

DISCHARGE CONSENT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Cromwell Certified Concrete Limited

Address: 810 Great South Road, Penrose, Auckland 1061

Activity: To discharge contaminants to land for the purpose of gravel washing and dust suppression

Term: 16 years

Location of consent activity: 1248 Luggate-Cromwell Road (State Highway 6)

Legal description of consent location: Lots 3, 5 and 8 DP 301379

Conditions:

1. This permit shall be exercised in conjunction with water permits that authorise the abstraction of water from bores G41/0456 and G41/0127.
2. The volume of water discharged shall not exceed:
 - a) 3,024 cubic metres per day;
 - b) 93,744 cubic metres per month; and
 - c) 846,720 cubic metres per year.
3. No contaminants other than silt and sediment shall be discharged into the Pisa Groundwater Management Zone.

Advice note: for the purpose of this consent silt and sediment is the natural fine material that results from the crushing and washing aggregate.
4. Settlement ponds shall be maintained in an efficient operating condition at all times, including at least:
 - a) Three monthly inspections of settling ponds; and
 - b) Pond desludging at least 6 monthly or more frequently if required.
5. The consent holder shall ensure that there is no direct discharge to any surface watercourse.
6. The consent holder shall take representative water samples quarterly from bore G41/0321. The samples shall be analysed by a laboratory with IANZ accreditation or equivalent for total petroleum hydrocarbons, total suspended solids, turbidity, pH, dissolved oxygen, electrical conductivity, major cations and anions (sodium, potassium, calcium, magnesium, chloride, sulphate, nitrate, bicarbonate and carbonate), iron and manganese:

If 20 consecutive results show no statistically significant difference in results for total suspended solids or turbidity found in samples from G41/0321 then the frequency of testing shall reduce to annually.

7. Before the third anniversary of the grant of this consent, the Consent Holder shall submit a report to the Consent Authority and Irrigation and Maintenance Limited (EMAIL ADDRESS) undertaken by a suitably qualified water quality expert who has reviewed all the available

groundwater quality data and provides an assessment of whether they consider that activities on the Consent Holder's site are influencing groundwater quality at bore G41/0321.

8. The sampling method to monitor suspended sediment concentrations shall ensure that sediment is not re-suspended during sampling or that down gradient clean water is not brought into the bore in a manner that could cause dilution.
9. Sampling shall be carried out by a suitably trained person.
10. The consent holder shall ensure that the discharge authorised by this consent does not cause any flooding, erosion, scouring, land instability or damage to any adjacent property.
11. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the consent holder of its intention to review the conditions of this consent within 3 months of each anniversary of the commencement of this consent for the purpose of:
 - a) Adjusting the consented rate of discharge under condition 2, should future changes in water use indicate that the consented rate approved under Water Permit RM20.360.01 is not able to be fully utilised; or
 - b) Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or
 - c) Ensuring the conditions of this consent are consistent with any National Environmental Standards.

DISCHARGE PERMIT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Cromwell Certified Concrete Limited

Address: 810 Great South Road, Penrose, Auckland 1061

Activity: To discharge contaminants to air for the purpose of operating an alluvial quarry

Term: 25 years

Location of consent activity: 1248 Luggate-Cromwell Road (State Highway 6)

Legal Description of consent location: Lots 3, 5 and 8 DP 301379

General Conditions

- 1 If this consent is not given effect to within a period of five years from the date of commencement of this consent, this consent shall lapse under Section 125 of the Resource Management Act 1991. The consent shall attach to the land to which it relates.
- 2 Aggregate extracted from the site must not exceed 200,000 cubic metres in any 12-month period.
- 3 The discharge shall not cause dust or the deposition of particulate matter that causes an objectionable or offensive effect beyond the boundary of the site.
- 4 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 in accordance with measures described in the Dust Management Plan (DMP).
- 5 The maximum area of unconsolidated land comprising of the excavation area, backfilling areas and rehabilitation area shall not exceed two hectares.

Advice Note: The maximum area of unconsolidated land does not include the haul roads, processing area, stockpiles, portacoms or workshop.

Dust Management Plan (DMP)

- 6 At least 20 working days prior to the commencement of quarry activities, the Consent Holder must prepare a Dust Management Plan (DMP) for the certification of the Consent Authority.
- 7 Works must not commence until the Consent Holder has received written certification of the DMP. Notwithstanding this, the works may proceed if the Consent Holder has not received a response from the Consent Authority within 20 working days of the date of the submission of the DMP.
- 8 The DMP must include, but not be limited to:
 - (a) A description of the 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), which will be employed as necessary to ensure compliance with the conditions of this consent;

