

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

	Condition
	Limits
1	The discharge of contaminants 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.
	Prior to commencing works
2	<ul style="list-style-type: none"> a. The perimeter of the quarry site shall be surrounded by secure fencing, with lockable access gates; b. The Consent Holder shall ensure that warning notices are erected and maintained at all entrances to the site; c. Warning notices shall be able to be read from a distance of five metres; d. The warning notices shall state: <ul style="list-style-type: none"> i. Name of the site; ii. Name of the owner of the site, and a contact telephone number; iii. Groundwater is vulnerable to contamination; and iv. Only clean soil may be deposited at this site; general refuse and hazardous waste shall not be dumped at this site.
3	<p>At least 20 working days prior to commencement of quarry activities authorised in Condition (1), the Consent Holder or their agent must arrange and conduct a pre-construction site meeting with the CRC. At a minimum, the following must be covered at the meeting:</p> <ul style="list-style-type: none"> a. Scheduling and staging of the works, including the proposed start date; b. Responsibilities of all relevant parties; c. Contact details for all relevant parties; d. Expectations regarding communication between all relevant parties; e. Site inspections; f. Confirmation that the automated sprinkler has been installed in accordance with resource consent CRC193564; and g. Confirmation that all relevant parties have copies of the contents of these consent documents and all associated management plans.
4	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.
5	<p>Prior to the commencement of quarry 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"> a. The contents of this resource consent document; b. The Quarry Management Plan, prepared in accordance with resource consent CRC193563; c. The Site Management Plan, prepared in accordance with resource consent CRC193563; d. The Cleanfill Management Plan, prepared in accordance with Condition (6) of this resource consent; e. The Quarry Rehabilitation Plan, prepared in accordance with resource consent CRC193563; f. The Spill Management Plan, prepared in accordance with resource consent CRC193563; g. The Quarry Operational Management Plan, prepared in resource consent CRC193563;

	<ul style="list-style-type: none"> h. The Dust Management Plan prepared in accordance with resource consent CRC193564; and i. Resource consents CRC193563 and CRC193564 and all associated documents.
	Cleanfill Management Plan
6	<ol style="list-style-type: none"> 1. Cleanfilling shall be undertaken in accordance with a Cleanfill Management Plan (CMP). The CMP 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 CMP shall include: <ul style="list-style-type: none"> a. A description of the content and purpose of the CMP; b. Demonstrate how Condition (7) to (11) of this resource consent will be complied with; c. Details of the operation of the site, including details of staging of works, area, depth, cleanfilling activities and site rehabilitation; d. Details of the on-site staff training procedures; e. The contact details of the staff member(s) responsible implementing the CMP; f. 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; g. The steps to be undertaken to correct incidences of non-compliance with the conditions of this consent; h. A description of operational procedures and monitoring that will be used to prevent unauthorised cleanfill material from entering the site; i. A list of acceptable cleanfill material; j. How rejected cleanfill material will be stored pending its removal to an authorised landfill; k. The maximum length of time that rejected material can be stored on site pending its removal; l. Construction procedures to ensure the long-term stability of cleanfill areas; m. Procedures for improving and/or reviewing the CMP; and n. Procedures for responding to complaints. 2. If the consent holder has not received a response from the Canterbury Regional Council, Attention: Regional Leader - Compliance Monitoring within 20 working days of the date of submission under condition 7, the QMP must be deemed to be certified. 3. If the response from the Canterbury Regional Council, Attention: Regional Leader - Compliance Monitoring is that they are not able to certify the management plan they must provide the consent holder with reasons and recommendations for changes to the QMP in writing. The consent holder must consider any reasons and recommendations and resubmit an amended QMP for certification. 4. If the consent holder has not received a response from the Canterbury Regional Council, Attention: Regional Leader - Compliance Monitoring within 5 working days of the date of resubmission under the above condition, the QMP must be deemed to be certified.
	Cleanfilling
7	<p>Material deposited in the excavated area for the purpose of cleanfilling and rehabilitation shall:</p> <ul style="list-style-type: none"> a. Only include material defined as cleanfill in accordance with the document – “A Guide to Cleanfill Management”; MfE; 2002; b. Not contain more than 3% vegetative matter c. Only include material <i>that meets</i> the Canterbury Regional background levels which are described in <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</i>;

	<ul style="list-style-type: none"> d. Not be deposited into groundwater or standing water; and e. Be located at least one metre above the highest groundwater level as determined under conditions of this resource consent. <p>Advice Note:</p> <ol style="list-style-type: none"> 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> 2. <i>A definition of cleanfill is attached as Schedule 1.</i>
8	<p>When material is received on-site for deposition, the Consent Holder shall:</p> <ul style="list-style-type: none"> a. Weigh and inspect, at the site weighbridge, all incoming loads of cleanfill material; b. Deposit loads of cleanfill material in an area designated within the Crushing Area, a minimum of 3-metres above the Quarry Pit floor; c. Inspect the load deposited under Condition 23 (b) to ensure it meets the cleanfill acceptance criteria specified in Condition (22) and the load description provided in accordance with Condition (22)(d) before filling occurs; d. Reject any load that does not meet the cleanfill acceptance criteria specified in Condition (22) and/or the load description provided in accordance with Condition (23)(d); and e. Update the electronic record in accordance with Condition (23) by recording the weight and inspection information referred to in Condition (22)(a) and (22)(c).
9	<p>An electronic record of all cleanfill material deposited at the site shall be maintained and held on site for the duration of this resource consent. This record shall include:</p> <ul style="list-style-type: none"> a. The name of the person and company delivering the material; b. The date of delivery and date of cleanfill deposition; c. The physical address of the land the material was sourced from; d. A description of the material; e. The LLUR will be used to provide evidence that cleanfill material from a site will meet the cleanfill acceptance criteria, including an assessment of any Site Remediation Reports identified in the LLUR; f. Any authorisation under which the material was removed from the source site (e.g. resource consent); g. The weight or volume of the delivered material; h. The approximate location of the load within the site following deposition; and i. A signed declaration or formal agreement between each person delivering cleanfill to the site and the Consent Holder that the deposited material meets the acceptance criteria specified in Condition (8) of this resource consent. <p>The Consent Holder shall maintain a back- up copy of the electronic record. The electronic record shall be provided to Christchurch City Council in September of each year or on request.</p>
10	<ul style="list-style-type: none"> a. If any material other than cleanfill is suspected or confirmed at the deposition area, the Consent Holder shall: <ul style="list-style-type: none"> i. Ensure the area is marked and closed off immediately; ii. Remove this material within five working days of identifying that it should not have been deposited; and iii. Arrange for its disposal. b. Any material rejected in accordance with Condition (7) or removed from the site in accordance with Condition (10), shall be disposed of at a suitably licensed facility, and 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.
11	<p>No cleanfill material shall be deposited at the site which has been sourced from a site defined as ‘potentially contaminated’.</p>

	<p>Advice Note: 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.</p>
	<p>Groundwater Quality Monitoring and Reporting</p>
12	<ol style="list-style-type: none"> 1. Prior to the commencement of activities authorised in Condition (1), the Consent Holder shall install groundwater monitoring bores for the purpose of monitoring groundwater quality. Prior to the groundwater wells being installed, the Consent Holder shall provide a plan of the locations of the proposed bores to the Canterbury Regional Council, Attention: Regional Leader, Compliance Monitoring for certification that the location of the bores complies with Condition (13). The Consent Holder shall not install the bores until certification is received from the Canterbury Regional Council. 2. If the consent holder has not received a response from the Regional Leader – Compliance Monitoring within 20 working days of the date of submission of the plan showing the location of the bores under condition 12, the plan must be deemed to be certified. 3. If the response from the Regional Leader – Compliance Monitoring is that they are not able to certify the plan they must provide the consent holder with reasons and recommendations for changes to the plan in writing. The consent holder must consider any reasons and recommendations and resubmit an amended plan for certification. 4. If the consent holder has not received a response from the Regional Leader – Compliance Monitoring within 5 working days of the date of resubmission under the above condition, the plan must be deemed to be certified. <p>Advice Note. The certification process is confined to confirming that the monitoring proposal adequately gives effect to the relevant conditions.</p>
13	<p>The bores required in accordance with Condition (12) shall:</p> <ol style="list-style-type: none"> a. Include: <ol style="list-style-type: none"> i. Bore BX23/0520 on the SOL Quarry site at 81 Conservators Road, Yaldhurst; and ii. Two down-gradient bores on or near the south-eastern boundary, including one located at or about, map reference NZTM 2000 1559291 mE 5184830 mN; b. Be a minimum of 50 millimetres in diameter; c. Enter the aquifer that is immediately underlying the site; and d. 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 e. The bores shall be accessible to the Canterbury Regional Council for the purpose of groundwater sampling. <p>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 they have been installed in accordance with the conditions of this resource consent.</p>
14	<p>The Consent Holder shall undertake the following groundwater sampling regime at the bores installed in accordance with Condition (12) and (13):</p>

- 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;
- 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;
- 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;
- d. The water quality monitoring results shall be provided to the CRC Attention: Regional Leader Compliance Monitoring within one month of them being received in an electronic format, suitable for automatic upload to a water quality database.

