

GENERAL CONDITIONS applying to resource consents:

- CRC192408
- CRC192409
- CRC192410
- CRC192411
- CRC192412
- CRC192413
- CRC192414

Authorised Activities

1. These consents authorise the following list of activities undertaken at 107 Dawsons Road and 220 Jones Road, Templeton, legally described as Rural Section 6475 and Rural Section 6324, Lot 1 Deposited Plan 4031, Rural Section 6342, Section 7 Survey Office Plan 510345, Rural Section 5381 and Section 6 Survey Office Plan 510345, at or about map reference NZTM2000 1555356mE, 5177132mN as shown on Plan CRC192408A, attached to and forming part of these resource consents.
 - a) Site preparation, topsoil stripping, overburden removal and storage;
 - b) Construction and maintenance of bunds and stockpiles;
 - c) Extraction, loading and transportation of material;
 - d) Processing of aggregates (including crushing and screening of aggregates);
 - e) Combustion products from the operation of 1.04 megawatt of diesel fired generation (up to 4 generators));
 - f) Stockpiling of aggregates;
 - g) Deposition of cleanfill;
 - h) Site rehabilitation; and
 - i) Movement of vehicles associated with the above activities.
2. For the purposes of these consents:
 - a) *Quarry activities* means the activities listed in condition 1(a) to (i).
 - b) *Site preparation* means the activities listed in condition 1(a) and (b).
 - c) *Quarrying operations* means the activities listed in condition 1(c) to (i).
3. No *quarry activities* can occur within 200 metres of any dwelling existing as at 30 April 2020 as shown on CRC192408A without the prior written consent of both the owners and occupiers of the dwelling.
4. Aggregate extracted from the site must:
 - a) not exceed 625,000 tonnes in any 12-month period; and
 - b) must not be processed to produce a product type smaller than AP20.

Prior Notice

5. The consent holder must inform the Canterbury Regional Council, Attention RMA Monitoring and Compliance Manager (the CRC Manager) of the date on which these resource consents are first exercised.
6. At least one month prior to commencement of *quarry activities* authorised by these consents, the consent holder or their agent must arrange and conduct a pre-construction site meeting with the CRC Manager. At a minimum, the following must be covered at the meeting:
 - 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; and
- f) Confirmation that all relevant parties have copies of the contents of these consent documents and all associated management plans.

Preliminary Works

7. The following site management works must be undertaken prior to *quarry activities* commencing:
 - a) The perimeter of the quarry site must be surrounded by secure fencing, with lockable access gates;
 - b) Warning notices able to be read from a distance of five metres are erected and maintained at all entrances to the site stating as a minimum:
 - 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 fill may be deposited at this site; general refuse and hazardous waste must not be dumped at this site.

Bund Formation

8. Prior to commencing *quarrying operations*, the consent holder must establish vegetated earth bunds around the site perimeter, with the exception of site accessways, which must remain in place for the duration of *quarrying operations* (excluding final site rehabilitation). The bunds must be compacted to minimise top soil loss and be at least three metres high, with a one metre wide flat top, a base width of 15 metres and an outside slope of no more than 1:3 (one metre vertical to three metres horizontal).
9. As soon as practicable, but within 14 days following their construction, the bunds must be sown or hydro-seeded with grass (or another suitable vegetative cover). Prior to grass (or another vegetative cover) being established on them the bunds must be watered when required to suppress windblown dust. The bunds must thereafter be regularly watered for at least five years to ensure grass (or another vegetative cover) is maintained for the duration of consent with at least 80 percent coverage.
10. To assist in achieving swift grass or vegetative cover, construction of the bunds must take place during the months of May to November inclusive.

Site Rehabilitation

11. Rehabilitation of the site must be undertaken in accordance with the Quarry Rehabilitation Plan (QRP) certified by the Selwyn District Council.

Management Plan Certification Process

12. The following Quarry Management Plans must be submitted to the CRC Manager in electronic and hard copy form for certification at least 40 working days prior to the commencement of *quarry activities*:
 - a) Dust Management Plan;
 - b) Cleanfill Management Plan;
 - c) Spill Management Plan; and
 - d) Stormwater Management Plan.

Advice Note: The certification process is confined to confirming that a Management Plan adequately gives effect to the relevant Condition(s).

13. Subject to Conditions 14 and 16 below, works to which a Management Plan relates must not commence until the consent holder has received written certification from the CRC Manager.
14. If the consent holder has not received a response from the CRC Manager within 20 working days of the date of submission under Condition 12, the Management Plan must be deemed to be certified.

15. If the CRC Manager's response is that that they are not able to certify the Management Plan they must provide the consent holder with reasons and recommendations for changes to the Management Plan in writing. The consent holder must consider any reasons and recommendations of the CRC Manager and resubmit an amended Management Plan for certification.
16. If the consent holder has not received a response from the CRC Manager within five working days of the date of resubmission under Condition 15 above, the Management Plan must be deemed to be certified.

Complaints Register

17. The consent holder must maintain a Complaints Register. The Complaints Register must include details of when a complaint was received, the steps taken by the consent holder to investigate the complaint, and any steps taken to address the issue raised. The complaints register must be provided to the CRC Manager annually, and must otherwise be available to the CRC Manager on request.

For dust complaints the register must include:

- a) The location where dust was detected by the complainant;
- b) The date and time when dust was detected;
- c) A description of the wind speed and wind direction when the dust was detected by the complainant;
- d) The most likely cause of the dust detected; and
- e) Any corrective action undertaken by the consent holder to avoid, remedy or mitigate the dust detected by the complainant.

Consent Condition Reviews

18. 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 these consents for the purposes of:
 - a) Dealing with any adverse effect on the environment which may arise from the exercise of these consents and which it is appropriate to deal with at a later stage;
 - b) Amending dust suppression requirements;
 - c) Amending suspended particulate (dust) and groundwater monitoring requirements;
 - d) Ensuring compliance with any relevant National Environmental Standards; and
 - e) Avoiding, remedying, mitigating, off-setting or compensating for any adverse effects on human health arising from suspended particulate matter (including dust and Respirable Crystalline Silica) generated by *quarry activities*.

Consent Lapsing

19. The lapsing date for the purposes of section 125 of the Resource Management Act 1991 is five years from the date of issue of these consents.

Bond

20. Prior to the first exercise of these consents, the consent holder must enter into an enforceable written agreement acceptable to the Canterbury Regional Council, that provides for a bond in favour of Canterbury Regional Council pursuant to sections 108(2)(b) and 108A of the Resource Management Act 1991. The purpose of the bond is to secure the rehabilitation of the site, undertake groundwater monitoring, and undertake remediation of any groundwater contamination resulting from *quarry activities*, in the event of any default by the consent holder.
21. The bond must be a cash bond or bank bond provided by a registered trading bank of New Zealand; acceptable to the Canterbury Regional Council.
22. The bond amount must be sufficient to cover the activities listed in Condition 20.

