
RESOURCE CONSENT CRC241001

Pursuant to Section 104 of the Resource Management Act 1991

The Canterbury Regional Council (known as Environment Canterbury)

GRANTS TO:	Burnham 2020 Limited
A DISCHARGE CONSENT (S15):	To discharge contaminants to air associated with the operation of a quarry.
COMMENCEMENT DATE:	12 February 2025
DATE CONSENT NUMBER ISSUED:	12 February 2025
EXPIRY DATE:	12 February 2060
LOCATION:	Corner of Grange Road and Aylesbury Road, BURNHAM

Definitions

CRC Manager	Means the RMA Monitoring and Compliance Manager or any replacement role that performs their monitoring and compliance functions.
Construction Phase Activities	Construction Phase Activities means: <ul style="list-style-type: none">- Construct the vehicle crossing and internal access road.- Widen Aylesbury Road.- Construct Site facilities – site office, staff amenities, parking and weighbridge area.- Establish the wheel wash.- Install services.- Establish initial stockpile and extraction area.- Establish and plant the long-term bund from the Site access for 1 kilometre south along Aylesbury Road.- Plant gaps in the existing shelterbelt.- Permeation of stormwater that falls on unsealed surfaces.
DMP	Means Dust Management Plan
Extraction and Processing Phase Activities	Extraction and Processing Phase Activities means: <ul style="list-style-type: none">- Removal of overburden- Construct short-term bunds along boundaries.- Establish the plant processing and stockyard areas.- Extract and process aggregate.- Stockpile overburden, topsoil and aggregate in the stockyard.

	<ul style="list-style-type: none"> - Manage dust. - Generate traffic. - Undertake monitoring. - Store hazardous substances. - Plant short-term bunds and setbacks from and around the Grange Road access and the southeast corner of the Site. - Permeation of stormwater that falls on unsealed surfaces.
Overburden	Means the topsoil and subsoil layers that lie above the aggregate.
QMP	Means Quarry Management Plan.
Quarry activities	Means all construction phase, extraction and processing phase and rehabilitation phase activities.
RCS	Means Respirable Crystalline Silica
RMP	Means Rehabilitation Management Plan.
SDC Manager	Means the Team Leader – Compliance Environmental Services or any replacement role that performs their monitoring and compliance functions..
Site	Means Rural Section 19387, Rural Section 25412, Rural Section 27776, Rural Section 27777 and Rural Section 27724.
SMP	Means Soil Management Plan.
SQEP	Means a Suitably Qualified and Experienced Practitioner.
SWMP	Means Stormwater Management Plan

SUBJECT TO THE FOLLOWING CONDITIONS:

Authorised Activities

- 1 This Consent authorises discharges to air from the following activities undertaken at Grange Road and Aylesbury Road, Burnham, legally described as Rural Section 19387, Rural Section 25412, Rural Section 27776, Rural Section 27777 and Rural Section 27724, as shown on the Boffa Miskell and Pro- Manage Plan Set dated 20 January 2025, attached to and forming part of this resource consent:

CONSTRUCTION PHASE ACTIVITIES
Construct the vehicle crossing and internal access road.
Widen Aylesbury Road.
Construct Site facilities – site office, staff amenities, parking and weighbridge area.
Establish the wheel wash.
Install services.
Establish initial stockpile and extraction area.

Establish and plant the long-term bund from the Site access for 1 kilometre south along Aylesbury Road.
Plant gaps in the existing shelterbelt.
Permeation of stormwater that falls on unsealed surfaces.
EXTRACTION AND PROCESSING PHASE ACTIVITIES
Removal of overburden.
Construct short-term bunds along boundaries.
Establish the plant processing and stockyard areas.
Extract and process aggregate.
Stockpile overburden, topsoil and aggregate in the stockyard.
Manage dust.
Generate traffic.
Undertake monitoring.
Store hazardous substances.
Plant short-term bunds and setbacks from and around the Grange Road access and the southeast corner of the Site.
Permeation of stormwater that falls on unsealed surfaces.
REHABILITATION PHASE ACTIVITIES
Deposit silts from silt ponds on the quarry floor.
Reinstate soils/backfilling.
Deconstruct short-term bunds.
Batter quarry slopes.
Plant regraded quarry slopes.
Permeation of stormwater that falls on unsealed surfaces.