Table 1.	
<i>Contaminant or property</i>	<i>Trigger value</i>
Alkalinity	100 mg/L as CaCO ₃
Ammonia	1.5 mg/L
OR Ammoniacal Nitrogen	1.2 mg/L
Conductivity	50 mS/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

Responses to Monitoring

15 The results of the analyses of groundwater samples tested in accordance with Condition (14) shall be compared to the contaminant trigger values in Table 1.

16 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 shall:

- a. Obtain groundwater samples from all bores sampled in accordance with Condition (14) within 14 days; and
- b. The samples taken in accordance with Condition (16)(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 (14).

Table 2	
<i>Contaminant</i>	<i>Trigger value¹</i>
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

(1) Trigger values are 50% of the guideline values for aesthetic determinants or maximum acceptable values in the Drinking Water Standards for New Zealand

17 If the results from the sampling undertaken in accordance with Condition (16) show concentrations of contaminants in Table 1 or in Table 2, the Consent Holder shall:

- a. Notify the Canterbury Regional Council, Attention: Regional Leader - Compliance Monitoring within 48 hours of receiving the results of the exceedance being received; and
- b. Notify the occupiers of all adjoining properties hydraulically downgradient of the site within 48 hours and undertake an assessment for the potential adverse effect on these wells; and
- c. Implement necessary measures to reduce the concentration of the contaminant in groundwater. Such measures may include:
 - i. Cessation of activities that may have caused the excessive concentrations;
 - ii. Provide alternative water supply to only affected domestic wells used for drinking water supply;
 - iii. Removal of the contaminant source(s),
 - iv. Stabilisation or capping of the contaminant source(s); and
 - v. Revision of cleanfill management procedures.
- d. Undertake an investigation to determine the potential cause of the exceedance including:

	<ul style="list-style-type: none"> i. Reviewing the on-site conditions and material to determine potential sources of contaminants; ii. Within 14 days undertake sampling of domestic wells within 500 m from the site (if access is granted); and 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.
18	<p>Within 10 working days of implementing the measures listed in Condition (17), validation sample(s) shall be taken from the bores sampled in accordance with Condition (16). The validation sample(s) shall be analysed in accordance with Condition (16) 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 working days of receipt of the results by the consent holder.</p> <ul style="list-style-type: none"> 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 in 14 days, and 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 (14); b. If the results 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 (17)(c) and (d) and undertake further validation sampling in accordance with Condition (17).
19	<p>Any material removed in accordance with Condition (17)(c)(iii) shall 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>
	<p>Administration</p>
20	<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"> a. Dealing with an adverse effect on the environment occurring as a result of the exercise of this resource consent; 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; c. Requiring the consent holder to carry out monitoring and reporting instead of, or in addition to, that required by the resource consent; or d. Requiring the consent holder to comply with a relevant rule in an operative regional plan.
21	<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>Advice Note: <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>

CRC193733 – Schedule 1

Waste acceptance criteria comprise:

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 that adversely impact on groundwater quality;
- Hazardous substances;
- Products or materials derived from hazardous waste treatment, hazardous waste stabilisation or hazardous waste disposal practices;
- Materials that may present a risk to human or animal health such as medical and veterinary waste, asbestos or radioactive substances;
- Liquid waste.

Plan CRC193773



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PROJECT: SOL Quarries Ltd

COMMISSIONER: Christchurch City

REGION: Canterbury

Drawing Title: **QUARRY SETBACK PLAN**

Prepared for: **SOL QUARRIES LTD**

Plan Reference:

REV	DESCRIPTION	DATE
A	ORIGINAL ISSUE	19/07/20

SCALE: See Scale Bar

SCALE BAR: 0m 100m 200m 300m 400m 500m

REVISIONS:

REVISION NUMBER	REV	DATE
5475-001	1 of 1	B

DATE: 6/11/2020

CRC193564 – To discharge contaminations to air

	Condition
	Limits
1	<p>The discharge of contaminants to air shall be limited to that from:</p> <ol style="list-style-type: none"> a. Site preparation, topsoil stripping, overburden removal and storage; b. Construction and maintenance of bunds and stockpiles; c. Earthworks related to re-alignment of the stockwater race; d. Excavation, loading and transportation of aggregate; e. Stockpiling of excavated aggregate; f. Processing and crushing of excavated aggregate; g. Deposition of cleanfill; h. Rehabilitation activities at the completion of extracting aggregate; and i. Movement of vehicles associated with the above activities. <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>For the avoidance of doubt, no blasting is authorised by this resource consent.</p> <p>Advice note. For the purpose of this resource consent:</p> <ol style="list-style-type: none"> a. Quarry activities means the activities listed in Condition (1)(a) to (i); b. Site preparation works means the activities listed in Condition (1)(a) to (c); and c. Quarrying operations means the activities listed in Condition (1)(d) to (i).
2	<p>The discharge of contaminants to air associated with Condition (1)(e) shall be limited to:</p> <ol style="list-style-type: none"> a. A maximum of two crushing plants at any one time. A crushing plant shall include: <ol style="list-style-type: none"> i. A jaw crusher; ii. A cone crusher; and iii. A powerscreen; b. The crushing plants shall be located a minimum of 350-metres from the north-east boundary of the quarry as shown on Plan CRC193563.
3	<p>The discharge of contaminants into air shall not result in an offensive, objectionable, noxious or dangerous effect beyond the site boundaries as shown on Plan CRC193564.</p>
4	<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.</p>
5	<p>The operating hours of the site shall be:</p> <ol style="list-style-type: none"> a. 0630 to 1800 on weekdays; b. 0630 to 1200 on Saturdays; Provided that: <ol style="list-style-type: none"> a. No aggregate processing, including loading, crushing, and screening, shall occur on the site prior to 0700 at any time; and b. No heavy vehicles shall access the site prior to 0700. The access gate on Guys Road shall be locked at all times prior to 0700.
6	<p>No activities other than dust mitigation measures shall be undertaken on Sundays or public holidays.</p>
7	<p>The maximum open area shall be limited at any one time to:</p> <ol style="list-style-type: none"> a. Nine hectares for the total quarrying activities area; and b. Two hectares at any one time for the active quarrying operations area.

	Automated Sprinkler System
8	<p>a. Prior to the commencement of any activities listed in Condition (1), the Consent Holder shall 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 20 working days prior to the sprinkler being installed;</p> <p>b. The Consent Holder shall not install the automated sprinkler system until certification has been received from the Canterbury Regional Council.</p> <p>c. If the consent holder has not received a response from the Regional Leader – Compliance Monitoring within 20 working days of the date of submission of the design of the automated sprinkler system under condition 8, the design must be deemed to be certified.</p> <p>d. If the response from the Regional Leader – Compliance Monitoring is that they are not able to certify the design, they must provide the consent holder with reasons and recommendations for changes to the plan in writing. The consent holder must consider any reasons and recommendations and resubmit an amended design for certification.</p> <p>e. If the consent holder has not received a response from the Regional Leader – Compliance Monitoring within 5 working days of the date of resubmission under the above condition, the design must be deemed to be certified.</p> <p>Advice note. <i>The certification process is confined to ensuring that a Management Plan adequately gives effect to the relevant Condition(s).</i></p>
9	<p>The automated sprinkler systems required in accordance with Condition (8) shall:</p> <p>a. Be able to be used at all times including within and outside operating hours;</p> <p>b. Be used in accordance with the requirement for dust suppression in accordance with Condition (17) of this resource consent;</p> <p>c. Comprise of at least two separate systems:</p> <ol style="list-style-type: none"> i. At least one system shall be utilised on the bunds, stockpiles, and areas of rehabilitation; and ii. At least one system shall be utilised on the active quarrying operations. <p>d. The automated sprinkler shall be capable of suppressing dust in accordance with Condition (3) 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>Advice note. <i>The system required in Condition (9)(c)(ii) should not use water obtained from the Selwyn District Council Papanua Water Race Scheme.</i></p>
10	<p>a. If at any time during the exercise of this resource consent, the automated sprinkler system is unavailable for use. The Consent Holder shall notify the CRC, Attention: Canterbury Regional Council, Attention: Regional Leader - Compliance Monitoring, and</p> <p>b. The Consent Holder shall 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 shall re-instate the automated sprinkler system within five days of it becoming unavailable for use.</p>