23. The consent holder must engage suitably qualified and experienced persons to assess the maximum costs of the activities listed in Condition 20 and to subsequently peer review that assessment.
24. The bond amount may be adjusted by the Canterbury Regional Council giving notice on the fifth anniversary of the commencement of these consents and every five years thereafter. The consent holder must provide a report to the Canterbury Regional Council which addresses whether the bond quantum should be revised. The purpose of the adjustment is to reflect changes in the risk profile of the quarry or to the Consumer Price Index. The Canterbury Regional Council must engage a suitably qualified and experienced person to peer review the report and respond within two months of receipt of the report on the appropriateness of any proposed revised bond quantum.
25. If the consent holder and the Canterbury Regional Council cannot agree on the terms of the bond, the dispute must be resolved through an agreed disputes resolution process or referred to arbitration.
26. The costs of, and incidental to, the preparation of all bond documentation, including the Canterbury Regional Council's costs, must be met by the consent holder.
27. If these consents are transferred in part or whole to another party or person, the bond lodged by the transferor must be retained until a replacement bond is entered into by the transferee to ensure compliance with conditions of these consents.
28. For the avoidance of doubt, the enforceable written agreement may provide for the bond to be held after the expiry of these consents.

DISCHARGE PERMIT CRC192410 - TO DISCHARGE CONTAMINANTS INTO AIR FROM AN INDUSTRIAL OR TRADE PREMISE OR PROCESS

General

1. The discharge of contaminants into air beyond the boundary of the site described in General Condition 1 must not be offensive, objectionable, noxious or dangerous.
2. The Quarry Manager, or another nominated person, must be available at all times (including outside quarry operation hours) to respond to dust emission complaints and issues.

Dust Management Plan

3. Prior to the commencement of *quarry activities*, the consent holder must prepare and implement a Dust Management Plan (DMP) for the certification of the CRC Manager. The certified DMP must be retained on site at all times.
4. The exercise of this consent must be undertaken in accordance with the certified DMP. In the event of any inconsistency between the conditions of this consent and the provisions of the DMP, then the conditions of this consent must prevail.
5. The purpose of the DMP is to identify and implement the best practicable option (BPO) for avoiding and minimising the release of particulate matter beyond the boundary of the site, and to provide detail on how the conditions of this consent will be complied with.
6. Prior to submitting the DMP to the CRC Manager the consent holder must have the DMP reviewed by a Suitably Qualified and Experienced Practitioner (SQEP) in air quality to confirm that the measures proposed in the DMP are appropriate to achieve compliance with conditions of this consent and enable the management of discharge of dust beyond the boundary to a level that is not offensive, objectionable, noxious or dangerous.
7. The DMP must include, but not be limited to:
 - a) A description of the content and purpose of the DMP;
 - b) A description of the dust sources on site;
 - c) A description of the receiving environment and identification of sensitive receptors within 250 metres of site boundaries;
 - d) The methods (including dust reduction through design methodologies) to be used for controlling dust at each source during *quarry activities*;
 - e) A description of site rehabilitation methodology;
 - f) A description of dust discharge monitoring requirements and methodology;
 - g) A description of procedures for responding to dust and wind condition-based trigger levels specified in Conditions 22 and 23 and associated follow up investigations and recording of findings;
 - h) A system for training employees and contractors to make them aware of the requirements of the DMP;
 - i) Identifying staff responsible for implementing and reviewing the DMP;
 - j) Procedures, processes and methods for managing dust when staff are not on site;
 - k) Methods for determining the weather conditions that will trigger a restriction on potentially dusty activities;
 - l) A method for recording and responding to complaints from the public;
 - m) A maintenance schedule for meteorological and particulate (including PM₁₀) monitoring instruments;
 - n) Separate Standard Operating Procedures (SOPs) dedicated to the management of potential dust discharges from specific sources, including but not limited to:
 - i) The Central Processing and Stockpiling Area (CPSA) and associated aggregate stockpiles;
 - ii) Site roads – sealed and unsealed;

- iii) Aggregate excavation and cleanfilling areas;
 - iv) Top soil and overburden stripping and stockpiling;
 - v) Bund construction and the recontouring of slopes during rehabilitation;
 - vi) The automated dust suppression for dust prone areas that can be activated outside of working hours;
 - vii) Location and calibration of PM₁₀, Respirable Crystalline Silica (RCS) and meteorological monitoring equipment;
 - viii) Environmental information management for recording, quality assurance, archiving and reporting the quantity and types of data including all ambient environmental data for wind, rainfall-evaporation, PM₁₀ concentrations, RCS concentrations, community feedback, and all data required for dust management of the site; and
- o) A copy of the SQEP's peer review report required under Condition 6.
8. The DMP (including the SOPs) must be reviewed by a SQEP, at least every two years, to ensure it remains fit for purpose. Any amendments to the DMP must be subject to certification by the CRC Manager in accordance with General Conditions 13 to 16.

Diesel Generator Operation

9. Diesel generators associated with mobile plant must only be used between 7am and 8pm, excluding any warm up and cool down period. The generators must be serviced at least once every year by a person competent in the servicing of such appliances. The servicing must include internal cleaning and replacement or repair of damaged equipment and services as necessary.

Planning of Activities

10. The consent holder must assess weather and ground conditions (wind and likely rainfall) at the start of each day and ensure that applicable dust mitigation measures and methods are ready for use prior to commencing *quarry activities* for the day.
11. The consent holder must take wind direction and speed into account in planning and carrying out work so as to minimise dust dispersion towards any residential dwellings that are within 250 metres of the area where *quarry activities* are planned.

Monitoring

12. Prior to the commencement of *site preparation* activities, a meteorological station must be installed at the site with instruments capable of continuously monitoring, logging in real time and reporting representative metrological data for the site and surrounding area.
13. The instruments specified in Condition 12 must be installed and maintained in accordance with the manufacturer's specifications. The consent holder must keep a record of when maintenance is undertaken, and the type of maintenance undertaken. This record must be provided to the CRC Manager upon request.
14. The instruments must be installed on a mast such that their height is at least four metres above pre-quarrying ground level and in accordance with Australian Standard 2923 – 1987 Ambient Air Guide for Measurement of Horizontal Wind for Air Quality Applications.
15. An alarm to site staff (for example via mobile phone) must be provided if the rolling average wind speed trigger level in Condition 23 is exceeded.
16. Meteorological monitoring must include:
- a) Wind speed as 1-minute vector averages with maximum resolution of 0.1 metres per second (m/s), accuracy of at least within +/-0.2 m/s, and a stall speed no greater than 0.5 m/s;
 - b) Wind direction as 1-minute vector averages with maximum resolution of 1.0 degree and accuracy of at least within +/- 1.0 degree, and a stall speed no greater than 0.5 m/s;

- c) Rainfall and evaporation as hourly averages with maximum resolution of 1 mm/day and accuracy that meets standard good industry practice as specified by the National Environmental Monitoring Standards (NEMS) for Rainfall Recording (Version 1.0 June 2013);
 - d) Screened temperature with accuracy of +/- 0.5 degree; and
 - e) Humidity (%RH) with accuracy of +/- 5 percent.
17. All meteorological monitoring data must be recorded using an electronic data logging system and be retained for the duration of this consent and provided to the CRC Manager upon request.
18. Prior to the commencement of *quarry activities*, a permanent real-time PM₁₀ monitor (US EPA or Resource Management (National Environmental Standards for Air Quality) Regulations 2004 (NESAQ) compliant equipment) must be installed and operated on each of the quarry's northern, eastern, southern and western site boundaries:
- a) The eastern site boundary PM₁₀ monitor must be located directly adjacent to the centre of the proposed Stage 1 *quarrying operations* area;
 - b) Each of the site boundary PM₁₀ monitors must record hourly and 24-hourly average PM₁₀ concentrations; and
 - c) The consent holder must consult with the CRC Manager regarding the location of each PM₁₀ monitor on each of the four site boundaries.