- 2 Except as required by consent conditions, the authorised activities must be undertaken generally in accordance with the information and plans submitted with the application submitted on 7 September 2023 and addendum to the application submitted on 11th October 2023 and subsequent amendments made during the hearing process. Where there is any conflict between these documents and the conditions, the conditions of consent prevail.

Management Plan Certification Process

- 3 The Dust Management Plan (prepared in accordance with Condition 7) must be submitted to the CRC Manager for certification at least 40 working days prior to the commencement of any construction phase activities.
- 4 Works to which the Management Plan relates must not commence until the Consent Holder has received written certification from the CRC Manager that the Management Plan adequately achieves the purpose of the relevant Condition(s).

Advice Note: *If the relevant Manager's response is that they are not able to certify the Management Plan they must provide the Consent Holder with reasons and recommendations for changes to the Management Plan in writing. The Consent Holder must consider any reasons and recommendations of the Manager and resubmit an amended Management Plan for certification.*

- 5 Once certified a Management Plan may be varied by the Consent Holder. Any application for a variation must also be prepared by a SQEP and be consistent with the conditions of the resource consent and the original objectives or purpose stated for the Management Plan. The *quarry activities* subject to the variation must not commence until the variation has been certified by the relevant manager.

Quarry Activities to be undertaken in accordance with Management Plans

- 6 The Consent Holder shall undertake all *quarry activities* in accordance with the Dust Management Plan required under Condition 7 of this Consent.

Preparation of a Dust Management Plan

- 7 The Consent Holder must engage a SQEP in air quality to prepare the DMP for the purpose of the DMP is to identify and implement the best practicable option for avoiding and minimizing the release of particulate matter beyond the boundary of the site, and to provide detail on how the conditions of this resource consent will be complied with.

As a minimum the DMP must include:

- (a) A description of the dust sources on site;
- (b) A description of the receiving environment and identification of sensitive receptors within 250 metres of site boundaries;
- (c) The methods (including dust reduction through design methodologies) to be used for controlling dust at each source during *quarry activities*;
- (d) A description of site rehabilitation methodology insofar as it is relevant to dust;
- (e) A description of dust discharge monitoring requirements and methodology;
- (f) A description of procedures for responding to dust and wind condition-based trigger concentrations specified in Conditions 31 and associated follow up investigations and recording of findings;
- (g) Identifying staff responsible for implementing and reviewing the DMP;
- (h) A system for training employees and contractors to make them aware of the requirements of the DMP;
- (i) Procedures, processes and methods for managing dust when staff are not on site;

- (j) Methods for determining the weather conditions that will trigger a restriction on potentially dusty activities;
- (k) A method for recording and responding to complaints in relation to dust;
- (l) A maintenance schedule for meteorological and particulate (including PM₁₀) monitoring instruments;
- (m) Separate Standard Operating Procedures (SOPs) dedicated to the management of potential dust discharges from specific sources, including but not limited to:
 - (i) Areas where quarry processing takes place and associated aggregate stockpiles;
 - (ii) Site roads – sealed and unsealed;
 - (iii) Aggregate excavation areas;
 - (iv) Top soil and overburden stripping and stockpiling;
 - (v) Bund construction and the recontouring of slopes during rehabilitation;
 - (vi) Aggregate processing areas;
 - (vii) Silt management.
 - (viii) Location and calibration of PM₁₀, RCS and meteorological monitoring equipment;
 - (ix) 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
- (n) A copy of the SQEP's peer review report required under Condition 8.

- 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 via the process set out in Conditions 4 – 5.

General conditions

Effects Beyond the Boundary of the Site

- 9 The discharges authorised by this resource consent must not result in an offensive, objectionable, noxious or dangerous effect beyond the boundaries of the Site.