	Prior to Commencing Works
11	<p>At least 20 working days prior to commencement of quarry activities authorised in Condition (1), the Consent Holder or their agent must arrange and conduct a pre-construction site meeting with the CRC. At a minimum, the following must be covered at the meeting:</p> <ol style="list-style-type: none"> a. Scheduling and staging of the works, including the proposed start date; b. Responsibilities of all relevant parties; c. Contact details for all relevant parties; d. Expectations regarding communication between all relevant parties; e. Site inspections; f. Confirmation that the automated sprinkler has been installed in accordance with resource consent CRC193564; and g. Confirmation that all relevant parties have copies of the contents of these consent documents and all associated management plans.
12	<p>At least 20 working days prior to the commencement of on-site activities, the Consent Holder shall inform the Canterbury Regional Council, Attention: Regional Leader – Compliance Monitoring in writing of the start date of works.</p>
13	<p>Prior to the commencement of quarry activities authorised in Condition (1) commencing, all personnel working on the site shall be made aware of and have access to:</p> <ol style="list-style-type: none"> a. The contents of this resource consent document; b. The Quarry Management Plan, prepared in accordance with resource consent CRC193563; c. The Site Management Plan, prepared in accordance with resource consent CRC193563; d. The Cleanfill Management Plan, prepared in accordance with resource consent CRC193563; e. The Quarry Rehabilitation Plan, prepared in accordance with resource consent CRC193563; f. The Spill Management Plan, prepared in accordance with resource consent CRC193563; g. The Quarry Operational Management Plan, prepared in resource consent CRC193563; h. The Dust Management Plan prepared in accordance with Conditions (14) and (15) of this resource consent; and i. Resource consents CRC193563 and CRC193564 and all associated documents.
	Dust Management Plan
14	<ol style="list-style-type: none"> 1. The Consent Holder shall prepare and submit a Dust Management Plan (DMP) to the CRC, Attention: Regional Leader – Compliance Monitoring for certification at least 20 working days prior to the exercise of this resource consent. The DMP shall: <ol style="list-style-type: none"> a. Be prepared in accordance with Schedule 2 of the Canterbury Air Regional Plan; b. Be retained on site at all times; c. Be provided to all persons operating or carrying out the activities authorised by this resource consent; d. Be prepared by a suitably qualified experienced practitioner in air quality; e. Include details on how the conditions of this resource consent will be complied with; and f. Provide a framework for managing dust emissions to mitigate and minimise effects at or beyond the boundary of the site. 2. If the consent holder has not received a response from the Regional Leader – Compliance Monitoring within 20 working days of the date of submission under condition 14, the DMP must be deemed to be certified. 3. If the response from the Regional Leader – Compliance Monitoring is that they are not able to certify the management plan they must provide the consent holder with reasons and

	<p>recommendations for changes to the DMP in writing. The consent holder must consider any reasons and recommendations and resubmit an amended DMP for certification.</p> <p>4. If the consent holder has not received a response from the Regional Leader – Compliance Monitoring within 5 working days of the date of resubmission under the above condition, the DMP must be deemed to be certified.</p> <p>Advice note. <i>The certification process is confined to confirming that a Management Plan adequately gives effect to the relevant Condition(s).</i></p>
15	<p>The DMP shall include, but not be limited to:</p> <ol style="list-style-type: none"> a. A description of the content and purpose of the DMP; b. A description of the site location and the receiving environment; c. A system for training employees and contractors to make them aware of the requirements of the DMP; d. Identifying staff responsibilities for implementing and reviewing the DMP; e. A description of all on-site activities as described in Condition (1) and dust sources on site; f. The methods to be used for controlling dust at each source during on-site activities, in accordance with Condition (1); g. A description of the methods for the use of water for dust suppression on all exposed areas, including how and when water will be applied to maintain damp surfaces; h. The frequency and triggers of when water will be used to maintain damp surfaces, including the use of the automated sprinkler system; i. A description of the contingency measures to be used on-site; j. Details regarding when biodegradable chemical dust suppressants will be used to minimise dust; k. A description of the frequency of the vacuum sweeping of sealed roads; l. Procedures, processes and methods for managing dust when staff are not on site; m. A description of continuous particulate matter and meteorological monitoring requirements and methodology, including the location and calibration of the monitoring equipment; n. The trigger levels for continuous dust and wind monitoring, including when activities will cease; o. A description of procedures for responding to particulate matter and wind condition-based trigger levels; p. A maintenance schedule for meteorological and particulate (including PM₁₀) monitoring instruments; q. A maintenance schedule for the automated sprinkler system; r. Methods for recording and responding to complaints; and s. Methods for reporting to the Canterbury Regional Council; t. A description of the process to review existing trigger levels and set new ones, if required.
16	<p>The DMP shall be reviewed and updated at least once every two years. Any amendments shall be:</p> <ol style="list-style-type: none"> a. For the purpose of improving the efficacy of the mitigation, and shall not result in reduced discharge quality; b. Consistent with the conditions of this resource consent; and c. Submitted in writing to the Canterbury Regional Council, Attention: Regional Leader - Monitoring and Compliance, for certification in accordance with Condition (14) prior to any amendment being implemented.

	Dust Mitigation
17	<p>The Consent Holder shall utilise all reasonably practicable measures to minimise the discharge of dust from quarry activities on-site:</p> <ol style="list-style-type: none"> a. When wind speeds reach or exceed 7 m/s for a one-hour average; and b. On dry days; and c. When there is any visible emission of dust from the site. <p>Advice Note. <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>
18	<p>The Consent Holder shall ensure there are measures to minimise the discharge of dust from quarry activities, including but not limited to:</p> <ol style="list-style-type: none"> 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; 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 in accordance with Condition (3) of this resource consent; c. The operation of the automated sprinkler system in accordance with Condition (9) for the purpose of dust suppression: <ol style="list-style-type: none"> i. On the active quarrying operations area; and ii. On the bunds, stockpiles, and areas of rehabilitation. d. Ensuring the haul road is maintained, regularly swept and free of potholes; e. 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; f. Establishing and maintaining shelterbelts around the north-western, north-eastern and south-eastern boundaries of the site; g. 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; h. Stabilising all inactive exposed surfaces if these are to remain unused for one month or more; i. 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; j. Minimising drop heights when loading trucks, conveyor hoppers and when moving material; k. 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; l. Using water carts as a back-up measure for dust suppression during dry conditions or where the automated sprinkler system is unavailable; m. Apply water as required on exposed surfaces, stockpiles, bunds and unsealed internal roads as required; n. Pre-dampening topsoil if necessary (eg. on dry days) and overburden with a water cart or sprinklers prior to its extraction and removal; o. Minimising the exposed area to no more than 9 hectares at any one time; p. Regularly applying dust suppression measures; and q. Undertaking routine site inspections of visible dust emissions throughout each day of quarry activities and electronically logging findings and any dust suppression actions.
19	<p>Stockpiles shall be managed as follows:</p> <ol style="list-style-type: none"> a. Any all stockpiles emitting significant amounts of dust be dampened with water; b. Stockpiles generated during site preparation works shall:

	<ul style="list-style-type: none"> i. Only comprise of topsoil, overburden and aggregate; ii. Have a height no greater than 3.0 metres above natural ground level; <p>c. Stockpiles of extracted aggregate shall</p> <ul style="list-style-type: none"> i. Be located within the quarry pit at a depth of at least four metres below natural ground level; ii. Have a maximum height of 7 metres; iii. Have a maximum volume of 15,000 cubic metres in any stockpile at any one time; and iv. Be located a minimum of 350 metres from the north-east boundary of the quarry. <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> <p>Advice note. 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>
20	The Consent Holder shall use a water suppression system on the processing plants specified in Condition (2) of this resource consent at all times for the duration of this resource consent.
21	The Consent Holder shall maintain a record of all times when subject to a water restriction of water from the Paparua Stockwater Race.
	Monitoring
22	<p>Prior to the commencement of any on-site activities as listed in Condition (1), the Consent Holder shall install 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"> a. Wind direction; b. Wind speed; c. Rainfall; and d. Temperature.
23	<p>The meteorological monitoring instruments shall be:</p> <ul style="list-style-type: none"> a. Installed at a height of at least ten metres above natural ground level; b. Located at or about map reference NZTM2000 1558704 mE 5184747 mN; 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 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. e. Able to provide the meteorological data to the CRC in real-time in an appropriate format.
24	<p>Prior to the commencement of the activities in Condition (1), the Consent Holder shall ensure the installation and operation of a continuous dust monitor for the purpose of continuous PM₁₀ monitoring for the duration of this resource consent. The monitor shall be:</p> <ul style="list-style-type: none"> a. Located prior to the commencement of each day and located directly between the centre of that days quarrying activities and the nearest downwind off-site sensitive receptor; b. Located in general accordance with AS/NZS 3580.1.1:2016 Methods for sampling and analysis of air - Guide to siting air monitoring equipment; c. Installed, operated 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;

	<ul style="list-style-type: none"> d. Able to provide and record the PM₁₀ results continuously using an electronic data logging system with an averaging time for each parameter of not more than one minutes; e. Fitted with a heater so that the inlet temperature is maintained at least 10 degrees Celsius above the ambient temperature; and f. Able to provide the dust data to the CRC in real-time in an appropriate electronic format.
25	<p>The meteorological monitor and PM₁₀ monitor shall:</p> <ul style="list-style-type: none"> a. Be able to provide the results of the meteorological monitoring and PM₁₀ 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) shall be available at all times to take immediate action to investigate and reduce site dust emissions; and b. Be fitted with an alarm system and able to send warnings and alerts 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.
26	<p>The meteorological station specified in Condition (18) and the continuous dust monitor required in accordance with Condition (19) shall be installed and maintained accordance with the manufacturer's specifications and by a Suitably Qualified Experienced Practitioner. The Consent Holder shall maintain a record of when maintenance is undertaken, and the type of maintenance undertaken. 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.</p>
27	<p>The Consent Holder shall provide all PM₁₀ monitoring and meteorological monitoring data to the Canterbury Regional Council, in real-time at continuous intervals.</p>
	<p>Trigger Values</p>
30	<p>When the wind is blowing from the south to west-southwest, measured as 180°N to 260°N in accordance with Condition (23), and when the continuous PM₁₀ monitoring required by Condition (25) indicates that the following trigger levels have been reached the consent holder shall adopt the following response:</p> <ul style="list-style-type: none"> a. 1-hour average at 55 µg/m³ or higher shall require immediate actions to investigate and reduce site dust emissions. b. 1-hour average at 65 µg/m³ 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.
31	<p>If quarrying activities cease under Condition (30)(b), the consent holder may resume quarrying activities once the 1-hour average falls back to or below the level in Condition (30)(a).</p>
32	<p>The Consent Holder shall 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"> 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 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 (32)(a); and c. The trigger values in Condition 24 has been exceeded. <p>Advice Note. <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>
33	<p>The Consent Holder shall 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</p>

	– Compliance Monitoring, in the annual report required in September of each year during the duration of this resource consent.
34	<p>The Consent Holder shall:</p> <ol style="list-style-type: none"> 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; b. Ensure the processing plant is not located within 100 metres from the centre line of the Islington-Kiliwa B National Grid transmission lines.
	Complaints
35	<p>A record of all complaints relating to contaminants discharged to air from the site and associated activities shall be maintained and shall include:</p> <ol style="list-style-type: none"> a. The location where the contaminants were detected by the complainant; b. The date and time when the contaminants were detected; c. A description of the wind speed and wind direction when the contaminants were detected by the complainant; d. The most likely cause of the contaminants detected; and e. Any corrective actions undertaken by the Consent Holder to avoid, remedy, or mitigate the effects of the contaminants detected by the complainant. <p>The Consent Holder shall maintain a record of any complaints 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.</p>
	Annual Report
36	<p>The Consent Holder shall 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. The annual monitoring report shall include but not be limited to:</p> <ol style="list-style-type: none"> a. A record of any maintenance of the meteorological or dust monitor undertaken over the preceding 12-month period in accordance with Condition (26) of this resource consent; b. A record of all occasions where a trigger level has been reached including any investigations and actions taken; c. A record of any water restrictions imposed on the Consent Holder in regard to the Paparua Water Race; and d. The complaints record required in accordance with Condition (35).
	Administration
37	<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> <ol style="list-style-type: none"> a. Dealing with an adverse effect on the environment occurring as a result of the exercise of this resource consent; 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; c. Requiring the consent holder to carry out monitoring and reporting instead of, or in addition to, that required by the resource consent; or d. Requiring the consent holder to comply with a relevant rule in an operative regional plan.

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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.

Advice Note: *'Exercised' is defined as implementing any requirements to operate this consent and undertaking the activity as described in these conditions and/or application documents*

Plan CRC193564



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CLIENT: SOL Quarries Ltd

MUNICIPAL AUTHORITY: Christchurch City

REGION: Canterbury

Drawing Title: QUARRY SETBACK PLAN

Prepared for: SOL QUARRIES LTD

REV	DESCRIPTION	DATE
A	ORIGINAL ISSUE	18/07/20

SCALE: See Scale Bar

DRAWING CODE:

PROJECT NUMBER	Sheet	TOTAL SHEETS
5475-001	1 of 1	B

DATE	BY	CHECKED	DATE
6/11/2020	JE	SH	6/11/2020

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

	Condition
	Limits
1	<p>The activities authorised by this resource consent shall be limited to:</p> <ol style="list-style-type: none"> a. Site preparation works including, topsoil stripping, remediation works overburden removal and storage; b. Construction and maintenance of bunds and stockpiles; c. Excavation of aggregate; d. Stockpiling of excavated aggregate; e. Deposition of cleanfill; and f. Remediation activities; <p>At 93 and 133 Conservators Road, legally described as Part RS 3579 and Lot 1 DP 82891 as shown on Plan CRC193563, attached to and forming part of this resource consent.</p> <p>For the avoidance of doubt, no blasting is authorised by this resource consent.</p> <p>Advice note. For the purpose of this resource consent:</p> <ol style="list-style-type: none"> a. Quarry activities means the activities listed in Condition (1)(a) to (f); b. Site preparation works means the activities listed in Condition (1)(a) and (1)(b); and Quarrying operations means the activities listed in Condition (1)(c) to (f).
2	<p>Excavations shall be undertaken in three stages as shown on Plan CRC193563. The Consent Holder shall ensure that:</p> <ol style="list-style-type: none"> a. The maximum exposed area at any one time shall not exceed nine hectares; and b. During the transition from the existing quarry to Stage One of the extension quarry, the maximum exposed area at any one time shall not exceed nine hectares; and c. Excavations of aggregate and deposition of cleanfill shall commence first along the south-west boundary of the site.
3	<p>The operating hours of the site shall be limited to:</p> <ol style="list-style-type: none"> a. 0630 to 1800 on weekdays; b. 0630 to 1200 on Saturdays; Provided that: <ol style="list-style-type: none"> a. No aggregate processing, including loading, crushing, and screening, shall occur on the site prior to 0700; and b. No heavy vehicles shall access the site prior to 0700. The access gate on Guys Road shall be locked at all times prior to 0700.
4	No activities other than dust mitigation measures shall be undertaken on Sundays or public holidays.
	Prior to Commencing Works
5	<ol style="list-style-type: none"> a. The perimeter of the quarry site shall be surrounded by secure fencing, with lockable access gates; b. The Consent Holder shall ensure that warning notices are erected and maintained at all entrances to the site; c. Warning notices shall be able to be read from a distance of five metres; d. The warning notices shall state: <ol style="list-style-type: none"> i. Name of the site; ii. Name of the owner of the site, and a contact telephone number;

