUR, a preliminary site investigation must be undertaken by a SQEP to review available information related to the site history and the likelihood of soil contamination due to of historical land uses and activities.</li> <li>ii. If the PSI finds the soil is likely to have been contaminated by historical and/or current land uses or activities, soil must not be accepted as cleanfill unless the owner of the material source site (or Client) undertakes a DSI to confirm soil quality results are acceptable as cleanfill at the SOL Quarries site, or that contaminated soil has been remediated and a Validation Report prepared by a SQEP has been provided to confirm soil has been remediated. The Validation Report must show that the material received at the SOL Quarries site contains contaminant concentrations at or below regulatory background concentrations (i.e., is acceptable as cleanfill) at this site.</li> </ul>	
--	---	--

	<p>f. If the LLUR shows that the material is from a contaminated or potentially contaminated site, the Consent Holder must ensure the owner of the material source site (or Client) provides a full site assessment and an investigation report from a SQEP before material can be accepted.</p> <p>g. Upon acceptance of cleanfill from a site, a unique Quarry Cleanfill number (QC number) must be allocated to the site from which material was deposited. The QC number will be a unique identifier for a site and will be recorded in the electronic register detailed in Condition (37).</p> <p><b>Advise Note:</b>  <i>In terms of Condition 35(a)(v), it is noted that the information detailed must be provided if available; however, not all the information detailed will be available for each source site.</i></p>	
36	<p>The Consent Holder must install a camera at the weighbridge to facilitate an inspection of each load of material when the material is received on-site for deposition. The Consent Holder must adhere to the following procedures relating to the acceptance of cleanfill:</p> <ul style="list-style-type: none"> <li>a. ALL loads of cleanfill must be weighed and inspected at the site weighbridge; and</li> <li>b. Trucks will deposit loads of cleanfill material in an area designated within the Crushing Area for cleanfill management, a minimum of 3-metres above the Quarry Pit floor; and</li> <li>c. Dedicated Quarry staff will inspect the load deposited under Condition (36)(b) to ensure it meets the cleanfill acceptance criteria specified in Condition (35) and the load description provided in accordance with Condition (35)(b) before the cleanfill is layered into the excavated Quarry Pit; and</li> <li>d. Quarry staff will reject any load that does not meet the cleanfill acceptance criteria specified in Condition (35) and/or the load description provided in accordance with Condition (35)(b); and</li> </ul>	



	<p>e. Update the electronic record referred to in Condition (37), in accordance with Condition (36) by recording the weight and inspection information in Condition (37).</p>	
37	<p>An electronic record of all cleanfill material deposited at the site must be maintained and held on site for the duration of this resource consent. This record must include:</p> <ul style="list-style-type: none"> <li>a. The unique cleanfill identification number (QC number); and</li> <li>b. The name of the Client and the company delivering the material; and</li> <li>c. The date for the deposition of the first load and every subsequent load of cleanfill materials from the site; and</li> <li>d. The physical address of the site the material is sourced from; and</li> <li>e. A description of the material; and</li> <li>f. Details of the site showing that trace element concentrations are equivalent or less than background levels, LLUR statement, any Preliminary Site investigations undertaken and any Site Validation and Site Remediation Reports; and</li> <li>g. Any authorisation under which the material is to be removed from the source site (e.g. resource consent); and</li> <li>h. The approximate weight or volume of the delivered material; and</li> <li>i. A signed declaration or formal agreement between the Client delivering cleanfill to the site and the Consent Holder that the deposited material meets the acceptance criteria specified in Condition (35) of this resource consent.</li> </ul> <p>The Consent Holder shall maintain a back- up copy of the electronic record. The electronic record shall be provided to Canterbury Regional Council on request.</p>	

38	<p>a. If any material other than cleanfill is suspected or confirmed at the deposition area, the Consent Holder must:</p> <ul style="list-style-type: none"> <li>i. Notify the Canterbury Regional Council, Attention: Regional Leader – Compliance Monitoring within 24 hours; and</li> <li>ii. Provide an opportunity for the Canterbury Regional Council, Attention: Regional Leader – Compliance Monitoring, or his/her representative, to attend the Quarry and site the material; and</li> <li>iii. Ensure the area is marked and closed off immediately; and</li> <li>iv. Remove this material within five working days of identifying that it should not have been deposited; and</li> <li>v. Arrange for its disposal at a suitably licensed or approved facility.</li> </ul> <p>b. Any material rejected in accordance with Condition (35) or removed from the site in accordance with Condition (38)(a), shall be disposed of at a suitably licensed facility.</p> <p>c. The Consent Holder must provide the Canterbury Regional Council, Attention: Regional Leader – Compliance Monitoring with written confirmation of such disposal within ten working days of the disposal taking place.</p>	
39	The Consent Holder must designate Staff with respect to tasks associated with the cleanfill operations. All designated staff, and any replacement staff, must receive specialist training by a Suitably Qualified and Experienced Professional (SQEP) in cleanfill management prior to commencing work in the Quarry Cleanfill.	
	<b>Groundwater Levels Monitoring</b>	
40	<p>a. Prior to the commencement of quarrying activities authorised in Condition (1), the Consent Holder must install groundwater monitoring bores for the purpose of monitoring groundwater levels in accordance with the coordinates specified in Condition (34b) and Plan CRC193563B.</p> <p>b. The bores required in accordance with Condition (41)(a) must comprise one (1) upgradient bore which is unaffected by the SOL Quarry (existing Quarry) and 2 down gradient bore located on the north-eastern boundary of the Quarry, located as follows.</p>	Agreement was reached between ECan and SOL Quarries Ltd in terms of location of monitoring wells and the downgradient monitoring Bore 3 in specific.

	<div style="text-align: center;"> <p>Easting (m)      Northing (m)</p> <p>Bore 1   1559277.1      5184813.0</p> <p>Bore 2   1557825.0      5185045.7</p> <p>Bore 3   1559177.6      5184951.5</p> <p><u>(New Zealand Transverse Mercator 2000)</u></p> </div> <p>c. The bores shall be:</p> <ul style="list-style-type: none"> <li>i. Be a minimum of 50 millimetres in diameter; and</li> <li>ii. Enter the aquifer that is immediately underlying the site; and</li> <li>iii. Be screened over an interval of 0.5 metres above the highest groundwater level that can be reasonably inferred at the site and 0.5 metres below the lowest groundwater level that can be reasonably inferred at the site; and</li> <li>iv. The bores shall be accessible to the Canterbury Regional Council for the purpose of groundwater sampling.</li> </ul>	
41	Information relating to the installation of these bores shall be provided to the Team Leader Compliance, Canterbury Regional Council, within 20 working days of their installation to confirm they have been installed in accordance with the conditions of this resource consent.	
42	<p>For the duration of this resource consent, the Consent Holder must monitor and record the groundwater levels (measured as above Lyttelton Vertical Datum 1937) in the bores installed in accordance with Condition (41).</p> <p>The Consent Holder must take:</p> <ul style="list-style-type: none"> <li>a. At least two measurements within 14 days prior to the start of the quarrying activities; and</li> <li>b. At least one measurement every 14 days between June to September (inclusive); and</li> <li>c. Monthly measurements for the period October to May (inclusive).</li> </ul>	

43	<p>If the monitoring undertaken in accordance with Condition (43) demonstrates that the groundwater levels are measured:</p> <ul style="list-style-type: none"> <li>a. Above the following depths (i.e. shallower groundwater), the Consent Holder shall provide the record of this in September of each year and within two working days of receipt of the results by the Consent Holder: <ul style="list-style-type: none"> <li>i. 38.1 metres above Lyttelton Vertical Datum 1937 on the up gradient well; and</li> <li>ii. 36.1 metres above Lyttelton Vertical Datum 1937 on the down-gradient well;</li> </ul> </li> <li>b. Below the following depths (i.e. deeper groundwater), the Consent Holder shall provide the record of this in September of each year, or on request to the CRC: <ul style="list-style-type: none"> <li>i. 38.1 metres above Lyttelton Vertical Datum 1937 on the up gradient well; and</li> <li>ii. 36.1 metres above Lyttelton Vertical Datum 1937 on the down-gradient well.</li> </ul> </li> </ul>	
44	<p>At all times and in all circumstances, the Consent Holder shall limit excavations to one metre above both the highest groundwater level for the site.</p>	
45	<p>Should the groundwater water level, as identified through monitoring under Condition (44), rise so that there is less than one metre separation between the measured groundwater levels and the current ground level within the quarry site (active quarry floor or ground level of any rehabilitated area), then:</p> <ul style="list-style-type: none"> <li>a. Any machinery, other than used in accordance with Condition (46)(b), shall be moved away from these areas;</li> <li>b. The Consent Holder shall backfill the area with virgin materials sourced from within the site to re-establish a one metre separation distance throughout the quarry site; and</li> <li>c. The Consent Holder shall decrease the maximum allowable depth of extraction in conformance with Condition (43). If the maximum allowable depth of extraction is reduced, the Consent Holder shall notify the Canterbury Regional Council, Attention: Regional Leader Compliance Monitoring within five days.</li> </ul> <p><b>Advice Note:</b> For the purpose of this consent, 'virgin materials' is aggregate that is of comparable quality and composition to aggregate which was excavated.</p>	

46	Should groundwater levels rise into the quarry floor during excavation of aggregate or deposition of cleanfill, the consent holder must notify the Team Leader Compliance, Canterbury Regional Council, within 24 hours and follow the steps outlined under Condition (45)(a) to (c).	
	<b>Groundwater Quality Monitoring and Reporting</b>	
47	<ul style="list-style-type: none"> <li>a. The bores installed in accordance with Condition (40) of this resource consent shall be also used for the purpose of monitoring groundwater quality.</li> <li>b. The bores shall be accessible to the Canterbury Regional Council for the purpose of groundwater sampling.</li> <li>c. Information relating to the installation of these bores shall be provided to the Canterbury Regional Council, Attention: Regional Leader, Compliance Monitoring, within twenty working days of their installation to confirm that the bores have been installed in accordance with the conditions of this resource consent.</li> </ul>	
48	<p>The Consent Holder must undertake the following groundwater sampling regime at the bores installed in accordance with Condition (40) of this resource consent:</p> <ul style="list-style-type: none"> <li>a. Representative samples of groundwater shall be taken prior to the commencement of quarrying activities, and at least once per month for the duration of this resource consent; and</li> <li>b. Samples shall be taken after adequate purging to remove all stagnant water from the bores or using an alternative method, such as low-flow sampling technique, to ensure that fresh groundwater is drawn through the bore screens; and</li> <li>c. All samples must be taken by a suitably qualified environmental practitioner and analysed for the contaminants listed in Table 1 by an accredited laboratory; and</li> <li>d. The water quality monitoring results shall be provided to the CRC Attention: Regional Leader Compliance Monitoring within one month of them being</li> </ul>	

received in an electronic format, suitable for automatic upload to a water quality database.

**Table 1**

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

**Advice note.** The Consent Holder acknowledges that Canterbury Regional Council may provide monitoring data to residents upon request. The monitoring data will also be available through the Community Quarry Liaison Group (CQLG).

#### **Responses to Monitoring**

49

- a. The results of the analyses of groundwater samples tested in accordance with Condition (48) shall be compared to the contaminant trigger values in Table 1.
- b. If the results show that any contaminant trigger values in Table 1 has been exceeded in a down-gradient bore, the Consent Holder shall consult with ECan after evaluation of the monitoring data. If further sampling is considered to be appropriate, the Consent Holder must:
  - i. Obtain groundwater samples from all bores sampled in accordance with Condition (48) within 14 days; and

- ii. The samples taken in accordance with Condition (49)(a) shall be analysed for the determinants in Table 1 and Table 2 within fourteen days from the previous analysis undertaken in accordance with Condition (49).

**Table 2**

<b>Contaminant</b>	<b>Trigger value<sup>1</sup></b>
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, whichever is the highest
Dissolved Nickel	0.04 mg/L
Nitrate-Nitrogen	5.6 mg/L

	<p><b>Advice Note:</b></p> <ul style="list-style-type: none"> <li>i. <i>The Consent Holder acknowledges that CRC may provide monitoring data to residents upon request. The monitoring data will also be available through the Community Quarry Liaison Group (CQLG).</i></li> <li>ii. <i>Trigger values are 50% of the guideline values for aesthetic determinants or maximum acceptable values in the Drinking Water Standards for New Zealand.</i></li> </ul>	
50	<p>If the results from the sampling undertaken in accordance with Condition (48) show concentrations of contaminants that exceed the trigger values in Table 1 or in Table 2, the Consent Holder must:</p> <ul style="list-style-type: none"> <li>a. Notify the Canterbury Regional Council Attention: Regional Leader – Compliance Monitoring, within 48 hours of receiving the results of the exceedance being received; and</li> <li>b. Notify the occupiers of all adjoining properties within 500 metres hydraulically downgradient of the site within 48 hours and undertake an assessment for the potential adverse effect on these wells; and</li> <li>c. Implement necessary measures to reduce the concentration of the contaminant in groundwater. Such measures may include: <ul style="list-style-type: none"> <li>i. Cessation of activities that may have caused the excessive concentrations.</li> <li>ii. Providing an alternative water supply to affected domestic wells used for drinking water supply.</li> <li>iii. Removal of the contaminant source(s).</li> <li>iv. Stabilisation or capping of the contaminant source(s).</li> <li>v. Revision of cleanfill management procedures; and</li> </ul> </li> <li>d. Undertake an investigation to determine the potential cause of the exceedance including: <ul style="list-style-type: none"> <li>i. Reviewing the on-site conditions and material to determine potential sources of contaminants; and</li> </ul> </li> </ul>	



	<ul style="list-style-type: none"> <li>ii. Within 14 days undertake sampling of domestic wells within 500 m from the site (if access is granted); and</li> <li>iii. Provide a quantitative risk assessment to the Canterbury Regional Council within 14 days of receipt of additional sampling. The samples shall be analysed for the determinants in Table 1 and Table 2.</li> </ul>	
51	<p>Within 10 working days of implementing the measures listed in Condition (50), validation sample(s) shall be taken from the bores sampled in accordance with Condition (48). The validation sample(s) shall be analysed in accordance with Condition (48) to determine the concentration of any contaminants for which the concentrations in Table 1 or Table 2 were exceeded in the previous sample. Results of this analysis shall be provided to the Canterbury Regional Council, Attention: Regional Leader - Compliance Monitoring, within two (2) working days of receipt of the results by the consent holder.</p> <ul style="list-style-type: none"> <li>a. If the results of any validation sample(s) show that the concentrations of contaminants do not exceed the maximum values specified in Table 1 or Table 2, the Consent Holder shall collect a second sample after 14 days; and</li> <li>b. If the results of the two consecutive sampling rounds do not exceed the concentrations in Table 1 or Table 2, then the sampling frequency shall return to that as outlined in Condition (48).</li> <li>c. If any of the results under Conditions (51)(a) or (b) show the concentrations of contaminants do exceed those specified in Table 1 or Table 2, then the consent holder shall implement further measures as set out in Conditions (50)(c) and (d) and undertake further validation sampling in accordance with Condition (48).</li> </ul>	
52	<p>Any material removed in accordance with Condition (51)(c)(iii) must be disposed of at a facility authorised to receive such material, and the consent holder shall provide the Canterbury Regional Council, Attention: Regional Leader - Compliance Monitoring, with written confirmation of such disposal within 10 working days.</p>	