Advice Note: *The intent of locating a permanent PM₁₀ monitor on each site boundary is to provide up-wind and down-wind PM₁₀ measurements regardless of wind direction. This intent should be taken into account when locating the monitors on each site boundary.*

19. Prior to the commencement of *site preparation* activities, the consent holder must locate real-time PM₁₀ monitors (referred to as the "mobile monitors") on each of the quarry's southern and western site boundaries. On each day that *quarry activities* are undertaken, the mobile monitors must be located directly between the centre of that day's *quarry activities* and the nearest downwind off-site sensitive location that is less than 500 metres away from the *site preparation* activities. The two mobile monitors must be of a type that are suitable for dust management but need not meet the standard for NESAQ compliance monitoring. The mobile monitors must be calibrated against one or more of the permanent real-time PM₁₀ monitors required under Condition 18.
20. Prior to the commencement of *quarrying operations*, the consent holder must design and implement a Respirable Crystalline Silica (RCS) monitoring programme in consultation with the Canterbury District Health Board (CDHB) and the CRC Manager. The RCS monitoring programme must be:
- a) designed to assess compliance with the following standards:
 - (i) 47 micrograms per cubic metre (µg/m³) 1-hour level of RCS;
 - (ii) 3 µg/m³ annual average level of RCS; and
 - (iii) 25 µg/m³ 24-hour average level of PM_{2.5};
 at the western edge of the Templeton urban area and at any residential dwelling located within 500 metres of Stage 1 *quarrying operations*;
 - b) undertaken for at least 12 continuous months;
 - c) include reporting requirements to the CDHB and the CRC Manager;
 - d) peer reviewed by a Suitably Qualified and Experienced Practitioner (SQEP), with any recommendations of that practitioner regarding the design or implementation of the programme being adopted; and
 - e) provided to the CRC Manager for certification prior to being commenced.
21. Within one month of the completion of the RCS monitoring programme, the consent holder must prepare a report outlining the results of the programme and any implications of RCS generated by *quarrying operations* for human health, particular for that of the residents of Templeton and the occupants of any residential dwellings located within 500 metres of Stage 1 *quarrying operations*. The report must be provided to the CRC Manager, the CDHB and members of the Community Liaison Group. The report must also be made publicly

available on the consent holder's webpage (fultonhogan.com or any replacement consent holder's web address).

Dust Mitigation

22. If *quarry activities* cause real time particulate concentrations at the site boundaries to reach or exceed a PM₁₀ concentration of 150 micrograms per cubic metre, as a 1-hour average updated every ten minutes, then *quarry activities* must cease and must not resume until additional dust control measures have been implemented.
23. *Quarry activities* (except dust suppression measures) within 250 metres of a sensitive receptor location must not be undertaken when the wind direction (10-minute average) places *quarry activities* directly upwind of the sensitive receptor location and the wind speed reaches or exceeds 7 m/s.
24. If at any time, including outside normal operating hours, visible dust is blowing beyond the site boundary or if the Condition 22 PM₁₀ monitoring trigger is breached the consent holder must:
 - a) Cease all *quarry activities*;
 - b) Continue all dust suppression activities including but not limited to the immediate watering of both active and inactive exposed surfaces;
 - c) Investigate possible sources of the dust;
 - d) Only resume *quarry activities* (other than dust suppression) once there is no longer visible dust blowing beyond the site boundaries and when the monitoring trigger in Condition 22 is no longer being breached; and
 - e) Notify the CRC Manager within one working day of the dust event, including its cause and the dust suppression actions undertaken.
25. The consent holder must take all reasonably practicable measures to minimise the discharge of dust from *quarry activities*, including but not limited to:
 - a) Assessing weather and ground conditions (wind and dryness) at the start of each day and ensure that applicable dust mitigation measures and methods are ready for use prior to commencing *quarry activities*;
 - b) Taking wind direction and speed into account in planning *quarry activities* to minimise the risk of dust dispersion towards any residential dwellings that are within 250 metres of the site boundary;
 - c) During *site preparation*, limiting the height of topsoil, overburden and aggregate stockpiles to no more than three metres above natural ground level;
 - d) During *quarrying operations*, locating stockpiles of processed aggregate within the quarry floor area below natural ground level;
 - e) Stockpiling processed aggregate products by grade within the quarry floor area;
 - f) Not exceeding a maximum aggregate stockpile volume of 200,000 cubic metres at any one time;
 - g) Setting back all stockpiles associated with fixed and mobile processing plant in the CPSA at least 500 metres from site boundaries;
 - h) Vegetating any long-term stockpiles of topsoil, overburden or unprocessed aggregate;
 - i) Spraying stockpiles with water;
 - j) Sealing the site access road from Jones Road to the CPSA and sealing the ring road around the CPSA;
 - k) Placing a rumble strip and/or wheel wash on the site access road to assist in removing muddy material from vehicle wheels before they exit the site;
 - l) Regularly vacuum sweeping sealed roads and yard areas;
 - m) Constructing and maintaining unsealed internal roads so that they are comprised of an aggregate base, with surfaces that are graded and free of pot holes;
 - n) Using field conveyors as the primary form of transporting aggregate from the active quarry face to the CPSA;
 - o) Minimising drop heights when loading trucks, conveyor hoppers and when moving material;