	<ul style="list-style-type: none"> iii. Groundwater is vulnerable to contamination; and iv. Only cleanfill may be deposited at this site; general refuse and hazardous waste shall not be dumped at this site.
6	<p>At least 20 working days prior to commencement of quarry activities authorised in Condition (1), the Consent Holder or their agent must arrange and conduct a pre-construction site meeting with the CRC. At a minimum, the following must be covered at the meeting:</p> <ul style="list-style-type: none"> a. Scheduling and staging of the works, including the proposed start date; b. Responsibilities of all relevant parties; c. Contact details for all relevant parties; d. Expectations regarding communication between all relevant parties; e. Site inspections; f. Confirmation that the automated sprinkler has been installed in accordance with resource consent CRC193564; and g. Confirmation that all relevant parties have copies of the contents of these consent documents and all associated management plans.
7	<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>
8	<p>Prior to the commencement of quarry 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"> a. The contents of this resource consent document; b. The Quarry Management Plan, prepared in accordance with Condition (9) to (10) of this resource consent; c. The Site Management Plan, prepared in accordance with Condition (12) of this resource consent; d. The Cleanfill Management Plan, prepared in accordance with Condition (15) of this resource consent; e. The Quarry Rehabilitation Plan, prepared in accordance with Conditions (41) of this resource consent; f. The Spill Management Plan, prepared in accordance with Conditions (43) of this resource consent; g. The Quarry Operational Management Plan, prepared in accordance with Condition (47) of this resource consent; h. The Dust Management Plan prepared in accordance with resource consent CRC193564; and i. Resource consents CRC193564 and CRC193773 and all associated documents.
	<p>Quarry Management Plan</p>
9	<ul style="list-style-type: none"> 1. At least 20 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) to the Canterbury Regional Council, Attention: Regional Leader - Compliance Monitoring for certification. The QMP shall: <ul style="list-style-type: none"> a. Be retained on site at all times; b. Include a description of the content and purpose of the QMP; c. Details of the operation of the site, including details of staging of works, area, depth, cleanfilling activities and site rehabilitation; d. Provide details of the operation of the site, including details of staging of works, area, depth; e. Provide details of the on-site staff training procedures; f. Provide evidence that the Consent Holder has incorporated any feedback received from Transpower New Zealand Limited and the Christchurch International Airport Limited; g. Contain the following management plans:

	<ul style="list-style-type: none"> i. The Site Management Plan, prepared in accordance with Condition 12 of this resource consent; ii. The Cleanfill Management Plan, prepared in accordance with Condition 15 of this resource consent; iii. The Quarry Rehabilitation Plan, prepared in accordance with Condition 41 of this resource consent; iv. The Spill Management Plan, prepared in accordance with Condition 43 of this resource consent; v. The Quarry Operational Management Plan, prepared in accordance with Condition 47 of this resource consent; and vi. The Dust Management Plan prepared in accordance with resource consent CRC193564. <p>2. If the consent holder has not received a response from the Canterbury Regional Council, Attention: Regional Leader - Compliance Monitoring within 20 working days of the date of submission under condition 7, the QMP must be deemed to be certified.</p> <p>3. If the response from the Canterbury Regional Council, Attention: Regional Leader - Compliance Monitoring is that they are not able to certify the management plan they must provide the consent holder with reasons and recommendations for changes to the QMP in writing. The consent holder must consider any reasons and recommendations and resubmit an amended QMP for certification.</p> <p>4. If the consent holder has not received a response from the Canterbury Regional Council, Attention: Regional Leader - Compliance Monitoring within 5 working days of the date of resubmission under the above condition, the QMP must be deemed to be certified.</p> <p>Advice note. <i>The certification process is confined to confirming that a Management Plan adequately gives effect to the relevant Condition(s).</i></p>
10	<p>The QMP shall include:</p> <ul style="list-style-type: none"> 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; 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; 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"> i. Excavation and Construction near Towers (Section 2); ii. Ground to conductor clearances (Section 4); iii. Mobile Plant to conductor clearances (Section 5); and iv. People to conductor clearances (Section 9). 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. 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; f. Demonstrate how the existing transmission lines and support structures will remain accessible during and after quarrying activities; g. Details of proposed contractor training for those working near the transmission lines; 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

	<p>Christchurch International Airport Limited (CIAL) infrastructure or operations;</p> <ul style="list-style-type: none"> i. Demonstrate how bird strike management will be implemented to protect CIAL operations. 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; and k. Identify any other potential effects on CIAL and the management practices in place to minimise these effects.
11	<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"> a. For the purpose of improving the efficacy of management plans; b. Consistent with the conditions of this resource consent; and c. Submitted in writing to the Christchurch City Council, via rcmon@ccc.govt.nz, Attention: Canterbury Regional Council, Attention: Regional Leader - Compliance Monitoring, for certification in accordance with Condition (10) prior to any amendment being implemented.
	<p>Site Management Plan</p>
12	<p>Prior to the commencement of quarrying activities on site in accordance with Condition (1), the Consent Holder shall prepare a Site Management Plan (SMP). The SMP shall be provided to the Canterbury Regional Council, Attention: Contaminated Sites Team Leader and Attention: Regional Leader - Compliance Monitoring at least 20 working days prior to the commencement of remediation works on-site. The SMP shall:</p> <ul style="list-style-type: none"> a. Be prepared by a suitably qualified experienced practitioner; b. Include a Remedial Action Plan (RAP) that outlines the approach to remediating the site including extent of remediation, remediation methodology and scheduling, contaminated material disposal location and validation sampling plan; and c. Be prepared in accordance with the Ministry for the Environment Contaminated land management guidelines No. 5: Site investigation and analysis of soils (Revised 2011).
13	<ol style="list-style-type: none"> 1. Remediation works shall be undertaken in accordance with the SMP. The Consent Holder shall provide the Canterbury Regional Council, Attention: Contaminated Sites Team Leader and Attention: Regional Leader - Compliance Monitoring, a Site Validation Report (SVR) to confirm that the site has been remediated in accordance with the SMP provided in accordance with Condition (12). The SVR shall: <ul style="list-style-type: none"> a. Be prepared and undertaken by a Suitably Qualified Experienced Practitioner; and b. Be prepared and undertaken in accordance with the Ministry for the Environment Contaminated land management guidelines No. 5: Site investigation and analysis of soils (Revised 2011). 2. Quarrying activities shall not commence until certification has been received from the CRC that the site has been remediated in accordance with the RAP. 3. If the consent holder has not received a response from the Canterbury Regional Council, Attention: Regional Leader - Compliance Monitoring within 20 working days of the date of submission of the SVR under condition 11, the SVR must be deemed to be certified. 4. If the response from the Canterbury Regional Council, Attention: Regional Leader - Compliance Monitoring is that they are not able to certify the SVR they must provide the consent holder with reasons and recommendations for changes to the SVR in writing. The consent holder must consider any reasons and recommendations and resubmit an amended SVR for certification. 5. If the consent holder has not received a response from the Canterbury Regional Council, Attention: Regional Leader - Compliance Monitoring within 5 working days of the date of resubmission under the above condition, the SVR must be deemed to be certified.

	Advice Note. <i>The certification process shall include reviewing the SVR and ensuring that the potential soil contamination has been adequately delineated, remediated and validated.</i>
14	The Consent Holder shall: <ul style="list-style-type: none"> a. Dispose of all material removed in accordance with Condition (12) and Condition (13) off-site at a suitably licenced facility; and b. Provide the Canterbury Regional Council, Attention: Regional Leader - Compliance Monitoring with written confirmation of the disposal undertaken in accordance with Condition (14)(a) within ten working days of the disposal taking place.
	Cleanfill Management Plan
20	Cleanfilling shall be undertaken in accordance with a Cleanfill Management Plan (CMP). The CMP 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 CMP shall include: <ul style="list-style-type: none"> a. A description of the content and purpose of the CMP; b. Demonstrate how Condition (21) to (25) of this resource consent will be complied with; c. Details of the operation of the site, including details of staging of works, area, depth, cleanfilling activities and site rehabilitation; d. Details of the on-site staff training procedures; e. The contact details of the staff member(s) responsible implementing the CMP; f. 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; g. The steps to be undertaken to correct incidences of non-compliance with the conditions of this consent; h. A description of operational procedures and monitoring that will be used to prevent unauthorised cleanfill material from entering the site; i. A list of acceptable cleanfill material; j. How rejected cleanfill material will be stored pending its removal to an authorised landfill; k. The maximum length of time that rejected material can be stored on site pending its removal; l. Construction procedures to ensure the long-term stability of cleanfill areas; m. Procedures for improving and/or reviewing the CMP; and n. Procedures for responding to complaints.
	Excavation and Extraction
16	Prior to undertaking the quarrying 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).
17	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 Mean Sea Level, including the depth of excavations. The survey: <ul style="list-style-type: none"> a. Shall be undertaken by a registered surveyor; b. Results shall be to an accuracy of +/- 50 millimetres vertically; and c. Results of each survey shall be provided to the Canterbury Regional Council, Attention: Regional Leader - Compliance Monitoring, in September of each year or on request.
18	Excavation of aggregate and deposition of cleanfill shall 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:

	<ul style="list-style-type: none"> a. 40.1 metres above sea level in Stage One; b. 39.1 metres above sea level in Stage Two; and c. 38.1 metres above sea level in Stage Three; As shown on Plan CRC193563.
19	<p>The Consent holder shall:</p> <ul style="list-style-type: none"> a. Produce a contour map showing: <ul style="list-style-type: none"> i. The surveyed maximum quarry depth relative to mean sea level; and ii. The highest groundwater levels for the site monitored in accordance with Condition (26) to (32) of this resource consent relative to mean sea level; and b. Provide the contour map to the Canterbury Regional Council, in September of each year or on request.
20	No excavations or extractions shall occur within standing water.
	Cleanfilling
21	<p>Material deposited in the excavated area for the purpose of cleanfilling and rehabilitation shall:</p> <ul style="list-style-type: none"> a. Only include material defined as cleanfill in accordance with the document – “A Guide to Cleanfill Management”; MfE; 2002; b. Not contain more than 3% vegetative matter; c. Only include material that meets the Canterbury Regional background levels which are described in 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; d. Not be deposited into groundwater or standing water; and e. Be located at least one metre above the highest groundwater level as determined under conditions of this resource consent. <p>Advice Note:</p> <ol style="list-style-type: none"> 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> 2. <i>A definition of cleanfill is attached as Appendix 1.</i>
22	<p>When material is received on-site for deposition, the Consent Holder shall:</p> <ul style="list-style-type: none"> a. Weigh and inspect, at the site weighbridge, all incoming loads of cleanfill material; b. Deposit loads of cleanfill material in an area designated within the Crushing Area, a minimum of 3-metres above the Quarry Pit floor; c. Inspect the load deposited under Condition 22 (b) to ensure it meets the cleanfill acceptance criteria specified in Condition (21) and the load description provided in accordance with Condition (21)(d) before filling occurs; d. Reject any load that does not meet the cleanfill acceptance criteria specified in Condition (21) and/or the load description provided in accordance with Condition (22)(d); and e. Update the electronic record in accordance with Condition (22) by recording the weight and inspection information referred to in Condition (21)(a) and (21)(c).
23	<p>An electronic record of all cleanfill material deposited at the site shall be maintained and held on site for the duration of this resource consent. This record shall include:</p> <ul style="list-style-type: none"> a. The name of the person and company delivering the material; b. The date of delivery and date of cleanfill deposition; c. The physical address of the land the material was sourced from; d. A description of the material; e. The LLUR will be used to provide evidence that cleanfill material from a site will meet the cleanfill acceptance criteria, including an assessment of any Site Remediation Reports identified in the LLUR; f. Any authorisation under which the material was removed from the source site (e.g. resource consent);

	<ul style="list-style-type: none"> g. The weight or volume of the delivered material; h. The approximate location of the load within the site following deposition; and i. A signed declaration or formal agreement between each person delivering cleanfill to the site and the Consent Holder that the deposited material meets the acceptance criteria specified in Condition (18) of this resource consent. <p>The Consent Holder shall maintain a back- up copy of the electronic record. The electronic record shall be provided to the Canterbury Regional Council in September of each year or on request.</p>
24	<ul style="list-style-type: none"> a. If any material other than cleanfill is suspected or confirmed at the deposition area, the Consent Holder shall: <ul style="list-style-type: none"> i. Ensure the area is marked and closed off immediately; ii. Remove this material within five working days of identifying that it should not have been deposited; and iii. Arrange for its disposal. b. Any material rejected in accordance with Condition (22)(d) or removed from the site in accordance with Condition (24)(a), shall be disposed of at a suitably licensed facility, and 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.
25	<p>No cleanfill material shall be deposited at the site which has been sourced from a site defined as ‘potentially contaminated’.</p> <p>Advice Note: <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>
	<p>Groundwater Levels Monitoring</p>
26	<ol style="list-style-type: none"> 1. Prior to the commencement of quarrying activities authorised in Condition (1), the Consent Holder shall install groundwater monitoring bores for the purpose of monitoring groundwater levels. Prior to the groundwater wells being installed, the Consent Holder shall provide a plan of the locations of the proposed bores to the Canterbury Regional Council, Attention: Regional Leader - Compliance Monitoring for certification that the location of the bores complies with Condition (27). The Consent Holder shall not install the bores until certification is received from the Canterbury Regional Council. 2. If the consent holder has not received a response from the Regional Leader – Compliance Monitoring within 20 working days of the date of submission under condition 14, the plan must be deemed to be certified. 3. If the response from the Regional Leader – Compliance Monitoring is that they are not able to certify the management plan they must provide the consent holder with reasons and recommendations for changes to the plan in writing. The consent holder must consider any reasons and recommendations and resubmit an amended plan for certification. 4. If the consent holder has not received a response from the Regional Leader – Compliance Monitoring within 5 working days of the date of resubmission under the above condition, the plan must be deemed to be certified.

	Advice Note. <i>The certification process is confined to confirming that the monitoring proposal adequately gives effect to the relevant conditions.</i>
27	<p>The bores required in accordance with Condition (26) shall:</p> <ol style="list-style-type: none"> a. Include: <ol style="list-style-type: none"> i. Bore BX23/0520 on the SOL Quarry site at 81 Conservators Road, Yaldhurst; and ii. Wells M35/0958 or M35/0947; and iii. One down-gradient well, located at or about, map reference NZTM 2000 1559291 mE 5184830 mN; b. Be a minimum of 50 millimetres in diameter; c. Enter the aquifer that is immediately underlying the site; and d. 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 e. The bores shall be accessible to the Canterbury Regional Council for the purpose of groundwater sampling. <p>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 they have been installed in accordance with the conditions of this resource consent.</p>
28	<p>For the duration of this resource consent, the Consent Holder shall monitor and record the groundwater levels (measured as above mean sea level) in the bores installed in accordance with Condition (27). The Consent Holder shall take:</p> <ol style="list-style-type: none"> a. At least two measurements within 14 days prior to the start of the quarrying activities; and b. At least one measurement every 14 days between June to September (inclusive); and c. Monthly measurements for the period October to May (inclusive).
29	<p>If the monitoring undertaken in accordance with Condition (28) demonstrates that the groundwater levels are measured:</p> <ol style="list-style-type: none"> 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: <ol style="list-style-type: none"> i. 38.1 metres above mean sea level on the up gradient well; and ii. 36.1 metres above mean sea level on the down-gradient well; 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: <ol style="list-style-type: none"> i. 38.1 metres above mean sea level on the up gradient well; and ii. 36.1 metres above mean sea level on the down-gradient well.
30	<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>
31	<p>Should the groundwater water level 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> <ol style="list-style-type: none"> a. Any machinery, other than used in accordance with Condition (31)(b), shall be moved away from these areas; b. The Consent Holder shall backfill the area with virgin materials to re-establish a one metre separation distance throughout the quarry site; and c. The Consent Holder shall decrease the maximum allowable depth of extraction in conformance with Condition (30). If the maximum allowable depth of extraction is reduced,