- (e) A description of site rehabilitation methodology and associated dust control measures;
 - (f) A description of particulate matter and wind monitoring requirements including:
 - (i) The location of the wind monitoring equipment;
 - (ii) The location of particulate matter monitors between active work areas within and sensitive off-site activities;
 - (iii) Details of wind speed trigger levels as set out in Condition 9 and associated alarm system. This shall also include the wind direction to be used in fulfilment of Condition 14(b);
 - (iv) Details of the particulate matter trigger levels as set out in Condition 9 and associated alarm system; and
 - (v) Monitoring instrumentation methodology, setup requirements, maintenance and calibration procedures;
 - (g) A description of procedures for responding to dust and wind condition-based trigger levels and associated follow up investigations, actions and recording of findings;
 - (h) A system for training employees and contractors to make them aware of the requirements of the DMP;
 - (i) Names and contact details of staff responsible for implementing and reviewing the DMP in order to achieve the requirements of this consent, and procedures, processes and methods for managing dust outside of standard operating hours;
 - (j) A method for recording and responding to complaints from the public;
 - (k) A maintenance and calibration schedule for meteorological and particulate matter monitoring instruments;
 - (l) Contingency measures for responding to dust suppression equipment malfunction or failures, including wind and particulate matter monitoring instruments.
 - (m) A procedure for completing an end-of-day dust mitigation checklist;
 - (n) Separate Standard Operating Procedures (SOPs) dedicated to the management of potential dust discharges from specific sources, including but not limited to:
 - (i) Stockpiles;
 - (ii) Site roads – sealed and unsealed;
 - (iii) Triggers for the use of water for dust suppression;
 - (iv) The use of dust suppressants other than water;
 - (v) Aggregate excavation and backfilling areas;
 - (vi) Topsoil and overburden stripping and stockpiling;
 - (vii) Bund construction, maintenance and the recontouring of slopes during rehabilitation;
 - (viii) Any automated dust suppression for dust prone areas that can be activated outside of working hours;
 - (ix) Location and calibration of particulate matter and meteorological monitoring equipment;
 - (o) Environmental information management for recording, quality assurance, archiving and reporting all data required for dust management of the site.
- 9 The consent holder shall carry out its activities in accordance with the Dust Management Plan at all times.

Advice Note: For the purpose of this consent, sensitive receptor means:

- a) Residential dwellings and associated private property, including the area within 20m of the façade of an occupied dwelling;*
- b) Public roads;*

- c) *Areas of significant indigenous vegetation and significant habitats of indigenous fauna; and*
- d) *Commercially important or sensitive plants, crops or farming systems*

Trigger Levels and Dust Mitigation

Trigger Levels

- 10 Quarry activities (except dust suppression measures) within 250 metres of a sensitive receptor location must not be undertaken when:
 - (a) Wind speed reaches or exceeds 7 m/s (1-hour average); and
 - (b) Quarry activities would be directly upwind of a sensitive receptor (10-minute average wind direction).
 - (c) Less than 1 mm of rain has fallen during the preceding 12 hours.
- 11 The trigger concentration which indicates the potential for excessive quarry derived dust at or beyond the site boundary is a real time PM₁₀ concentration of ≥ 150 micrograms per cubic metre, as a rolling 1-hour average, which is updated every ten minutes.
- 12 If at any time, including outside normal operating hours, visible dust is blowing beyond the site boundary or if the particulate matter monitoring trigger in Condition 10 is breached the Consent Holder must:
 - (a) Cease all quarry activities except dust suppression measures and heavy vehicle movements along the site access road;
 - (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 9 is no longer being breached; and
 - (e) Notify the Consent Authority as soon as practicable, detailing its cause and the dust suppression actions undertaken.
- 13 If the investigation required under condition 11(c) determines the source of dust is localised to the excavation area only and is only impacting on areas downwind of this source, then activities within the central processing area, including sales of product can continue. This is contingent on all activities within the existing processing and load out area to be not causing visible dust blowing beyond the site boundary and their downwind real time PM₁₀ monitors not reaching or exceeding the trigger in condition 10.
- 14 The consent holder shall submit a report by a Suitably Qualified and Experienced Practitioner (SQEP) to confirm that trigger levels set in Condition 10 are sufficiently protective of adverse effects of dust discharges. The report shall contain data from two early summer/late autumn periods (1 October to end of May) and be submitted to Otago Regional Council [*insert contact details*] prior to 31 August 2023.

Mitigation Measures

- 15 The Consent Holder must take all practicable measures to minimise the discharge of dust from quarry activities, including but not limited to:
 - (a) Placing clean reject gravel over extraction areas if they are not being actively used by the consent holder, areas where clean reject gravel cannot be placed will be stabilised using polymers;

- (b) 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;
- (c) 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;
- (d) Water suppression such as using water carts or fixed sprinklers will be applied as required to dampen down disturbed areas and stockpiles. This must occur during dry weather, irrespective of wind speed;
- (e) Pre-dampening topsoil and overburden with a water cart or sprinklers prior to its extraction and removal.
- (f) Constructing and maintaining unsealed internal haul roads so that their surfaces consist of a crushed clean aggregate layer that is free of potholes;
- (g) Minimising drop heights when loading trucks and when moving material;
- (h) Carrying out land stripping and land rehabilitation during winter months when ground conditions are damp and winds are below 7 m/s;
- (i) Operating fixed and mobile crushing plant in conjunction with water dust suppression (either sprays or high-pressure fogging system) as necessary to avoid the dust trigger level, as specified in Condition 15, being reached or exceeded;
- (j) Undertaking routine onsite and offsite inspections of visible dust emissions and deposited dust throughout each day of quarry activities and electronically logging findings and any dust suppression actions, and to make the results of the inspections available to the Consent Authority when requested;
- (k) Maintaining an adequate supply of water and equipment on site for the purpose of dust suppression at all times;
- (l) Imposing a speed restriction on all internal haul and access roads to km/hr;
- (m) Sealing the first 50m of the access road from the entrance off Luggate-Cromwell Highway to the site;
- (n) The haul road in the expansion area (Lot 3 DP 301379) shall be centrally located;
- (o) The height of fine aggregate stockpiles shall be maintained below the height of site perimeter bunds;
- (p) Application of water via watercart or fixed irrigation of dust suppression water onto any section of the external access road shall only be used as a contingency/back up measure.
- (q) Fixed and mobile crushing and screening plant shall be located in the areas identified on *[insert plan reference]*;