	<b>Rehabilitation</b>	
53	<p>Rehabilitation shall be undertaken in accordance with a Quarry Rehabilitation Plan. The Quarry Rehabilitation Plan must be retained on site at all times and the Consent Holder shall ensure all appropriate personnel working on the site are made aware of and have access to it. The Quarry Rehabilitation Plan must:</p> <ul style="list-style-type: none"> <li>a. Demonstrate how Condition (54) of this resource consent will be complied with; and</li> <li>b. Contain a description of the content and purpose of the Quarry Rehabilitation Plan.</li> </ul>	
54	<p>The Consent Holder shall progressively rehabilitate the site and shall ensure that any area where cleanfilling activities have been completed is rehabilitated within six-months of the completion of cleanfilling. The rehabilitated site must be recontoured to mimic the subtle landforms of the surrounding land.</p> <p>The rehabilitation shall include but not be limited:</p> <ul style="list-style-type: none"> <li>a. Backfilling of the area with cleanfill and contouring to approximate the existing landforms in the immediate locality of the site; and</li> <li>b. Spreading a minimum depth of 300mm of topsoil over the site. The Consent Holder shall utilise stored overburden and topsoil from the Quarry and the bunds to rehabilitate the site and shall maintain the recontour described in Condition (54)(a); and</li> <li>c. Topsoil is not to be compacted during spreading; rather topsoil is to be tilled or ripped to improve drainage; and</li> <li>d. The development of a free-draining and stable landform; and</li> <li>e. Re-grassing and re-planting all exposed areas as soon as practicable to prevent erosion losses; and</li> </ul>	

	<p>f. Any re-grassing or re-planting undertaken in accordance with Condition (48)(d) shall use low-seed generating grass species which do not attract birds or insect species, that subsequently attract birds; and</p> <p>g. Monitoring and maintaining rehabilitated areas to ensure they are functioning appropriately post-closure; and</p> <p>h. During the final stages of rehabilitation, removing all mobile machinery and plant from the site; and</p> <p>i. Ensuring the site is suitable for the future use of the site as detailed in the Quarry Rehabilitation Plan and uses consistent with the <i>permitted activities</i> prescribed in the Christchurch District Plan; and</p> <p>j. 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 CRC193564 must continue to be employed on site until this grass cover is achieved; and</p> <p>k. Monitoring and maintaining the progress of the vegetation and reseedling if necessary, i.e. if the germination rate is satisfactory, controlling weeds, mowing and/or grazing to ensure rehabilitated areas are functioning appropriately, with a minimum 80% grass cover, post-closure, for a period of 24 months.</p> <p><b>Advice note.</b> <i>The completion of rehabilitation requires the area rehabilitated to be completely grassed and/or vegetated.</i></p>	
	<b>Accidental Discovery Protocol</b>	
55	<p>In the event of any discovery of archaeological material:</p> <p>a. The Consent Holder shall immediately:</p> <p>i. Cease earthmoving operations in the affected area and mark off the affected area; and</p> <p>ii. Advise the Canterbury Regional Council of the disturbance; and</p> <p>iii. Advise Heritage New Zealand of the disturbance.</p>	

	<p>b. If the archaeological material is determined to be Kōiwi Tangata (human bones) or taonga (treasured artefacts) by Heritage New Zealand, the consent holder shall immediately advise the office of the appropriate Rūnanga (office contact information can be obtained from the Canterbury Regional Council) of the discovery.</p> <p>c. If the archaeological material is determined to be Kōiwi Tangata (human bones) or taonga (treasured artefacts) by Heritage New Zealand, the consent holder shall immediately advise the office of the appropriate Rūnanga (office contact information can be obtained from the Canterbury Regional Council) of the discovery.</p> <p>d. If the archaeological material is determined to be Kōiwi Tangata (human bones) by Heritage New Zealand, the consent holder shall immediately advise the New Zealand Police of the disturbance.</p> <p>e. Work may recommence if Heritage New Zealand (following consultation with Rūnanga 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.</p> <p><b>Advice Note:</b> <i>This may be in addition to any agreements that are in place between the consent holder and the Papatipu Rūnanga. (Cultural Site Accidental Discovery Protocol).</i></p> <p><b>Advice Note:</b> <i>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/kōiwi 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.</i></p>	
--	---	--

	<b>Annual Report</b>	
56	<p>The Consent Holder shall prepare and submit to the Canterbury Regional Council by 30 September each year for the duration of this resource consent an annual monitoring report for the preceding period of 1 July to 30 June. The annual monitoring report shall include but not be limited to:</p> <ul style="list-style-type: none"> <li>a. The survey results as required by Condition (27).</li> <li>b. The annual contour map as required by Condition (29).</li> <li>c. The electronic record of cleanfill accepted at the site as required by Condition (36).</li> <li>d. A record of any material rejected at the site and the location where this waste was taken to and disposed of in accordance with Condition (35) and Condition (37).</li> <li>e. Results of the groundwater level monitoring as required by Conditions (40) to (46).</li> <li>f. Results of groundwater quality monitoring as required by Condition (47) to (52). This shall include: <ul style="list-style-type: none"> <li>i. A discussion of the groundwater quality trends; and</li> <li>ii. Any exceedances of the Table 1 contaminant trigger concentrations; and</li> <li>iii. Any mitigation actions taken in response to the exceedances.</li> </ul> </li> <li>g. A record of any spills on-site and remedial actions in accordance with Condition (16),</li> <li>h. An update of the progress of the rehabilitation at the site.</li> </ul>	

	<b>Covenant</b>	
58	<p>Once all extraction and rehabilitation activities are complete, the land shall not be used for the following activities:</p> <ul style="list-style-type: none"> <li>a. Intensive and irrigated pastoral farming, and land uses where the stock density or the nature of the activity does not maintain ground cover without irrigation; or</li> <li>b. Intensive animal farming, such as cattle feedlots, pig farms, poultry farms or any other farming operation where animals are housed, and their collected effluent disposed of on the site; or</li> <li>c. Any activity involving the use or storage of hazardous chemicals, including petroleum products, in quantities greater than normal on rural-residential property.</li> </ul>	
59	An encumbrance or covenant in favour of the Consent Authority under section 108(2)(d) of the Resource Management Act 1991 shall be registered against all land titles of the site to give effect to the limitations on subsequent land use activities set out in Condition (58), within six months of the commencement of this resource consent.	
	<b>Company (Consent Holder) Commitment to Obligations</b>	
60	A responsible Officer of the Company (the Consent Holder) must provide formal advice, in writing, regarding the financial viability of the Company, with specific reference to obligations of the Company under the Consents in relation to rehabilitation of the Quarry site, at the request of Canterbury Regional Council.	
	<b>Administration</b>	
61	<p>The Canterbury Regional Council may, once per year, on any of the last five working days of May or November, serve notice of its intention to review the conditions of this consent for the purposes of:</p> <ul style="list-style-type: none"> <li>a. Dealing with an adverse effect on the environment occurring as a result of the exercise of this resource consent; or</li> </ul>	<p>Agreement was reached between ECan and SOL Quarries Ltd to add Clauses (c) and (d) to this condition to enable ECan to review the resource consent to:</p> <ul style="list-style-type: none"> <li>(c) Provide for changes to cleanfill acceptance criteria once/if the Ministry for the Environment's (2002) <i>A Guide to the Management of Cleanfills</i> is superseded by</li> </ul>

	<ul style="list-style-type: none"> <li>b. Requiring best practicable options to be adopted by the consent holder to remove or reduce any adverse effect on the environment as a result of the exercise of this resource consent; or</li> <li>c. Providing for legislative or regulatory amendments to the management of cleanfill; or</li> <li>d. Achieving consistency with any updates to, or replacement of, the Drinking-water Standards for New Zealand 2005 (Revised 2018); or</li> <li>e. Requiring the consent holder to carry out monitoring and reporting instead of, or in addition to, that required by the resource consent; or</li> <li>f. Requiring the consent holder to comply with a relevant rule in an operative Regional Plan.</li> </ul>	<p>a new guideline document (such as the WasteMINZ <i>Technical Guidelines for Disposal to Land</i>).</p> <p>(d) Provide for changes to the contaminant trigger values detailed in groundwater quality monitoring Condition (50), should the maximum acceptable values or water quality standards, or the guideline values for aesthetic determinands in the Ministry of Health's <i>Drinking-water Standards for New Zealand 2005 (Revised 2018)</i> change.</p>
62	<p>If this consent is not exercised within 7-years of the date of grant of consent, it shall lapse in accordance with Section 125 of the Resource Management Act 1991.</p> <p><b>Advice Note:</b> <i>'Exercised' is defined as implementing any requirements to operate this consent and undertaking the activity as described in these conditions and/or application documents</i></p>	

## **CRC193563 – Schedule 1**

### **Waste Acceptance Definition:**

Material that when buried will have no adverse effect on people or the environment. Cleanfill materials includes virgin natural materials such as clay, soil and rock and other inert materials such as concrete or brick that are free of:

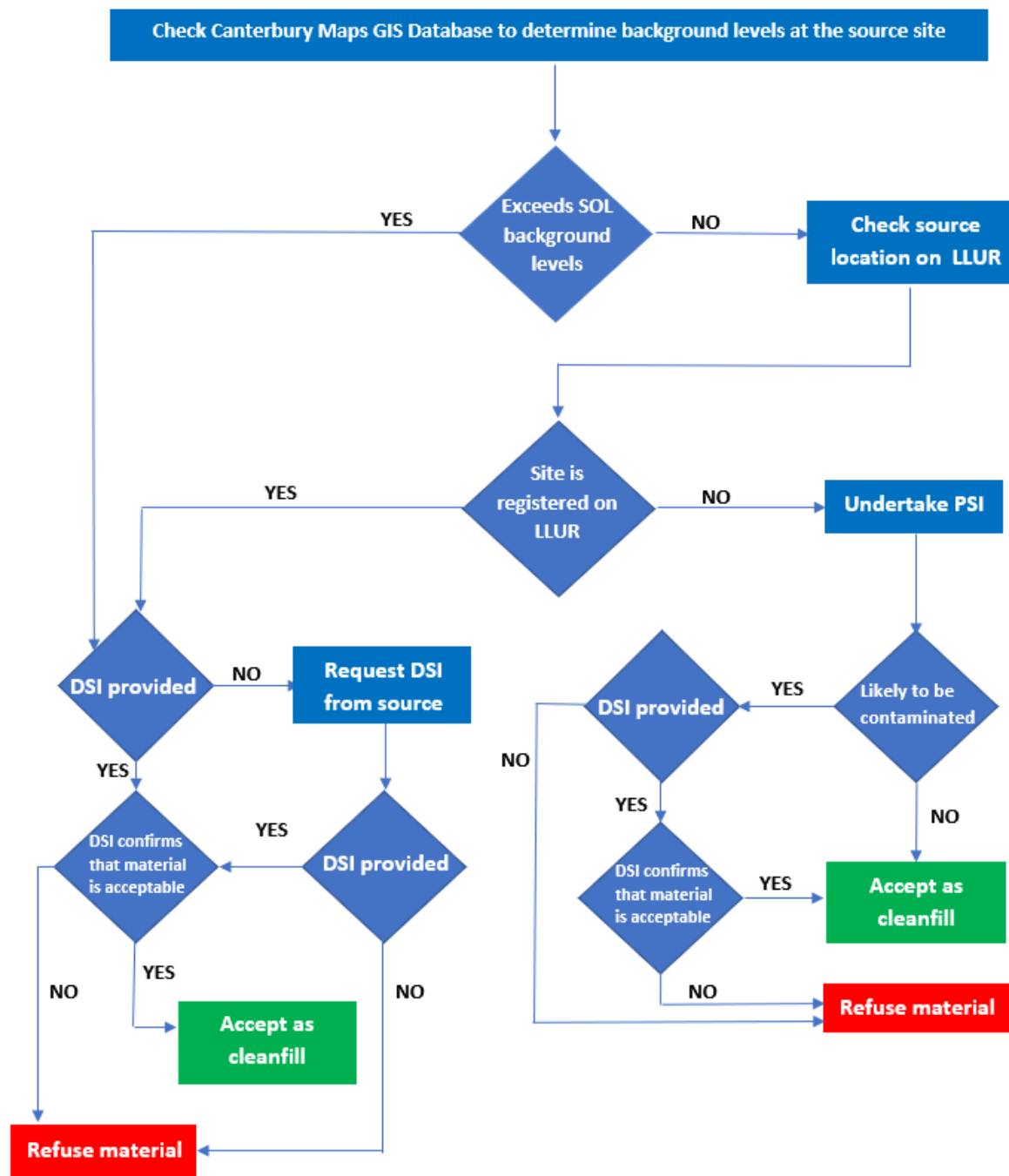
- Combustible, putrescible, degradable or leachable components; or
- Hazardous substances; or
- Products or materials derived from hazardous waste treatment, hazardous waste stabilisation or hazardous waste disposal practices; or
- Materials that may present a risk to human or animal health such as medical and veterinary waste, asbestos or radioactive substances; or
- Liquid waste.

Acceptable cleanfill waste **excludes:**

- concrete slurry.
- hydro-excavation.
- coal tar wastes.



**Schedule 2 – Cleanfill acceptable flow chart**



**CRC193564 – To discharge contaminations to air**

	Condition	ECan Comments
	<b>Limits</b>	
1	<p>The discharge of contaminants to air shall be limited to dust and particulate matter arising from the following activities:</p> <ul style="list-style-type: none"> <li>a. Site preparation, topsoil stripping, overburden removal and storage;</li> <li>b. Construction and maintenance of bunds and stockpiles;</li> <li>c. Earthworks related to re-alignment of the stockwater race;</li> <li>d. Excavation of quarry gravels;</li> <li>e. Stockpiling of excavated aggregate;</li> <li>f. Processing and crushing of excavated aggregate;</li> <li>g. Deposition of cleanfill;</li> <li>h. Loading and transportation of aggregate;</li> <li>i. Rehabilitation activities at the completion of extracting aggregate; and</li> <li>j. Movement of vehicles associated with the above activities.</li> </ul> <p>at 93 and 133 Conservators Road, legally described as Part RS 3579 and Lot 1 DP 82891 as shown on Plan CRC193564, attached to and forming part of this resource consent.</p> <p><b>Advice note.</b> For the purpose of this resource consent:</p> <ul style="list-style-type: none"> <li>a. Quarry activities means the activities listed in Condition (1)(a) to (j);</li> <li>b. Site preparation works means the activities listed in Condition (1)(a) to (c); and</li> <li>c. Quarrying operations means the activities listed in Condition (1)(d) to (j).</li> </ul>	
2	<p>Prior to the commencement of discharge to air activities authorised by Condition (1) of this resource consent, the Consent Holder must implement the Enabling Works so defined in this resource consent.</p> <p>The Enabling Works in this resource consent include:</p> <ul style="list-style-type: none"> <li>i. The design, install and commissioning of an automated dust suppression system; and</li> <li>ii. Sealing the internal road between the Weighbridge and the <i>Crushing Area</i> and the entire length of the Light Vehicle Access as shown on Plan CRC193564 attached to this resource consent.</li> </ul>	

3	<p>The discharge of contaminants to air associated with Condition (1)(f) shall be limited to that from:</p> <ul style="list-style-type: none"> <li>a. A maximum of two crushing plants at any one time. A crushing plant shall include: <ul style="list-style-type: none"> <li>i. A Cone Crusher; and</li> <li>ii. A Powerscreen.</li> </ul> </li> <li>b. The crushing plants and aggregate stockpiles shall be located a minimum of 350-metres from the north-east Quarry Boundary as shown on Plan CRC193563A.</li> <li>c. No blasting or the use of a jaw crusher is authorised by this resource consent.</li> </ul>	
4	<p>The discharge of contaminants into air must not result in an offensive, objectionable, noxious or dangerous effect beyond the site boundaries as shown on Plan CRC193564A.</p>	
5	<p>The Quarry Manager, or another nominated person, must be available at all times (including outside quarry operation hours) to respond to dust emissions complaints and issues. The contact details must be displayed on signage at the Heavy Vehicle Entrance, the Light Vehicle Entrance and at the Quarry Office adjacent to the Weighbridge. With the exception of the Quarry Office signage, the contact details must be able to be read from outside the gates.</p>	
6	<p>The operating hours of the site must be:</p> <ul style="list-style-type: none"> <li>a. 06:30 am to 18:00 pm on weekdays; and</li> <li>b. 06:30 am to 12:00 pm on Saturdays.</li> </ul> <p>Provided that:</p> <ul style="list-style-type: none"> <li>i. No aggregate processing, including loading, crushing and screening, shall occur on the site prior to 07:00 am at any time; and</li> <li>ii. No heavy vehicles shall access or leave the site prior to 07:00 am. The access gate on Guys Road shall be locked at all times prior to 07:00 am; and</li> <li>iii. No heavy vehicle shall access the Heavy Vehicle Access Road prior to 7:00 am.</li> </ul>	