	<p>the Consent Holder shall notify the Canterbury Regional Council, Attention: Regional Leader Compliance Monitoring within five days.</p> <p>Advice Note: For the purpose of this consent, 'virgin materials' is aggregate that is of comparable quality and composition to aggregate which was excavated.</p>
32	<p>Should groundwater levels rise into the quarry floor during excavation of aggregate or deposition of cleanfill, the consent holder must notify the Canterbury Regional Council, Attention: Regional Leader – Compliance Monitoring within 24 hours.</p>
	<p>Groundwater Quality Monitoring and Reporting</p>
33	<ol style="list-style-type: none"> 1. Prior to the commencement of quarrying activities authorised in Condition (1), the Consent Holder shall install groundwater monitoring bores for the purpose of monitoring groundwater quality. Prior to the groundwater wells being installed, the Consent Holder shall provide a plan of the locations of the proposed bores to the Canterbury Regional Council, Attention: Regional Leader, Compliance Monitoring for certification that the location of the bores complies with Condition (27). The Consent Holder shall not install the bores until certification is received from the Canterbury Regional Council. 2. If the consent holder has not received a response from the Regional Leader – Compliance Monitoring within 20 working days of the date of submission under condition 14, the plan must be deemed to be certified. 3. If the response from the Regional Leader – Compliance Monitoring is that they are not able to certify the management plan they must provide the consent holder with reasons and recommendations for changes to the plan in writing. The consent holder must consider any reasons and recommendations and resubmit an amended plan for certification. 4. If the consent holder has not received a response from the Regional Leader – Compliance Monitoring within 5 working days of the date of resubmission under the above condition, the plan must be deemed to be certified. <p>Advice Note. The certification process is confined to confirming that the monitoring proposal adequately gives effect to the relevant conditions.</p>
34	<p>The bores required in accordance with Condition (33) shall:</p> <ol style="list-style-type: none"> a. Include: <ol style="list-style-type: none"> i. Bore BX23/0520 on the SOL Quarry site at 81 Conservators Road, Yaldhurst; and ii. Two down-gradient bores on or near the south-eastern boundary, including one located at or about, map reference NZTM 2000 1559291 mE 5184830 mN; b. Be a minimum of 50 millimetres in diameter; c. Enter the aquifer that is immediately underlying the site; and d. 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 e. The bores shall be accessible to the Canterbury Regional Council for the purpose of groundwater sampling. <p>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 they have been installed in accordance with the conditions of this resource consent.</p>
35	<p>The Consent Holder shall undertake the following groundwater sampling regime at the bores installed in accordance with Condition (33) and (34):</p>

- 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;
- 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;
- 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;
- d. The water quality monitoring results shall be provided to the CRC Attention: Regional Leader Compliance Monitoring within one month of them being received in an electronic format, suitable for automatic upload to a water quality database.

Table 1.	
<i>Contaminant or property</i>	<i>Trigger value</i>
Alkalinity	100 mg/L as CaCO ₃
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

Responses to Monitoring

36 The results of the analyses of groundwater samples tested in accordance with Condition (35) shall be compared to the contaminant trigger values in Table 1.

37 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 shall:

- (1) Obtain groundwater samples from all bores sampled in accordance with Condition (14) within 14 days; and
- (2) The samples taken in accordance with Condition (16)(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 (14).

Table 2	
<i>Contaminant</i>	<i>Trigger value¹</i>
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
		(1) Trigger values are 50% of the guideline values for aesthetic determinants or maximum acceptable values in the Drinking Water Standards for New Zealand	
38	<p>If the results from the sampling undertaken in accordance with Condition (37) show concentrations of contaminants in Table 1 or in Table 2, the Consent Holder shall:</p> <ol style="list-style-type: none"> a. Notify the Canterbury Regional Council, Attention: Regional Leader - Compliance Monitoring within 48 hours of receiving the results of the exceedance being received; and b. Notify the occupiers of all adjoining properties hydraulically downgradient of the site within 48 hours and undertake an assessment for the potential adverse effect on these wells; and c. Implement necessary measures to reduce the concentration of the contaminant in groundwater. Such measures may include: <ol style="list-style-type: none"> i. Cessation of activities that may have caused the excessive concentrations; ii. Providing an alternative water supply to affected domestic wells used for drinking water supply; iii. Removal of the contaminant source(s), iv. Stabilisation or capping of the contaminant source(s); and v. Revision of cleanfill management procedures. d. Undertake an investigation to determine the potential cause of the exceedance including: <ol style="list-style-type: none"> i. Reviewing the on-site conditions and material to determine potential sources of contaminants; ii. Within 14 days undertake sampling of domestic wells within 500 m from the site (if access is granted); and 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. 		
39	<p>Within 10 working days of implementing the measures listed in Condition (38), validation sample(s) shall be taken from the bores sampled in accordance with Condition (37). The validation sample(s) shall be analysed in accordance with Condition (37) 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 working days of receipt of the results by the consent holder.</p> <ol style="list-style-type: none"> 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 in 14 days, and 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 (35); 		

	<p>b. If the results 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 (38)(c) and (d) and undertake further validation sampling in accordance with Condition (37).</p>
40	<p>Any material removed in accordance with Condition (38)(c)(iii) shall 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>
	<p>Rehabilitation</p>
41	<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> <ol style="list-style-type: none"> a. Demonstrate how Condition (42) of this resource consent will be complied with; and b. Contain a description of the content and purpose of the Quarry Rehabilitation Plan.
42	<p>The Consent Holder shall progressively rehabilitate the site and within six months of the completion of cleanfilling activities within a stage, the rehabilitation of that area shall be completed. The rehabilitation shall include but not be limited:</p> <ol style="list-style-type: none"> a. Backfilling of the area with cleanfill, to a minimum of six metres above the deepest excavation level as defined in Condition (18); b. Spreading a minimum depth of 300mm of topsoil over the site. The Consent Holder shall utilise stored overburden and topsoil from the bunds to rehabilitate the site; c. The development of a free-draining and stable landform; d. Re-grassing and re-planting all exposed areas as soon as practicable to prevent erosion losses; e. Any re-grassing or re-planting undertaken in accordance with Condition (38)(d) shall use low-seed generating grass species which do not attract birds or insect species, that subsequently attract birds; f. Ensuring the batter slope on completion of rehabilitation will be no steeper than 1 vertical (v):3 horizontal (h); g. Monitoring and maintaining rehabilitated areas to ensure they are functioning appropriately post-closure; h. Removing all mobile machinery and plant from the site; i. Ensuring the site is suitable for the future use of the site; and j. The rehabilitation of the site shall be undertaken so that a completed grass cover is achieved no later than 5 months from completion of all excavation and cleanfilling activities. Dust mitigation measures in accordance with CRC193564 shall continue to be employed on site until this grass cover is achieved. <p><i>Advice note. The completion of rehabilitation requires the area rehabilitated to be completely grassed and/or vegetated.</i></p>
	<p>Spill and Hazardous Substances</p>
43	<p>1. The Consent Holder shall prepare and submit a Spill Management Plan (SMP) for the site to the CRC, Attention: Regional Leader - Compliance Monitoring for certification. The SMP shall:</p> <ol style="list-style-type: none"> a. Demonstrate how Conditions (44) to (46) will be complied with; b. Contain a description of the content and purpose of the SMP; c. Document measures to prevent leaks and avoid spills of fuels or any other hazardous substance; d. Set out procedures to be undertaken in the event of a spill of fuel or any hazardous substance in accordance with Condition (45);

	<ul style="list-style-type: none"> e. Detail contingency measures to be used on site; f. A spill response plan; g. Detail instructions for removing and disposing of all material potentially contaminated or contaminated by a spill; h. Details for reporting and recording spills; i. Set out staff training requirements for responding to spills. <p>2. If the consent holder has not received a response from the Regional Leader – Compliance Monitoring within 20 working days of the date of submission under condition 12, the SMP must be deemed to be certified.</p> <p>3. If the response from the Regional Leader – Compliance Monitoring is that they are not able to certify the management plan they must provide the consent holder with reasons and recommendations for changes to the SMP in writing. The consent holder must consider any reasons and recommendations and resubmit an amended SMP for certification.</p> <p>4. If the consent holder has not received a response from the Regional Leader – Compliance Monitoring within 5 working days of the date of resubmission under the above condition, the SMP must be deemed to be certified.</p> <p>Advice Note. <i>The certification process is confined to confirming that the Management Plan adequately gives effect to the relevant conditions.</i></p> <p>Advice Note. <i>The storage of hazardous substances should be managed in accordance with Section 9 of the Resource Management Act 1991.</i></p>
44	<p>The Consent Holder shall ensure there is no refuelling undertaken within:</p> <ul style="list-style-type: none"> a. 20 metres of flowing water; b. The quarry pit, with the exception of the mobile plant; and c. Refuelling shall only be undertaken using: <ul style="list-style-type: none"> i. An up to 500 litre double skinned tank with an electric pump contained inside the tank's outer skin; and ii. A double skinned hose line with a transparent outer skin and an auto shut off nozzle; iii. A "spill mat" capable of absorbing oil and petroleum products, and of a minimum size of 1.5 metres by 1.5 metres, shall be positioned under the fill point in order to intercept any spill from the nozzle. iv. The "spill mat" detailed in clause iii shall be replaced following the absorbance of spills with a cumulative volume of 10 litres or more or if otherwise damaged to such a state that it can no longer adequately intercept and absorb any spills. v. A spill kit, that is capable of absorbing the quantity of oil and petroleum products that may be spilt on site at any one time, shall be kept on site at all times; vi. A written spill response plan shall be developed and communicated to all persons undertaking activities authorised by this consent and a copy kept on site at all times. The plan shall detail the methods and processes to be used by the Consent Holder to clean up a spill and shall include, but not be limited to: <ul style="list-style-type: none"> 1. Emergency contact information for the Canterbury Regional Council Pollution Hotline; 2. Emergency contact information for a waste management service provider with appropriate qualifications and equipment for cleaning up spills of oil and petroleum products; 3. Instructions for operating the spill kit kept on site in accordance with clause (v); 4. Instructions for removing and disposing of contaminated material in a manner suitable to ensure no contamination of ground water or surface water occurs.

