IN THE MATTER OF	The Resource Management Act 1991
AND	
IN THE MATTER OF	applications by Burnham 2020 Limited for resource consents associated with the establishment and operation of an aggregate quarry at Burnham.
BETWEEN	**BURNHAM 2020 LIMITED** **Applicant**
AND	**CANTERBURY REGIONAL COUNCIL** **SELWYN DISTRICT COUNCIL** **Consent Authorities**

REPORT AND DECISION OF HEARING COMMISSIONERS

John Iseli, Graham Taylor and Craig Welsh

February 2025

Heard on 2nd to 4th September 2024 and 18th December 2024

at Wigram Base, Christchurch

Representations and Appearances

Applicant:

Ms J Campbell, Counsel

Mr B Watts, Counsel

Mr D McGregor, Project Manager

Mr C Edmonds, Operations Manager

Mr M Rippey, Southern Operations Manager

Mr A Metherell, Transport Consultant

Mr R Girvan, Landscape Consultant

Mr J Farren, Acoustic Consultant

Mr M Hensen, Economics Consultant

Ms K McCusker, Soils Consultant

Mr A Curtis, Air Quality Consultant

Mr P Callander, Groundwater Consultant

Mr S Wilson, Contaminated Land Consultant

Ms C Kelly, Planning Consultant

Submitters:

Mr M Salkeld, Local Resident

Mr R Johnson, Planning Consultant for Ribbonwood Farm

Mr Mark Alexander, Local Resident

Messrs B Robinson and M O'Connor, Grass Gobblers Ltd

Ms M Grinlinton-Hancock, KiwiRail

Section 42A RMA Reporting Officers:

Ms D Korevaar, CRC Planning Consultant (Water Quantity)

Ms J Capalad, Groundwater Scientist

Ms R Vosloo, CRC Planner (Water Quality, Land Use and Discharges)

Mr D Van Kekem, Air Quality Consultant

Ms H Mirabueno, CRC Contaminated Land Scientist

Ms A Kreleger, CRC Groundwater Scientist (for Ms L Scott)

Mr A Henderson, SDC Planning Consultant

Ms J Byrne, Landscape Consultant

Mr J Trevathan, Acoustic Consultant

Mr A Carr, Transport Consultant

Decision Summary

Consents for activities associated with establishment, operation and rehabilitation of the quarry are granted. The land use consents have an unlimited term. The discharge permits have a term of 35 years and the water take consent has a term of 20 years. These consent durations reflect the long-term nature of the quarry development and the degree of mitigation and monitoring proposed.

Having taken into account both the positive and adverse effects of the proposal, we conclude that the quarrying and associated activities are consistent with the sustainable management purpose of the Resource Management Act.

BACKGROUND AND PROCEDURAL MATTERS

1. This is the report and decision of hearing commissioners John Iseli, Craig Welsh and Graham Taylor (**the panel**). We have been appointed by the Canterbury Regional Council (**CRC**) and Selwyn District Council (**SDC**) to hear and decide the applications by Burnham 2020 Limited (**Burnham 2020** or **the applicant**) pursuant to the Resource Management Act 1991 (**RMA** or **the Act**) for resource consents to establish and operate a 362ha aggregate quarry at the junction of Aylesbury and Grange Roads, Burnham.

2. Burnham 2020 Limited is a wholly owned subsidiary of Fletcher Concrete and Infrastructure Limited, which is the legal entity that trades as Winstone Aggregates (and other brands). Several resource consents are sought in relation to the proposed quarry, as follows:
    - CRC241000 – to Discharge Contaminants to Land;
    - CRC2410001 – to Discharge Contaminants to Air;
    - CRC2410002 – to Use Land for Earthworks and Backfilling (Quarrying Activities);
    - CRC222635 – to Take and Use Groundwater;
    - RC235522 - to Use Land to Develop and Operate an Aggregate Quarry.

3. A detailed description of the proposal can be found in the AEE commencing at section 3.4 on page 23. The stages of extraction set out in Appendix 5 to the application were amended in the right of reply. In brief, the proposal is for a suite of quarrying activities from site preparation through to rehabilitation, with the resource expected to provide for

approximately 60 years of quarrying (depending upon rates of demand). The proposal includes three main phases of activity: site preparation/construction, aggregate extraction and processing and rehabilitation.

4. The application site is a 362ha triangular section of land which adjoins Grange Road and Aylesbury Road. It is located on the Canterbury Plains and lies approximately 8.5km from Rolleston. The site is currently used for rural purposes, including activities such as grazing, dairy farming and cropping with an established framework of shelter belts along part of the site's boundary.

5. The surrounding land is typically used for primary production activities, such as cropping and grazing, but also includes equestrian facilities and scattered residential dwellings, particularly at the junction of Aylesbury and Two Chain Roads to the southeast of the site. The Burnham Military Camp is located to the south of the site, and a small forestry block is located across the road from the south-eastern corner of the site. Prior to being established as a dairy farm, the site was established in plantation pine.

6. The key aspects of the proposal, as amended during the hearing, are as follows.

- Quarrying activities will be undertaken in a series of phases as per the updated Phasing and Landscape Strategy Plan dated 20/01/2025, submitted in response to our third minute. Activities include site preparation, aggregate extraction, processing of aggregate and rehabilitation after extraction in the stage ceases. Simultaneous ongoing rehabilitation of quarried land is proposed as each stage is completed.

- The active quarrying area for each stage will not exceed 27ha (reduced from 40ha as notified). The open area proposed will consist of fixed processing plant, other processing, stockpiling, unsealed customer loadout (11ha), silt processing and storage (3.2ha), excavation and active rehabilitation, including conveyance and unsealed accessways (12.8ha).

- The majority of quarrying activities would be undertaken during the hours of 7am to 8pm (Monday to Saturday excluding public holidays) with rehabilitation and site pre-startup occurring from 6am to 7pm on the same days. On up to 30 days (Monday to Saturday) per annum (excluding public holidays) between 5am and 7am, it is proposed

to load trucks with aggregate in the stockyard and to despatch that material to concrete batching facilities.

- Truck routes to and from the site during early morning (5am – 7am) operations will require that all heavy vehicle movements approach from and depart the site to the north, along Aylesbury Road to and from SH73.

- The site will be accessed from Aylesbury Road via a vehicle crossing that will enable trucks to enter and leave the site without cutting up the edge of the carriageway. Aylesbury Road between the site access and Two Chain Road will be widened to 8 metres. The site boundary with Aylesbury Road will be bunded to 3 metres in height, except in proximity to the properties along Two Chain Road where quarrying activities will be setback 100 metres into the site. Likewise in proximity to residential properties on Grange Road, quarrying activities will be setback 100 metres into the site. These setbacks will be planted with indigenous vegetation as will the permanent bund along Aylesbury Road.

- Fixed aggregate processing (crushing and screening) will be undertaken towards the centre of the site, at least 500 metres from any site boundary. Mobile processing equipment will also be used at times on the site.

- It is proposed to use a conveyor belt system (or similar) to transport aggregate extracted from areas within 250 metres of an off-site sensitive receptor (dwelling).

- Excavation would occur to a depth of 1m above the highest recorded groundwater level below the site. Fill material for rehabilitation will only consist of virgin and processed material extracted from within the site that has been confirmed to be at or below background soil contaminant concentrations.

- The groundwater take consent sought would replace existing consents CRC222536 and CRC221642, which authorise the take and use of 210L/s from four bores for the irrigation of 362ha and for quarrying purposes. These consents have an annual volume of 1,937,000m^3. An annual volume of 1,130,940m^3 (reduced from 1,937,000m^3 as notified) is sought for the new consent.