- p) Pre-dampening top soil and overburden with a water cart or sprinklers prior to its extraction and removal;
 - q) Carrying out land stripping and land rehabilitation during favorable weather conditions when winds are below 7 m/s;
 - r) Locating fixed and mobile processing plant in the CPSA, below natural ground level, and least 500 metres from site boundaries;
 - s) Operating fixed and mobile processing plant in conjunction with water dust suppression (either sprays or high-pressure fogging system) fixed to the plant or located beside the plant;
 - t) Establishing and maintaining shelter belt plants around the site boundaries and maintaining existing shelter belts;
 - u) Ensuring trucks leaving the site with loads of sand or similar fine material have their loads covered and all trucks leaving the site pass under an operational water spray boom;
 - v) Ensuring all trucks entering the site with loads of cleanfill are covered;
 - w) Regularly applying dust suppression measures such as reject 'pea gravel' material or water to unsealed haul and access roads during any dry or windy conditions when dust is likely to be discharged from them;
 - x) Undertaking routine site inspections of visible dust emissions throughout each day of *quarry activities* and electronically logging findings and any dust suppression actions;
 - y) Using pea gravel, reject gravel, pit run gravel, water or dust suppressants on exposed surfaces (including aggregate extraction areas, stockpiles, internal unsealed roads and loader working areas) as necessary to avoid visible dust plumes extending beyond the site boundary;
 - z) Maintaining an adequate supply of water and equipment on site for the purposes of dust suppression at all times;
 - aa) Imposing a speed restriction on all internal roads of 15 kilometers per hour at all times and clearly signposting this limit on all internal roads;
 - bb) Using water carts as a back-up measure for dust suppression during dry weather; and
 - cc) Using water from bore M36/0257 on the site together with water stored in tanks or similar vessels for dust suppression purposes.
26. The consent holder must install, operate and maintain an automated dust suppression system for dust prone areas that can be activated remotely outside of working hours when:
- a) the PM₁₀ trigger level specified within Condition 22 has been exceeded; or
 - b) when the wind speed reaches or exceeds 7 m/s.
27. Where the take of groundwater from the existing bore (M36/0257) is reduced in accordance with Condition 2(a) or (b) of Water Permit CRC182422, the consent holder must undertake dust suppression measures using the reduced bore take, water storage capacity on site (i.e. water tanks or similar vessels), and if necessary, chemical dust suppressants.
28. Should the ability to take water authorised under Water Permit CRC182422 cease at any time in accordance with Condition 2(c) of CRC182422, the consent holder must cease *quarry activities* until such time when water can be taken again.

PM₁₀ Offset

29. Utilising the PM₁₀ monitoring data collected under conditions of this consent, together with any other relevant and publicly available air quality monitoring data, the consent holder must obtain reports from a SQEP in air quality assessing compliance with Regulation 17(1) of the Resource Management (National Environmental Standards for Air Quality) Regulations 2004, on at least three occasions, being no later than:
- a) One month after the completion of perimeter bund formation;
 - b) Twelve months after the commencement of Stage 1 aggregate extraction; and
 - c) Five years after the commencement of Stage 1 aggregate extraction.

30. The reports required under Condition 29 (whether they be draft or final reports) must be provided to the CRC Manager within five working days of their receipt by the consent holder and the reports must at that same time be made publicly available on the consent holder's webpage (fultonhogan.com or any replacement consent holder's web address) and also be provided directly to Community Liaison Group members.
31. Should any of the reports required under Condition 29 conclude that Regulation 17(1) of the Resource Management (National Environmental Standards for Air Quality) Regulations 2004 has been breached by the consent holder's *quarry activities*, then all *quarry activities* (with the exception of dust suppression activities) must cease upon receipt of the reports by the consent holder and must not resume until a Regulation 17(3) compliant PM₁₀ offset developed by the consent holder and certified as appropriate by the CRC Manager has been fully implemented.

LAND USE CONSENT CRC192408 and CRC192409 - TO EXCAVATE MATERIAL and TO DEPOSIT CLEANFILL MATERIAL OVER AN UNCONFINED/SEMI-CONFINED AQUIFER

Extraction Depth

1. Prior to undertaking *quarry activities*, the consent holder must establish a surveyed datum point at natural ground level in an area that will not be excavated. This point must thereafter be used to determine the depth of excavation at any point within the site.
2. Prior to the excavation of overburden, the consent holder must survey the site to determine elevations of the natural ground level of the site relative to Mean Sea Level. The survey must be undertaken by a registered surveyor to an accuracy of +/- 50 millimeters vertically and be provided to the CRC Manager.
3. Once aggregate extraction has commenced the consent holder must undertake, at three monthly intervals or otherwise on request from the CRC Manager, a laser level survey of all depths of excavated and filled areas on the site. The survey must be provided to the CRC Manager. The survey is not required if there has been no excavation in the preceding three-month period. Alternative methods for achieving this condition, such as GPS depth technology on excavation machinery may be used subject to approval in writing from the CRC Manager.
4. In February of each year, utilising the survey data obtained under Condition 3, the consent holder must produce a contour map showing the surveyed maximum quarry depth relative to the highest recorded groundwater level for the site derived from the groundwater level data obtained from Condition 6 and provide that map to the CRC Manager.
5. Excavation of aggregate and deposition of cleanfill must only occur where the quarry floor maintains at least one metre separation depth to the highest groundwater level¹. This must be achieved by ensuring the base of the quarry is no deeper than (unless shallower depths are determined pursuant to Condition 7):
 - a) 9.9 metres below natural ground level in the northwest area of the site (42.99 m RL); and
 - b) 8.1 metres below natural ground level in the southeast area of the site (33.22 m RL);in accordance with the contour plan included as Plan CRC192408B, attached to and forming part of this consent.

Groundwater Level Monitoring

6. For the duration of this consent, the consent holder must monitor and record the groundwater levels daily in the six bores specified below:

Upgradient

BX23/0833 (Bore ID DRBH1) - Located at or about map reference: NZTM X and Y 1554612 – 5177022

BX23/0836 (Bore ID DRBH2) - Located at or about map reference: NZTM X and Y 1554914 – 5177686

Downgradient

BX23/0835 (Bore ID DRBH4) - Located at or about map reference: NZTM X and Y 1556077 – 5177047

BX23/0834 (Bore ID DRBH3) - Located at or about map reference: NZTM X and Y 1555397 – 5176416

Two additional downgradient monitoring bores to be installed on either the eastern or southern site boundaries at the same depth as the existing four monitoring bores with the location of the additional two bores being subject to the prior written approval of the CRC Manager.
7. Five years after the commencement of aggregate extraction and at five yearly intervals thereafter, based on monitoring data obtained under Condition 6, the consent holder must submit a report to the CRC Manager by a SQEP in groundwater monitoring recommending whether the maximum depth of quarrying specified in Condition 5 should be decreased. Thereafter the depth of quarrying must not exceed any decreased maximum depth of quarrying determined in accordance with the report recommendations.

¹ As defined in the Canterbury Land and Water Regional Plan.

8. Notwithstanding Condition 7, at all times and in all circumstances, the consent holder must limit excavation to one metre above both the highest groundwater level² for the site and the highest recorded groundwater level³ for the site, referenced to the datum point in Condition 1.
9. Should the groundwater water level increase (at times of high-water table) so that the separation is less than one metre between the measured groundwater levels and the current (at that time) ground level within the quarry site (be it the base of the active quarry floor or the ground level of any rehabilitated area), then:
 - a) then any machinery (other than that used for applying virgin materials under (b) below) must be moved away from these areas;
 - b) the consent holder must apply virgin materials to that area, so as to re-establish a one metre separation distance throughout the quarry site; and
 - c) the consent holder must decrease the maximum allowable depth of extraction in conformance with Conditions 7 and 8. The decreased maximum allowable depth of extraction must be reported to the CRC Manager.