	<p><b>Advice Note:</b></p> <p><i>In order to ensure compliance with Condition (5), the Consent Holder will construct a swing arm gate proximate to the Weighbridge preventing access to the Heavy Vehicle Access Road prior to 7:00 am daily.</i></p>	
7	No activities other than dust mitigation measures shall be undertaken on Sundays, public holidays or outside of quarry operation hours.	
8	<p>The maximum unconsolidated area must be limited at any one time to:</p> <ul style="list-style-type: none"> <li>a. Nine hectares for the total quarrying activities area, defined as including the internal unsealed roading network, the Crushing Area, the excavated Quarry Pit, the area stripped in preparation for quarrying; the active Cleanfill Area, and the area currently undergoing rehabilitation.</li> <li>b. Two hectares at any one time for the active quarrying operations area, defined as the Crushing Area, the excavated Quarry Pit and the active Cleanfill Area.</li> <li>c. During the transition from the existing Quarry to the new Quarry, and at any other time, the maximum unconsolidated area must not exceed a combined total nine hectares, comprising the unconsolidated area of the Quarry consented under CRC184073 and the unconsolidated area of the Quarry consented under CRC193563.</li> </ul>	
	<b>Community Quarry Liaison Group</b>	
9	<p>The Consent Holder must facilitate the establishment of a Community Quarry Liaison Group (CQLG) in accordance with the following requirements:</p> <ul style="list-style-type: none"> <li>a. The CQLP must initially comprise of up to two representatives of the Consent Holder, and the Consent Holder must invite one representative of the Christchurch City Council, one representative of the Canterbury Regional Council, one representative of the residents along Conservators Road, and representatives of the relevant Kaitiaki Rūnanga.</li> <li>b. The purpose of the CQLG is to: <ul style="list-style-type: none"> <li>i. Facilitate the engagement of the local community on an on-going and regular basis about matters associated with the quarrying operations as they relate to consent compliance; and</li> <li>ii. Promote the flow of information between the local community and the consent holder so as to, wherever possible, address any consent compliance issues that may arise; and</li> <li>iii. Facilitate discussions relating to the results of consent compliance monitoring and any matters that may arise as a result of the monitoring.</li> </ul> </li> </ul>	

- c. The CQLG must initially comprise up to two representatives of the Consent Holder, and the Consent Holder must invite one representative of the Christchurch City Council, one representative of the Canterbury Regional Council, one representative of the residents along Conservators Road, and representatives of the relevant Kaitiaki Rūnanga.

**Advice Note:** *This condition only governs the initial establishment for the purposes of convening the first meeting of the CLG. The consent Holder acknowledges that it will be for the Residents along Conservators Road to decide whether or not they want to become involved. On-going membership will also be determined by the CQLG.*

- d. The consent holder must ensure that members of the CQLG are provided with the opportunity and facilities to meet:
- i. At least 30 working days prior to the start of any *site preparation* activities; and
  - ii. Not less frequently than six-monthly during the first four years of quarrying operations and annually thereafter, unless all members of the CQLG agree there is no need for a meeting.
- e. If the Consent Holder, in progressing any element of the quarry, wishes to call a meeting of the CQLG to obtain community input, the meeting regime may be shifted to accommodate such a request.
- f. The time, date and venue of proposed meetings must be notified to members of the CQLG 15 working days prior to the meeting date.
- g. Minutes of the CQLG meetings must be kept by the Consent Holder and be made publicly available.
- h. The Consent Holder must engage an independent chairperson to facilitate CQLG meetings.
- i. The Consent Holder must meet the reasonable administrative costs of the CQLG meetings (e.g. meeting invitations; meeting venue; preparation of meeting minutes) and facilitation of meetings by an independent chair.

**Advice Note:** *In the event that it is not possible to establish a CQLG or convene meetings through lack of interest or participation from the residents, then such failure to do so will not be deemed a breach of these conditions. Should the residents wish to re-establish meetings after a period of inactivity then the conditions above shall continue to apply.*

	Automated Sprinkler System	
10	<p>a. Prior to the commencement of any activities listed in Condition (1), the Consent Holder must design an automated sprinkler system and provide the design of the systems to the Canterbury Regional Council, Attention: Regional Leader Compliance Monitoring for certification at least 60 working days prior to the sprinkler being installed;</p> <p>b. The Consent Holder must not install the automated sprinkler system until certification has been received from the Regional Leader Compliance Monitoring - Canterbury Regional Council in accordance with this Condition.</p> <p>c. If the Consent Holder has not received a response from the Regional Leader Compliance Monitoring - Canterbury Regional Council confirming certification of the automated dust suppression system <b>or</b> specifying recommended amendments to the system within 60 working days of the date of submission of the design of the automated sprinkler system under Condition (10), the design must be deemed to be certified.</p> <p>d. In considering the automated dust suppression system for the purpose of certification, Canterbury Regional Council may, due to the scale or complexity of the plan, and with the agreement of the Consent Holder, extend the time period for certification provided the extended time period does not exceed a further 60 working days.</p> <p>e. If the response from the Canterbury Regional Council is that Council is not able to certify the automated sprinkler system design, then the Consent Holder must consider any reasons and recommendations provided by Council, amend the design accordingly, and resubmit the amended design to the Canterbury Regional Council, Attention: Regional Leader - Compliance Monitoring.</p> <p><b>Advice note.</b> <i>The certification process is confined to ensuring that the design of the automated dust suppression system adequately gives effect to the relevant Condition(s).</i></p>	<p>As discussed by Ms McLintock in her Supplementary s42A Report, the proposal is reliant on automated systems, diligent observations and performance of a complex suite of conditions. Compliance is required at all times and over a long period, and while it has to be assumed that compliance is achieved subject to the imposition of conditions that address potential effects of the activity and which can be reasonably met, ECan remains that there is a degree of uncertainty as to whether compliance can actually be achieved by the applicant at all times.</p>
11	<p>The automated sprinkler systems required in accordance with Condition (10) must:</p> <p>a. Be able to be used at all times including within and outside quarry operating hours; and</p> <p>b. Be used in accordance with the requirement for dust suppression in accordance with Condition (19) of this resource consent; and</p> <p>c. Target at least two separate quarry areas:</p> <p>i. The bunds, all stockpiles, and areas of rehabilitation; and</p>	

	<p>ii. The areas on which active quarrying operations occur, including any unconsolidated internal haul roads and trafficable areas.</p> <p>d. Suppress dust to meet the requirements of Condition (4) of this resource consent for all activities described in Condition (1) of this resource consent; and</p> <p>e. Be maintained in accordance with the manufacturer's specifications at least once in a 12-month period for the duration of this resource consent. A record of this maintenance shall be maintained by the Consent Holder.</p> <p><b>Advice note.</b> The system required in Condition (11)(c)(ii) cannot use water obtained from the Selwyn District Council Paparua Water Race Scheme.</p>	
	<b>Water Supply</b>	
12	<p>a. The Consent Holder must, at all times, have the ability to lawfully take and use a minimum of 200 cubic metres of water available per day (365 days per year) for dust suppression and irrigation.</p> <p>b. The water supply for dust suppression and irrigation in Condition (12)(a) may comprise any combination of the following water sources:</p> <p>i. 104 m<sup>3</sup> per day (365 days per annum) drawn from the agree take and use related to the Paparua Stockwater Race;</p> <p>ii. 100 m<sup>3</sup> per day (365 days per annum) drawn in accordance with the Certificate of Compliance (CRC155101) – Bore BX23/0520;</p> <p>iii. 109.60 m<sup>3</sup> per day (365 days per annum) drawn in accordance with the resource consent CRC203210 – Bore M35/0947.</p> <p>iv. Any other water source consented for the purpose of dust suppression and/or irrigation of the Site.</p>	<p>ECan does not agree that the permitted activity volume and a resource consent can be used concurrently on the same site. This position is supported by the legal opinion received on this matter.</p> <p>The requirement under Clause (a) to have at least 200m<sup>3</sup>/day available addresses the need to have sufficient water for dust suppression and irrigation, and without this, no quarrying can occur. ECan supports this approach.</p> <p>However, we consider that overall, the issue around water availability and certainty of supply discussed by Ms McIntock in her s42A Report</p>



		and Supplementary s42A Report has not been addressed.
13	<p>a. If at any time during the exercise of this resource consent, the automated sprinkler system is unavailable for use, the Consent Holder must notify the Canterbury Regional Council, Attention: Regional Leader – Compliance and</p> <p>b. The Consent Holder must immediately activate alternative dust suppression systems, including the operation of a water truck and the manual operation of the sprinkler laterals; and</p> <p>c. The Consent Holder must re-instate the automated sprinkler system as soon as practical, and shall notify the Canterbury Regional Council, Attention: Regional Leader – Compliance Monitoring once the sprinkler system has been restored.</p>	
	<b>Prior to Commencing Works</b>	
14	<p>At least 20 working days prior to commencement of cleanfill activities authorised in Condition (1), the Consent Holder or their agent must arrange and conduct a Pre-commencement Site Meeting with the Canterbury Regional Council (CRC). At a minimum, the following must be covered at the meeting:</p> <ul style="list-style-type: none"> <li>a. Scheduling and staging of the works, including the proposed start date;</li> <li>b. Responsibilities of all relevant parties;</li> <li>c. Contact details for all relevant parties;</li> <li>d. Expectations regarding communication between all relevant parties;</li> <li>e. Site inspections;</li> <li>f. Confirmation that the automated dust suppression system has been installed and commissioned in accordance with resource consent CRC193564; and</li> <li>g. Confirmation that all relevant parties have copies of the contents of these consent documents and all associated management plans.</li> </ul> <p><b>Advice Note:</b> The Pre-commencement Site Meeting referred to above may be held in conjunction with the Pre-construction Site Meetings required by Consents CRC193564; CRC193563 and RMA/2019/373.</p>	
15	At least 20 working days prior to the commencement of on-site activities, the Consent Holder must inform the Canterbury Regional Council, Attention: Regional Leader – Compliance Monitoring in writing of the start date of the commencement of the quarry activities.	
16	Prior to the commencement of the quarry activities, including Enabling Works, authorised by the conditions of this resource consent, all personnel working on the site must be made aware of, have access to, and be trained in the understanding of the importance to comply with:	

	<ul style="list-style-type: none"> <li>a. The contents of this resource consent;</li> <li>b. Resource consents CRC193563 and CRC193773; and</li> <li>c. The Quarry Management Plan prepared in accordance with resource consent CRC193563.</li> </ul>	
17	The Consent Holder must seal the internal road between the Weighbridge and Crushing Area and the entire length of the Light Vehicle Access prior to the commencement of quarrying activities.	
	<b>Dust Management Plan</b>	
18	<ul style="list-style-type: none"> <li>a. The Consent Holder must prepare a Dust Management Plan (DMP), which also forms a Section of the Quarry Management Plan (QMP) required by Condition (3) of CRC193563.</li> <li>b. The purpose of the DMP is to provide a framework for managing dust emissions from activities authorised under Condition (1) of this resource consent and to mitigate and minimise effects at or beyond the boundary of the site and to achieve compliance with Condition (4), Condition (21) and Conditions (32) to (36) of this resource consent.</li> <li>c. At least 60 working days prior to the commencement of activities authorised in Condition (1), the Consent Holder must prepare and submit the DMP to the Canterbury Regional Council, Attention: Regional Leader - Compliance Monitoring for certification that it complies with all conditions of this resource consent.</li> <li>d. The DMP must: <ul style="list-style-type: none"> <li>a. Be prepared in accordance with Schedule 2 of the Canterbury Air Regional Plan; and</li> <li>b. Be retained on site at all times; and</li> <li>c. Be provided to all persons operating or carrying out the activities authorised by this resource consent; and</li> <li>d. Be prepared by a suitably qualified experienced practitioner in air quality; and</li> <li>e. Include details on how the conditions of this resource consent will be complied with.</li> </ul> </li> <li>d. If the Consent Holder has not received a response from the Canterbury Regional Council, Attention: Regional Leader - Compliance Monitoring confirming certification of the DMP, <b>or</b> specifying recommended amendments to the DMP, within 60 working days of the date of submission under Condition (3)(a), or the period determined under Condition (3)(d), the DMP must be deemed to be certified.</li> </ul>	

	<p>e. In considering the DMP for the purpose of certification, Canterbury Regional Council may, due to the scale or complexity of the DMP, <b>and</b> with the agreement of the Consent Holder, extend the time period for certification provided the extended time period does not exceed a further 60 working days.</p> <p>f. If the response from the Canterbury Regional Council is that Council is not able to certify the DMP, the Consent Holder must consider any reasons and recommendations provided by Council, amend the DMP accordingly, and resubmit the DMP to the Canterbury Regional Council, Attention: Regional Leader - Compliance Monitoring.</p> <p><b>Advice note.</b> <i>The DMP forms a Section of the Quarry Management Plan and will be certified in accordance with certification of the QMP, under Condition 13 of CRC193563. Certification of the DMP is confined to confirming that the Dust Management Plan adequately gives effect to the relevant Condition(s).</i></p>	
19	<p>The DMP must include, but not be limited to:</p> <ul style="list-style-type: none"> <li>a. A description of the content and purpose of the DMP; and</li> <li>b. A description of the site location and the receiving environment; and</li> <li>c. A system for training employees and contractors to make them aware of the requirements of the DMP and the conditions of this resource consent; and</li> <li>d. Identifying staff responsibilities for implementing and reviewing the DMP; and</li> <li>e. Identifying staff responsible for monitoring the effectiveness of mitigation measures and the operation of wind and PM<sub>10</sub> monitoring equipment; and</li> <li>f. A description of all on-site activities as described in Condition (1) and dust sources on site; and</li> <li>g. A description of the weather conditions that trigger the requirement for dust suppression activities, as outlined in Condition (21); and</li> <li>h. The methods to be used for controlling dust at each source during on-site activities, in accordance with Condition (1) and the measures set out in Condition (22); and</li> </ul>	

	<ul style="list-style-type: none"> <li>i. A description of the methods for the use of water for dust suppression on all exposed areas on dry days, including how and when water will be applied to maintain damp surfaces; and</li> <li>j. The frequency and triggers of when water will be used to maintain damp surfaces, including the use of the automated sprinkler system, and when these measures are to commence on dry days; and</li> <li>k. A description of the contingency measures to be used on-site; and</li> <li>l. Details regarding when biodegradable chemical dust suppressants will be used to minimise dust; and</li> <li>m. A description of the frequency of the vacuum sweeping of sealed roads, as specified in Condition (22)(f); and</li> <li>n. Procedures, processes and methods for managing dust when staff are not on site; and</li> <li>o. A description of continuous particulate matter and meteorological monitoring requirements and methodology, including the location and calibration of the monitoring equipment; and</li> <li>p. Measures for checking the operation of wind and PM<sub>10</sub> monitoring equipment, and procedures for re-instating monitoring as soon as practicable should the equipment cease operating; and</li> <li>q. The trigger levels for continuous dust and wind monitoring, including when activities will cease; and</li> <li>r. A description of procedures for responding to particulate matter and wind condition-based trigger levels that are set out in Condition (21); and</li> <li>s. A maintenance schedule for meteorological and particulate (including PM<sub>10</sub>) monitoring instruments; and</li> <li>t. A maintenance schedule for the automated sprinkler system; and</li> <li>u. Methods for recording and responding to complaints; and</li> <li>v. Methods for reporting to the Canterbury Regional Council; and</li> </ul>	
20	The DMP must be reviewed and updated annually. Any amendments must be:	