- Daily heavy vehicle movements will be restricted to 400 maximum per day (reduced from 750 per day as notified), with the ability to have 550 movements on 15 working days per annum. It is no longer proposed to undertake early morning (5am to 7am) loadout and access/egress of trucks on Sunday mornings. The quarry will not generate more than 250 heavy vehicle movements per day (on any one day) until the intersection of Aylesbury Road and State Highway 1 has been upgraded to a roundabout or equivalent.

- Detailed site investigations (**DSIs**) for soil contamination would be undertaken for each quarrying stage at least six months prior to the commencement of quarrying activities within that stage.

- It is proposed to apply a covenant against all land titles of the site in favour of the CRC that will limit future land use activities on rehabilitated areas to ensure that the following cannot be undertaken:
  (a) Intensive pastoral farming (stock rates of more than 10 stock units per hectare); or
  (b) Intensive winter grazing or strip grazing at any time of the year where the stocking rate exceeds 10 stock units per hectare within the grazed area; or
  (c) The disposal of collected animal effluent within 700 metres of any drinking-water bore; or
  (d) Applications of pesticides at rates above the minimum required to achieve healthy plant growth that may threaten groundwater quality at downgradient drinking-water bores; or
  (e) Any activity involving the use or storage of hazardous chemicals, including petroleum products, in quantities greater than on a normal rural-residential property; or
  (f) Any onsite wastewater or stormwater disposal where there is a separation distance to the highest recorded groundwater level of less than 1 metre.

7. The applicant seeks unlimited durations for the SDC and CRC land use consents, noting the anticipated economic life of the quarry of approximately 60 years. A 20-year term is sought for the water take and a duration of 35 years is requested by the applicant for the CRC discharge consents.

8. Prior to the hearing, reports were produced on behalf of the CRC and SDC pursuant to section 42A of the RMA. These **s42A Reports** included technical review of key aspects of the applications by council scientists and external expert consultants.

9. The hearing to decide the applications occurred in Christchurch on 2nd to 4th September 2024. The hearing was adjourned on 4th September to allow for the provision of the following additional information, as detailed in our directions[1].

    - An updated Level Crossing Safety Impact Assessment (**LCSIA**) for the railway crossing on Aylesbury Road, near State Highway 1.
    - A Joint Witness Statement (**JWS**) prepared by the transportation experts, Messrs Metherell and Carr, assessing the potential cumulative effects of traffic movements from the proposed Wards Road quarry and the proposal. The experts were requested to detail the expected heavy vehicle movements from the Wards Road quarry that would add to movements from the proposal, if consents are granted.
    - A JWS prepared by the acoustic experts, Mr Farren and Dr Trevathan, assessing the potential cumulative noise effects of heavy vehicle movements from both the proposed Wards Road quarry and the proposal.
    - The outcome of consultation with Mr Salkeld, including any traffic noise mitigation measures and timing restrictions proposed.
    - An updated set of separate proposed conditions for each of the consents sought. It was directed that these conditions be discussed with the experts and officers for the CRC and SDC with the aim of reaching agreement on conditions in dispute to the extent achievable. It was further directed that these conditions include amendments to the proposal offered by the applicant in evidence and in the course of the hearing.
    - Any proposed amendments to the applications arising as a consequence of the above matters.

10. We directed that the above information be circulated to the submitters and council officers for comment. The applicant's written reply with final proffered conditions was received on 11th November 2024. Having reviewed this information, we determined that there were several matters that required clarification before reaching a decision. These matters primarily related to the proffered conditions of consent and to amendments made to the proposal. These amendments included reversing the direction of the proposed phases of quarry development, refinement of the groundwater quality monitoring requirements, and

[1] Minute 1 dated 6th September 2024.

routing quarry trucks to the north from the site entrance along Aylesbury Road during the early morning period (5am-7am) on up to 30 days per year.

11. We issued directions in our third minute dated 18th November 2024 that set out the further information required on these matters of clarification. The hearing was reconvened on 18th December 2024 to address these matters. A final set of proffered consent conditions was subsequently provided by the applicant on 20th December 2024. Minor amendments and corrections to the plans appended to the final proposed conditions were provided on 20th January 2025. We closed the hearing on 22nd January 2025.

Scope of the Applications

12. A question of scope arose in relation to the proposed routing of quarry trucks to the north during the early morning period. We sought assurance that this change is within the scope of the application details as notified. Legal submissions on this matter were received from Ms Campbell for the applicant and DLA Piper on behalf of SDC.

13. Ms Campbell submitted that no question of scope arises because the application as notified does include a proportion of the quarry's traffic travelling on the northern portion of Aylesbury Road. Stantec prepared a Transport Assessment Report dated August 2023 (**the Stantec report**)**,** contained in Appendix 10 to the Assessment of Effects on the Environment (**AEE**). The Stantec report considered two potential traffic distribution scenarios. Ms Campbell noted that in one of these scenarios the number of vehicles per hour (**vph**) using Aylesbury Road north of the quarry site (20 vph) and north of Wards Road (12 vph) is higher than the 10 vph now proposed on up to 30 early mornings per year. Ms Campbell considered that the possibility of early morning trucks using northern Aylesbury Road remained open and can comfortably fit within the predicted vehicles per hour considered by the Stantec report.

14. The DLA Piper legal advice[2] concluded that *"the issue is finely balanced, but it is open to the Commissioners to decide the change in early truck movements from south to north "is fairly*

[2] DLA Piper Letter to SDC: Request for Legal Advice – Scope of Application – Burnham Quarry, 11th December 2024, tabled at the reconvened hearing.

and reasonably within the ambit and scope of the original consent application and does not result in what is, in substance, a different application'". The legal assessment noted that:

- *"The scope of the activity has not changed, and the total number of traffic movements generated is the same (but with the early truck movements going in a different direction). In our view, it is generally foreseeable that a quarry application will generate traffic movements, and it can be anticipated that heavy vehicle traffic would occur as part of such a proposal.*
- *Although there will be 'noticeable' noise effect on the occupiers of 515 Wards Road and 812 Aylesbury Road, we understand that these are effects which are more than minor, but less than significant, so the test of 'a significant difference in the scale, intensity and character of a proposed activity; or the effects of the proposed activity' is not met.*
- *It is difficult to quantify any prejudice, because it is unclear to us whether these 515 Wards Road and 812 Aylesbury Road were specifically considered as part of the Marshall Day Noise Assessment. However, any prejudice to those parties is reduced by the fact the application was publicly notified."*

15. The legal advice from the applicant and SDC on the question of scope both reach the same conclusion that we are able to decide that the change in direction of early morning truck movements is fairly and reasonably within the ambit and scope of the original consent application. We accept that advice and find that the amendment does not require renotification of the applications. The applications were publicly notified and the traffic assessment clearly anticipated that some traffic movements would occur to the north of the site.

Site Visit

16. We visited the proposed site on the morning of 3rd September 2024. We entered the site, currently a working farm, and observed existing vegetation at the site boundaries. We also viewed the neighbouring area and identified the location of exiting dwellings surrounding the site.