Advice Note: For the purpose of this consent, 'virgin materials' is aggregate that is of comparable quality and composition to aggregate which was excavated.

10. Should groundwater levels rise into the quarry floor during excavation of aggregate or deposition of cleanfill, the consent holder must notify the CRC Manager within 24 hours.

Excavation of Aggregate

11. Following development of the CPSA, excavation of aggregate must commence with extraction in the centre of the site (adjacent to the CPSA) and must occur in a progressive sequence (moving southward and then anticlockwise) generally in accordance with the Plan CRC192408C, attached to and forming part of this consent.
12. *Quarrying operation* areas must be limited at any one time to the maximum area limitations set out in Table 1 below:

Table 1: Open area limits for quarrying operations.

Purpose	Area (ha)	Open area requiring dust suppression (ha)
Central processing area, its fixed and mobile processing plant and stockpiles.	7	2
Excavation in process	5	1
Fill and rehabilitation in process	5	2
Site roads – unsealed	5	0
Field conveyor, service lanes	4	0
Total active area	26	5
The above areas exclude the sealed access road(s) and any site buildings.		

² As defined in the Canterbury Land and Water Regional Plan.

³ Derived from the groundwater level data obtained from Condition 6.

Cleanfill Management Plan

13. At least east one month prior to the commencement of any cleanfilling activity, the consent holder must prepare a Cleanfill Management Plan (CMP) prepared in accordance with Section 8.1 and Appendix B of “A Guide to the Management of Cleanfills”, Ministry for the Environment, January 2002 and submit it to the CRC Manager for certification.
14. The exercise of this consent must be undertaken in accordance with the certified CMP. In the event of any inconsistency between the conditions of this consent and the provisions of the CMP, then the conditions of this consent must prevail.
15. The CMP must include but not be limited to:
 - a) A description of the content and purpose of the CMP;
 - b) Details of *quarrying operations* relevant to the deposition of cleanfill material;
 - c) The actions to be undertaken to ensure compliance with the conditions of this consent and actions to be undertaken in response to any incident that may adversely affect the environment;
 - d) Identifying and providing contact details of the staff member responsible for each action;
 - e) The steps to be undertaken to correct incidences of non-compliance with the conditions of this consent;
 - f) The specific location of cleanfill placement areas;
 - g) A description of operational procedures and monitoring that will be implemented to prevent unauthorised cleanfill material from entering the site;
 - h) A list of acceptable and unacceptable cleanfill material;
 - i) How rejected cleanfill material will be stored pending its removal to an authorised landfill;
 - j) The maximum length of time that rejected material can be stored on site pending its removal;
 - k) Construction procedures to ensure the long-term stability of cleanfill areas;
 - l) Timetable of works and re-vegetation measures;
 - m) Procedures for improving and/or reviewing the CMP; and
 - n) Procedures for responding to complaints.
16. The consent holder must ensure that a copy of the certified CMP is held on site at all times and all personnel working on the site are made aware of and have access to it.
17. The certified CMP must be reviewed and updated at least once every two years for the duration of this consent.
18. Any updated version of the CMP must be forwarded to the CRC Manager for certification within 30 days of its review and updating.

Staff Training

19. Specific staff training specified in the CMP must be provided in accordance with Section 8.2.2 of “A Guide to the Management of Cleanfills” (MfE Guide), Ministry for the Environment, January 2002. All records of staff training must be retained on site and provided to the CRC Manager upon request.
20. Annual refresher training must be provided by a SQEP in cleanfill management, as part of the training specified in the CMP.

Cleanfilling

21. Where additional fill is required to be brought to the site for rehabilitation purposes the consent holder must ensure that all material deposited in the excavated area is:
 - a) Only material defined as ‘cleanfill’ as set out in the Advice Note following this condition;
 - b) Only material which meets the Canterbury Regional background levels which are described in Canterbury Regional Council, 2007 *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;

- c) Not deposited into groundwater and is at least one metre above the highest groundwater level as determined under conditions of this consent;
- d) Assessed against the cleanfill acceptance criteria and inspected and deposited in accordance with the procedures contained in the certified CMP required under Condition 13;
- e) Rejected from the site if the load description is contrary to the actual content in the truck;
- f) Checked by the site manager or nominated person prior to deposition in the excavated area. If the material is not classified as cleanfill, the consent holder must immediately remove the material and arrange for its disposal;
- g) Recorded in a digital database, with the database record being provided to the CRC Manager upon request, and including as a minimum the following information:
 - i) The name of the company delivering the material;
 - ii) The date of delivery;
 - iii) The physical address of the land the material was sourced from;
 - iv) A description of the material;
 - v) Any laboratory reports pertaining to the composition of the material;
 - vi) Any authorisation under which the material was removed from the source site (e.g. resource consent); and
 - vii) The weight or volume of the delivered material.

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

- a) combustible, putrescible, degradable or leachable components;
- b) hazardous substances;
- c) products or materials derived from hazardous waste treatment, hazardous waste stabilisation or hazardous waste disposal practices;
- d) materials that may present a risk to human or animal health such as medical and veterinary waste, asbestos or radioactive substances and liquid waste; and
- e) concrete slurry, coal tar and hydro-excavated waste.

- 22. Any material rejected in accordance with Condition 21(e) must be disposed of at an appropriate facility, and the consent holder must provide the CRC Manager with written confirmation of such disposal within ten working days of the disposal taking place.
- 23. No cleanfill material must be deposited at the site which has been sourced from a site defined as 'potentially contaminated'.

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.

- 24. All cleanfill stockpiles must be inspected and spread over the working area on a regular basis.
- 25. Any mixed material arriving at the site must be thoroughly inspected to ensure it contains no material that does not meet the definition of cleanfill. This inspection must include a review of the cleanfill disposal application form and information (including any laboratory reports pertaining to the composition of the

material) related to the material's source followed by a visual inspection to identify any unacceptable material.

26. The consent holder must ensure that any contractor depositing material at the site has a written contract with the consent holder and is provided with a copy of this consent prior to entering the site.
27. Site inductions must be held on a quarterly basis for all contractors using the site, and records of these inductions must be kept and made available to the CRC Manager upon request.

Groundwater Quality Monitoring and Reporting

28. Prior to the commencement of *quarry activities*, representative samples of groundwater must be taken (subject to landowner approval and if practically possible) from all domestic water supply wells within 500 metres downgradient of the site, as indicated in attached Plan CRC192408D and listed on CRC's wells database, to establish baseline water quality conditions in those wells. Each bore sample must be analysed for the contaminants in Table 2 of Condition 29. A copy of the results of the groundwater samples must be provided to the CRC Manager and the bore owner.
29. The consent holder must undertake the following groundwater sampling regime for the bores listed in Condition 6 of this Consent and bore M36/2743:
 - a) Representative samples of groundwater must be taken at three-monthly intervals for a period of five years after *quarry activities* commence and thereafter at six-monthly intervals for the duration of this consent;
 - b) Samples must be taken after adequate purging to remove all stagnant water from the bores or by using an alternative method, such as a 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 practitioner and analysed for the contaminants listed in Table 2 by an accredited laboratory; and
 - d) The water quality monitoring results must be supplied to the CRC Manager within one month of them being received in an electronic format, suitable for automatic upload to a water quality database (preferably directly from the analytical laboratory immediately after quality checking).