Meteorological station

- 10 Prior to the commencement of *construction-phase activities*, a meteorological station must be installed at ground level within Phase 5 (as shown in Figure 1 of the Boffa Miskell and Pro-Manage Plan Set attached as Appendix A) towards the centre of the Site and have instruments capable of continuously monitoring, logging in real time and reporting representative metrological data for the Site and surrounding area.
- 11 The instruments specified in Condition 10 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.
- 12 Once installed, meteorological monitoring must be undertaken and must include:

- (a) Wind speed as 1-minute vector averages with maximum resolution of 0.1 metre per second (m/s), accuracy of at least within +/-0.2 m/s, and a stall speed no greater than 0.3 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,
- (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.

13 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.

Air quality monitoring equipment

- 14 Prior to the commencement of *quarry activities*, the Consent Holder must install and operate three permanent real-time PM₁₀ monitors one of which is considered to be of near reference quality. The monitors shall be located on each of the quarry's eastern, southern and western Site boundaries:
- (a) The eastern Site boundary PM₁₀ monitor must be located directly adjacent to the centre of the proposed Phase 1 *quarry activities* 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 other two site boundaries.

Advice Note: *The intent of locating a permanent PM₁₀ monitor on all quarry boundaries 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.*

Advice Note: *Near reference means either approved as a USEPA Federal Reference monitor for PM₁₀ or defined as a near reference monitor in accordance with these Federal Reference Methods.*

- 15 On each day that *quarry activities* are undertaken the Consent Holder must locate two real-time PM₁₀ monitors (referred to as the "mobile monitor") at or near the Site boundary and directly downwind 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 *quarry activities*. The mobile monitors must be of a type that is suitable for dust management but need not meet the standard for Resource Management (National Environmental Standards for Air Quality) Regulations 2004 compliance monitoring. The mobile monitors must be calibrated against one or more of the permanent real-time PM₁₀ monitors required under Condition 14.
- 16 The PM₁₀ monitors required under Condition 15 must be installed on a mast such that their height is between 1.5 metres and 1.8 metres above pre-quarrying ground level and in accordance with AS/NZS 3580.1.1:2007 Methods for sampling and analysis of ambient air Part 1.1 Guide to siting air monitoring equipment.
- 16A The Consent Holder shall install and maintain an RCS monitor at a location to be agreed with the CRC Manager at least 6 months prior to *quarry activities* commencing, to monitor background RCS levels.

RCS monitoring programme

- 17 Prior to the commencement of *quarry activities*, the Consent Holder must engage a SQEP to prepare, design and implement a RCS monitoring programme in consultation with the Te Whatu Ora (Health New Zealand) Waitaha Canterbury and the CRC Manager. The purpose of the RCS monitoring programme is to determine whether the *quarry activities* are generating quantities of RCS that are significantly greater than background levels.

As a minimum, the RCS monitoring programme must:

- (a) commence once the permanent processing plant has been established and Phase 1 extraction is underway;
- (b) involve transect monitoring at distances representative of the separation distances between *quarry activities* and adjoining sensitive activities (128 metres, 180 metres, 237 metres and 347 metres) including downwind of the most prevalent wind direction at the site; and
- (c) be designed to assess compliance of 3 µg/m³ annual average level of RCS at any adjoining residential dwelling; and
- (d) undertaken for at least 12 continuous months; and
- (e) include reporting on outcomes to the Te Whatu Ora (Health New Zealand) Waitaha Canterbury and the CRC Manager.

Monitoring

- 18 Alerts must be sent out to the quarry manager when wind speeds exceed 5 m/s and 10 m/s (during two consecutive 10-minute periods) so appropriate dust management and mitigation measures can be put in place.
- 19 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 *quarry activities* for human health, particularly on the occupants of any residential dwellings located within 347 to 128 metres of *quarry activities*. The report must be provided to the CRC Manager, the Te Whatu Ora (Health New Zealand) Waitaha Canterbury and members of the CLG. The report must also be made publicly available on the Consent Holder's webpage.