NOTIFICATION AND SUBMISSIONS

17. The applications to the CRC and SDC were publicly notified at the request of the applicant on 8th May 2024.

18. Twenty three submissions were received in relation to the applications to the CRC; 18 in opposition, 1 in support and 4 neutral submissions. The s42A report of Ms Vosloo summarises the matters raised in these submissions as follows:
    - Dust and the effects of dust on:
        - Community health (drawing comparisons to reported effects from Yaldhurst Quarry, Auckland's Hunua Quarry and Wellington's Kiwi Point Quarry);
        - Residential dwellings;
        - Local industry and commercial operations;
        - Educational facilities (Burnham Primary School);
        - Operations of Burnham Military Camp;
        - Nuisance effects;
        - Effects of other contaminants discharges to air from the operation of vehicles, trucks and machinery resulting in air pollution.
    - Concerns regarding effects on air quality from dust or other contaminants, raising the following issues with the proposed mitigation measures and seeking the following additional measures:
        - Restricting the open area of the quarry to 10 – 15 hectares at one time;
        - Seeking a reduction of wind speed trigger to cease works from 7.5m/s to 5m/s;
        - A 'cease works' clause in north-westerly winds;
        - Comprehensive dust monitoring protocol on affected boundaries;
        - An increase of dust monitors placed on the southwest corner boundary;
        - A dust receptor to be added at 499 Grange Road (Ribbonwood Farm);
        - Dust monitoring stations to be relocated throughout the life of the consent as staging progresses;
        - Baseline air quality monitoring prior to commencing quarry operations;
        - Publicly available data of operational air monitoring results;
        - Implementing a Dust Management Plan (**DMP**) to be certified by CRC including a review condition in the event of repeated breaches of triggers;
        - Limiting traffic movement with a daily maximum and three-month rolling average, daily maximum movements to be half on Saturdays;

  - Direct engagement with Burnham Primary School to discuss possible mitigation measures;
  - Increased setback distance from property boundaries and Grange Road;
  - Sufficient bunding and planting to mitigate dust;
  - Perimeter bunding should be constructed prior to quarrying works commencing;
  - Managing the capacity through truck volumes and not volume removed may result in excessive stockpiling;
  - Stockpile height maximum of 3 metres and no greater height than the nearest earth bund.
- Effects of excavation, deposition and discharges on groundwater quality and quantity:
  - Effects on quality of water within nearby wells (domestic use wells during quarrying and post rehabilitation with reduced natural filtration with only 1 meter of reinstated soil);
  - Effects on quantity of water available for abstraction from nearby wells (domestic takes, industry takes).
- Concerns regarding the effects on groundwater quality and quantity as a result of the proposal, seeking the following additional mitigation measures:
  - That all water takes consented are no greater than currently consented;
  - That the office wastewater be connected to reticulated wastewater system;
  - The installation of six monitoring bores for groundwater with publicly available results for groundwater quality;
  - A contingency plan in the event that nearby wells are affected;
  - Planting natives once rehabilitated to aid the natural filtration to groundwater;
  - Not reintroducing dairy cattle post rehabilitation;
  - The importing of clean fill should be added as a condition with strict controls to protect groundwater.
- Other matters raised in submissions include:
  - Bunding to be 5m in height between the native tree planting and quarry face;
  - Planting to occur within 6 months of activating consent and must be monitored;
  - The distance of native tree planting outside 146 (Maxine Spivey) and 168 (Michael Salkeld) Aylesbury Road should be increased from 100 to 200 metres;
  - Excavation phases 3 – 13 to be completed in reverse order;
  - The site entrance/exit to shift from Aylesbury Road to Grange Road;

- Concerns regarding whether there will be enough overburden to construct the proposed bunds;
- Inadequate mitigation measures proposed to compensate for the environmental and health impacts;
- Effects on property values and ability to sell property;
- The adequacy of the remediation proposed and the ability to re-use the site for industry in the future;
- Requiring all collected monitoring data and reports to be publicly available online.

19. Twenty one submissions were received in relation to the land use consent application to the SDC; 16 in opposition, 1 in support and 4 neutral submissions. The s42A report of Mr Henderson summarises the matters raised in these submissions as follows:
    - Traffic effects, particularly in relation to traffic volumes, traffic noise and potential routes;
    - Noise and effects on surrounding residential and non-residential land uses;
    - Noise and vibration from truck movements;
    - Amenity effects;
    - Safety issues, including on surrounding roads and the existing rail crossing and State Highway 1 intersection with Aylesbury Road; and
    - Consent conditions and various appropriate controls to manage effects.

THE HEARING

20. The hearing was conducted over three days in September 2024 and a further day in December 2024. We have heard and read a large amount of evidence and submissions from the parties and reviewed much written material. That written material has included revisions to a suite of proposed consent conditions in response to the hearing process.

21. Several submitters or their representatives (Messrs Salkeld, Johnson, Alexander, Robinson and O'Connor and Ms Grinlinton-Hancock) attended the hearing in person or by video link. We recognise the significant time and effort they have made in presenting their submissions. While we do not repeat that information here, we record that we have fully taken the submissions into account in our evaluation of the effects of the proposal.

22. The volume of material we have been required to review in this case is very large. It would be impractical and unnecessary to attempt to detail or summarise all that material here. Rather, our focus is on the key matters in contention between the parties. Our determination regarding evidence and submissions received in relation to these key matters will be detailed in our evaluation of effects.

23. Copies of written material provided at the hearing are publicly available via the CRC and SDC websites.

24. With respect to concerns about property values, as set out in various Court decisions (and in accordance with the decision-making framework which guides our assessment of the proposal) the direct effects of an activity on the environment are the primary consideration for our decision. Any indirect effect on property prices are not relevant matters we can consider in our decision. Hence, we do not discuss effects on property values further.

ASSESSED EFFECTS

25. Based on the application documents and all the submissions and evidence we have received, we determine that the following key actual and potential effects on the environment require assessment:
    (a) Air quality effects;
    (b) Effects on groundwater quality and drinking water supplies;
    (c) Effects of the groundwater take on water quantity, including efficiency of use;
    (d) Noise effects;
    (e) Transportation effects;
    (f) Effects on landscape values and visual amenity;
    (g) Effects on soil productivity and management of contaminated soils;
    (h) Ecological effects;
    (i) Effects on archaeological values;
    (j) Effects on cultural values; and
    (k) Positive effects of the proposal, including economic effects.

26. We record we have considered all these actual and potential effects in relation to the proposal.

ASSESSMENT OF THE APPLICATIONS

27. In assessing the applications, we have considered all the applications, documentation and assessments, the s42A reports and supporting technical reviews, all submissions and evidence received, and the additional information provided after the hearing adjournment in accordance with our directions. Because of the complexity of this case our evaluation focusses on the key matters in contention.

Status of the applications

28. The starting point for our assessment of the applications is to determine the status of the proposed activity.

29. The activity status of the application to take and use groundwater was disputed. The parties agreed that the applicable rule is Rule 11.5.33 of the Canterbury Land and Water Regional Plan (**CLWRP**). The take and use of groundwater at the proposed location is classified as a restricted discretionary activity, subject to conditions 1-8 of the rule. At the time the application was lodged Burnham 2020 was unable to demonstrate compliance with condition 8 regarding acceptable bore interference effects determined in accordance with Schedule 12. Ms Korevaar; therefore, determined that the activity status is non-complying under rule 11.5.36. She considered that this activity status, as determined at the time the application was lodged, should be "locked in" under section 88A of the RMA.

30. The parties now agree that, after further testing, it has been demonstrated that bore interference effects will be acceptable in accordance with Schedule 12. Ms Campbell and Mr Watts contended that Ms Korevaar's interpretation of section 88 of the Act is incorrect because:
    (a) The type of activity for which the application was made has not been altered; or alternatively
    (b) The courts have ruled that section 88A should only be applied to protect applicants from changes that would result in a more stringent activity status being applied, not to deny them the benefit of a less stringent status becoming available.