Table 2: Contaminants and trigger concentrations.

Contaminant	Property or trigger value
Acidity	No testing
Alkalinity	100 g/m ³ as CaCO ₃
Ammoniacal N	1.2 g/m ³ as N
Chloride	250 g/m ³
Electrical Conductivity	50 mS/m at 25°C
<i>E.coli</i> bacteria	1 MPN/100 ml median of samples
Total Hardness (calcium + magnesium)	100 g/m ³ as CaCO ₃
Dissolved Iron	0.2 g/cm ³
pH	8.5
Dissolved Zinc	1.5 g/cm ³
Total Petroleum Hydrocarbons	Any detection >0.1 g/m ³
Dissolved Aluminium	0.1 g/m ³
Dissolved Arsenic	0.005 g/m ³

Contaminant	Property or trigger value
Dissolved Boron	0.7 g/m ³
Dissolved Cadmium	0.002 g/m ³
Dissolved Chromium	0.025 g/m ³
Dissolved Copper	1 g/m ³
Dissolved Lead	0.005 g/m ³
Dissolved Manganese	0.04 g/m ³
Dissolved Nickel	0.04 g/m ³
Nitrate-Nitrogen	No testing
Dissolved Sodium	200 g/m ³
Sulphate	250 g/m ³

Responses to Monitoring

30. The results of the analyses of groundwater samples tested must be compared with the contaminant trigger values in Table 2. Any contaminant concentration in the downgradient bores will be deemed an exceedance if:
- The tested result is in excess of the trigger values for a contaminant given in Table 2 and the median concentration of the same contaminant in the upgradient wells for that sampling event is less than the Table 2 trigger levels; or
 - The median concentration of a contaminant in the downgradient wells exceeds the upgradient median concentration of the same contaminant by more than 10 percent of the respective Table 2 contaminant trigger value, where any median concentration in the upgradient wells for a sampling event exceeds the Table 2 trigger.

Advice Notes: *The trigger levels are intended to establish if there has been an increase in concentration of any contaminant across the consent-holder's site. Upgradient wells are to monitor if any contamination is coming from other upgradient properties. Condition 30(b) makes allowance for Table 2 trigger values being exceeded because of an upgradient contamination source, by requiring a further increase of more than 10 percent of the trigger level across the site before a consent exceedance is triggered.*

Median concentrations are intended to combine results spatially from different wells, to account for the potential for narrow plumes of contaminants in groundwater being detected at only one well. Where Conditions 30(a) and 30(b) refer to a median concentration, it is to be calculated from the test results from a set of monitoring wells, (either upgradient or downgradient wells), for one sampling event, not averaged over different events.

31. If there is an exceedance in a downgradient bore as determined by Condition 30, the consent holder must within one month of receiving the results:
- Obtain a second sample of groundwater from the bore sampled in accordance with Condition 29;
 - Obtain a sample of groundwater from the upgradient bores specified in Condition 29; and
 - Analyse these samples in accordance with Condition 30.
32. If the results of analysis of the second groundwater samples carried out in accordance with Condition 31 show that none of the concentrations of contaminants analysed exceed the trigger concentrations in Table 2 as determined by Condition 30, the consent holder must continue to sample groundwater in accordance with Condition 29.
33. If the results of analysis of the second groundwater samples carried out in accordance with Condition 31

show an exceedance of the trigger concentrations in Table 2 as determined by Condition 30, the consent holder must:

- a) Notify the CRC Manager;
- b) Notify the residential occupiers with water supply bores for all adjoining properties 500 metres downgradient of the affected monitoring bore;
- c) Sample all domestic wells within 500 metres downgradient of the affected monitoring bore (subject to well owner approval);
- d) Conduct an investigation into the potential cause(s) of the exceedance, which may include undertaking additional monitoring beyond the routine sampling;
- e) If any domestic bore sample reveals an adverse effect on drinking-water quality which was not present at the time of baseline sampling prior to *quarrying operations* commencing, including on its taste, clarity or smell, then the consent holder must either provide the well user with an alternative supply of potable water, provide an appropriate water treatment system, or install a deeper well for the user (subject to the land owner's approval); and
- f) 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 exceedance;
 - ii) removal of the contaminant source(s);
 - iii) stabilisation or capping of the contaminant source(s); and
 - iv) revision of cleanfill management procedures.

Annual Report

34. The consent holder must prepare an annual report containing the groundwater level and quality monitoring data and assessments required to be collected under the conditions of this consent. The report must also include groundwater quality data from the Selwyn District Council public supply well M36/7575 if that data is available from the Selwyn District Council. The report must discuss groundwater quality trends in the monitoring data, any exceedances of the Table 2 contaminant trigger concentrations and any mitigation actions taken in response to those exceedances. The annual report must be provided to the CRC Manager by 31 August each year.

Spills

35. The consent holder must prepare a Spill Management Plan (SMP) for the site and provide the SMP to the CRC Manager for certification.
36. The exercise of this consent must be in accordance with the certified SMP. In the event of any inconsistency between the conditions of this consent and the provisions of the SMP, then the conditions of this consent must prevail.
37. The purpose of the SMP is to demonstrate how Conditions 39 and 40 will be achieved.
38. The SMP must as a minimum:
 - a) Contain a description of the content and purpose of the SMP;
 - b) Document measures to prevent leaks and avoid spills of fuel or any other hazardous substance (including fuel reconciliations);
 - c) Set out procedures to be undertaken in the event of a spill of fuel of any hazardous substance, in accordance with Condition 39; and
 - d) Set out staff training requirements for responding to spills.
39. The consent holder must take all practicable measures to prevent leaks and avoid spills of fuel or any other hazardous substances in accordance with the SMP including but not limited to:
 - a) No refueling or maintenance of vehicles or machinery can occur on the quarry pit floor, with the exception of generators for mobile plant;

- b) Appropriate servicing and maintenance of vehicles and machinery such that they do not result in leaks or spills;
 - c) Only undertaking refueling or maintenance on vehicles or machinery on hardstand surfaces that are roofed;
 - d) Keeping a spill kit capable of absorbing all fuel and oil products on site and available at all times; and
 - e) Training all staff involved in the refueling or maintenance activities in the use of spill kits.
40. When any mobile tankers are used on site, refueling with such tankers must take place well above the bottom of the quarry pit floor, and in roofed facilities with spill management provisions. Mobile tankers must not be present on site outside of refueling areas.

Advice Note: Condition 40 does not apply to the refueling of generators associated with mobile plant.