45	<p>The Consent Holder shall take all practicable measures to prevent leaks and avoid spills of fuel or any other hazardous substances in accordance with the SMP including but not limited to the following measures:</p> <ol style="list-style-type: none"> a. No refuelling or maintenance of vehicles or machinery can occur on the quarry pit floor, with the exception of the mobile plant; b. No storage of fuels or lubricants for vehicles and machinery within the quarry pit; c. Appropriate servicing and maintenance of vehicles and machinery such that they do not result in leaks or spills; d. Only undertaking refuelling or maintenance on vehicles or machinery on hardstand surfaces that are roofed; e. Keeping a spill kit capable of absorbing all fuel and oil products on site and available at all times; and f. Training all staff involved in the refuelling or maintenance activities in the use of spill kits.
46	<p>In the event of a spill of fuel or any other hazardous substance, the consent holder shall:</p> <ol style="list-style-type: none"> a. Clean up the spill as soon as practicable and take measures taken to prevent a reoccurrence; b. Inform the CRC, Attention: Regional Leader - Compliance <p>Monitoring within 24 hours of a spill event exceeding four litres and provide the following information:</p> <ol style="list-style-type: none"> i. The date, time, location and estimated volume of the spill; ii. The cause of the spill; iii. The type of hazardous substance(s) spilled; iv. Clean up actions undertaken; v. Details of the steps taken to control and remediate the effects of the spill on the receiving environment; vi. An assessment of any potential effects on the environment of the spill; and vii. Measures to be undertaken to prevent a reoccurrence of the spill. <p>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>
Quarry Operations Management Plan	
47	<p>Prior to the commencement of any activity authorised by this consent, the Consent Holder shall submit a Quarry Operations Management Plan to the Canterbury Regional Council, Attention: Regional Leader - Compliance Monitoring. In particular, the Operations Management Plan shall:</p> <ol style="list-style-type: none"> a. Include the construction drawings and procedures, methods and measures to address the following: <ol style="list-style-type: none"> i. Dust control, including specific reference to the protection of overhead transmission lines and towers; ii. Earthworks; 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; and 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. 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: <ol style="list-style-type: none"> i. Ensuring there are no permanent waterbodies creates as a result of quarrying operations or site rehabilitation practices.

	<ul style="list-style-type: none"> 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. 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. 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. v. In the unlikely event that fixed lighting is required as a result of Health & Safety legislative requirements for quarrying operations, the fixed lighting shall be installed and operated in such a way as to not distract aircraft pilots. The Consent Holder shall submit a Lighting Plan to CIAL for approval prior to the install of any fixed lighting. vi. Installing and operate real-time dust monitors on the boundary of the Quarry, providing a real-time alert to Quarry management relating to any fugitive dust events. <p>Advice Note: <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. The Islington- Kikiwa B line also crosses the access road off Conservators Road.</i></p>
	Transpower
48	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. A copy of the electrical engineer's report confirming that the distances have been met is to be submitted to Transpower NZ Limited.
49	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"> 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 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.
50	<p>The Consent Holder shall:</p> <ul style="list-style-type: none"> 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. b. Undertake excavations so there is a batter slope no steeper than 1(v):3(h) between the setback described in Condition (50) and the nearest excavation pit. 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. 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-B0017. <p>Advice note: <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></p> <p>Advice Note. <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></p>

51	Any batter slope between the 20-metre setback, as specified in Condition (50) 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, and at least 20 working days being submitted to the Council for certification. Any comments provided by Transpower must be submitted to the Council.
52	<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"> a. The existing clearances between the ground and the conductors; and b. The expected clearances between the ground and the conductors upon completion of the earthworks.
Christchurch International Airport	
53	<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"> a. Ensure no activities take place in the base of the Quarry Pit floor which involve the feeding or encouragement of birds; 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. c. Ensure there are no permanent waterbodies creates as a result of quarrying operations or site rehabilitation practices; 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; 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; 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 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 & 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 certification prior to the install of any fixed lighting. <ul style="list-style-type: none"> 1. If the consent holder has not received a response from the CIAL regarding certification within 20 working days of the date of submission under condition 42, the Lighting Plan must be deemed to be certified. 2. If the response from CIAL is that CIAL is not able to certify the management plan CIAL must provide the consent holder with reasons and recommendations for changes to the Lighting Plan in writing. The consent holder must consider any reasons and recommendations and resubmit an amended Lighting Plan to CIAL for certification. 3. If the consent holder has not received a response from CIAL within 5 working days of the date of resubmission under the above condition, the Lighting Plan must be deemed to be certified.
54	<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>

55	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.
	Accidental Discovery Protocol
56	<p>In the event of any discovery of archaeological material:</p> <ol style="list-style-type: none"> a. The Consent Holder shall immediately: <ol style="list-style-type: none"> i. Cease earthmoving operations in the affected area and mark off the affected area; and ii. Advise the Canterbury Regional Council of the disturbance; and iii. Advise Heritage New Zealand of the disturbance. b. If the archaeological material is determined to be Koiwi Tangata (human bones) or taonga (treasured artefacts) by Heritage New Zealand, the consent holder shall immediately advise the office of the appropriate Rūnanga (office contact information can be obtained from the Canterbury Regional Council) of the discovery. c. If the archaeological material is determined to be Koiwi Tangata (human bones) or taonga (treasured artefacts) by Heritage New Zealand, the consent holder shall immediately advise the office of the appropriate Rūnanga (office contact information can be obtained from the Canterbury Regional Council) of the discovery. d. If the archaeological material is determined to be Koiwi Tangata (human bones) by Heritage New Zealand, the consent holder shall immediately advise the New Zealand Police of the disturbance. 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>Advice Note: 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).</p> <p>Advice Note: Under the Historic Places Act 1993 an archaeological site is defined as any place associated with pre-1900 human activity, where there is material evidence relating to the history of New Zealand. For sites solely of Maori origin, this evidence may be in the form of accumulations of shell, bone, charcoal, burnt stones, etc. In later sites, artefacts such as bottles or broken glass, ceramics, metals, etc., may be found or evidence of old foundations, wells, drains, tailings, races or other structures. Human remains/koiwi may date to any historic period. It is unlawful for any person to destroy, damage, or modify the whole or any part of an archaeological site without the prior authority of Heritage New Zealand. This is the case regardless of the legal status of the land on which the site is located, whether the activity is permitted under the District or Regional Plan or whether a resource or building consent has been granted. The Historic Places Act provides for substantial penalties for unauthorised damage or destruction.</p>
	Annual Report
57	<p>The Consent Holder shall 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 for the duration of this resource consent. The annual monitoring report shall include but not be limited to:</p> <ol style="list-style-type: none"> a. The survey results as required by Condition (17); b. The annual contour map as required by Condition (19) c. The electronic record of cleanfill accepted at the site as required by Condition (23);

	<ul style="list-style-type: none"> 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 (22) and (24); e. Results of the groundwater level monitoring as required by Conditions (28) to (32); f. Results of groundwater quality monitoring as required by Condition (35) to (40). This shall include: <ul style="list-style-type: none"> i. A discussion of the groundwater quality trends; ii. Any exceedances of the Table 1 contaminant trigger concentrations; and iii. Any mitigation actions taken in response to the exceedances; g. A record of any spills on-site and remedial actions in accordance with Condition (46); and h. An update of the progress of the rehabilitation at the site.
	Covenant
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"> a. Intensive pastoral farming (irrigated pasture and/or stock rates of more than 10 stock per hectare); 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; c. Activities with high application rates of other potential contaminants (e.g. pesticides, fertilisers and any other contaminant that may threaten groundwater quality); and d. Any activity involving the use or storage of hazardous chemicals, including petroleum products, in quantities greater than normal on rural-residential property.
59	<p>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.</p>