	<ul style="list-style-type: none"> <li>a. For the purpose of applying best practicable measures to mitigate adverse effects resulting from the discharge of dust; or</li> <li>b. For the purpose of improving the efficacy of the mitigation, and shall not result in reduced discharge quality; or</li> <li>c. Consistent with the conditions of this resource consent; and</li> <li>d. Submitted in writing to the Canterbury Regional Council, Attention: Regional Leader - Monitoring and Compliance, for certification in accordance with Condition (16) prior to any amendment being implemented.</li> </ul>	
	<b>Dust Mitigation</b>	
21	<p>The Consent Holder must utilise all reasonably practicable measures to minimise the discharge of dust from quarry activities on-site:</p> <ul style="list-style-type: none"> <li>a. When wind speeds reach or exceed 7 m/s for a one-hour average; and</li> <li>b. On dry days; and</li> <li>c. When there is any visible emission of dust from the site.</li> </ul> <p><b>Advice Note:</b> <i>Dry days means when there is less than 1 millimetre of rain or when less than 1 millimetre of rain has fallen during the past 24-hours or ground conditions are visibly dry.</i></p>	
22	<p>The Consent Holder must ensure there are measures to minimise the discharge of dust from quarry activities, including but not limited to:</p> <ul style="list-style-type: none"> <li>a. Assessing weather and ground conditions (wind and dryness) at the start of each day and ensuring that adequate dust mitigation measures, water for the purpose of dust suppression and methods are available for use prior to the commencement of quarry activities. Information collected at the start of each day must be recorded and made available to the Canterbury Regional Council on request; and</li> <li>b. Taking wind direction and speed into account in planning quarry activities to minimise the risk of dust dispersion beyond the boundary of the site; and</li> </ul>	

	<p>c. The operation of the automated sprinkler system in accordance with Condition (11) for the purpose of dust suppression on unsealed areas, including:</p> <ul style="list-style-type: none"> <li>i. On the active quarrying operations area; and</li> <li>ii. On the bunds, stockpiles, and areas of rehabilitation; and</li> </ul> <p>d. Ensuring the sealed quarry roading network is maintained and is free of potholes; and</p> <p>e. Undertaking road sweeping of the Guys Road / Heavy Vehicle entrance area five times per week, and remove incidental spills of gravels, as required; and</p> <p>f. Establishing a 3-metre-high bund on the north-eastern site boundary and a 1-metre-high bund on the south-eastern boundary prior to the commencement of quarry operations, which are to be grassed and vegetated as soon as practicable and the cover maintained; and</p> <p>g. Establishing and maintaining shelterbelts around the north-western, north-eastern and south-eastern boundaries of the site; and</p> <p>h. Grassing and vegetating bare areas as soon as practicable including bunds, overburden stockpiles and rehabilitated areas using low seed generating grass species which do not attract birds or insect species that in turn attract birds; and</p> <p>i. Vegetating or otherwise stabilising all inactive exposed surfaces if these are to remain unused for two (2) months or more; and</p> <p>j. Imposing a speed restriction on all internal roads of 15 kilometres per hour at all times and clearly signposting this limit on all internal roads; and</p> <p>k. Minimising drop heights when loading trucks, conveyor hoppers and when moving material; and</p> <p>l. Constructing and maintaining unsealed internal roads and yard areas so that they are comprised of an aggregate base, with surfaces that are graded and free of potholes; and</p> <p>m. Using water carts as a back-up measure for dust suppression during dry conditions or where the automated sprinkler system is unavailable; and</p>	
--	---	--

	<ul style="list-style-type: none"> <li>n. Apply water routinely during dry weather on exposed surfaces, stockpiles, bunds and unsealed internal roads to suppress dust emissions; and</li> <li>o. Pre-dampening topsoil and overburden with a water cart or sprinklers prior to its extraction and removal; and</li> <li>p. Undertaking at least twice daily site inspections of visible dust emissions throughout each day of quarry activities and electronically logging findings and any dust suppression actions; and</li> <li>q. Ensure that the entrance to Guys Road is swept five days per week; and</li> <li>r. Seal the full length of the light vehicle entrance to the Quarry; and</li> <li>s. Seal internal road from the Weighbridge to Quarry Pit and the Crushing Area; and</li> <li>t. Ensure that all stockpiles located in the quarry pit have a maximum height of 8-metres <b>and</b> will not be visible above the bunds.</li> </ul>	
23	<p>Stockpiles must be managed as follows:</p> <ul style="list-style-type: none"> <li>a. Stockpiles must be dampened with water to minimise dust emissions; and</li> <li>b. Stockpiles generated during site preparation works shall: <ul style="list-style-type: none"> <li>i. Only comprise of topsoil, overburden and aggregate; and</li> <li>ii. Have a height no greater than 3.0 metres above natural ground level; and</li> <li>iii. Must not be visible from Conservators Road south of 133 Conservators Road above the bunds; and</li> </ul> </li> <li>c. Stockpiles of extracted gravel and processed aggregates shall: <ul style="list-style-type: none"> <li>i. Be located within the Crushing Area, in accordance with the Plan (CRC193564A) attached, at a depth of at least five metres below natural ground level; and</li> <li>ii. Have a maximum height of 8-metres; and</li> </ul> </li> </ul>	

	<ul style="list-style-type: none"> <li>iii. Have a maximum volume of 15,000 cubic metres in any stockpile at any one time; and</li> <li>iv. Be located a minimum of 350-metres from the north-east boundary and the south-east boundary of the Quarry; and</li> <li>d. Any long-term stockpiles of topsoil, overburden or aggregate shall be sown with low seed generating grass species which do not attract birds or insect species that in turn attract birds.</li> </ul> <p><b>Advice note.</b> For the purpose of this resource consent, long-term stockpiles are stockpiles that are located within a fixed location for a period of more than two months.</p>	
24	The Consent Holder must use a water suppression system comprising mist sprinklers, on the conveyor arms of the screening plant specified in Condition (2) of this resource consent at all times for the duration of this resource consent, unless water suppression using mist sprinklers is not deemed necessary due to weather conditions, specifically rainfall events of sufficient intensity to compensate for use of the mist sprinklers.	
25	The Consent Holder must maintain a record of all times when subject to a water restriction of water from the Paparua Stockwater Race.	
	<b>Monitoring</b>	
26	<p>The Consent Holder must install prior to the commencement of any on-site activities as listed in Condition (1), and operate and maintain for the duration of this resource consent, an anemometer on the site that has a height of 10 metre above natural ground level. The anemometer shall be capable of continuously monitoring:</p> <ul style="list-style-type: none"> <li>a. Wind direction;</li> <li>b. Wind speed;</li> <li>c. Rainfall; and</li> <li>d. Temperature.</li> </ul>	
27	<p>The Consent Holder must install and maintain meteorological monitoring instruments, as follows:</p> <ul style="list-style-type: none"> <li>a. Two (2) wind speed and direction monitors at a height of at least ten metres above natural ground level; and</li> <li>b. One (1) monitor to be located at or about map reference NZTM2000 1558704 mE 5184747 mN; and</li> </ul>	



	<ul style="list-style-type: none"> <li>c. Installed and operated in accordance with AS/NZS 3580.1.1:2016. Methods for Sampling and Analysis of Ambient Air: Part 1.1: Guide to Siting Air Monitoring Equipment; and</li> <li>d. Able to provide and record the meteorological monitoring results continuously using an electronic data logging system with an averaging time for each parameter of not more than one minutes; and</li> <li>e. Able to provide the meteorological data to the CRC in real-time in an appropriate format.</li> </ul>	
28	<p>Prior to the commencement of the quarry activities, the Consent Holder must ensure the installation and operation of a continuous dust monitor for the purpose of continuous PM<sub>10</sub> monitoring for the duration of this resource consent. The monitor must be:</p> <ul style="list-style-type: none"> <li>a. Checked for function and operation prior to the commencement of each day; and</li> <li>b. Located directly between the centre of that days quarrying activities and the nearest downwind off-site sensitive receptor; and</li> <li>c. Located in general accordance with AS/NZS 3580.1.1:2016 Methods for sampling and analysis of air - Guide to siting air monitoring equipment; and</li> <li>d. Installed, operated, maintained and calibrated in accordance with the AS/NZS 3580.12.1:2015 Guidelines. Methods for sampling and analysis of ambient air – Determination of light scattering – Integrating nephelometer method; and</li> <li>e. Able to provide and record the PM<sub>10</sub> results continuously using an electronic data logging system with an averaging time for each parameter of not more than one minutes; and</li> <li>f. Fitted with a heater so that the inlet temperature is maintained at least 10 degrees Celsius above the ambient temperature; and</li> <li>g. Able to provide the dust data to the CRC in real-time in an appropriate electronic format.</li> </ul>	
29	The meteorological monitor and PM <sub>10</sub> monitor must:	

	<ul style="list-style-type: none"> <li>a. Be able to provide the results of the meteorological monitoring and PM<sub>10</sub> monitoring in real-time to the Quarry Manager or other nominated person(s) who has the responsibility of managing dust effects on site. This person(s) must be available at all times to take immediate action to investigate and reduce site dust emissions; and</li> <li>b. Be fitted with an alarm system and able to send warnings and alerts via text message and email to the Quarry Manager or other nominated person(s) who has the responsibility of managing dust effects on site. This person(s) shall be available at all times to take immediate action to investigate and reduce site dust emissions; and</li> <li>c. Be fitted with an alarm system and able to send warnings and alerts via text message and email to the Quarry Manager or other nominated person(s) in the event of a system failure, for example failure of the rechargeable battery or the modem transmitting the data.</li> </ul> <p><b>Advice note.</b> The Consent Holder acknowledges that CRC may provide monitoring data to residents upon request. The monitoring data will also be available through the Community Quarry Liaison Group (CQLG).</p>	
30	The meteorological station specified in Condition (25) and the continuous dust monitor required in accordance with Condition (27) must be installed, calibrated and maintained accordance with the manufacturer's specifications and by a Suitably Qualified Experienced Practitioner. The Consent Holder must maintain a record of when maintenance is undertaken, and the type of maintenance undertaken. This record must be provided to the CRC Regional Leader – Compliance Monitoring, in the annual report required in September of each year during the duration of this resource consent.	
31	The Consent Holder must provide all PM <sub>10</sub> monitoring and meteorological monitoring data to the Christchurch City Council and Canterbury Regional Council, in real-time continuous intervals Reports, monthly.	
	<b>Trigger Values</b>	
32	<p>If at any time, in accordance with the monitoring undertaken in accordance with Condition (26) and Condition (27), the following trigger values are exceeded, all on-site activities (excluding dust suppression measures, the dumping of cleanfill, the truck loading and truck movements) must cease:</p> <ul style="list-style-type: none"> <li>a. Wind speeds reach or exceed 7 m/s for a one-hour average period and the wind direction is between 180°N and 260°N (southerly and west-southwest); and</li> <li>b. When wind speeds reach or exceed 10 m/s for a one-hour average period and the wind directions are from any other direction not specified in Condition (32)(a).</li> </ul>	

33	<p>Following the cessation of quarrying activities in accordance with Condition (31), activities must not recommence until the:</p> <ul style="list-style-type: none"> <li>a. Rolling one-hour average wind speed is below 7m/s, if the wind direction is between 180°N and 260°N (southerly and west-southwest); and</li> <li>b. Rolling one-hour average wind speed is below 10m/s per second, for any other direction not listed in Condition (33)(a).</li> </ul>	
34	<p>When the wind is blowing from the south to west-southwest, measured as 180°N to 260°N in accordance with Condition (26), and when the continuous PM<sub>10</sub> monitoring required by Condition (28) indicates that the following trigger levels have been reached the consent holder must adopt the following response:</p> <ul style="list-style-type: none"> <li>a. 1-hour average at 55 µg/m<sup>3</sup> or higher shall require immediate actions to investigate and reduce site dust emissions.</li> <li>b. 1-hour average at 65 µg/m<sup>3</sup> or higher shall require immediate cessation of all quarry activities (excluding dust suppression activities and truck loading/movements) and taking actions to investigate and reduce site emissions.</li> </ul> <p>The PM<sub>10</sub> monitor will alert the Consent Holder of any trigger level exceedance via text message and email.</p>	
35	<p>If quarrying activities cease under Condition (32)(b) quarrying activities shall only be resumed once the 1-hour average falls back to or below the level in Condition (34)(a).</p>	
36	<p>The Consent Holder must install and operate the automated sprinkler system for dust prone areas that can be activated remotely outside of working hours in accordance with trigger levels set in the Dust Management Plan, including conditions when the:</p> <ul style="list-style-type: none"> <li>a. Wind speeds reach or exceed 7 m/s for two consecutive ten-minute periods and the wind direction is between 180°N and 260°N (southerly and west-southwest); and</li> <li>b. Wind speeds reach or exceed 10 m/s for two consecutive ten-minute periods and the wind directions are from any other direction not specified in Condition (34)(a); and</li> <li>c. The trigger values in Condition (34) have been exceeded.</li> </ul> <p><b>Advice Note.</b> <i>The automated sprinkler should also be used within all operating hours to ensure ground conditions are maintained in a damp state during dry days.</i></p>	

37	The Consent Holder must maintain a record of any exceedance of a trigger value and any responses or investigative actions taken as a result. This record shall be provided to the CRC Regional Leader – Compliance Monitoring, in the annual report required in September of each year during the duration of this resource consent.	
38	<p>The Consent Holder must:</p> <ul style="list-style-type: none"> <li>a. Ensure the activities authorised in Condition (1) do not create any dust hazard or nuisance to the Transpower transmission lines and towers which are within or close to the application site; and</li> <li>b. Ensure the processing plant is not located within 100 metres from the centre line of the Islington-Kiliwa B National Grid transmission lines.</li> </ul>	
	<b>Complaints</b>	
39	<p>A record of all complaints relating to contaminants discharged to air from the site and associated activities must be maintained and must include:</p> <ul style="list-style-type: none"> <li>a. The location where the contaminants were detected by the complainant; and</li> <li>b. The date and time when the contaminants were detected; and</li> <li>c. A description of the wind speed and wind direction when the contaminants were detected by the complainant; and</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 Consent Holder shall maintain a record of any complaints and any responses or investigative actions taken as a result. This record must be provided to the CRC Regional Leader – Compliance Monitoring, in the annual report required in September of each year during the duration of this resource consent.</p>	
	<b>Annual Report</b>	
40	<p>The Consent Holder must prepare an annual monitoring report for the period of 1 July to 30 June to the CRC, Attention: Regional Leader Compliance Monitoring, by 30 September each year.</p> <p>The annual monitoring report shall include but not be limited to:</p> <ul style="list-style-type: none"> <li>a. A record of any maintenance of the meteorological or dust monitor undertaken over the proceeding 12-month period in accordance with Condition (29) of this resource consent; and</li> </ul>	

	<ul style="list-style-type: none"> <li>b. A record of all occasions where a trigger level has been reached including any investigations and actions taken; and</li> <li>c. A record of any water restrictions imposed on the Consent Holder in regard to the Paparua Water Race; and</li> <li>d. The complaints record required in accordance with Condition (38).</li> <li>e. A record of the amount of water used for dust suppression in the year reported on. The record shall include the daily, monthly, and annual volumes used.</li> </ul>	
	<b>Administration</b>	
41	<p>The Canterbury Regional Council may, once per year, on any of the last five working days of May or November, serve notice of its intention to review the conditions of this consent for the purposes of:</p> <ul style="list-style-type: none"> <li>a. Dealing with an adverse effect on the environment occurring as a result of the exercise of this resource consent; or</li> <li>b. Requiring best practicable options to be adopted by the consent holder to remove or reduce any adverse effect on the environment as a result of the exercise of this resource consent; or</li> <li>c. Requiring the consent holder to carry out monitoring and reporting instead of, or in addition to, that required by the resource consent; or</li> <li>d. Requiring the consent holder to comply with a relevant rule in an operative regional plan.</li> </ul>	
42	<p>If this consent is not exercised within 7-years of the date of grant of consent, it shall lapse in accordance with Section 125 of the Resource Management Act 1991.</p> <p><b>Advice Note:</b> <i>‘Exercised’ is defined as implementing any requirements to operate this consent and undertaking the activity as described in these conditions and/or application documents</i></p>	

Plan CRC193564



**COPYRIGHT**  
The drawings and parts thereof are copyright to Erick & Co Limited, and shall not be used, copied, reproduced or otherwise utilized without the written permission of Erick & Co Limited or its associated companies.