Meteorological monitoring

- 16 Prior to exercising this consent, the Consent Holder shall install a meteorological monitoring station at the location described in the DMP. The meteorological monitoring station shall be capable of continuously monitoring:
- (a) Wind speed and direction at a height of 6 m above the natural ground level; and
 - (b) Temperature.
- 17 The meteorological monitoring instruments shall:
- (a) Measure wind speed as 1-minute scalar averages with maximum resolution of 0.1 metres per second (m/s), have an accuracy of at least within +/-0.2 m/s, and a stall speed no greater than 0.5 m/s;
 - (b) Measure 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) Measure screened temperature with accuracy of +/- 0.5 degree;

- (d) Located on the subject property in accordance with AS/NZS 3580:14-2014 (Methods for sampling and analysis of ambient air – Part 14 Meteorological monitoring for ambient air quality monitoring applications). If the monitoring station cannot be located in accordance with AS/NZS 3580:14-2014 an alternative location shall be agreed in writing with the Consent Authority;
 - (e) Maintain a data and time stamped electronic record for at least 36 months of meteorological monitoring results, recorded as rolling 10-minute averages, which are updated every one-minute in real-time.
 - (f) An alarm to the Quarry Manager (for example via mobile phone) must be provided if the rolling average wind speed and downwind trigger levels in Condition 9 are reached or exceeded.
 - (g) Maintained and calibrated in accordance with the manufacturer's specifications.
- 18 All meteorological monitoring data shall be made available to the Consent Authority on request.

Particulate Matter Monitoring

- 19 Prior to exercising of this consent, the consent holder shall operate and maintain one permanent real-time dust management monitor for continuous monitoring of ambient 10-minute average PM₁₀ concentrations, which is installed and operated at a fixed location at the existing quarry's southwest boundary and in accordance with the DMP.
- Advice Note: The permanently located real-time dust management monitor shall be an accepted method for general dust management/monitoring purposes, and does not need to be a certified US EPA, or National Environmental Standards for Air Quality (NESAQ) compliant method.*
- 20 The permanent monitor shall be installed, operated, maintained and calibrated in accordance with the AS/NZS 3580.12.1:2015 *Methods for sampling and analysis of ambient air - Determination of light scattering - Integrating nephelometer method*, or else an equivalent, or superior standard which is approved by the Consent Authority;
- 21 Prior to the exercising of this consent, the consent holder shall operate and maintain two mobile real-time dust management monitors for continuous monitoring of ambient ten-minute average PM₁₀ concentrations, whose location changes for different stages of the quarry development and in accordance with the DMP.
- 22 The mobile real-time dust management monitors can be equivalent to that used for the permanently located dust monitor, or else be a lower cost method, on the basis that this can be effectively calibrated against the permanent dust monitor.
- 23 The two mobile dust monitors shall be positioned at different site boundary locations, such that real-time dust monitoring is undertaken at locations, which are between active excavation and central processing areas and downwind sensitive receptor locations, when the latter are within 250 m of the dust source.
- 24 Other general requirement for all three dust monitors includes the following:
- (a) Sited in general accordance with AS/NZS 3580.1.1:2016 *Methods for sampling and analysis of air - Guide to siting air monitoring equipment*;
 - (b) Have a GPS location service (or similar technology) which enables their locations to be remotely monitored and recorded.
 - (c) Able to provide and record the results continuously using an electronic data logging system with an averaging time for each parameter of not more than one minutes;
 - (d) Able to record monitoring results in real-time as rolling 10-minute averages in an appropriate electronic format;

- (e) Fitted with an alarm system that is able to send warnings and alerts to the Quarry Manager or other nominated person; and
- (f) Maintained in accordance with the manufacturer's specifications.

Bund formation

- 25 When constructing the bunds, the following controls apply:
- (a) Wherever possible the bunds shall be constructed during winter months (1st May to 1st September);
 - (b) Maintain a buffer distance of 250 m when wind speeds are above 7 m/s in a direction towards the nearest sensitive locations;
 - (c) Material to be excavated must be thoroughly wetted using a water cart, if not already damp, ahead of excavation and wetted thoroughly thereafter;
 - (d) Wind monitoring must be carried out and dust generating activities shall cease when the wind is blowing towards sensitive locations and the wind speeds exceed 7 m/s (hourly average) in accordance with Condition 9;
 - (e) Vegetated cover shall be established as soon as practicable and maintained to ensure healthy cover during dry months.

Complaints Register

- 26 The Consent Holder shall maintain a Complaints Register for any complaints received. The Complaints Register must include:
- (a) The date and time the complaint was received;
 - (b) The nature and location of where the complaint has originated, if provided;
 - (c) A summary of the complaint;
 - (d) Particulate matter and wind conditions at the time the when the dust was observed by the complainant; and
 - (e) Any corrective action undertaken by the Consent Holder to avoid, remedy or mitigate the issue raised.
 - (f) Any amendments made to the Dust Management Plan in response to the complaint(s).
- 27 The Complaints Register must be provided to the Consent Authority on request.

Annual Report

- 28 On the annual anniversary of this consent the consent holder shall provide a report to the Consent Authority to include the following:
- (a) The number of occasions that the particulate monitors recorded a breach of the trigger level in condition 10.
 - (b) Complaints Records for the preceding 12 months.
 - (c) Maintenance and calibration records for the particulate monitors.
 - (d) Any amendments made to the Dust Management Plan.

Review

- 29 The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the consent holder of its intention to review the conditions of this consent within 3 months of each anniversary of the commencement of this consent for the purpose of:
- (a) To deal with any adverse effect on the environment which may arise from the exercise of the consent that was not foreseen at the time of granting of the consent, and which is therefore more appropriate to deal with at a later stage; and/or
 - (b) To require the Consent Holder to adopt the best practicable option to reduce any adverse effects on the environment resulting from the activity; and/or

- (c) Ensuring the conditions of this consent are consistent with any National Environmental Standard or National Planning Standard.