41. In the event of a spill of fuel or any other hazardous substance, the consent holder must ensure that:
- a) The spill is cleaned up as soon as practicable and measures taken to prevent a reoccurrence;
 - b) The CRC Manager is informed within 24 hours of a spill event exceeding four litres and the following information provided:
 - 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.

WATER PERMIT CRC192414 – TO USE GROUNDWATER (NEW USE PERMIT)

- 1) The volume of water taken in terms of this permit from bore M36/0257 must be in accordance with Water Permit CRC182422 and at a rate not exceeding 9.5 litres per second, with a volume not exceeding 752 cubic metres in any one day and 5,267 cubic metres in any period of seven consecutive days and 112,375 cubic metres between 1 July and the following 30 June.
- 2) Water may only be used for the *quarry activities*.
- 3) Prior to the exercise of this consent the consent holder must:
 - a) install a water meter(s) that has an international accreditation or equivalent New Zealand calibration endorsement, and has pulse output, suitable for use with an electronic recording device, which will measure the rate and the volume of water used to within an accuracy of plus or minus five percent as part of the pump outlet plumbing, or within the mainline distribution system, at a location(s) that will ensure the total volume of water used is measured; and
 - b) install a tamper-proof electronic recording device such as a data logger(s) that time stamps a pulse from the flow meter at least once every 60 minutes, and have the capacity to hold at least one season's data of water taken as specified in Condition 4.
- 4) The recording device(s) must:
 - a) be set to wrap the data from the measuring device(s) such that the oldest data will be automatically overwritten by the newest data (i.e. cyclic recording); and
 - b) store the entire season's data in each 12 month period from 1 July to 30 June in the following year, which the consent holder must then download and store in a commonly used format and provide to the Canterbury Regional Council upon request in a form and to a standard specified in writing by the Canterbury Regional Council; and
 - c) be connected to a telemetry system which collects and stores all of the data continuously with an independent network provider who will make that data available in a commonly used format at all times to the Canterbury Regional Council and the consent holder. The recording device(s) must be designed and installed so that no data is able to be deliberately changed or deleted.
- 5) The water meter and recording device(s) must be accessible to the Canterbury Regional Council at all times for inspection and/or data retrieval.
- 6) The water meter and recording device(s) must be installed and maintained throughout the duration of the consent in accordance with the manufacturer's instructions.
- 7) All practicable measures must be taken to ensure that the water meter and recording device(s) are fully functional at all times.
- 8) Within one month of the installation of the measuring or recording device(s), or any subsequent replacement measuring or recording device(s), and at five-yearly intervals thereafter, and at any time when requested by the Canterbury Regional Council, the consent holder must provide a certificate to the CRC Manager, signed by a suitably qualified person certifying, and demonstrating by means of a clear diagram, that:
 - a) The measuring and recording device(s) have been installed in accordance with the manufacturer's specifications; and
 - b) Data from the recording device(s) can be readily accessed and/or retrieved in accordance with Condition 4 and 5.

DISCHARGE PERMITS CRC192411 and CRC192412 - TO DISCHARGE STORMWATER ONTO AND INTO LAND WHERE CONTAMINANTS MAY ENTER WATER and DISCHARGE CONTAMINANTS ONTO AND INTO LAND WHICH MAY ENTER WATER FROM AN INDUSTRIAL OR TRADE PROCESS

Stormwater

1. Stormwater that falls on unsealed surfaces and infiltrates to ground is authorised by this consent.
2. Stormwater runoff from road surfaces that infiltrates to ground along road edges is authorised by this consent.
3. Stormwater runoff from roofs and hardstand surfaces other than roads must be collected and conveyed to a stormwater infiltration pond(s).
4. Any stormwater infiltration pond(s) must:
 - a) provide no less than one metre of separation between the highest groundwater level⁴ at the site and the pond invert;
 - b) be 'dry ponds' in which stormwater will infiltrate into the ground and within which no ponding occurs for more than 48 hours; and
 - c) be lined with soils to facilitate the removal of contaminants. The soil must not be sourced from contaminated land (as defined in the Canterbury Land and Water Regional Plan).
5. The contaminant removal efficiencies of the infiltration ponds must be in accordance with the Ministry for the Environment On-Site Stormwater Management Guidelines (NZWERF 2004) including:
 - a) 90 percent removal of Total Suspended Solids;
 - b) 90 percent removal of Biochemical Oxygen Demand (BOD);
 - c) 75 percent removal of hydrocarbons; and
 - d) 85 percent removal of heavy metals (zinc, copper, lead).
6. Any soil, trade waste or other detritus removed from the base of a stormwater infiltration pond must not be used for fill in the quarry site and must be taken to an appropriate landfill for disposal.
7. All stormwater diversion and treatment systems must be maintained in accordance with appropriate stormwater treatment and discharge guidelines from Selwyn District Council or Christchurch City Council, as specified in the Stormwater Management Plan.

Stormwater Management Plan

8. Prior to the commencement of *quarry activities*, the consent holder must prepare and implement a Stormwater Management Plan (SWMP) prepared by a SQEP in stormwater management for the certification of the CRC Manager.
9. The purpose of the SWMP is to provide detail on how the conditions of this consent will be achieved and to implement the stormwater management and treatment systems for the site.
10. The exercise of this consent must be in accordance with the certified SWMP. In the event of any inconsistency between the conditions of this consent and the provisions of the SWMP, the conditions of this consent must prevail.
11. The SWMP must include, but not be limited to:
 - a) A description of the content and purpose of the SWMP;
 - b) Relevant stormwater treatment and discharge guidelines from Selwyn District Council or Christchurch City Council;

⁴ As defined in the Canterbury Land and Water Regional Plan.

- c) Quarry site location and proposed *quarry activities* likely to generate stormwater;
 - d) Site management responsibilities relating to stormwater;
 - e) Stormwater sources including all impervious surfaces;
 - f) Stormwater management and design criteria for the CPSA, extraction sites, cleanfill sites, and vehicle washing areas;
 - g) Stormwater infiltration basin contaminant removal efficiencies;
 - h) Inspections, maintenance, and auditing;
 - i) Complaints response;
 - j) Staff and contractor training with regard to the contents of the SWMP; and
 - k) SWMP review procedure.
12. All stormwater diversion and treatment systems used on the site must be designed and installed in conformance with the certified SWMP.

Hazardous Activities

13. Truck washing must be undertaken on a roofed and bunded wash pad formed of impermeable material. Truck wash water not being collected and recycled in the wash process must be collected in a holding tank or sump and transported offsite to be discharged as trade waste into an approved wastewater system.
14. All sediment collected from the truck wash sump or holding tank must be periodically excavated and disposed of to an approved offsite waste facility.
15. Concrete mixing trucks must not be washed out on site.