31. Counsel for the applicant provided case law in support of their submissions on this issue. We have reviewed that material and accept their analysis that the water take and use application should be classified as a restricted discretionary activity on the basis of the

more accurate information now available. We agree that the type of activity for which the application was made has not been altered. In our view it is appropriate to correct the activity status to reflect the more robust assessment of well drawdown effects made with the current test data. We accept the submission of counsel that applying the alternative approach (locking in non-complying status) would unjustifiably prejudice the applicant, putting "form ahead of substance".

32. Ms Vosloo recommended that all the CRC consents should be bundled together, in terms of activity status. The applicant disagreed with that approach. In particular, counsel for the applicant submitted that the application for deposition of cleanfill material for rehabilitation purposes, classified as a controlled activity under Rule 5.177 of the CLWRP, must be assessed separately. They contend that bundling is inappropriate when it would override statutory requirements in relation to the different activity classes.

33. Mr Watts noted that section 104A of the RMA stipulates that an application for a controlled activity must be granted. If the controlled activity was bundled with a more restrictive class (such as discretionary) the consequential opportunity to decline consent risks non-compliance with the Act. We agree and find that the application for cleanfill deposition is to be considered separately as a controlled activity. We determine that the other consent applications to the CRC can be bundled together as discretionary activities.

34. The parties agreed that the land use consent application to the SDC is classified as a discretionary activity. Consent is also sought under the National Environment Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (**NES-CS**) for a discretionary activity under Clause 11 as no DSI has been prepared at this stage.

Statutory Considerations

35. In terms of our responsibilities for giving consideration to the applications, we are required to have regard to the matters listed in sections 104, 104A, 104B, 105, and 107 of the Act.

36. In terms of section 104(1), and subject to Part 2 of the Act, which contains the Act's purpose and principles, when considering the application and any submissions received, we must have regard to-

(a) Any actual and potential effects on the environment of allowing the activity;

(ab) Any measure proposed or agreed to by the applicant for the purpose of ensuring positive effects on the environment to offset or compensate for any adverse effects on the environment that will or may result from allowing the activity;

(b) Any relevant provisions of a national environmental standard, other regulations, a national policy statement, a New Zealand coastal policy statement, a regional policy statement or a proposed regional policy statement, a plan or proposed plan; and

(c) Any other matters the consent authority considers relevant and reasonably necessary to determine the applications.

37. We note here that the applicant has not proposed or agreed to any measure to ensure positive effects on the environment to offset or compensate for any adverse effects on the environment that will or may result from allowing the activity. Therefore, we do not consider subsection (ab) any further.

38. Section 104(2) states that when forming an opinion for the purposes of section 104(1)(a), we may disregard an adverse effect of the activity on the environment if a national environmental standard or the plan permits an activity with that effect. This is referred to as consideration of the 'permitted baseline'.

39. Under section 104A we must grant the application for a controlled activity and may impose conditions under section 108 in relation to matters where control is reserved.

40. In terms of section 104B for a discretionary activity, we may grant or refuse the applications, and if granted we may impose conditions under section 108.

41. In terms of section 105, when considering section 15 (discharge) matters, we must, in addition to section 104(1), have regard to-

(a) The nature of the discharge and the sensitivity of the receiving environment to adverse effects; and

(b) The applicant's reason for the proposed choice; and

(c) Any possible alternative methods of discharge, including discharge to any other receiving environment.

42. Section 107 imposes an additional restriction we must consider before granting a discharge permit to discharge a contaminant onto or into land in circumstances which may result in that contaminant (or any other contaminant emanating as a result of natural processes from that contaminant) entering water (in this case groundwater).

43. We consider each of these sections of the RMA in reaching our decision on the applications.

Section 104(1)(a) RMA - Actual and Potential Effects on the Environment

Air Quality Effects

44. Expert evidence regarding air quality effects was provided by Mr Curtis for the applicant and Mr Van Kekem for the CRC. The experts were largely in agreement on the effects of contaminants discharged to air from the proposal. In response to our directions, a Joint Witness Statement (**Air Quality JWS**)[3] was prepared, including recommendations on amendments to the proposed conditions of consent. In most cases these amendments have been adopted by the applicant in the final set of conditions proffered.

45. The experts considered that the primary discharges from the site will be dust (larger suspended particles) and fine particulate matter, including PM_{10} (particles less than 10 microns in diameter) and Respirable Crystalline Silica (**RCS**). Messrs Curtis and Van Kekem agreed that any effects of combustion product emissions from heavy vehicles and machinery on the site would be less than minor. We accept their advice and focus our evaluation on the effects of particulate matter discharges.

46. Several submitters raised concerns regarding potential effects of dust and fine particulate matter discharges from the site, including health effects. Particular concerns were noted in relation to the setback distance from the quarry to neighbouring dwellings and the proposed size of open area for active quarrying and associated activities. We have considered all the matters raised and address the key issues in the following evaluation.

47. During the hearing the applicant reduced the maximum open area sought for quarrying and associated activities from 40ha to 27ha. Submitters had sought that the open area be

[3] Air Quality JWS prepared by Andrew Curtis and Donovan Van Kekem, dated 20 September 2024.

reduced to 10 - 15ha, in line with some other quarries. Grass Gobblers Limited submitted that it would be difficult to contain dust discharges from such a large open area during strong winds.

48. Mr Curtis stated that approximately 5 - 6ha of the 27ha open area would require active dust suppression at any time. The experts have advised that sufficient water would be available via the water take permit to achieve adequate dust control. Mr McGregor stated that the proposed open area is similar to the 26ha area authorised by consents for the Fulton Hogan Roydon Quarry near Christchurch. Bearing in mind the operational requirements for this large scale quarry, as outlined by Mr McGregor and Mr Edmonds, and the mitigation proposed we find that the 27ha limit on open area is acceptable.

49. Mr Salkeld and other submitters expressed concern that the proposed setback distances to sensitive receptors (dwellings) may not be sufficient to attenuate dust emissions from the site. Mr Salkeld noted that greater setbacks had been required in some other cases, such as the Roydon Quarry, and requested a buffer of at least 200m between his dwelling at 168 Aylesbury Road and the quarry.

50. The air quality assessment submitted with the application describes the nearest receptors as being 100m (Mr Salkeld's dwelling) and 150m (159 Grange Road) from the quarry area. These distances take into account a 20m wide curtilage area around each dwelling. We also note that the residence of Ms Spivy, 148 Aylesbury Road, is approximately 135m from the quarry when allowing for curtilage. These distances take into account the 100m wide native vegetation buffers proposed at the quarry boundary near these dwellings.

51. Mr Van Kekem considered that the activities which are proposed to occur within 250m of sensitive receptors will require industry best practice dust mitigation measures to prevent adverse effects[4]. Burnham 2020 has proposed such mitigation measures to control dust discharges when operating close to neighbouring dwellings. In particular, the proposal is that:

    - Two mobile downwind PM_{10} monitors (in addition to three fixed boundary monitors) will be used when dust generating activities occur within 500m of sensitive receptors;

[4] Evidence in chief of Donovan Van Kekem, para 68.

- PM_{10} trigger levels will be set for this monitoring, requiring works to cease within 250m of receptors if high dust concentrations are recorded;
- A conveyor belt system, rather than haul trucks, will be used to transport aggregate when extraction activities occur within 250m of the site boundary;
- Restrictions on silt deposition within 250m of the site boundary.

52. We accept the expert evidence that these mitigation measures are consistent with best practice and expected to adequately control dust emissions when works occur close to neighbouring dwellings.