Notes:

CDP and Production by:



www.erick.co.nz CHRISTCHURCH | WANAKA

PROJECT: SOL Quarries Ltd

COMPILED BY:

TECHNICAL AUTHORITY: Christchurch City

LOCATION: Canterbury

DATE: 2020

Drawing Title:

**QUARRY SETBACK  
PLAN**

Prepared for:

**SOL QUARRIES LTD**

Plan Revision:

REV	DESCRIPTION	DATE
A	ORIGINAL ISSUE	15/07/20

SCALE:

See Scale Bar

PROPOSAL:

PROPOSAL NUMBER:	5475-001	Page:	1 of 1	REVISED:	B
DATE:	6/11/2020	DATE:	6/11/2020	DATE:	6/11/2020
BY:	JE	BY:	SH	DATE:	6/11/2020



**CRC193773 – To discharge contaminants (cleanfill) onto and into land where they may enter groundwater**

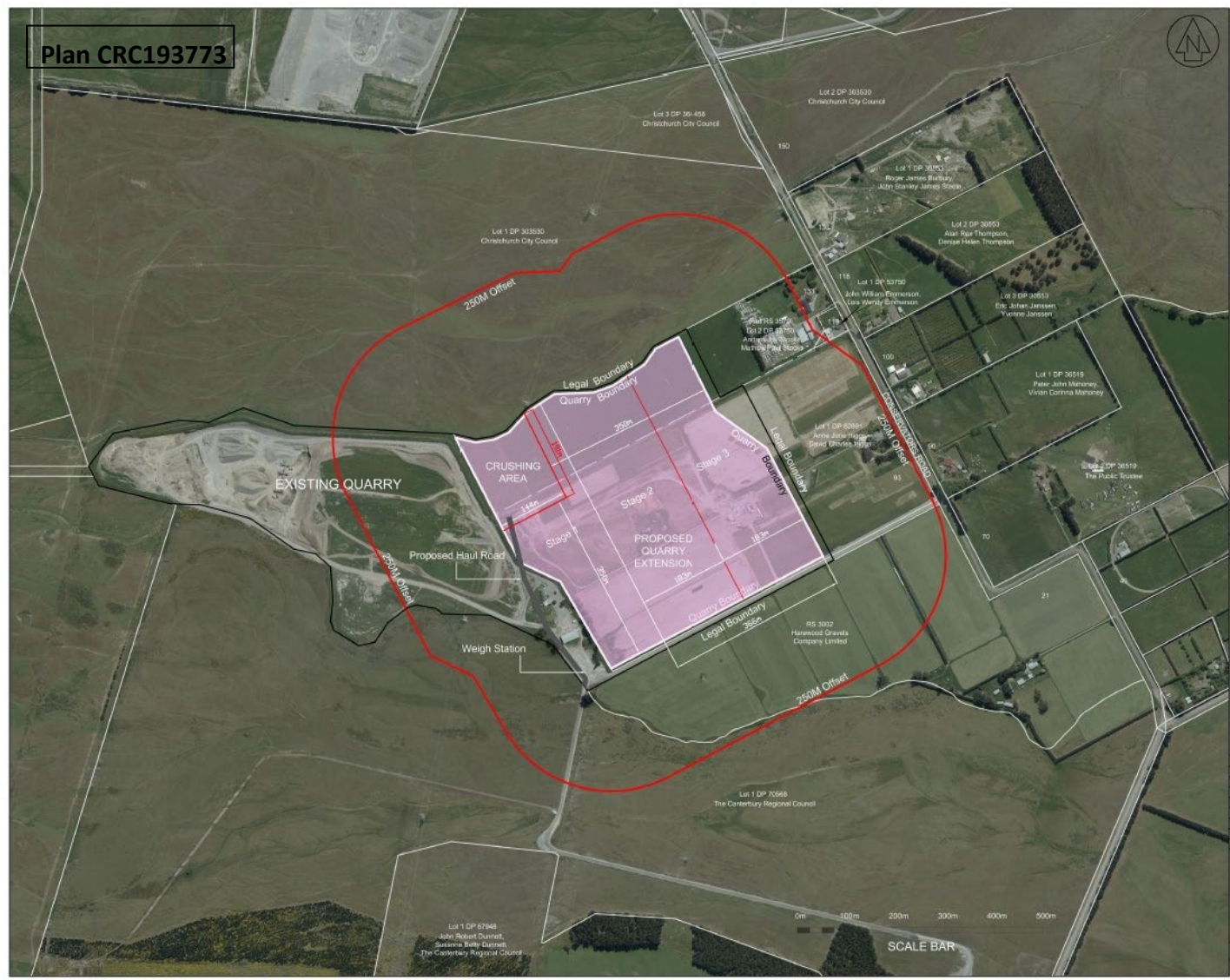
	Condition	ECan Comments
	<b>Limits</b>	The proposed conditions have been simplified to avoid repetition of the conditions and obligations under the land use consent and to focus on the activity that is being authorised under the discharge permit, i.e. the discharge of contaminants into land where a contaminant may enter groundwater.
1	The discharge of contaminants onto and into land where contaminants may enter groundwater shall be only as a result of the deposition of cleanfill material undertaken in accordance with resource consent CRC193563 or any subsequent variations thereof, at 93 and 133 Conservators Road, legally described as Part RS 3579 and Lot 1 DP 82891 as shown on Plan CRC193773, attached to and forming part of this resource consent.	
	<b>Prior to Commencing Works (Enabling Works)</b>	
2	Prior to the commencement of the activities authorised by Condition (1) of this resource consent the Consent Holder must implement the Enabling Works so defined in resource consent CRC193563.	Where applicable, reference to the land use consent (CRC193563) was made, including for monitoring of effects of the discharge of cleanfill and responses to monitoring.
3	<p>a. The Consent Holder must designate Staff with respect to tasks associated with the cleanfill operations. All designated staff, and any replacement staff, must receive specialist training in cleanfill management by a Suitably Qualified and Experienced Professional (SQEP) prior to commencing work in the Quarry Cleanfill.</p> <p>b. An electronic record of the training of all staff must be held on site and must be provided to Canterbury Regional Council on request.</p>	
4	<p>a. Prior to the exercise of the activities authorised in Condition (1) the Consent Holder must ensure the automated dust suppression system is installed and commissioned in accordance with resource consent CRC193564.</p> <p>b. The automated dust suppression system must be calibrated in a manner which does not result in saturation of soils such that leaching of cleanfill materials to groundwater occurs.</p>	
5	<p>At least 20 working days prior to commencement of cleanfill activities authorised in Condition (1), the Consent Holder or their agent must arrange and conduct a Pre-commencement Site Meeting with the Canterbury Regional Council. At a minimum, the following must be covered at the meeting:</p> <p>a. Scheduling and staging of the works, including the proposed start date; and</p> <p>b. Responsibilities of all relevant parties; and</p> <p>c. Contact details for all relevant parties; and</p>	



	<ul style="list-style-type: none"> <li>d. Expectations regarding communication between all relevant parties; and</li> <li>e. Site inspections; and</li> <li>f. Confirmation that the automated dust suppression system has been installed and commissioned in accordance with resource consent CRC193564; and</li> <li>g. Confirmation that all relevant parties have copies of the contents of these consent documents and all associated management plans.</li> </ul> <p><b>Advice Note:</b> <i>The Pre-commencement Site Meeting referred to above may be held in conjunction with the Pre-commencement Site Meetings required by Consents CRC193564; CRC193563 and RMA/2019/373.</i></p>	
6	At least 20 working days prior to the commencement of the activities authorised in Condition (1), the Consent Holder must inform the Canterbury Regional Council, Attention: Regional Leader - Compliance Monitoring in writing of the start date of works.	
7	<p>Prior to the commencement of cleanfill activities authorised in Condition (1) commencing, all personnel working on the site must be made aware of and have access to:</p> <ul style="list-style-type: none"> <li>a. The contents of this resource consent document (CRC193773);</li> <li>b. Resource consents CRC193563 and CRC193564; and</li> <li>c. The Quarry Management Plan prepared in accordance with resource consent CRC193563.</li> </ul>	
	<b>Discharge of Cleanfill</b>	
8	<ul style="list-style-type: none"> <li>a. Cleanfilling must be undertaken in accordance with a Cleanfill Management Plan (CMP), required to be prepared, certified by the Canterbury Regional Council, and implemented under resource consent CRC193563. The CMP must be retained on site at all times and the Consent Holder must ensure all appropriate personnel working on the site are made aware of and have access to it.</li> <li>b. Cleanfill discharged in the excavated area under this resource consent must: <ul style="list-style-type: none"> <li>i. Meet the Waste Acceptance Criteria detailed under resource consent CRC193563; and</li> <li>ii. Follow all processes related to the determination of the acceptability of cleanfill any recording and reporting requirements, outlines under resource consent CRC193563.</li> </ul> </li> </ul>	
	<b>Groundwater Quality Monitoring and Reporting</b>	
9	<ul style="list-style-type: none"> <li>a. The effects of the discharge of cleanfill must be assessed through the groundwater quality monitoring outlined under resource consent CRC193563.</li> </ul>	

	<p>b. If unacceptable adverse effects are determined through the groundwater quality monitoring under resource consent CRC193563 that are a result of the discharge of contaminants from the cleanfilling activity authorised under Condition (1), then the Responses to Monitoring, detailed under resource consent CRC193563, must be implanted as soon as practicable.</p>	
	<b>Administration</b>	
10	<p>The Canterbury Regional Council may, once per year, on any of the last five working days of May or November, serve notice of its intention to review the conditions of this consent for the purposes of:</p> <ul style="list-style-type: none"> <li>a. Dealing with an adverse effect on the environment occurring as a result of the exercise of this resource consent; or</li> <li>b. Requiring best practicable options to be adopted by the consent holder to remove or reduce any adverse effect on the environment as a result of the exercise of this resource consent; or</li> <li>c. Providing for legislative or regulatory amendments to the management of cleanfill; or</li> <li>d. Requiring the consent holder to carry out monitoring and reporting instead of, or in addition to, that required by the resource consent; or</li> <li>e. Requiring the consent holder to comply with a relevant rule in an operative Regional Plan.</li> </ul>	
11	<p>If this consent is not exercised within 7-years of the date of grant of consent, it shall lapse in accordance with Section 125 of the Resource Management Act 1991.</p> <p><b>Advice Note:</b> <i>'Exercised' is defined as implementing any requirements to operate this consent and undertaking the activity as described in these conditions and/or application documents.</i></p>	

Plan CRC193773



**COPYRIGHT**  
This drawing and parts thereof are copyright to Elrick & Co Limited, and shall not be used, reused, copied, reproduced or otherwise altered without the written permission of Elrick & Co Limited or its associated companies.

Notes:

CDP and Production by:



www.elrick.co.nz CHRISTCHURCH | WANAKA

PROJECT SOL Quarries Ltd

COMMISSIONED BY

CHRISTCHURCH CITY

CANTERBURY

TITLE AREA SITE

Drawing Title:

QUARRY SETBACK  
PLAN

Prepared for:

SOL QUARRIES LTD

Plan Number:

REV DESCRIPTION DATE

A ORIGINAL ISSUE 15/07/20

SCALE

See Scale Bar

PROJECT CODE

5475-001 1 of 1 B

DATE DRAWN DATE CHECKED DATE

JE 6/11/2020 SH 6/11/2020

### CCC RMA/2019/373 Proposed Conditions

	Condition	CCC Comments
	<b>General</b>	
1	Except where varied by the conditions of this consent, the operation of the quarry and site rehabilitation shall proceed in accordance with the information and plans submitted with the application, including the further information and submitted plans.	
2	The lapsing date for the purpose of Section 125 shall be 7 years from the date of granting of the consent.	
3	The duration of this consent shall be limited to a period of 20 years from the date of grant of consent, including the 7-year lapse period. The site is to be fully rehabilitated in accordance with the Quarry Rehabilitation Plan (Condition 34) of this resource consent within the 20-year period.	
	<b>Enabling Works</b>	
4	The Christchurch City Council's Compliance and Investigations Team shall be notified not less than 48 hours prior to the commencement of site enabling works, along with the contact details (including after-hours contact details) of the person that will be responsible for implementing the Quarry Management Plan (QMP).	
5	<ul style="list-style-type: none"> <li>a. Prior to the commencement of the quarry activities, including Enabling Works, authorised by the conditions of this resource consent commencing, all personnel working on the site must be made aware of and have access to: <ul style="list-style-type: none"> <li>i. The contents of this and all other resource consent documents pertaining to the subject site; and</li> <li>ii. The Quarry Management Plan prepared in accordance with Condition (15) of this resource consent.</li> </ul> </li> <li>b. The Quarry Management Plan must include the following Plans: <ul style="list-style-type: none"> <li>i. The Cleanfill Management Plan, prepared in accordance with Condition (24) of this resource consent; and</li> </ul> </li> </ul>	

	<ul style="list-style-type: none"> <li>ii. The Quarry Rehabilitation Plan, prepared in accordance with Condition (34) of this resource consent; and</li> <li>iii. The Environmental Site Management Plan, prepared in accordance with Condition (23) of this resource consent; and</li> <li>iv. The Quarry Operational Management Plan, prepared in accordance with Condition (22) of this resource consent; and</li> <li>v. A Planting Plan, prepared in accordance with Condition (8); and</li> <li>vi. The Dust Management Plan prepared in accordance with Condition (71) of this resource consent; and</li> <li>vii. A copy of resource consent RMA/2018/373; CRC193773; CRC193563; and CRC193564 and all associated documents.</li> </ul> <p>c. The activity must occur in accordance with CRC193563 and the Dust Management Plan (DMP).</p>	
	<b>Realignment of the Stockwater Race</b>	
6	<p>Prior to excavating aggregate, the Consent Holder shall re-align the stockwater race in accordance with:</p> <ul style="list-style-type: none"> <li>a. Selwyn District Council engineering requirements, specifically Standard No WR 8.0; March 2015 (<i>Water Race Lining Requirements: New and Relocated Channels</i>); and</li> <li>b. The Stockwater Realignment Methodology, detailed in the Aquatic Ecology Limited Report No 172, appended to this resource consent.</li> <li>c. The 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.</li> <li>d. The new channel is to be of equivalent flow capacity and water depth as the existing channel.</li> <li>e. The new channel is to be constructed offline, with commissioning occurring only after the banks have been stabilised.</li> <li>f. Vehicles and machinery shall not enter the existing channel during the construction of the new channel.</li> </ul>	

	<p><b>Advice Note:</b>  <i>Realignment of the stockwater race shall occur during the Enabling Works and shall be completed prior to the planting of shelter belt in accordance with Conditions 4 - 9.</i></p>	
7	<p>Prior to construction commencing, an Environmental Management Plan shall be provided to rcmon@ccc.govt.nz which includes, but is not limited to:</p> <ul style="list-style-type: none"> <li>a. Dampening of unconsolidated surfaces hourly when wind speeds are in excess of 5 m/s;</li> <li>b. Installation of a filter barrier at the downstream end of the new channel prior to commissioning;</li> <li>c. Translocation of the fish population in the existing channel by a suitably qualified and experienced freshwater ecologist shall occur upon commissioning of the new alignment;</li> <li>d. Cobbles from the existing channel shall also be relocated along the length of the new alignment to assist in the development of the new ecosystem; and</li> <li>e. The connections between the new alignment and the existing channel shall not inhibit fish passage.</li> </ul>	
8	<p><b>Landscape Planting / Planting Plan</b></p> <ul style="list-style-type: none"> <li>a. Prior to excavating aggregate, the Consent Holder shall prepare and implement a Planting Plan Illustrating shelter-belt planting along the following boundaries, in accordance with the graphic illustration and cross sections submitted with the application and dated February 2020: <ul style="list-style-type: none"> <li>i. The quarry and the McLeans Island Grassland Park; and</li> <li>ii. The quarry and the property at 133 Conservators Road (Stocks property); and</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 Limited property).</li> </ul> </li> </ul>	