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LAND USE CONSENT

Pursuant to Section 104A of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Cromwell Certified Concrete Limited

Address: 810 Great South Road, Penrose, Auckland 1061

Activity: To construct a bore for the purpose of excavating gravel below groundwater

Term: For an unlimited term

Location of consent activity: 1248 Luggate-Cromwell Road (State Highway 6)

Legal description of consent location: Lots 3, 5 and 8 DP 301379

Conditions:

1. If this consent is not given effect to within a period of five years from the date of commencement of this consent, this consent shall lapse under Section 125 of the Resource Management Act 1991. The consent shall attach to the land to which it relates.
2. The consent holder shall take water samples quarterly from bores G41/0456 and G41/0111 and a new water quality monitoring bore required under Condition 3 on the same day. The samples shall be analysed by a laboratory with IANZ accreditation or equivalent for total petroleum hydrocarbons, total suspended solids, turbidity, pH, dissolved oxygen, electrical conductivity, major cations and anions (sodium, potassium, calcium, magnesium, chloride, sulphate, nitrate, bicarbonate and carbonate), iron and manganese:
 - a) If 20 consecutive results show no statistically significant difference in results for all total suspended solids or turbidity found in samples from G41/0111 and the new monitoring bore then the frequency of testing shall reduce to annually monthly.
3. A new monitoring bore shall be installed within three months of the grant of this resource consent. This bore shall be located at the downgradient south-eastern boundary of the property at approximate location NZTM(NZGD2000) E1305952 N5016821 and shall be installed under the supervision of a suitably qualified expert. This bore shall be drilled to a depth of approximately 15 m below ground level and shall be screened for at least three metres from the base of the bore.
4. Copies of the results of the water quality analyses outlined in Condition 2 shall be reported to the Council annually on the anniversary of this consent in accordance with Condition 13.
5. Copies of the results of the water quality analysis outlined in condition 2 shall be reported to the Consent Authority and the Amisfield Estate Society Incorporated [*insert contact detail*] within 1week of the sample results being received.
6. The consent holder shall ensure all water samples are taken by a suitably trained person. The person(s) suitably trained to complete water sampling for the consent holder shall be identified in the Annual Groundwater Report required by Condition 13 below, including the relevant training they have received.
7. Should the measured value of any of the determinants in a sample from bore G41/0111 or the new down-gradient monitoring bore outlined in Condition 2 exceed a NZ Drinking Water

Standard Maximum Acceptable Value or Guideline Value (as specified in the New Zealand Drinking Water Standards, then the consent holder shall:

- a) Advise the Consent Authority and Amisfield Estate Society Incorporated (email address) within 48 hours of receipt of the results;
- b) Within one week from the receipt of the results, begin an investigation into the cause of the elevated sample results. The investigation is to be carried out by a suitably qualified water quality expert and is to include, but is not limited to;
 - i. activities at Amisfield Quarry,
 - ii. activities at the neighbouring property,
 - iii. rainfall in the past 48 hours, and
 - iv. and any additional water quality monitoring that may be required to assess the potential cause of contamination.
- c) Within one month of receipt of the elevated sample results, submit a report signed by a suitably qualified water quality expert to the Consent Authority and the Amisfield Estate Society Incorporated (email address) on the investigation undertaken, any potential sources of contamination identified, the likely cause(s) of the contamination and recommend any remedial measures to prevent or mitigate the contamination.
- d) In the event that the report concludes that it is likely that the contamination was caused by the consent holder, the consent holder shall provide Amisfield Estate Society with an alternative supply of potable drinking water sufficient to provide 2000 litres per day to each of the Society's members until such time as monitoring demonstrates compliance with the relevant MAV or Guideline values.. All costs associated with this shall be borne by the consent holder.

Advice Note: The Guideline Values and Maximum Acceptable Values (MAV) are specified in the publication 'Drinking-water Standards for New Zealand 2005 (Revised 2018)', Ministry of Health. The Guideline Values are the limits for aesthetic determinants that, if exceeded, may render the water unattractive to consumers.

8. A Quarry Management Plan (QMP) shall be submitted to the Otago Regional Council within 1 month of the date of this consent for certification that it documents, as a minimum:
 - a) A plan showing the areas of groundwater extraction and neighbouring bores subject to groundwater quality monitoring;
 - b) A description of proposed groundwater quality monitoring;
 - c) The contact details of the quarry manager;
 - d) A description of the proposed methods of groundwater extraction;
 - e) A description of all relevant site operations and procedures;
 - f) A description of all environmental effects, including (but not limited to) discharges to water;
 - g) All consent conditions and any other mitigation measures to be employed to minimise environmental effects and/or adhere to best practice;
 - h) Relevant monitoring and reporting requirements.
9. In the event of a discharge of unauthorised contaminant(s) to water or to land in a manner that may enter water, including but not limited to fuel, hydraulic fluid, overspray of weed killer, contaminated soil or leachate, the consent holder shall:
 - a) Undertake all practicable measures as soon as possible to contain the contaminant

- b) Ensure that the contaminants and any material used to contain it are removed from the site and disposed of at an authorised landfill;
- c) Immediately notify the Consent Authority and the Amisfield Estate Society Incorporated of the spill or contamination and of the actions taken and to be taken to remediate and mitigate any adverse environmental effects;
- d) Immediately have a suitably qualified water quality expert assess the risk of the spill to the Amisfield Estate Society Incorporated drinking water supply and provide recommendations on the measures to be taken to address any identified risk.
- e) Provide a copy of the risk assessment carried out under condition 9(d) above to the Consent Authority and Amisfield Estate Society Incorporated within 1 week and implement all recommendations in the risk assessment;
- f) If requested, undertake water quality sampling and any other actions necessary to remediate or mitigate any adverse effects on the environment, to the satisfaction of the Consent Authority.