53. We considered the potential value of a condition further restricting bund formation, rehabilitation and overburden stripping to the winter months within 250m of off-site sensitive receptors, or otherwise when soil and silt material is maintained in damp condition. We specifically sought advice from the experts on this matter in our third minute. At the reconvened hearing Mr Curtis[5] considered that a more flexible approach would be appropriate, allowing stripping and rehabilitation of smaller areas of land to occur more frequently. This avoids development of larger stripped areas that could require ongoing dust control until extraction of aggregate occurs. He considered that other proposed conditions of consent adequately address this issue.

54. Mr Curtis stated that the most important mitigation tool is the real-time PM_{10} monitoring with trigger levels that will provide the best feedback on how effective the dust control measures are when operating close to sensitive receptors. Mr Van Kekem attended the reconvened hearing and agreed with this overall approach. He considered that further restrictions when operating within 250m of dwellings are not necessary. We accept their advice and determine that the suite of mitigation and monitoring measures proposed are expected to be sufficient. We have included these as conditions of consent.

55. Subject to implementation of all the proposed dust control measures when works occur close to nearby dwellings, we determine that the setback distances are sufficient. We find on the evidence that significant adverse dust effects are not likely to occur at neighbouring sensitive receptors.

[5] Additional evidence of Andrew Curtis, 5 December 2024, paras 2.7-2.16.

56. In response to concerns raised by submitters, the applicant has proposed a reversal of the staging order of quarrying outlined in the application. Works are now proposed to proceed in an anticlockwise direction and consequently would not occur nearby submitters' residences for many years. The revised plans submitted with the applicant's reply indicate that works would occur near Grange Road receptors from Year 36 and near Aylesbury Road receptors from Year 51. This allows a substantial period of time for proposed boundary plantings (including within the 100m setbacks) to become established.

57. Submitters also noted concerns regarding the potential height of material stockpiles on the site. The proposal is that aggregate stockpiles will usually be in the base of the quarry pit, well below natural ground level. The applicant has now proposed a condition limiting the height of stockpiles to 3m above natural ground level. This is the height of the temporary and long term bunds proposed for the site boundaries. We are satisfied that this control is sufficient to prevent any significant dust or visual impact caused by material stockpiles.

58. The cumulative effects of particulate matter discharges from the Burnham 2020 quarry in combination with discharges from other local quarries and agricultural sources have been considered by the air quality experts. We note that Road Metals operates a quarry on Wards Road northeast of the site and Fulton Hogan has recently been granted consent by SDC to develop a quarry further east on Wards Road.

59. Mr Van Kekem stated[6] that the southernmost extent of the Road Metals Wards Road quarry area is approximately 550 m from the nearest boundary of the proposed Burnham 2020 quarry. He noted that good practice dust mitigation is required at the Road Metals quarry, including use of conveyors to transport aggregate. He considered that there is a "minimal/negligible potential for cumulative air quality effects" in relation to the two quarries. Bearing in mind the location of existing sensitive receptors and the level of mitigation and monitoring proposed, we are satisfied on the evidence that cumulative effects are not likely to be significant.

60. At the reconvened hearing Mr Curtis confirmed that the consented Fulton Hogan Wards Road quarry is approximately 1900m from the northern tip of the Burnham 2020 site. This is a substantial distance and we accept his evidence that there is unlikely to be potential for cumulative effects associated with dust emissions from these two sources.

[6] Evidence in chief of Donovan Van Kekem, para 97.

61. The potential health effects associated with PM_{10} and RCS discharges from the quarry were assessed by Mr Curtis. He commented on the Yaldhurst Study[7] commissioned by the CRC, Christchurch City Council and the Canterbury District Health Board, that undertook a monitoring programme to determine exposure to fine particulate matter and RCS for the Yaldhurst community. Mr Curtis considered that, given the much larger extent of the quarries and processing activities at Yaldhurst (230ha compared to a maximum 27ha active area proposed for Burnham), any results from Yaldhurst will be conservative.

62. Mr Curtis stated that the Yaldhurst Study data set provides robust information to inform assessment of health effects associated with the proposal. He considered that, based on a comparison with the relevant National Environmental Standard (**NES**) for PM_{10} and assessment criteria for RCS, that "there is a very low potential for health effects as a result at this site"[8]. Mr Van Kekem agreed with Mr Curtis that the NES for PM_{10} is unlikely to be exceeded as a result of the discharge. He concluded that there is a low potential for adverse off-site health effects associated with PM_{10} and negligible potential for adverse effects associated with RCS discharges. We accept the expert evidence and find, based on the mitigation and conditions now proposed, that any adverse health effects caused by discharges from the site are likely to be less than minor.

63. Burnham School is located approximately 1.3km south of the quarry site. The applicant had initially proposed to undertake particulate matter monitoring at the school, in response to a submission from the Ministry of Education. However, the Air Quality JWS stated that the experts do not consider that this monitor is required for active dust management. Given the separation distance from the site to the school and the degree of mitigation proposed, we find that there would be little value in monitoring at this location. The evidence is that any adverse effects at the school are predicted to be negligible. We accept this.

64. The Ministry for Defence also raised concerns about potential air quality effects from the proposed quarry at Burnham Military Camp, in regard to effects on the recreational areas as well as offices and residential areas at greater distance from the quarry. Mr Curtis noted that recreational areas are on the northern edge of the base, with the closest area being

[7] Mote (2018): Yaldhurst Air Quality Monitoring - Summary Report: 22 December – 21 April 2018. Report prepared for Environment Canterbury by Mote Limited. Available online at: https://www.ecan.govt.nz
[8] Evidence in chief of Andrew Curtis, para 9.22.

approximately 180m from the quarry. He considered that it is unlikely that these closest areas to the quarry will experience dust nuisance effects that are materially different to those that they might already experience. This is because of the various mitigation measures that are proposed and the proactive monitoring that will ensure that the dust control measures are effective[9]. We accept his evidence in this regard and find that any adverse effects experienced at the military camp are likely to be minor.

65. Burnham 2020 has proposed to undertake a comprehensive RCS monitoring programme. The design of the programme, set out in proffered condition 17, has been agreed during conferencing between Messrs Curtis and Van Kekem. This monitoring would commence once the processing plant is established and Phase 1 extraction is underway. The monitoring would provide additional information to support the findings of the Yaldhurst Study. Results are to be provided to the CRC, Health New Zealand (Te Whatu Ora) and members of the Community Liaison Group (**CLG**). We find that the PM_{10} and RCS monitoring proposed is robust and will provide useful information regarding effects of the discharge. If adverse effects are identified by this monitoring, the CRC would have the ability to review conditions of consent via proposed condition 35.

66. In our third minute we questioned the proposed 250m setback from mobile aggregate processing plants to the site boundary. We noted that this distance is substantially less than the 500m separation proposed for fixed plant at the site which is consistent with Victoria EPA guidance for quarry discharges containing RCS. Processing plants are regarded as the primary source of RCS emissions at the site. We also noted that the Yaldhurst Study referenced by the experts did not appear to contain any information regarding the location and scale of aggregate processing plants relative to the location of the RCS and PM_{10} monitoring sites.

67. Mr Curtis provided evidence to address this matter at the reconvened hearing[10]. Based on review of aerial photographs from the time period of the Yaldhurst Study, he estimated the distance between the processing plants and monitoring sites at Yaldhurst. He noted that this information suggested a slight increase to measured RCS concentrations when a processing plant operated at a distance of 280m from a monitoring site. However, he pointed out that the measured RCS concentration over the 4-month monitoring period of 0.8µg/m^3 was well below the chronic reference exposure level of 3µg/m^3 (annual average).