	<ul style="list-style-type: none"> <li>b. The Planting Plan shall be produced by a suitably qualified or experienced person.</li> <li>c. This Planting Plan shall be submitted to the Resource Consent Unit Manager, Christchurch City Council for certification. If the consent authority has not sent a response confirming certification or seeking amendments to the Planting Plan within 60 working days of the date of submission, or the period determined under (b), the Planting Plan will be deemed to be certified.</li> <li>d. If the response from the Christchurch City Council is that Council is not able to certify the Planting Plan, Council must specify recommended amendments and/or additions.</li> <li>e. The Consent Holder must consider any reasons and recommendations provided by Council, amend the Planting Plan accordingly and resubmit an amended Planting Plan.</li> </ul>	
9	<ul style="list-style-type: none"> <li>a. Tree planting within shelter belts which are required for visual mitigation should be undertaken in the first planting season (1 April – 31 August) following the grant of Consent.</li> <li>b. Tree species used for the shelter belts must be selected from the list contained in the District Plan Appendix 6.11.6 (Chapter 6 – General Rules and Procedures) specific to '<i>... trees suitable for visual mitigation of quarrying activities and planted at maximum 1.5m spacings</i>'.</li> </ul>	
10	Shelter belt planting along the boundary shared with the McLeans Grassland Park shall be selected from the same list; however, the tree species shall be restricted to native tree species only.	
11	These shelter belt trees should be planted and managed in such a way that they reach a minimum 3-metres in height within 3 years. The shelter belts should be managed so that they attain a height of 8-metres and should be maintained at this height for the duration of the extraction and rehabilitation activities.	
12	All shelter belts should be planted within a landscape strip which is a minimum of 1.5-metres in width, to allow room for tree growth and tree maintenance.	
13	Any trees that are dead damaged or diseased should be replaced with trees of an equivalent variety and size within the next available tree planting season (1 April to 31 August).	

14	<p><b>Bunds</b></p> <p>Prior to excavation and processing of aggregate commencing on site, and following the planting required under Condition (7), the following further enabling work is to occur:</p> <ul style="list-style-type: none"> <li>a. Topsoil and overburden must 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 to reduce erosions losses. <ul style="list-style-type: none"> <li>i. Once established, the grass cover should be maintained so that the grass is mown or grazed to achieve a tidy appearance.</li> <li>ii. All topsoil and overburden, which is not used for bunding purposes, shall be stockpiled for use in land rehabilitation on the site.</li> <li>iii. The stored excess topsoil and overburden must not exceed the height of the bunds (i.e. the stored topsoil and overburden must not exceed three (3) metres above ground level).</li> </ul> </li> <li>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. The one (1) metre bund is primarily for health and safety reasons.</li> <li>c. The bunds shall have a slope of 1:3 (one vertical to three horizontal), on both sides.</li> <li>d. 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.</li> </ul> <p>The location of the bunds shall be in accordance with the revised landscape plans and cross-sections, lodged with the Council, 12 February 2020 (Plan RMA/2019/373B).</p>	
	<b>Management Plans</b>	
15	<ul style="list-style-type: none"> <li>a. At least 60 working days prior to the commencement of quarry activities authorised in Condition (1), the Consent Holder shall prepare and submit a Quarry Management Plan (QMP) for certification to the Christchurch City Council, via <a href="mailto:rcmon@ccc.govt.nz">rcmon@ccc.govt.nz</a>, Attention: Team Leader, Compliance and Investigations for certification.</li> </ul>	<p>Comment on earlier draft:</p> <p><i>Looks like the certification clause has been changed again – think we might have to agree</i></p>



	<p>b. The QMP shall:</p> <ul style="list-style-type: none"> <li>i. Be retained on site at all times;</li> <li>ii. Include a description of the content and purpose of the QMP;</li> <li>iii. Provide details of the operation of the site, including details of the staging of works, the “crushing” area; the proposed excavation depth; the cleanfilling activities and the site rehabilitation works;</li> <li>iv. Provide details of the on-site staff training procedures, including the procedures for training staff delegated to manage the cleanfill operations;</li> <li>v. Provide evidence that the Consent Holder has incorporated any feedback received from Transpower New Zealand Limited and the Christchurch International Airport Limited;</li> </ul> <p>c. If the Consent Authority has not sent a response to the Consent Holder confirming certification or seeking amendments to the QMP from the within 60 working days of the date of submission under Condition (16), the QMP will be deemed to be certified.</p> <p>d. In considering the QMP for the purpose of certification in Condition 15(a) above, Christchurch City Council may, due to the scale or complexity of the QMP, and with the agreement of the Consent Holder, extend the time period for certification provided the extended time period does not exceed a further 60 working days.</p> <p>e. If the response from the Christchurch City Council is that Council is not able to certify the QMP, Council must specify recommended amendments and/or additions to the QMP.</p> <p>f. The Consent Holder must consider any reasons and recommendations provided by Council and resubmit an amended QMP to the Council.</p> <p><b>Advice note.</b> <i>The certification process is confined to confirming that the Quarry Management Plan adequately gives effect to the relevant Condition(s).</i></p>	<p><i>to disagree here and we can put it to the commissioner.</i></p> <p><u>Response:</u> The certification process has been agreed with Canterbury Regional Council, and is <i>vires</i>. It is noted that the Management Plans are not the final determinant of compliance; rather the robust and targeted conditions form the basis for mitigating environmental effects and monitoring compliance.</p>
16	<p>The QMP must include:</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> </ul>	

	<ul style="list-style-type: none"> <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 while undertaking the activities authorised in this resource consent;</li> <li>c. Procedures, methods and measures to demonstrate that all quarrying, cleanfilling 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 revisions thereof, including 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 'out of bounds' with 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;</li> <li>g. Details of proposed contractor training for those working near the transmission lines;</li> <li>h. Procedures, practices and measures designed to ensure that all quarrying, cleanfilling and site rehabilitation activities undertaken on site avoid any increased potential for the risks associated with bird strike, the potential distraction of aircraft and pilots from fixed lighting, and the potential for quarry related dust to affect Christchurch International Airport Limited (CIAL) infrastructure or operations;</li> <li>i. Demonstrate how bird strike management will be implemented to protect CIAL operations;</li> </ul>	
--	---	--

	<ul style="list-style-type: none"> <li>j. 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>k. Identify any other potential effects on CIAL and the management practices in place to minimise these effects.</li> </ul>	
17	<p>The QMP and associated management plans shall be reviewed and updated as necessary and at least every two years. Any amendments shall be:</p> <ul style="list-style-type: none"> <li>a. For the purpose of improving the efficacy of the Management Plans;</li> <li>b. Consistent with the conditions of this resource consent; and</li> <li>c. Submitted in writing to the Christchurch City Council, via rcmon@ccc.govt.nz, Attention: Team Leader, Compliance and Investigations, for certification in accordance with Condition 16 of this consent prior to any amendment being implemented.</li> </ul>	
18	<p><b>Remediation Action Plan</b></p> <p>Prior to the commencement of quarrying activities on site in accordance with Condition (1), the Consent Holder must engage a Suitable Qualified and Experienced Practitioner (SQREP) to undertake a Detailed Site Investigation (DSI) and prepare a Remediation Action Plan (RAP) and supervise remediation of the site.</p> <p>The DSI and the RAP must be provided to the Christchurch City Council, via rcmon@ccc.govt.nz, Attention: Team Leader, Compliance and Investigations, at least 60 working days prior to the commencement of remediation works on-site.</p> <p>The RAP shall:</p> <ul style="list-style-type: none"> <li>a. Outline the approach to remediating the site including extent of remediation, remediation methodology and scheduling, contaminated material disposal location and validation sampling plan; and</li> </ul>	

	<p>b. Be prepared in accordance with the Ministry for the Environment <i>Contaminated Land Management Guidelines No. 1: Reporting on Contaminated Sites in New Zealand</i> (Revised 2011).</p>	
19	All contaminated site remediation works must be supervised by the SQEP and must be undertaken in accordance with the RAP.	
20	<p>The Consent Holder must:</p> <p>a. Dispose of all material removed under the direction and supervision of the SQEP, and in accordance with the RAP off-site at a suitably licenced facility; and</p> <p>b. Provide the Christchurch City Council, Attention: Team Leader, Compliance and Investigations, with written confirmation of the disposal undertaken in accordance with Condition (20)(a) within ten (10) working days of the disposal taking place.</p>	<p>Comment on earlier draft:</p> <p><i>This is good – but doesn't seem to be in the ECan consent.</i></p> <p><u>Response:</u> With respect to site remediation (pre-existing contamination), this falls within the jurisdiction of CCC (NESCS).</p>
21	<p>On the completion of the site remediation works the Consent Holder must provide the Christchurch City Council, via rcmon@ccc.govt.nz, Attention: Team Leader Compliance, with a Site Validation Report (SVR) prepared by the SQEP to confirm that the site has been remediated in accordance with the RAP.</p> <p>a. Quarrying activities shall not commence until certification has been received from Christchurch City Council that the site has been remediated in accordance with the SVR.</p> <p>b. The SVR must:</p> <ul style="list-style-type: none"> <li>i. Be prepared and undertaken by a the SQEP; and</li> <li>ii. Be prepared and undertaken in accordance with the Ministry for the Environment Contaminated land management guidelines No. 5: Reporting on Contaminated Sites in New Zealand (Revised 2011); and</li> <li>iii. Confirm that the levels of soil contaminants at the Site are equal to or less than the background levels of contaminants at the Site.</li> </ul> <p>c. If the consent holder has not received a response from the Christchurch City Council Attention: Team Leader, Compliance and Investigations within 60 working days of the date of submission of the SVR in accordance with Condition (21), the SVR must be deemed to be certified.</p>	

	<p>d. In considering the SVR for the purpose of certification in Condition 21(a) above, Christchurch City Council may, due to the scale or complexity of the SVR, and with the agreement of the Consent Holder, extend the time period for certification provided the extended time period does not exceed a further 60 working days.</p> <p>e. If the response from the Christchurch City Council is that Council is not able to certify the SVR, Council must specify recommended amendments and/or additions to the SVR.</p> <p>f. The Consent Holder must consider any reasons and recommendations provided by Council and resubmit an amended SVR to Council.</p>	
22	<p><b>Quarry Operations Management Plan</b></p> <p>Prior to the commencement of any activity authorised by this consent, the Consent Holder must prepare a Quarry Operations Management Plan, for incorporation in the QMP. The Quarry Operations Management Plan must:</p> <ul style="list-style-type: none"> <li>a. Include the construction drawings and procedures, methods and measures to address the following: <ul style="list-style-type: none"> <li>i. Dust control, including specific reference to the protection of overhead transmission lines and towers;</li> <li>ii. Earthworks;</li> <li>iii. 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;</li> <li>iv. 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> </li> <li>b. Describe the procedures and practices designed to avoid any adverse effects associated with the Quarry operations on CIAL assets, infrastructure and/or operations, including: <ul style="list-style-type: none"> <li>i. Ensuring there are no permanent waterbodies created as a result of quarrying operations or site rehabilitation practices.</li> </ul> </li> </ul>	

	<ul style="list-style-type: none"> <li>ii. Providing 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>iii. Utilising 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>iv. Managing all waste and rubbish on-site through the use of a covered skip. Ensure the waste skip shall be emptied monthly by an approved contracted and the waste disposed of to an approved waste-transfer station.</li> <li>v. Confirm that fixed lighting shall not be installed at the Quarry.</li> </ul> <p><b>NB:</b> 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 confirmation of compliance with CIAL aircraft safety standards prior to the install of any fixed lighting.</p> <ul style="list-style-type: none"> <li>1. With respect to a Lighting Plan, if the Consent Holder has not received a response from CIAL within 20 working days of the date of submission under Condition (22), the Lighting Plan must be deemed to be acceptable to CIAL and may be implemented.</li> <li>2. In the event that CIAL proposes amendments to the Lighting Plan, the Consent Holder must amend the Lighting Plan in order to ensure the safety of aircraft and the CIAL operations.</li> </ul>	
23	<p><b>Quarry Environmental Site Management Plan (QESMP)</b></p> <p>The Consent Holder must prepare, maintain and comply with a Quarry Environmental Site Management Plan. The QESMP must:</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 (RMA/2019/373) or any Variation of this Consent;</li> <li>c. Define the actions to be undertaken in response to any incident that may impact adversely on the environment;</li> </ul>	

	<p>d. Identify the staff member or authorised external consultant 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 QESMP.</p> <p>e. Include details of the steps to be undertaken to correct any element of non-compliance.</p> <p>f. Include 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.</p> <p>g. Include details of measures to prevent drivers from using the Guys Road/Ryans Road route during the morning and afternoon peak traffic periods.</p> <p>h. 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.</p> <p>i. Include details of the 3-strike warning system and driver ban should the drivers take the incorrect route.</p> <p>j. Include details of the maintenance of the bunds.</p> <p>k. Include protocols for the operation of equipment to avoid excessive noise, to ensure compliance with Conditions (65) to (67).</p> <p>l. Include details as to the nature and staging of the quarrying activities.</p> <p>m. Include details of the staging of rehabilitation to ensure compliance with Conditions (34) to (36).</p> <p>n. Include procedures for recording and responding to complaints, to ensure compliance with Condition (82).</p>	
--	--	--

24	<p><b>Cleanfill Management Plan</b></p> <p>a. The cleanfill operations must be undertaken in accordance with a Cleanfill Management Plan (CMP). The CMP must be retained on site at all times and the Consent Holder must ensure all appropriate personnel working on the site are made aware of and have access to it. The CMP must include:</p> <ul style="list-style-type: none"> <li>i. A description of the content and purpose of the CMP;</li> <li>ii. Demonstrate how Condition 24 to 30 of this resource consent will be complied with;</li> <li>iii. Details of the operation of the site, including details of staging of works, area, depth, cleanfilling activities and site rehabilitation;</li> <li>iv. Details of the on-site staff training procedures;</li> <li>v. The contact details of the staff member(s) responsible implementing the CMP;</li> <li>vi. Details of the actions to be undertaken to ensure compliance with the conditions of this resource consent and actions to be undertaken in response to any incident that may adversely affect the environment;</li> <li>vii. The steps to be undertaken to correct incidences of non-compliance with the conditions of this consent;</li> <li>viii. A description of operational procedures and monitoring that will be used to prevent unauthorised cleanfill material from entering the site;</li> <li>ix. A list of acceptable cleanfill material as defined in Condition 24 of this resource consent;</li> <li>x. How rejected cleanfill material will be stored pending its removal to an authorised landfill or approved disposal facility;</li> <li>xi. The maximum length of time that rejected material can be stored on site pending its removal;</li> <li>xii. Construction procedures to ensure the long-term stability of cleanfill areas;</li> <li>xiii. Procedures for improving and/or reviewing the CMP; and</li> <li>xiv. Procedures for recording and responding to complaints.</li> </ul> <p><b>Advice note.</b>  <i>For the avoidance of doubt, the CMP forms part of the Quarry Management Plan (QMP). Accordingly, "certification" will occur under Condition 16.</i></p>	
----	--	--