10. The consent holder shall ensure that

- a) All machinery to be operated on the site (excluding trucks) is thoroughly cleaned of vegetation (e.g. weeds), seeds or contaminants at least 10 metres away from any waterbody, water flow channel or stormwater system, prior to entering the site;
- b) All machinery shall be regularly maintained to ensure no contaminants (including but not limited to oil, petrol, diesel, hydraulic fluid) shall be released into water, or to land where it may enter water, from equipment being used for the works.
- c) All contaminant storage or re-fuelling areas are bunded or contained in such a manner so as to prevent the discharge of contaminants to water or to land where it may enter water.
- d) Permanent storage of fuel or lubricants shall only occur within the workshop area identified on 'Site Plan Rev E' (dated 4.11.21).
- e) No machinery is cleaned, stored or refuelled within 10 metres of any waterbody, water flow channel or stormwater system.
- f) If cleanfill is placed within the quarry, its origin and location within the quarry is recorded.

11. If koiwi, taonga or other archaeological material is discovered in any area during the works, work shall immediately cease and the consent holder shall contact Aukaha, Heritage New Zealand and Otago Regional Council within twenty-four hours. If human remains are found, the New Zealand Police shall also be contacted. The consent holder shall allow the above parties to inspect the site and in consultation with them, identify what needs to occur before work can resume.

12. The consent holder shall maintain a permanent record of any complaints received alleging adverse effects from or related to the works. This record shall include:

- a) The name and address of the complainant (if provided);
- b) The date and time that the complaint was received;
- c) Details of the alleged event;
- d) Weather conditions at the time of the complaint; and
- e) Any measures taken to mitigate/remedy the cause of the complaint.

This record shall be made available to the Consent Authority on request.

13. The consent holder shall submit an Annual Groundwater Report which addresses the following:

- a. Results of the water quality monitoring carried out in accordance with condition 2;

- b. The person(s) currently suitably trained for the purposes of collecting water samples in accordance with condition 5;
 - c. Any measures required pursuant to condition 7;
 - d. Records kept in accordance with Condition 8(d);
14. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the consent holder of its intention to review the conditions of this consent within 3 months of each anniversary of the commencement of this consent for the purpose of:
- a) Adjusting the variables or frequency of the sampling requirements under Condition 2; or
 - b) Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or
 - c) Ensuring the conditions of this consent are consistent with any National Environmental Standard or National Planning Standard.

RM20.360.01: Water Take Draft Conditions

WATER PERMIT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Cromwell Certified Concrete Limited

Address: 810 Great South Road, Penrose, Auckland 1061

Activity: To take and use ground water for the purpose of gravel washing, irrigation, domestic use and dust suppression

Term: 6 years

Location of consent activity: 1248 Luggate-Cromwell Road (State Highway 6)

Legal Description of land at point of abstraction: Lot 8 DP 301379

Legal Description of land where water is to be used: Lots 3, 5 and 8 DP 301379

Map Reference at point of abstraction: Bore G41/0127 - NZTM 2000 E1305397 N5017068
Bore G41/0456 - NZTM 2000 E1305502 N5017223

Conditions:

1. This permit shall be exercised in conjunction with Water Permit RM16.108.01.
2. If this consent is not given effect to within a period of five years from the date of commencement of this consent, this consent shall lapse under Section 125 of the Resource Management Act 1991. The consent shall attach to the land to which it relates.
3. The rate of abstraction must not exceed 9 litres per second from bore G41/0127 and 15 litres per second from bore G41/456:
 - a) 1,404 cubic metres per day
 - b) 43,524 cubic metres per month
 - c) 393,120 cubic metres per year
4. The rate of abstraction when combined with Water Permit RM16.108.01 shall not exceed 25 litres per second from bore G41/0127 and 45 litres per second from bore G41/456:
 - a) 3,024 cubic metres per day;
 - b) 3,744 cubic metres per month;
 - c) 846,720 cubic metres per year.
5. This permit shall be exercised in conjunction with Discharge Permit RM16.108.02 or its replacement.
6. The consent holder shall:
 - a) Maintain water meter(s) to record the water take, within an error accuracy range of +/- 5% over the meter(s) nominal flow range, and a telemetry compatible datalogger with at least 24 months data storage and a telemetry unit to record the rate and volume of take, and the date and time this water was taken.
 - b) The datalogger shall record the date, time and flow in litres per second.

- c) Data shall be provided once daily to the Consent Authority by means of telemetry. The consent holder shall ensure data compatibility with the Consent Authority's time-series database.
 - d) The consent holder shall ensure the full operation of the water meter(s), datalogger and telemetry unit at all times during the exercise of this consent. All malfunctions of the water meter and/or datalogger and/or telemetry unit during the exercise of this consent shall be reported to the Consent Authority within 5 working days of observation and appropriate repairs shall be performed within 5 working days. Once the malfunction has been remedied, a Water Measuring Device Verification Form completed with photographic evidence must be submitted to the Consent Authority within 5 working days of the completion of repairs.
 - e) The water meter(s), datalogger and telemetry unit shall be verified for accuracy within one month from the first exercise of this consent.
 - f) Any electromagnetic or ultrasonic flow meter shall be verified for accuracy every five years from the first exercise of this consent.
 - g) Each verification shall be undertaken by a Consent Authority approved operator and a Water Measuring Device Verification Form shall be completed and submitted to the Consent Authority with receipts of service within 5 working days of the verification being performed, and at any time upon request.
7. The consent holder shall take all practicable steps to ensure that:
- a) There is no leakage from pipes and structures;
 - b) There is no runoff of irrigation water either on site or off site.
 - c) A back flow preventer device is fitted to prevent any contaminants from being drawn into the source of the water.
8. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the consent holder of its intention to review the conditions of this consent for the purpose of imposing aquifer restriction levels, if and when an operative regional plan sets aquifer restriction levels.
9. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the consent holder of its intention to review the conditions of this consent within 3 months of each anniversary of the commencement of this consent for the purpose of:
- a) Adjusting the consented rate or volume of water under Condition 3, should monitoring under Condition 5 or future changes in water use indicate that the consented rate or volume is not able to be fully utilised; or
 - b) Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or
 - c) Ensuring the conditions of this consent are consistent with any National Environmental Standard or National Planning Standard.