[9] Evidence in chief of Andrew Curtis, para 10.18
[10] Additional evidence of Andrew Curtis, 5 December 2024, paras 2.17-2.22.

68. We note that there is a degree of uncertainty associated with this information because the most affected monitor was not downwind of the nearest processing plant during the most prevalent wind direction. In addition, no information is available regarding the frequency of operation of the processing plant. Bearing this uncertainty in mind, the applicant confirmed acceptance of a condition restricting the location of mobile processing plants during the earlier phases of quarrying to at least 500m from sensitive receptors. We determine that an additional clause to that condition is appropriate, allowing a request to be made for a reduced setback for mobile plant in future based on review of the on-site RCS monitoring data (required by condition 17) by a suitably qualified and experienced person (**SQEP**). Any such reduced setback distance of not less than 250m would require written approval from the CRC.

69. We determine from the evidence that the level of dust control and monitoring proposed in this case is high. That is appropriate given the scale and duration of operations and the proximity of some sensitive receptors, particularly near the southeastern corner of the quarry site. Additional mitigation is proposed when works occur within 250m of neighbouring dwellings, including use of conveyors. Based on the proffered conditions of consent and the amendments we have discussed, we find that adverse effects of contaminant discharges to air from the site are likely to be minor.

Effects on Groundwater Quality and Drinking Water Supplies

Background

70. The proposed quarry is located over an extensive unconfined to semi-confined aquifer system on Canterbury Plains. Active wells in the area are mostly screened from depths of 35 meters to 60 meters. Groundwater recharge is mainly sourced from infiltration of rainfall and irrigation water with some contribution by seepage from water races[11]. The quality of the recharge water infiltrating through the soils (i.e. land surface recharge) and carrying contaminants from the land use around and upgradient of the site primarily determines the quality of the groundwater.

[11] s42A Report of Lisa Caryn Scott and Jeiselle Capalad, paragraph 11.

71. The groundwater depth assessment in the Hydrogeology Report (Appendix C of AEE Appendix 14) concludes that the depth to groundwater fluctuates over a depth range of around 8 - 19.5 m below ground level in the south-east of the site and around 16.5 - 28 m in the north-west of the site. This means the deepest water table is located on the northwest boundary and the shallowest is located on the southeast boundary.

72. According to the s42A Report[12] the hydrogeology report (Appendix 14 of the AEE) provides an accurate description of the current state of groundwater quality in the area. We accept this. Nitrate nitrogen and faecal pathogens (indicated by E. coli) are the main contaminants affecting groundwater quality.

73. The regional piezometric contours indicate that groundwater is flowing towards the southeast. Because the natural water table at the proposed quarry site is relatively deep and the aquifer is unconfined, there are neither artesian nor water table springs nearby.

74. The protection zones of the community drinking water supply wells (located at Burnham Military Camp and Burnham School) do not extend to the proposed Burnham 2020 Quarry site.

75. There are about sixty-nine active domestic wells within 2 km of the site recorded in CRC's Wells Database. Several wells are also used for irrigation and stockwater supply to rural properties. The database records are not routinely updated and there may be more wells in use that are not in the CRC database.

76. Forty-two of those sixty-nine active domestic wells are less than 50 meters in depth. These relatively shallow wells are mostly concentrated on the south to southeast of the property which is downgradient of the site given the groundwater flow direction. There is no reticulated water supply available to the lifestyle blocks on Two Chain Road, Kerrs Road and Sandy Knolls Road downgradient of the proposed quarry, so these residents must rely on private water supply sources. We have paid careful attention to the effects of the proposal on residents' drinking water quality.

[12] Lisa Caryn Scott and Jeiselle Capalad, paragraph 16

Issues

Effects of quarrying (aggregate extraction)

77. The applicant proposes to progressively remediate the completed quarry phases back to farmland with the final land use not yet concluded. No clean fill is to be imported for this remediation process, instead the land profile will ultimately involve a very large deep hole in the ground with the reinstatement of a topsoil layer sourced from within the site at the bottom of the hole. This will result in a large relatively flat area well below the surrounding natural ground level and approximately 1m above natural highest groundwater levels.

78. According to Mr Callander[13], the removal of the soil during quarrying activities will remove the sources of nitrates and E. coli that currently occur from the agricultural land use, which will make a positive change to the underlying shallow groundwater resource. We took his reference to soil to mean aggregate within the vadose zone.

79. Ms Vosloo considered that given the provision of suitably robust operational management conditions including spill response procedures, delineation of known HAIL sites with any contaminated soil removed from the property and disposed of at a suitable facility, and monitoring of groundwater levels to maintain a 1m separation between quarrying and the highest recorded groundwater level (**HRGL**), the impacts on land use from the quarrying activity to groundwater will be minimal. This was not disputed by other parties. The issues associated with achieving this were canvassed in more detail at the hearing.

80. We have included consent conditions that address all of these matters. We note here that we thoroughly tested the condition relating to maintaining a 1m vadose zone between the quarry floor and the HRGL.

Condition relating to maintenance of a 1m vadose zone

81. The method for determining the HRGL and the practicalities of backfilling quarried land if groundwater levels rise to a level that is higher than their estimated historic levels was examined in the Joint Witness Statement of Lisa Scott, Peter Callander, Jeiselle Capalad and Renate Vosloo[14] (**JWS Groundwater**).

[13] Primary evidence, paragraph 8.12.
[14] Groundwater, 26 September 2024.

82. The experts agreed that the estimate of the HRGL may change over time as a longer record of on-site groundwater levels is gathered and this is allowed for in the proposed consent conditions which require the HRGL to be reviewed at 5-yearly intervals. We directed the Applicant[15] to give consideration as to whether it would be appropriate to review the HRGL (in addition to the 5 year review) in the event that:

- the groundwater level monitoring under Condition 43[16] indicates that the groundwater level has risen; and
- the groundwater level rises above the base of the quarry pit excavation in an area that has yet to be rehabilitated as outlined in Condition 47.

83. The Applicant agreed with this and we have incorporated this requirement into the approved conditions of consent.

Stormwater and Aggregate Wash Water Discharges

84. Whilst there were concerns expressed by submitters about the effects of stormwater and aggregate wash water discharges affecting groundwater, we accept the statement made by Ms Scott in her addendum report[17] where she stated "If the site is well managed, the loading of contaminants should be relatively low, and the level of treatment proposed is generally appropriate for the protection of groundwater quality."

85. The conditions of consent address these discharge sources and ensure (subject to compliance with conditions) that they will be well managed on site.

Storage and use of hazardous substances

86. There was discussion at the hearing about the need for groundwater sampling in response to a spill. However, the combined view of the JWS Groundwater experts was that the circumstances of a spill are so variable that the appropriate response needs to be judged on a case-by-case basis. They agreed that the inclusion of Total Petroleum Hydrocarbons in the regular suite of groundwater monitoring parameters provides routine groundwater surveillance for the typical contaminants expected from a fuel spill.

[15] Via Minute 3.
[16] October condition set, post JWS.
[17] Addendum to Section 42A Officer's Report, Summary Evidence of Lisa Scott, at para 8.

87. According to the JWS Groundwater, both the Applicant's proposed spill condition and the s42A Officers proposed conditions are considered to be appropriate from a groundwater perspective.

88. At the hearing, we queried whether the requirements of Regulation 12 of the NES for Sources of Human Drinking Water should be used as a basis for a condition requiring nearby drinking-water bore owners to be notified of a spill.

89. The experts were of the view that a requirement to notify downgradient bore owners is best to be determined on a case-by-case basis and this is already addressed in the proposed conditions relating to spills, whereby the CRC Manager is informed of details of the steps taken to control and remediate the effects of any spill on the receiving environment, and an assessment of any potential effects on the environment of the spill.