Construction-Phase Activities

Construction of the Site Access

- 20 The Consent Holder must construct a vehicle crossing from Aylesbury Road for all quarry vehicles. The vehicle crossing must be formed in accordance with Waka Kotahi Planning Policy Manual "Diagram E" standard for a 100km/h speed limit road to a high pavement and drainage standard, including widening on the eastern side of the road, and entry side of the access as detailed in Figure 10-1 to Appendix 10 of the AEE (attached as Appendix B). The vehicle crossing must have a concrete kerb edge and a flag light.
- 21 The internal Site access road must be constructed to meet the following standards:
- (a) be 9 metres in width: the first 150 metres of the access road inside the Site boundary must include two sealed lanes, 3.5 metres in width and a sealed shoulder 1 metre wide, thereafter the shoulders and lanes can be unsealed; and
 - (b) include a rumble strip; and

- (c) include a wheel wash to assist in removing muddy material from vehicle wheels before vehicles exit the Site; and
- (d) construct a 1.5 metre long-term bund for the first 150 metres on either side of the access road; and
- (e) be curved into the Site with bunding to prevent direct line-of-sight to *quarry activities* from the road; and
- (f) include heavy vehicle waiting areas at the site entry.

Site Preparation Works

- 22 During site preparation works, the stripping of overburden and extraction of aggregate must only occur within that part of the Site where the stockyard, plant processing areas and the site amenities will be located.

Extraction and Processing Phase Activities

Operational Site Access

- 23 To avoid material being deposited, dropped or tracked onto public roads from the Site, the Consent Holder must:
- (a) Inspect at least the first 100 metres of the access road inside the Site boundary daily and sediment and debris vacuum swept or equivalent as required; and
 - (b) Inspect and maintain the edges of the sealed portion of the access road, particularly where potholes emerge. Before they are filled, potholes must be coned off to avoid further damage and likelihood of transferring material onto Aylesbury Road; and
 - (c) Inspect (which may be by camera) heavy vehicles at the weighbridge with the purpose of identifying and minimising the risk of materials being deposited on nearby roads; and
 - (d) Ensure loaded heavy vehicles leaving the Site either cover their load or have the load dampened with water spray.
- 24 The Consent Holder must conduct daily inspections of Aylesbury Road for the first 250 metres from the Site entrance (in both directions) to assess if sediment has been deposited on the road from vehicles travelling to or from the Site. Any sediment deposited on the road must be removed the same day it is discovered. A record of when road sediment removal has taken place must be retained and made available to the SDC Manager on request and/or otherwise provided to the SDC Manager on the anniversary of the granting of this consent.

Vehicles

- 25 Vehicle and heavy machinery speeds within the Site must not exceed 30 km/h on sealed roads and 20 km/h on unsealed roads and accessways.

Open areas

- 26 Each of the following aspects of the *quarry activities* must be limited at any one time to the maximum area of open ground set out in Table 1 below. These areas exclude the sealed access road(s) and any Site buildings.

Table 1: Open area limits.

Zone	Area (ha)
Fixed processing plant, other processing, stockpiling, unsealed customer loadout	11
Silt processing and storage	3.2
Excavation and active rehabilitation (excluding rehabilitated areas), including conveyance and unsealed accessways	12.8
Total active area	27

Processing

- 27 All fixed processing plant must be set back at least 500 metres from all Site boundaries.
- 28 Any mobile processing plants must be located at least 250 metres from any site boundary.
- 28A Any mobile processing plants must be located at least 500 metres from any sensitive receptor existing at the commencement of this resource consent.
- 28AA Following completion of the RCS monitoring programme required by Condition 17, the consent holder may request approval from the CRC Manager to reduce the setback between any mobile plant and a sensitive receptor to not less than 250 metres. Any such request must be supported by a report from a SQEP confirming the monitoring shows no significant increase to RCS concentration is likely to occur at sensitive receptors located at the proposed minimum setback distance. The minimum setback distance must not be reduced without the written approval of the CRC Manager.