	Cleanfill Waste Acceptance Criteria	
25	<p>Material deposited in the excavated area as cleanfill is for the purpose of backfilling the excavated quarry in preparation for rehabilitation. The material deposited must:</p> <ul style="list-style-type: none"> <li>a. only include material defined as cleanfill in accordance with the document – “<i>A Guide to Cleanfill Management</i>”; MfE; 2002; and</li> <li>b. not contain more than 3% vegetative matter, in accordance with Rule 5.177(2) of the Canterbury Land and Water Regional Plan; and</li> <li>c. only include soils that meets the Canterbury Regional background levels for the site (SOL Quarry) which are described in: <ul style="list-style-type: none"> <li>i. <i>Background concentrations of selected trace elements in Canterbury soils. Addendum 1: Additional samples and Timaru specific background levels. Environment Canterbury Report R07/1/2, Trace Elements Level 2: Regional – Recent for Heavy Metals; or</i></li> <li>ii. <i>(reference: Buckland, S., Ellis, H.K., and Salter, R.T. (1998). Organochlorines in New Zealand: Ambient concentrations of selected organochlorines in soils. Wellington, New Zealand: Ministry for the Environment. ISBN 0-478-09034-X; and Tonkin &amp; Taylor (2007). Background Concentrations of polycyclic aromatic hydrocarbons in Christchurch urban soils. Environment Canterbury Report R07/19.); or</i></li> <li>iii. <i>Tonkin &amp; Taylor (2007). Background Concentrations of polycyclic aromatic hydrocarbons in Christchurch urban soils. Environment Canterbury Report R07/19.);</i></li> </ul> </li> <li>d. not be deposited into groundwater or standing water; and</li> <li>e. be located at least one metre above the highest groundwater level as determined under the Conditions of this resource consent; and</li> <li>f. <b>not include</b> concrete slurry, hydro-excavation, or coal tar wastes.</li> </ul> <p><b>Advice Note:</b></p> <ul style="list-style-type: none"> <li>1. <i>The Consent Holder may use Canterbury Maps as a tool to determine whether a source site has the same background levels of contaminants as the SOL Quarry.</i></li> </ul>	

	<p>2. <i>A definition of cleanfill is attached as Schedule 1.</i></p> <p>3. <i>The ambient concentration of DDT in Canterbury soils of 0.431 milligrams per kilogram.</i></p> <p>4. <i>The regional background concentration for polycyclic aromatic hydrocarbons in Canterbury soils of 0.922 milligrams per kilogram.</i></p>	
26	<p>The Consent Holder must adhere to the following process related to the determination of the acceptability of cleanfill materials, <b>prior</b> to the acceptance of the first load of cleanfill from a site:</p> <p>a. All Clients must provide a “Cleanfill Declaration” for each site from which material will be sourced to dispose of as cleanfill to the SOL Quarry Administration Manager at least 24-hours prior to the arrival of the first load of cleanfill materials at the SOL Quarry. The Cleanfill Declaration must include details of:</p> <ul style="list-style-type: none"> <li>i. The name of the Client and the company delivering the material;</li> <li>ii. The date for the deposition of the first load of cleanfill materials;</li> <li>iii. The physical address of the site the material is sourced from;</li> <li>iv. A description of the material;</li> <li>v. Details of the site showing that trace element concentrations are equivalent or less than background levels, a LLUR statement, any available preliminary site investigations, detailed site investigations, remedial action and site validation reports.</li> <li>vi. Any authorisation under which the material is to be removed from the source site (e.g. resource consent);</li> <li>vii. The approximate weight or volume of the delivered material; and</li> <li>viii. A signed declaration or formal agreement between the Client delivering cleanfill to the site and the Consent Holder that the deposited material meets the acceptance criteria specified in Condition (25) of this resource consent.</li> </ul> <p>b. Independently of (a) above, review Canterbury Maps GIS database to determine whether soils meet the Canterbury Regional background levels at the SOL Quarry, as described in:</p> <ul style="list-style-type: none"> <li>i. <i>Background concentrations of selected trace elements in Canterbury soils.</i> <i>Addendum 1: Additional samples and Timaru specific background levels.</i></li> </ul>	

	<p>ii. <i>Environment Canterbury Report R07/1/2, Trace Elements Level 2: Regional – Recent for Heavy Metals;</i></p> <p>c. If material exceeds the background levels of the site, the material must not be accepted <b>unless</b> the Client provides a Site Validation Report confirming the background levels of selected trace elements referred to in Condition (25)(c) are at or below the background levels at the SOL Quarry.</p> <p>d. If the soils have concentrations that are either equivalent or less than the background levels, the Consent Holder must use the CRC Listed Land Use Register (LLUR) to identify potentially hazardous land uses, either current or historical.</p> <p>e. If the LLUR shows that the material is not from a potentially contaminated site, a preliminary site investigation must be undertaken by a Suitably Qualified and Experienced Practitioner (SQEP) to review available information related to the site history and the likelihood of soil contamination due to of historical land uses and activities.</p> <p>f. If the PSI finds the soil is likely to have been contaminated by historical and/or current land uses or activities, soil must not be accepted as cleanfill unless the owner of the material source site (or Client) undertakes a DSI to confirm soil quality results are acceptable for cleanfill or that contaminated soil has been remediated and validated and provides Site Validation Report.</p> <p>g. If the LLUR shows that the material is from a potentially contaminated site, the owner of the material source site (or Client) must provide fully site assessment and a SVR before material can be accepted.</p> <p>h. Upon acceptance of cleanfill from a site, the site will be allocated a unique Quarry Cleanfill number (QC number). The QC number will be a unique identifier for a site and will be recorded in the electronic register detailed in Condition (26).</p>	
27	<p>The Consent Holder must install a camera at the weighbridge to facilitate an inspection of each load of material, when the material is received on-site for deposition. The Consent Holder must adhere to the following procedures relating to the acceptance of cleanfill:</p> <p>a. ALL loads of cleanfill must be weighed and inspected at the site weighbridge;</p>	

	<ul style="list-style-type: none"> <li>b. Trucks will deposit loads of cleanfill material in an area designated within the Crushing Area for cleanfill management, a minimum of 3-metres above the Quarry Pit floor;</li> <li>c. Dedicated Quarry staff will inspect the load deposited under Condition 26(b) to ensure it meets the cleanfill acceptance criteria specified in Condition (24) and the load description provided in accordance with Condition (25) before the cleanfill is layered into the excavated Quarry Pit;</li> <li>d. Quarry staff will reject any load that does not meet the cleanfill acceptance criteria specified in Condition (24) and/or the load description provided in accordance with Condition (24);</li> <li>e. Update the electronic record referred to in Condition (27), in accordance with Condition (26) by recording the weight and inspection information in Condition (26).</li> </ul>	
28	<p>An electronic record of all cleanfill material deposited at the site must be maintained and held on site for the duration of this resource consent. This record must include:</p> <ul style="list-style-type: none"> <li>a. The unique cleanfill identification number (QC number);</li> <li>b. The name of the Client and the company delivering the material;</li> <li>c. The date for the deposition of the first load and every subsequent load of cleanfill materials from the site;</li> <li>d. The physical address of the site the material is sourced from;</li> <li>e. A description of the material;</li> <li>f. Details of the site showing that trace element concentrations are equivalent or less than background levels, the LLUR statement, any preliminary site investigations undertaken and any Site Validation and Site Remediation Reports.</li> <li>g. Any authorisation under which the material is to be removed from the source site (e.g. resource consent);</li> </ul>	

	<ul style="list-style-type: none"> <li>h. The approximate weight or volume of the delivered material; and</li> <li>i. A signed declaration or formal agreement between the Client delivering cleanfill to the site and the Consent Holder that the deposited material meets the acceptance criteria specified in Condition (25) of this resource consent.</li> </ul> <p>The Consent Holder shall maintain a back- up copy of the electronic record. The electronic record shall be provided to Christchurch City Council on request.</p>	
29	<ul style="list-style-type: none"> <li>a. If any material other than cleanfill is suspected or confirmed at the deposition area, the Consent Holder must: <ul style="list-style-type: none"> <li>i. Notify the Team Leader Compliance, Christchurch City Council within 4-hours; and</li> <li>ii. Provide an opportunity for the Team Leader Compliance, Christchurch City Council, or his/her representative, to attend the Quarry and site the material; and</li> <li>iii. Ensure the area is marked and closed off immediately; and</li> <li>iv. Remove this material within five working days of identifying that it should not have been deposited; and</li> <li>v. Arrange for its disposal.</li> </ul> </li> <li>b. Any material rejected in accordance with Condition (27) or removed from the site in accordance with Condition (29), shall be disposed of at a suitably licensed facility, and the Consent Holder must provide the Team Leader Compliance, Christchurch City Council, with written confirmation of such disposal within ten (10) working days of the disposal taking place.</li> </ul>	
30	<p>No cleanfill material shall be deposited at the site which has been sourced from a site defined as 'potentially contaminated'.</p> <p><b>Advice Note:</b> <i>For the purpose of this consent, 'potentially contaminated' means a part of a site where an activity or industry described in the list in Schedule 3 of the Canterbury Land and Water Regional Plan, which is attached as Attachment 1 and forms part of this resource consent, has or is being undertaken on it or where it is more likely than not an activity or industry described in the list in Schedule 3, is being or has been undertaken on it, but excludes any site where a detailed site investigation has been completed and reported and which demonstrates that any contaminants in or on the site are at, or below, background concentrations.</i></p>	

	<b>Excavation</b>	
31	The maximum depth of quarry must be in accordance with the levels detailed in CRC193563.	
32	Once the final pit depth and suitable working area on the pit floor has been established all excavation of aggregates shall occur from the quarry face in a west to east direction.	
	<b>Community Quarry Liaison Group</b>	
33	<p>The Consent Holder must facilitate the establishment a Community Quarry Liaison Group (CQLG) in accordance with the following requirements:</p> <ul style="list-style-type: none"> <li>a. The purpose of the CQLG is to: <ul style="list-style-type: none"> <li>i. Facilitate the engagement on an on-going and regular basis about matters associated with the quarrying operations as they relate to consent compliance;</li> <li>ii. Promote the flow of information between the local community and the consent holder so as to, wherever possible, address any consent compliance issues that may arise; and</li> <li>iii. Facilitate discussions the results of consent compliance monitoring and any matters that may arise as a result of the monitoring.</li> </ul> </li> <li>b. The CQLG must initially comprise up to two representatives of the Consent Holder, and the Consent Holder must invite one representative of the Christchurch City Council, one representative of the Canterbury Regional Council, one representative of the residents along Conservators Road, and representatives of the relevant Kaitiaki Rūnanga.</li> </ul> <p><b>Advice Note:</b> <i>This condition only governs initial establishment for the purposes of convening the first meeting of the CLG. The consent Holder acknowledges that it will be for the Residents along Conservators Road to decide whether or not they want to become involved. On-going membership will also be determined by the CQLG.</i></p> <ul style="list-style-type: none"> <li>c. The consent holder must ensure that members of the CQLG are provided with the opportunity and facilities to meet: <ul style="list-style-type: none"> <li>i. At least 30 working days prior to the start of any <i>site preparation</i> activities; and</li> </ul> </li> </ul>	

	<p>Not less frequently than six-monthly during the first four years of quarrying operations and annually thereafter, unless all members of the CQLG agree there is no need for a meeting;</p> <p>d. If the Consent Holder, in progressing any element of the quarry, wishes to call a meeting of the CQLG to obtain community input, the meeting regime may be shifted to accommodate such a request;</p> <p>e. The time, date and venue of proposed meetings must be notified to members of the CQLG at least 15 working days prior to the meeting date;</p> <p>f. Minutes of the CQLG meetings must be kept by the Consent Holder and be made publicly available;</p> <p>g. The Consent Holder must engage an independent chairperson to facilitate CQLG meetings.</p> <p>h. The Consent Holder must meet the reasonable administrative costs of the CQLG meetings (e.g. meeting invitations; meeting venue; preparation of meeting minutes) and facilitation of meetings by an independent chair.</p> <p><b>Advice Note:</b> <i>In the event that it is not possible to establish a CQLG or convene meetings through lack of interest or participation from the residents, then such failure to do so will not be deemed a breach of these conditions. Should the residents wish to re-establish meetings after a period of inactivity then the conditions above shall continue to apply.</i></p>	
	<b>Rehabilitation</b>	
34	<p>Rehabilitation shall be undertaken in accordance with a Quarry Rehabilitation Plan. The Quarry Rehabilitation Plan shall be retained on site at all times and the Consent Holder shall ensure all appropriate personnel working on the site are made aware of and have access to it. The Quarry Rehabilitation Plan shall:</p> <p>a. Be prepared in accordance with the provisions of the Quarry Rehabilitation Guidance; Christchurch City Council; 2018.</p> <p>b. Be prepared by a suitably qualified and experienced person.</p>	<p>Comment from an earlier draft:</p> <p><i>Still missing details on cleanfill availability, a staging plan, the review process and final land uses. Probably best to let the commissioners decide on the final version of the condition as I know your preference was for the condition to be less prescriptive. I'm also still a bit concerned about the timeframes being quite</i></p>

	<ul style="list-style-type: none"> <li>c. Demonstrate how Condition (35) of this resource consent will be complied with.</li> <li>d. Contain a description of the content and objectives of the Quarry Rehabilitation Plan.</li> <li>e. Contain a detailed description of rehabilitation procedures, the key principles and the proposed final landform.</li> <li>f. Contain a detailed description of rehabilitation staging, including an indication of date for completion of each stage of the rehabilitation.</li> <li>g. Contain a description of the cleanfill material used for rehabilitation.</li> <li>h. Contain a description of potential land use activities including activities that are permitted by the Christchurch District Plan.</li> <li>i. Assess the stability and surface drainage, including methods for reducing the potential for ponding on rehabilitated areas.</li> <li>j. Contain a description of the landscape planting and maintenance.</li> <li>k. Include a process for review of the Quarry Rehabilitation Plan.</li> </ul>	<p><i>general – i.e. just says the land will be rehabilitated when cleanfill is completed – but have provided no estimation of when this would be.</i></p> <p><u>Response:</u></p> <p>SOL has added significantly more detail into the Conditions.</p> <p>SOL is seeking confirmation that the amended Conditions address CCC's concerns.</p>
35	<p>The Consent Holder shall progressively rehabilitate the site and shall ensure that any area where cleanfilling activities have been completed is rehabilitated within six-months of the completion of cleanfilling. The rehabilitated site will be recontoured to mimic the subtle landforms that characterise the historic riverbed in the immediate locality of the site.</p> <p>The rehabilitation shall include but not be limited to:</p> <ul style="list-style-type: none"> <li>a. Backfilling of the area with cleanfill and contouring to approximate the existing landforms in the immediate locality of the site;</li> <li>b. Spreading a minimum settled depth of 300mm of topsoil over the site. The Consent Holder shall utilise stored overburden and topsoil from the Quarry and the bunds to rehabilitate the site and shall maintain the recontour described in Condition (35)(a);</li> </ul>	<p>Comment from an earlier draft:</p> <p><i>I want the condition to make clear that no more than two stages of the quarry are to be open at once (i.e. stage 1 must be fully rehabilitated including all cleanfilling before you start stage 3).</i></p> <p><i>I want the condition to make clear that:</i></p> <ul style="list-style-type: none"> <li>- <i>No more than two stages of the quarry are to be open at once (i.e. stage 1 must be fully rehabilitated</i></li> </ul>