DISCHARGE PERMIT CRC192413 – TO DISCHARGE CONTAMINANTS ONTO AND INTO LAND WHERE CONTAMINANTS MAY ENTER GROUNDWATER ASSOCIATED WITH THE DEPOSITION OF CLEANFILL

1. The deposition of cleanfill material onto and into land must be undertaken in accordance with Land Use Consents **CRC192408** and **CRC192409**.
2. Soils from HAIL areas identified within the site in the application documents, which are validated as being below applicable standards/guidelines for rural residential land use but are above background soil levels for the local soil type, must not be deposited more than five metres below original ground level, unless otherwise approved in writing by the CRC Manager.

Plan CRC192408A

Plan CRC192408B

Plan CRC192408C

Plan CRC 192408D



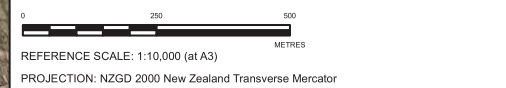
- LEGEND**
- Canterbury Regional Council (CRC) Observation Wells
 - Fulton Hogan Observation Wells and Site Well
 - Site boundary
 - Maximum quarry depth (m RL)
 - Parcel boundary

Plan CRC192408B

- NOTES**
1. Aerial: LINZ and Eagle Technology, CC-BY-3.0-NZ.
 2. Map image: © OpenStreetMap (and) contributors, CC-BY-SA
 3. Schematic only, not to be interpreted as an engineering design or construction drawing.

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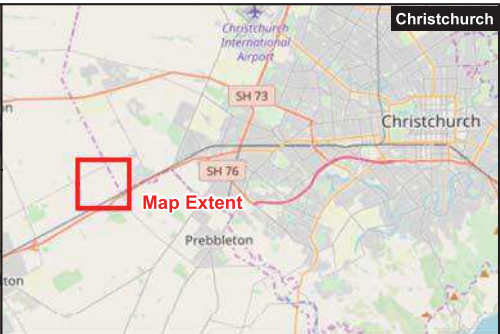
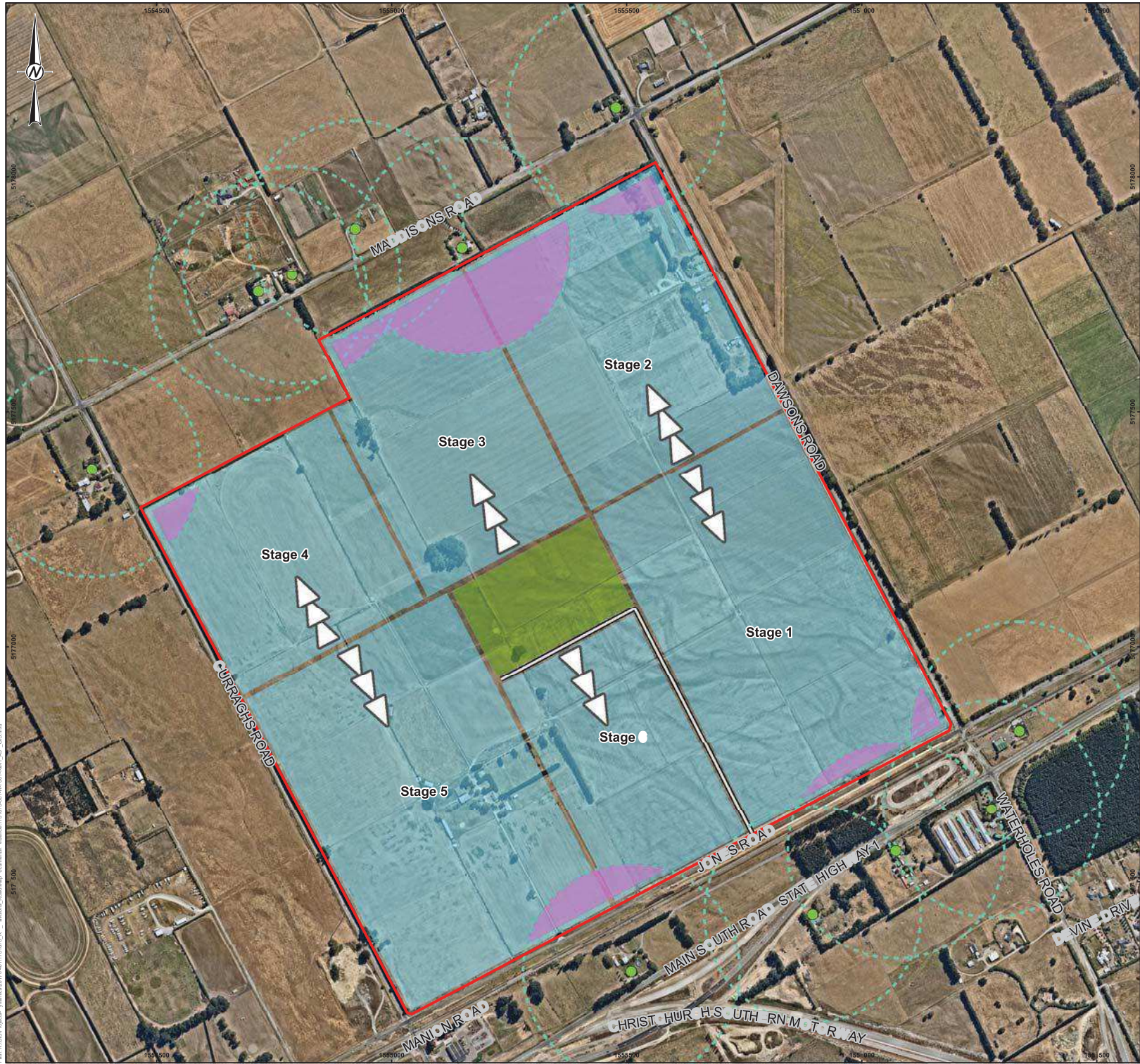
CLIENT
FULTON HOGAN

PROJECT
RESOURCE CONSENT APPLICATION, 'ROYDON QUARRY',
TEMPLETON

TITLE
192408B

	CONSULTANT	YYYY-MM-DD	2019-12-11
		PREPARED	ZM
		REVIEW	EVN
		APPROVED	KB

Path: K:\GIS\Projects\Dynamic\2017\1781870\BTL_CRC_Drawings_RoadMap\Drawings\RoadMap\Drawings\1781870-001-18-F005-Rev1_A3L_GIS.mxd



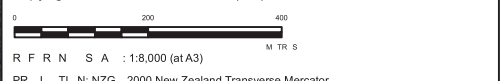
- LEGEND**
- Site boundary
 - Areas not to be quarried without written approval of the respective property owner
 - Nearby houses
 - Buffer 200m from houses
 - Central Processing and Stockpiling Area
 - Indicative staging direction
 - Access road
 - Proposed staging

Plan CRC192408C

- NOTES**
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PR J T I N: NZG 2000 New Zealand Transverse Mercator

FIGURE 1
FU T N H GAN IMIT

PR J T
R Y N QUARRY

TIT
RC185 27A / CRC192408A / CRC192410A / CRC192413A

NSU TANT	YYYY-MM-	2020-01-29
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