RC200343: Landuse Consent Draft Conditions

General

1. The proposed activities shall proceed generally in accordance with the information and plans submitted with the application, except where otherwise stated in the conditions of this consent.
2. The lapse date for the purpose of Section 125 shall be 5 years from the date of granting the consent.
3. The annual volume of aggregate material extracted from the Quarry shall not exceed 200,000m³.

Enabling Works

4. Prior to the commencement of the consented activity, a right turn bay shall be constructed within State Highway 6 at the access to the site.
5. Prior to the right turn bay formation works occurring, the consent holder shall submit to Central Otago District Council a copy of Waka Kotahi NZ Transport Agency's approval to undertake works on the State Highway (as detailed in advice notes a - c).

Advice Note:

- a) *It is a requirement of the Government Roadway Powers Act 1989 that any person wanting to carry out works on a state highway first gain the approval of Waka Kotahi New Zealand Transport Agency for the works and that a Corridor Access Request (CAR) is applied for before any works commence. A CAR will be required for the right turn bay formation works within State Highway 6.*
 - b) *Detailed design approval from Waka Kotahi NZ Transport Agency shall be gained by the consent holder prior to applying for a CAR. The detailed design shall be prepared by a suitably qualified professional who has been certified by Waka Kotahi. In developing the detailed design, the consent holder will need to consult with the Waka Kotahi appointed state highway maintenance contractor for Central Otago (Aspiring Highways) and a Waka Kotahi Safety Engineer.*
 - c) *A Corridor Access Request is made online via www.submitica.co.nz. The CAR needs to be submitted at least 21 working days before the planned start of works. A copy should also be sent to the Waka Kotahi NZ Transport Agency System Design and Delivery Planning Team at EnvironmentalPlanning@nzta.govt.nz. The Corridor Access Request will need to include:*
 - i. *The detailed final design for the right turn bay, including both layout and pavement design.*
 - ii. *A Construction Traffic Management Plan that has attained approval from the Waka Kotahi NZ Transport Agency appointed state highway maintenance contractor for Central Otago (Aspiring Highways).*
6. Prior to the commencement of the consented activity, the consent holder shall provide to Central Otago District Council correspondence from Waka Kotahi NZ Transport Agency confirming that works to the State Highway, including the construction of the right turn bay, have been constructed to Waka Kotahi NZ Transport Agency standards.
 7. Prior to extraction of Lot 3 DP 301379, perimeter bunding, landscape planting and associated irrigation must be established in accordance with the information and plans submitted with the application.

The perimeter bunding must include:

- a) Establishment of 3 metre high earth bunds around the site perimeter, with the exception of site accessways. Where topography varies a uniform top bund elevation shall be will be maintained. The outer face of the bund shall have a gradient of 1:3 – 1:5 with an irregular slope profile.
 - b) Following the construction of the bunds they will be immediately stabilised using mulch or another suitable product.
 - c) As soon as practicable following construction of the bunds, the bunds are to be planted in accordance with native groundcover plant species specified in Condition 8 and thereafter watered to ensure cover is established and maintained;
8. Construction of the bunds shall not be undertaken during between 1 September and 1 January in any year (bird nesting season). Prior to any physical construction works of the bunds specified in Condition 7, the Consent Holder shall engage both the Department of Conservation and Kāi Tahu regarding the selection of locally sourced native groundcover plant species, ecotyped to the area.
9. If 30 working days have lapsed and no input has been provided by either the Department of Conservation or Kāi Tahu, the Consent Holder shall choose appropriate native groundcover plants and submit the details of this to the Central Otago District Council.

Management Plans

10. A Quarry Management Plan (QMP) shall be submitted to the Central Otago District Council within 1 month of the date of this consent for certification that it documents, as a minimum:
- a) A plan showing the areas of extraction, the location of the screening and crushing plant, and the location of the aggregate stockpiles;
 - b) Details of the proposed setbacks in the expansion area;
 - c) The contact details of the quarry manager;
 - d) A description of the proposed methods of any enabling works including overburden removal operations including stripping and placement of material;
 - e) A description of all relevant site operations and procedures;
 - f) A description of all environmental effects, including (but not limited to) noise, dust and visual effects;
 - g) All operational traffic aspects;
 - h) All consent conditions and any other mitigation measures to be employed to minimise environmental effects and/or adhere to best practice;
 - i) Relevant monitoring and reporting requirements.
11. At least 1 month prior to the commencement of quarry activities, a Dust Management Plan (DMP) shall be submitted to the Central Otago District Council that generally accords with the Golder Draft Dust Management Plan – Amisfield Quarry dated November 2021.
12. The DMP must include, but not be limited to:
- a) A description of the 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), which will be employed as necessary to ensure compliance with the conditions of this consent;
 - e) A description of site rehabilitation methodology and associated dust control measures;
 - f) A description of particulate matter and wind monitoring requirements including:
 - i. The location of the wind monitoring equipment;