	<p>c. Topsoil is not to be compacted during spreading; rather topsoil is to be tilled or ripped to improve drainage;</p> <p>d. The development of a free-draining and stable landform;</p> <p>e. Re-grassing and re-planting all exposed areas as soon as practicable to prevent erosion losses;</p> <p>f. Any re-grassing or re-planting undertaken in accordance with Condition (34)(e) shall use low-seed generating grass species which do not attract birds or insect species, that subsequently attract birds;</p> <p>g. Monitoring and maintaining rehabilitated areas to ensure they are functioning appropriately post-closure;</p> <p>h. During the final stages of rehabilitation, removing all mobile machinery and plant from the site;</p> <p>i. Ensuring the site is suitable for the future use of the site as detailed in the Quarry Rehabilitation Plan and uses consistent with the <i>permitted activities</i> prescribed in the Christchurch District Plan;</p> <p>j. Rehabilitation of the site shall be undertaken so that a completed grass cover is achieved no later than 6 months from completion of all excavation and cleanfilling activities. Dust mitigation measures must continue to be employed on site until this grass cover is achieved; and</p> <p>k. Monitoring and maintaining the progress of the vegetation and reseeding if necessary, i.e. if the germination rate is satisfactory, controlling weeds, mowing and/or grazing to ensure rehabilitated areas are functioning appropriately, with a minimum 80% grass cover, post-closure, for a period of 24 months.</p> <p>l. The cleanfill and Quarry rehabilitation <b>must</b> be completed, in full, on or before the expiry date of the resource consent.</p>	<p><i>including all cleanfilling before you start stage 3).</i></p> <p>- <i>Site must be fully rehabilitated by end of the consent period (20 years) - Want this in this condition as well as condition 1 to make it really clear.</i></p> <p><u>Response:</u></p> <p>SOL has amended the Condition, as requested and included an explicit Condition relating to full rehabilitation of the site <b>prior</b> to the expiry of the consent.</p> <p>SOL is seeking confirmation that the amended Conditions address CCC's concerns.</p>
--	---	--

36	The boundary shelter-belt plantings are not to be removed during the quarry rehabilitation works or at the end of the consent duration. The boundary shelter-belt plantings are to remain in-situ.	
	<b>Transpower</b>	
37	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 Quarry Manager or other nominated person(s) of it consenting to those distances being reduced.	
38	A copy of the electrical engineer's report confirming that the distances have been met is to be submitted to Transpower NZ Limited.	
39	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, shall: <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>	
40	The Consent Holder shall: <ul style="list-style-type: none"> <li>a. 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> <li>b. Undertake excavations so there is a batter slope no steeper than 1(v):3(h) between the setback described in Condition (39) and the nearest excavation pit.</li> <li>c. Ensure that the processing plant used for aggregate crushing and screening is not located within 100m from the centre line of the Islington-Kiliwa B National Grid transmission lines.</li> <li>d. Not undertake cleanfilling or extractions within a horizontal distance of 20 metres from the outside edge of the Islington-Kiliwa B National Grid transmission lines between Towers ISL-KIK-A0018 and ISL-KIK-B00.</li> </ul>	

41	<p>Any batter slope between the 20-metre setback, as specified in Condition (39) and the nearest excavation pit shall be designed by a Suitably Qualified Geotechnical Professional, and erosion control measures employed and maintained as necessary, to ensure the long-term integrity of the slope. 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.</p> <p>Any comments provided by Transpower must be submitted to the Council.</p>	
42	<p>Before any quarry activities commences on site, the Consent Holder shall commission a Suitably Qualified 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>	
43	<p>The Consent Holder shall:</p> <ul style="list-style-type: none"> <li>a. Ensure the activities authorised in Condition (1) do not create any dust hazard or nuisance to the Transpower transmission lines and towers which are within or close to the application site; and</li> <li>b. Ensure the processing plant is not located within 100 metres from the centre line of the Islington-Kiliwa B National Grid transmission lines.</li> </ul>	
44	<p>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-B00.</p>	

	<b>Christchurch International Airport</b>	
45	<p>The Consent Holder shall adopt 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 no activities take place in the base of the Quarry Pit floor which involve the feeding or encouragement of birds; and</li> <li>b. Managing the Quarry Pit floor to ensure that any surface ponding drains freely, while rehabilitated areas shall be designed and finished to be free draining surfaces. No surface water ponding may occur for longer than 48 hours; and</li> <li>c. Ensure there are no permanent waterbodies created as a result of quarrying operations or site rehabilitation practices; and</li> <li>d. All quarrying and site rehabilitation works will provide for appropriate drainage, ensuring the potential for temporary standing water is minimised, particularly after rainfall events and that no ponding occurs for longer than 48 hours; and</li> <li>e. 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 and shall be managed to minimise seed production and long-term dust issues associated with the Quarry operations; and</li> <li>f. 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 contracted and the waste disposed of to an approved waste-transfer station; and</li> <li>g. 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 confirmation of compliance with the Civil Aviation Act 1990 and protection of CIAL operations, in particular aircraft safety, prior to the install of any fixed lighting.</li> </ul>	

46	<p>An emergency contact person responsible for on-site operations and her/his contact details must 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>	
47	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 contracted and the waste disposed of to an approved waste-transfer station by an appropriately licenced operator.	
48	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>Traffic</b>	
49	<p>The activity shall be limited to a maximum of:</p> <ul style="list-style-type: none"> <li>i. 300 heavy vehicle movements per day (150 movements in and 150 movements out); and</li> <li>ii. 30 light vehicle movements per day (15 movements in and 15 movements out).</li> </ul>	
50	<ul style="list-style-type: none"> <li>a. All heavy vehicles exiting the site between the hours of 7:00am until 9:00am and 4:00pm until 6:00pm must not turn right and shall turn left to exit from the site onto Guys Road.</li> <li>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.</li> </ul>	
51	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.	

52	<p>The consent holder must maintain records, including an electronic record of all vehicles exiting the site and weighbridge records.</p> <p>This logbook and weighbridge records shall be provided to Council's Compliance and Investigations Team on a bi-monthly basis for the first 6 months and on request thereafter.</p>	
53	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 any time.	
54	<p>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.</p> <p>The Handbook must include:</p> <ul style="list-style-type: none"> <li>i. details of the designated route to be used when accessing and exiting the Quarry;</li> <li>ii. an instruction to not use Hasketts Road, School Road or the southern section of Guys Road (School Road to Ryans Road section), at any time; and</li> <li>iii. Details of the 3-strike warning system and driver ban should drivers take the incorrect route.</li> <li>iv. Evidence of the Induction and a record of disciplinary actions taken will be made available to Council monitoring staff on request.</li> </ul>	
55	The Consent Holder must maintain the sealed Heavy Vehicle Road in good condition, including the infilling of potholes as required. Heavy vehicle access to the site shall be only via the existing Guys Road access. The Conservators Road access is for light vehicles only.	
56	The Consent Holder must seal the internal road between the Weighbridge and Crushing Area and the entire length of the Light Vehicle Access prior to the commencement of quarrying activities.	

57	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 (consent RMA/2015/300), using Austroads or NZTA vehicle class. Records of the monitoring shall be kept on site.	
58	The speed limit on the Haul Road is a maximum of 20 km/h.	
	<b>Noise</b>	
59	All construction activities, as defined in this consent will shall be designed and conducted to ensure that construction noise complies with NZS 6803:199 – Acoustics: Construction Noise.	
60	For the purpose of Condition (59), 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.	
61	<p>The cumulative noise level from quarry and associated activities, including vehicle movements on the quarry site and accessway, will 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>Dust</b>	
62	<p>The discharge of contaminants to air shall be limited to that from:</p> <ul style="list-style-type: none"> <li>a. Site preparation, topsoil stripping, overburden removal and storage;</li> <li>b. Construction and maintenance of bunds and stockpiles;</li> <li>c. Excavation, loading and transportation of aggregate;</li> <li>d. Stockpiling of excavated aggregate;</li> </ul>	

	<p>e. Processing and crushing of excavated aggregate;</p> <p>f. Deposition of cleanfill;</p> <p>g. Rehabilitation activities at the completion of extracting aggregate;</p> <p>h. Movement of vehicles associated with the above activities.</p> <p>at 93 and 133 Conservators Road, legally described as Part RS 3579 and Lot 1 DP 82891 as shown on Plan RMA/2019/373A, attached to and forming part of this resource consent.</p> <p>For the avoidance of doubt, no blasting or the use of a jaw crusher is authorised by this resource consent.</p>	
63	<p>The discharge of contaminants to air associated with Condition (63)(e) shall be limited to a maximum of two crushing plants at any one time.</p> <p>A crushing plant shall include:</p> <ul style="list-style-type: none"> <li>i. A Cone Crusher; and</li> <li>ii. A Powerscreen.</li> </ul> <p>The crushing plants shall be located a minimum of 350-metres from the north-east and south-east boundaries of the property, in accordance with the Plan RMA/2019/373A.</p>	
64	<p>The discharge of contaminants into air must not result in an offensive, objectionable, noxious or dangerous effect beyond the site boundaries.</p>	
65	<p>The Quarry Manager, or another nominated person, shall be available at all times (including outside quarry operation hours) to respond to dust emissions complaints and issues. The contact details shall be displayed on signage at the Heavy Vehicle Entrance, the Light Vehicle Entrance and at the Quarry Office adjacent to the Weighbridge. With the exception of the Quarry Office signage, the contact details must be able to be read from outside the gates.</p>	



66	<p>The operating hours of the site shall be:</p> <p>Provided that:</p> <ul style="list-style-type: none"> <li>i. No aggregate processing, including loading, crushing, and screening, shall occur on the site prior to 0700 at any time; and</li> <li>ii. No heavy vehicles shall access or leave the site prior to 0700. The access gate on Guys Road shall be locked at all times prior to 0700.</li> <li>iii. No heavy vehicle shall access the Heavy Vehicle Access Road prior to 7:00am.</li> <li>iv. In order to ensure compliance with Condition 67)(iii), the Consent Holder will construct a swing arm gate proximate to the Weighbridge preventing access to the Heavy Vehicle Access Road prior to 7:00am daily.</li> </ul>	
67	No activities other than dust mitigation shall be undertaken on Sundays or public holidays.	
68	<p>The maximum unconsolidated area shall be limited at any one time to:</p> <ul style="list-style-type: none"> <li>a. Nine hectares for the total quarrying activities area, defined as including the internal unsealed roading network, the Crushing Area, the excavated Quarry Pit, the area stripped in preparation for quarrying; the active Cleanfill Area, and the area currently undergoing rehabilitation.</li> <li>b. Two hectares at any one time for the active quarrying operations area, defined as the Crushing Area, the excavated Quarry Pit and the active Cleanfill Area.</li> </ul>	
	<b>Automated Sprinkler System</b>	
69	During the <i>Enabling Works</i> , and prior to the commencement of quarry operations, the Consent Holder shall have an automated sprinkler system designed, installed, commissioned and maintained in accordance with CRC193564.	
70	a. The consent holder shall prepare and submit a Dust Management Plan (DMP).	

	<p>b. A copy of the DMP shall be submitted to Christchurch City Council, Attention: Team Leader, Compliance.</p>	
71	<p>The Consent Holder shall utilise all reasonably practicable measures to minimise the discharge of dust from quarry activities on-site:</p> <ul style="list-style-type: none"> <li>a. When wind speeds reach or exceed 7 m/s for a one-hour average; and</li> <li>b. On dry days; and</li> <li>c. When there is any visible emission of dust from the site.</li> </ul> <p><b>Advice Note.</b> <i>Dry days means when there is less than 1 millimetre of rain or when less than 1 millimetre of rain has fallen during the past 24-hours or ground conditions are visibly dry.</i></p>	
72	<p>Stockpiles shall be managed as follows:</p> <ul style="list-style-type: none"> <li>a. Stockpiles will be dampened with water to minimise dust emissions; and</li> <li>b. Stockpiles generated during site preparation works shall: <ul style="list-style-type: none"> <li>i. Only comprise of topsoil, overburden and aggregate;</li> <li>ii. Have a height no greater than 3.0 metres above natural ground level;</li> <li>iii. Must not be visible from Conservators Road south of 133 Conservators Road above the bunds; and</li> </ul> </li> <li>c. Stockpiles of extracted gravel and processed aggregates shall: <ul style="list-style-type: none"> <li>i. Be located within the Crushing Area, in accordance with the Plan (RMA/2019/373) attached, at a depth of at least five metres below natural ground level;</li> <li>ii. Have a maximum height of 8-metres;</li> <li>iii. Have a maximum volume of 15,000 cubic metres in any stockpile at any one time; and</li> </ul> </li> </ul>	

	<p>iv. Be located a minimum of 350-metres from the north-east boundary and the south-east boundary of the Quarry; and</p> <p>d. Any long-term stockpiles of topsoil, overburden or aggregate shall be sown with low seed generating grass species which do not attract birds or insect species that in turn attract birds.</p>	
73	The Consent Holder shall use a water suppression system comprising mist sprinklers, on the conveyor arms of the screening plant specified in Condition (64) of this resource consent at all times for the duration of this resource consent, unless water suppression using mist sprinklers is not deemed necessary due to weather conditions, specifically rainfall events of sufficient intensity to compensate for use of the mist sprinklers.	
74	The Consent Holder shall maintain a record of all times when subject to a water restriction of water from the Paparua Stockwater Race.	
75	The Consent Holder shall install and maintain meteorological monitoring instruments.	
	<b>Complaints</b>	
76	The consent holder must keep a record of all complaints and any responses or investigative action taken as a result. This record shall be provided to the Team Leader Compliance, Christchurch City Council, on request.	
	<b>Accidental Discovery Protocol</b>	
77	<p>In the event of any discovery of archaeological material:</p> <p>a. The Consent Holder shall immediately:</p> <ol style="list-style-type: none"> <li>i. Cease earthmoving operations in the affected area and mark off the affected area; and</li> <li>ii. Advise the Christchurch City Council and the Canterbury Regional Council of the disturbance; and</li> <li>iii. Advise Heritage New Zealand of the disturbance.</li> </ol>	

	<ul style="list-style-type: none"> <li>b. If the archaeological material is determined to be Kōiwi Tangata (human bones) or taonga (treasured artefacts) by Heritage New Zealand, the consent holder shall immediately advise the office of the appropriate Rūnanga (office contact information can be obtained from the Christchurch City Council) of the discovery.</li> <li>c. If the archaeological material is determined to be Kōiwi Tangata (human bones) or taonga (treasured artefacts) by Heritage New Zealand, the consent holder shall immediately advise the office of the appropriate Rūnanga (office contact information can be obtained from the Christchurch City Council) of the discovery.</li> <li>d. If the archaeological material is determined to be Kōiwi Tangata (human bones) by Heritage New Zealand, the consent holder shall immediately advise the New Zealand Police of the disturbance.</li> <li>e. Work may recommence if Heritage New Zealand (following consultation with Rūnanga if the site is of Maori origin) provides a statement in writing to the Team Leader Compliance, Christchurch City Council, that appropriate action has been undertaken in relation to the archaeological material discovered. The Christchurch City Council shall advise the consent holder on written receipt from Heritage New Zealand that work can recommence.</li> </ul>	
	<b>Covenant</b>	
78	<p>Once all extraction and rehabilitation activities are complete, the land shall not be used for the following activities:</p> <ul style="list-style-type: none"> <li>a. Intensive pastoral farming, where the stock density or the nature of the activity does not maintain ground cover without irrigation; or</li> <li>b. Intensive animal farming, such as cattle feedlots, pig farms, poultry farms or any other farming operation where animals are housed, and their collected effluent disposed of on the site; or</li> <li>c. Any activity involving the use or storage of hazardous chemicals, including petroleum products, in quantities greater than normal on rural-residential property.</li> </ul>	
79	An encumbrance or covenant in favour of the Consent Authority under section 108(2)(d) of the Resource Management Act 1991 shall be registered against all land titles of the site to give effect to the limitations on subsequent land use activities set out in Condition (above), within six months of the commencement of this resource consent.	

	<b>Company (Consent Holder) Commitment to Obligations</b>	
80	A responsible Officer of the Company (the Consent Holder) must provide formal advice, in writing, regarding the financial viability of the Company, with specific reference to obligations of the Company under the Consents in relation to rehabilitation of the Quarry site, at the request of Christchurch City Council.	
	<b>Review</b>	
81	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 May or November, 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 Note:***

The Consent Holder must comply with the following resource consents from the Canterbury Regional Council:

- CRC193564
- CRC193563
- CRC193773