90. The experts recommended that the results of the groundwater monitoring from the regular surveillance monitoring be regularly provided to the Community Liaison Group. We have amended condition 65 of CRC241002 to reflect this.

Management of contaminated soil

91. We have addressed the effects of contaminated soil elsewhere in our decision. No contaminated soil will be used in rehabilitation and any existing contaminated soil will be removed from the site. Subject to the conditions of consent, we find that the risks to groundwater from management of contaminated soil are negligible.

Effects of future land use on rehabilitated quarry land

92. The experts agreed that the key issue of concern for groundwater quality arising from this proposal is the increased vulnerability of the groundwater to contamination once the thickness of the vadose zone is reduced.

93. The proposal will reduce the thickness of the vadose zone above the groundwater table from a current range of approximately 8 to 22 m thick to a minimum of 1 m thick, if the water table reaches previously recorded highest levels (from Section 7.1, Appendix 13 of the AEE). Hence, the future use of the site will need to be managed in a way that avoids

water quality issues on groundwater, particularly the groundwater that supplies the local residents' bore water.

94. This issue was addressed by the relevant experts in the JWS Soils. They agreed that the following covenant condition would be appropriate to manage future land use on rehabilitated quarry land.

95. The experts discussed the wording of consent conditions based on information from the Applicant and the wording in Condition 6 of the Earthworks Consent CRC241002 in the s42A Officers report. It was agreed by the experts that the following modified wording is suitable. *"On completion of the soil rehabilitation activities described in the Soil Management Plan, the rehabilitated area within the area labelled as 'Site' on attached Plan CRC241002A must not be used for the following activities:*

(a) Livestock farming which exceeds stock rates of more than 10 stock units per hectare of the area(s) which have been rehabilitated, whether housed inside or not (including cattle feedlots, pig farms, poultry farms or any other farming operation where animals are housed), or

(b) Intensive winter grazing or strip grazing at any time of the year where the stocking rate exceeds 10 stock units per hectare within the grazed area(s); or

(c) The disposal of collected animal effluent within 700 m of any drinking-water bore in operation at the time this consent was granted (as shown in plan CRC241002A); or

(d) Applications of pesticides at rates above the minimum required to achieve healthy plant growth that may threaten groundwater quality at downgradient drinking-water bores; or

(e) Any activity involving the use or storage of hazardous chemicals, including petroleum products, in quantities greater than normal on rural- property; or

(f) Any onsite wastewater or stormwater disposal where there is a separation distance to the highest recorded groundwater level of less than 1 metre."

96. The experts agreed that with these measures in place, the property can continue to be irrigated both during and following quarrying. We accept the JWS Soil evidence and have included the experts' agreed recommended condition in the approved conditions of consent. We noted that this condition addressed several aspects that were of concern to submitters.

Groundwater Quality Conditions

97. We note here that we tested the adequacy of several of the proposed groundwater quality conditions via Minute 3 and the reconvened hearing. This included:
    - The groundwater monitoring bore locations to ensure that the bores are appropriately located between the quarry activities and the downstream private drinking water supply bores;
    - Groundwater trigger level exceedance follow-up actions with respect to notification and/or testing of private drinking water bore supplies, consideration of alternative supplies of potable water in the event that these bores are affected by activities on the site, and including the Community Liaison Group in the notification chain;
    - Recording the vadose zone depth post rehabilitation. We noted that maintaining a good record of the vadose zone remaining post rehabilitation is required to implement the covenant condition which requires a separation distance to the HRGL of more than 1 metre for any onsite wastewater or stormwater disposal. We also asked the Applicant to comment on whether it is suitable for the depth of the vadose zone post rehabilitation to be brought into the survey data outlined in proposed condition 50 such that a post rehabilitation vadose zone contour map is produced (not just a quarry floor contour map).

98. Mr Callander[18] considered that the monitoring bore locations were appropriate, noting that the two bores in the southeast corner covered different depths within the aquifer, thereby providing more data with respect to water quality in the vicinity of the southeast corner. Ms Scott considered the bore locations were suitable when questioned at the reconvened hearing. We accept their evidence on this matter.

99. With regard to the groundwater quality trigger level exceedance response, Mr Callander stated "*there is no need to notify bore owners immediately if they are not at any immediate risk of an adverse effect. It is preferable to take the time to properly assess the change in water quality and determine an appropriate course of action. If that course of action was determined to include notification of neighbouring drinking-water bore owners, the notification would then be able to include all the relevant assessment information about the cause of the change in groundwater quality and how it should be managed, which is a preferable course of action rather than simply notifying bore owners of a trigger level*

[18] Additional statement of evidence of Peter Callander on behalf of Burnham 2020 Limited. 12 December 2024.

exceedance without any further information that would be derived from a proper investigation".

100. He suggested some rewording of the condition 65 to include "*notifying any downgradient bore owners who might be affected by the change in groundwater quality and, with the agreement of the bore owner, implement measures to avoid, remedy or mitigate any adverse effects on their water supply that are caused by the quarrying activity*".

101. This evidence was not challenged by any party and we accept it. The approved conditions of consent reflect this.

102. Mr Callander considered it was appropriate to record the vadose zone depth post rehabilitation and recommended a change to conditions accordingly. These amendments were not challenged. We accept his amendments and have included them in condition 51 of the approved condition set.

Which consent should the groundwater monitoring conditions sit within?

103. The ECAN officers considered that the groundwater monitoring conditions should be included in the land discharge consent (CRC241000).

104. The applicant's reply stated that groundwater monitoring should continue to occur for the life of the quarry and should not be limited to the term of the discharge consent. We accept this argument and consider that the groundwater monitoring conditions should sit with the land use consent (CRC241002). An additional reason for us reaching this decision is that the covenant on future land use to protect groundwater is attached to the land use consent. We recognise that the conditions of CRC241002 may need to be reviewed when the discharge permit is renewed. However, the review clause in CRC241002 provides for this.

Findings

105. On the basis of the discussion above and subject to the conditions of consent, we find that the adverse effects of the proposal on groundwater quality and drinking water quality will be appropriately avoided, remedied or mitigated.

Effects of the Groundwater Take on Water Quantity, Including Efficiency of Use

106. The Applicant holds two existing consents authorising the take and/or use of water:

a. CRC222536, which authorises the take and use of 210 L/s from four bores for the irrigation of 362 ha. This consent has an annual volume of 1,937,000 m^3.

b. CRC221642, which authorises the use of water taken under CRC222536 for quarrying purposes.

107. The Applicant seeks to replace both existing consents into a single consent to take and use water for the purpose of irrigation and quarrying activities. The proposed water take is located within the Selwyn-Waimakariri Combined Surface and Groundwater Allocation Zone (**SGWAZ**) that is currently identified as over-allocated. The Applicant has taken this into account in determining the water requirements for the quarry and irrigation of the rehabilitation planting.

108. CRC222635 was lodged three months before the expiry of CRC222536 and CRC221642. Under s124(2) of the RMA, CRC allowed the applicant to continue to use their existing consent until CRC222635 is decided, and all appeals are determined.

109. The four existing extraction bores M36/7710, M36/7711, M36/7712, M36/7713 which the Applicant uses for their current water take are between about 148m and 168m deep.

110. In addition to CRC222536, the applicant also receives water from Central Plains Water Limited (**CPW**). The applicant's CPW shareholding of 208 L/s is broadly equivalent to their consented abstraction rate of 210 L/s under CRC222536[19].