- ii. The location of particulate matter monitors between active work areas within and sensitive off-site activities;
 - iii. Monitoring instrumentation methodology, setup requirements, maintenance and calibration procedures;
- g) A description of procedures for responding to dust and wind condition-based trigger levels and associated follow up investigations, actions and recording of findings;
 - h) A system for training employees and contractors to make them aware of the requirements of the DMP;
 - i) Names and contact details of staff responsible for implementing and reviewing the DMP in order to achieve the requirements of this consent, and procedures, processes and methods for managing dust outside of standard operating hours;
 - j) A method for recording and responding to complaints from the public;
 - k) A maintenance and calibration schedule for meteorological and particulate matter monitoring instruments;
 - l) Contingency measures for responding to dust suppression equipment malfunction or failures, including wind and particulate matter monitoring instruments.
 - m) Standard Operating Procedures (SOPs) dedicated to the management of potential dust discharges from specific sources, including but not limited to:
 - i. Stockpiles;
 - ii. Site roads – sealed and unsealed;
 - iii. Triggers for the use of water for dust suppression;
 - iv. The use of dust suppressants other than water;
 - v. Aggregate excavation and backfilling areas;
 - vi. Topsoil and overburden stripping and stockpiling;
 - vii. Bund construction, maintenance and the recontouring of slopes during rehabilitation;
 - viii. Any automated dust suppression for dust prone areas that can be activated outside of working hours;
 - ix. Location and calibration of particulate matter and meteorological monitoring equipment;
 - n) Environmental information management for recording, archiving and reporting all data required for dust management of the site.

13. Works authorised by this consent must not commence until the Consent Holder has received written certification of the QMP and DMP. Notwithstanding this, the works may proceed if the Consent Holder has not received a response from the Central Otago District Council within 10 working days of the date of the submission of the QMP and DMP.

Hours of Operation

14. The hours of operation for quarry activities other than monitoring and dust suppression are limited to:

Monday to Saturday (excluding public holidays):

- a) Arrival of staff and loading of trucks: 0600 to 0700;
- b) Site excavation, processing, dump truck, loader and purchasing truck movements: 0700 to 1900 hours;
- c) Loading trucks and staff leaving: 1900 to 2000 hours.

Sundays and public holidays: Dust management activities only.

Noise

15. There shall be no stockpiling or processing of aggregate in the quarry expansion area.

16. Operation of processing plant shall be restricted to the hours of 07:00 to 19:00, Monday to Saturday.
17. Noise from the operation of the quarry must comply with the following noise limits as assessed at the notional boundary of any dwelling when measured in accordance with NZS 6801:2008 Acoustics – Measurement of environmental sound and assessed in accordance with NZS 6802:2008 Acoustics – Environmental noise. Due to the nature of the proposed activity, no duration adjustment in accordance with NZS 6802:2008 shall be permitted.

Day	Time period	Noise limit
Monday to Saturday	07:00 to 20:00	55 dB LAeq (15 min)
At all other times		40 dB LAeq (15 min) and 70 dB LAmax

18. All vehicle reversing alarms on quarry-based equipment or trucks, shall only be broadband reversing alarms.
19. Construction activities shall be managed in accordance with the requirements of NZS 6803:1999 Acoustics – Construction Noise and any noise generated shall comply with the limits given in Table 2 of that standard.
20. For the purposes of this consent “construction activities” means activities associated with the establishment, or rehabilitation of the quarry, such as: site establishment; the construction and removal of bunds, topsoil stripping, creation and removal of the underpass to the expansion area, constructing slope batters and contouring the final land. If ongoing backfilling activity associated with the construction of slope batters occurs at the same time as the quarry is operational, this is not considered to be construction noise and shall comply with the operational noise limits for the site.
21. The activity shall be limited to a maximum of 4 heavy vehicle movements on site between 06:00 and 07:00, Monday to Friday with no more than 1 truck accessing the site in any 15-minute period. Heavy vehicle movements on site before 07:00 shall not occur more than twice per week. There shall be no more than 5 heavy vehicle movements between 19:00 and 18:00, Monday to Friday, with none permitted outside the hours of 07:00 to 19:00 on Saturdays, or at any time on Sundays.
22. No truck shall be loaded between the hours of 06:00 and 07:00 with any product larger than 22 mm concrete aggregate.
23. A review of actual noise generation shall be undertaken by a suitably qualified person on behalf of the consent holder, once within the first 12 months following the commencement of quarrying within the expansion area, and again when excavation initially advances to within 200m of the dwelling at 1308 Luggate-Cromwell Road. A completed report shall be provided to the Consent Authority within two weeks of each review being completed. The reviews shall include:
- Daytime noise readings taken at a time when processing machinery is operating simultaneously with extraction in the expansion area.
 - A comparison between the consented noise levels and actual noise levels.

Traffic

24. The activity shall be limited to a maximum of 150 heavy vehicle movements per day.
25. Vehicle and heavy machinery speeds within the site shall not exceed 30 km/h.

Hazardous Substances

26. To minimise the risk posed from Hazard Substance spills:
- a) The consent holder shall take all practicable measures to avoid spills of fuel or any other contaminant within the site.
 - b) Permanent storage of fuel or lubricants shall only occur within the workshop area identified on 'Site Plan Rev F'.
 - c) No machinery shall be cleaned, stored or refuelled within 10 metres of any waterbody, water flow channel or stormwater system.
 - c) A spill kit of suitable capacity shall be kept on site at all times.
27. In the event of a spill of fuel or any other contaminants, the consent holder shall clean up the spill as soon as practicable and take measures to prevent a recurrence.
28. The consent holder shall inform the Central Otago District Council and the Amisfield Estate Society Incorporated within 24 hours of any spill event greater than 4 litres and shall provide the following information:
- a) The date, time, location and estimated volume of the spill;
 - b) The cause of the spill;
 - c) The type of contaminant(s) spilled;
 - d) Clean up procedures undertaken;
 - e) Details of the steps taken to control and remediate the effects of the spill on the receiving environment and an assessment of the risks to the Amisfield Estate Water Supply Bore; and
 - f) An assessment of any potential effects of the spill and measures to be undertaken to prevent a recurrence.