Dust Mitigation

- 29 The Consent Holder must take all best practicable options 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 carrying towards any residential dwellings that are within 250 metres of the site boundary;
 - (c) During *construction phase activities*, limiting the height of topsoil, overburden and aggregate stockpiles to no more than three metres above natural ground level;
 - (d) During *quarry activities*, locating stockpiles of processed aggregate on the quarry floor area and not exceed a height of 3 metres above natural ground level;
 - (e) Stockpiling processed aggregate products by grade within the processing area;
 - (f) Vegetating any long-term stockpiles of topsoil, overburden or unprocessed aggregate;
 - (g) Spraying stockpiles with water;
 - (h) Regularly vacuum sweeping sealed roads and yard areas;

- (i) 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;
- (j) Minimising drop heights when loading trucks, hoppers and when moving material;
- (k) Using water taken under CRC222635 and chemical suppressants for dust suppression;
- (l) Placing washed gravel over extraction areas if they are not being actively used by the Consent Holder. Areas where washed gravel cannot be placed must be stabilised by other means for example but not limited to vegetating or the use of dust suppressant polymer;
- (m) Applying silt management procedures including only placing silts that are mixed with another material within 250 metres of an off-site sensitive receiver during October to April;
- (n) Applying industry standard mitigation to control dust from the processing plant such as the use of fogging/spray systems on the processing plant; and
- (o) Applying water and/or dust suppressants onto exposed/ unconsolidated surfaces.

30 A conveyor belt system (or similar) shall be used to transport aggregate when extraction activities are occurring within 250 m of the site boundary. Haul trucks are not to be used within 250 m of a sensitive receptor except for long-term or short-term bund construction, site construction, surface stripping and rehabilitation.

31 If at any time, including outside normal operating hours, visible dust is blowing beyond the site boundary or if *quarry activities* cause real time PM₁₀ particulate concentrations measured at or near the site boundaries in accordance with Conditions 14 or 15 to reach or exceed 150 micrograms per cubic metre, as a 1-hour average updated every ten minutes the Consent Holder must:

- (a) Cease all *quarry activities* within 250 m of an off-site sensitive receptor except for dust suppression measures;
- (b) Continue all dust suppression activities listed in Condition 0 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 PM₁₀ /dust concentration falls below 100 micrograms per cubic metre hourly average; and
- (e) Notify the CRC Manager within one working day of the dust event, including its cause and the dust suppression actions undertaken.

Complaints Register

32 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. The contact details must be displayed on signage at the site entrance and at the quarry office adjacent to the vehicle entrance. With the exception of the quarry office signage, the contact details must be able to read from outside the gates.

33 For dust complaints the Complaints Register maintained under Condition 10 of CRC241002 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;
- (e) Any corrective action undertaken by the Consent Holder to avoid, remedy or mitigate the dust detected by the complainant;
- (f) What was happening on site at the time of the complaint; and
- (g) What were the dust monitors reporting at the time of the complaint.
- (h) A copy of the Complaints Register must be supplied to the CRC Manager upon request.

Monitoring

- 34 The Consent Holder must prepare an annual monitoring report for the period of 1 July to 30 June to the CRC, Attention: Regional Leader Compliance Monitoring (ECInfo@ecan.govt.nz), by 30 September each year. The annual monitoring report must include but not be limited to:
- (a) A record of any maintenance of the meteorological and dust monitoring instruments undertaken over the proceeding 12-month period in accordance with this resource consent;
 - (b) A record of all occasions where a trigger level has been breached including any investigations and actions taken;
 - (c) The complaints record required in accordance with this resource consent;
 - (d) A record of the amount of water used for dust suppression in the year reported on. The record must include the daily, monthly, and annual volumes used; and
 - (e) The results of the DMP review and whether or not any changes were made to the DMP.

Consent Condition Reviews

- 35 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 phase;
 - (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 RCS) generated by *quarry activities*.

Expiry

- 36 The term of consent is 35 years from the date of commencement.

Lapse date

- 37 If these consents are not exercised before 12 February 2030, they must lapse in accordance with Section 125 of the Resource Management Act 1991.

Appendices

Appendix A: Boffa Miskell and Pro-Manage Plan Set dated 20 January 2025.

Appendix B: Figure 10-1 to Appendix 10 of AEE.