Ecology

29. No quarrying shall be undertaken, or heavy machinery be used within 50 metres of the Mahaka Katia Scientific Reserve between 1 September and 1 January in any year (bird nesting season).
30. Any planting required as part of mitigation for the proposed works shall be accompanied by a pest management plan identifying the control of pest plant and animal species including rabbits that may impact on the viability of the mitigation proposed.
31. Control of weed species identified in the 2019 Otago Regional Pest Management Strategy (RPMS) shall be undertaken within the 25 m buffer between the boundary of the Mahaka Katia Scientific Reserve and proposed expansion area identified on drawing 'Site Plan Rev F'. Weed species of concern are, exotic broom, gorse, Russell lupin, ragwort, nodding thistle, wilding pine sp. (see RPMS for full list of unwanted organisms).
32. Water used in the quarry for dust mitigation shall not directly enter Mahaka Katia Scientific Reserve.

Accidental Discovery Protocol

33. In the event of any discovery of archaeological material:
- a) The consent holder shall immediately:
 - i. Cease extraction operations in the affected area and mark off the affected area;
 - ii. Advise the Central Otago District Council of the disturbance; and
 - iii. Advise Heritage New Zealand Pouhere Taonga of the disturbance.
 - b) If the archaeological material is determined to be Koiwi Tangata (human bones) or taonga (treasured artefacts) by Heritage New Zealand Pouhere Taonga, the consent holder shall immediately advise the office of Kāi Tahu of the discovery.

- c) If the archaeological material is determined to be Kōiwi Tangata (human bones) by Heritage New Zealand Pouhere Taonga, the consent holder shall immediately advise the New Zealand Police of the disturbance.
- d) Work may recommence once Heritage New Zealand Pouhere Taonga (following consultation with Kāi Tahu if the site is of Māori origin) confirms to Central Otago District Council that appropriate action has been undertaken.

Rehabilitation

29. At least five years prior to ceasing the extraction activities, the consent holder shall submit to the Central Otago District Council a Closure and Rehabilitation Plan for the site.

The Closure and Rehabilitation Plan shall provide for:

- a) Removal of all buildings, other structures and plant from the site.
- b) Recontouring of the land to provide a stable profile.
- c) Management of dust to avoid nuisance beyond the site.
- d) Record keeping requirements of any material to be brought to the site as part of the rehabilitation process.
- e) Re-establishment of topsoil and grass utilising best practice.
- f) Appropriate drainage of the site, to avoid uncontrolled runoff into any water body.
- g) Leaving the site in a clean and tidy state.

The Closure and Rehabilitation Plan shall be prepared in consultation with adjoining landowners and Kāi Tahu. Feedback received from those persons shall be included for the information of Central Otago District Council.

30. The Closure and Rehabilitation Plan shall be implemented noting that no construction or earthworks be undertaken within 50 metres of the Mahaka Katia Scientific Reserve between 1 September and 1 January in any year (bird nesting season).

Complaints Register

31. The consent holder shall maintain and keep a register for complaints regarding all aspects of operations at the site related to the exercise of this consent, received by the consent holder. The register shall record:

- a) the date, time and duration of the event/incident that has resulted in a complaint;
- b) the location of the complainant when the event/incident (if possible, specify nature of incident e.g. dust nuisance) was detected;
- c) the possible cause of the event/incident;
- d) the weather conditions and wind direction at the site when the event/incident allegedly occurred;
- e) any corrective action is undertaken by the consent holder in response to the complaint;
- f) any other relevant information.

34. The complaints register shall be available to the Central Otago District Council on request.

35. Complaints received by the consent holder that may indicate non-compliance with the conditions of this resource consent shall be forwarded to the Central Otago District Council within 5 days of the complaint being received.

Annual Report

32. The consent holder shall submit an Annual Report which addresses the following:

- a) The volume of material removed from the site in the preceding 12 months.
- b) Complaints Records for the preceding 12 months.
- c) Any amendments made to the Quarry Management Plan or Dust Management Plan.

Bond

33. Within three months of the commencement of this consent, the consent holder shall enter into an enforceable agreement and bond with the Central Otago District Council for a sum of \$200,000.00 (and this shall be adjusted annually on the anniversary of the land use consent to increase the bond amount based on the consumer price index (CPI) or to be reduced on a pro rata basis if areas of rehabilitation have been completed that year). If following the closure of the quarry the consent holder defaults on implementing the Closure and Rehabilitation Plan, this bond is to meet the cost of –

- a) removal of any plant or buildings.
- b) recontouring of the quarry area, respreading of subsoils and topsoil, re-establishing grass, and establishment of drainage sufficient to meet the post quarrying land use.
- c) leaving the land in a clean and tidy state.

Review

34. In accordance with section 128 of the Resource Management Act 1991, the conditions of this consent may be reviewed on each anniversary of the date of this consent coming into force if:

- a) there is or is likely to be an adverse environmental effect that is greater than minor that results from the exercise of this consent, which was unforeseen when the consent was granted,
- b) monitoring the exercise of this consent has revealed that there is likely to be an adverse effect on the environment that is greater than minor.
- c) there has been a change of circumstances such that the conditions of the consent are no longer appropriate in terms of the purpose of the Act.