111. The property has received water from CPW since October 2018, with CPW water being the primary source of water for irrigation. The property has a CPW allocation of 208 L/s during the irrigation season.

[19] Ms Korevaar, s42A Report paragraph 86.

Discussion of issues

112. We note here that all the water take experts agreed that stream depletion and salt water intrusion effects were negligible due to the considerable distance to the nearest river and the coast. We accept this and do not discuss these issues further.

Effects on neighbouring groundwater users/bore interference

113. Bore interference effects were assessed by the Applicant[20] in accordance with Schedule 12 of the LWRP to test compliance with condition 8 in Rule 11.5.33 of the LWRP. Mr Callander considered the drawdown calculations provided acceptably low drawdown effects in terms of the LWRP Schedule 12 criteria. Ms Korevaar's addendum to the s42A Report Addendum 4 September 2024 paragraph 5 stated "The pump testing to support the current well interference assessment was undertaken in May 2022, and reviewed by CRC staff. The outputs of the updated assessment, being that no parties are considered affected by the proposed renewal, are not disputed."

114. Based on Ms Capalad's assessment, Ms Korevaar agreed with the applicant, and considered that using Schedule 12, the effect of the proposed take on surrounding groundwater users will be less than minor[21].

Findings

115. We accept this evidence and find that the drawdown effects on surrounding groundwater users will be minor.

Efficient Allocation of Groundwater

Discussion – water take for quarrying

116. The quarry related water take volumes sought by the Applicant were explained in the evidence of Mr Edmonds[22]. We noted at the reconvened hearing that there was a discrepancy in the total volume calculations versus stated amounts sought in the text of the

[20] Peter Callander, primary evidence, paragraph 8.3.
[21] S42A Report, paragraph 165.
[22] Primary evidence, table in paragraph 5.62.

evidence. It was acknowledged that there were some transposition errors and it was clarified that the final amount sought for quarrying was 950,000m^3 which aligned with the calculations in the table.

117. Ms Korevaar acknowledged the evidence of Mr Edmonds regarding the higher use of water on the proposed quarry due to the higher silt content in the material on the site, and the variation in the grades of aggregate produced, and therefore the washing required[23]. However, based on the comparison to water use requirements in other quarries (Table 4 of her s42A report), she remained uncertain as to the overall efficiency of the proposed volume sought. We prefer the evidence of Mr Edmonds on this matter as he is an experienced quarry operator and is familiar with water use requirements.

118. In spite of Ms Korevaar's reservations she recommended granting the water take for the quarrying component of the Application (albeit with a 10 year duration which we discuss below)[24].

Discussion – water take for irrigation

119. The Applicant sought an annual volume of 181,440 m^3 for irrigation equivalent to 10 days of irrigation. This was based on a proposed daily volume of 18,144 m^3. The Applicant considered this to be a very efficient assessment of water requirements, and acknowledged the long term irrigation demand for future land use (post rehabilitation) will primarily be met by the CPW supply[25].

120. Ms Korevaar was of the view that the CPW water available to the consent holder fulfils the Policy 4.63 and Schedule 10 requirements in the LWRP and the applicant has not demonstrated the need to retain water for farming related irrigation purposes. This comment related to the 181,440m^3 per annum of groundwater being sought for irrigation.

121. Having access to both CPW and groundwater for irrigation would be an over allocation of a scarce resource. This would result in water not being available for other users and this is not efficient allocation of the resource. We understand Rule 11.5.41 of the LWRP prohibits

[23] s42A Addendum Report, 4 September 2024, paragraph 14.
[24] s42A Addendum Report number 2, 4 September 2024.
[25] S42A Report, paragraph 115.

the consent holder from transferring unused groundwater, given they hold shares in an Irrigation Scheme in the mapped Irrigation Scheme Area.

122. In the right of reply, section 15.15 stated that the company's intent is to primarily use CPW water to irrigate the buffer or rehabilitation plantings. "However, it would be prudent to have some allowance of water for plantings potentially available in case of high seasonal demand and/or CPW disruptions, and the irrigation allowance would also serve this purpose." We understand the rehabilitation plantings are to be primarily grass to support future pastoral land use (subject to the volunteered covenant) and that CPW would be available for this use.

123. We requested via Minute 3 that the Applicant provide more information regarding the use of groundwater being sought for irrigation (over time as the phases of quarrying are worked through) and why they considered the CPW water is not suitable to use for irrigation. In spite of the Applicant challenging the security of supply from CPW, we understand that one of the merits of the CPW was security of supply and that any issues with supply have been addressed.

124. Mr Rippey's evidence dated 12 December 2024 clarified this matter. All water available to the Applicant for CPW is contained within the existing CPW infrastructure serving the existing farming operation. As quarrying progresses anticlockwise by phase around the wider site the CPW infrastructure will be removed to enable extraction.

125. Rehabilitation of each phase of operations will require the reinstatement of CPW infrastructure to enable CPW irrigation of the farmed land post-quarrying.

126. As each phase progresses, rehabilitation back to land suitable for farming will commence. It is probable however that reconstruction of the CPW infrastructure will lag behind the rehabilitation itself. This is because reinstatement of the CPW infrastructure (including the use of smaller pivot irrigators in some areas) will be complex and better built at a larger scale than smaller areas of progressive rehabilitation allow for.

127. In terms of the volume of water required, the Applicant has previously used the *Water Allocation Calculator1* online tool as a general proxy for water per irrigated hectare

requirements both for pasture and rehabilitation planting. The calculator is on online simulation of the *Irricalc* irrigation calculator developed by Aqualinc Research Limited.

128. It is possible that up to 30ha of pasture and native plantings will need to be irrigated prior to the reestablishment of CPW infrastructure. Based on a 30ha requirement at the site using pivot irrigation and 80% Plant Available Water (recommended for Canterbury) an irrigation volume of 179,025m^3 per annum is calculated. For this reason, the retention of 181,440m^3 per annum of groundwater is necessary to enable rehabilitation irrigation in areas where CPW infrastructure has yet to be re-established.

129. Mr Rippey's explanation, as detailed above, was not challenged by the ECAN officers.

130. Ms McCusker's supplementary evidence[26] stated that once quarrying is completed in an area, she would expect that the initial watering of grass and plants to rehabilitate the land could still be considered a quarry activity, and this creates some uncertainty about the availability of CPW for these purposes.

Findings

131. We accept the evidence of Mr Edmonds with regard to the volume of water required for quarrying activities and find that the groundwater volume sought by the Applicant aligns with the amount of water required to support the quarry activities. We consider this to be an efficient allocation of groundwater.

132. We accept Mr Rippey's and Ms McCusker's evidence outlining that an additional allocation of groundwater is needed to irrigate rehabilitation planting, and that the amount sought (181,440m^3) is reasonable.

133. We also accept the final groundwater take volume calculations (1,130,940 cubic metres between 1 July and the following 30 June) and the reasoning for this. We consider the evidence supporting these findings demonstrates that the groundwater allocation will be used efficiently and that there are no over-allocation issues that should arise.

[26] 9 December 2024.

Noise Effects

134. We heard expert noise evidence from Jon Farren on behalf of the applicant, and Jeremy Trevathan, peer reviewer for SDC. There was a high level of agreement between the experts on most matters. In particular they agreed that noise from construction and operational activities on the site can comply with the applicable Partially Operative Plan noise limits during both the day and night. The experts also agreed that the reduction in truck movements would mean that vibration effects would be adequately mitigated.

135. We did not hear contrary evidence from any other parties concerning on-site noise, and based on the expert evidence provided we agree with the conclusion of Mr Henderson that noise effects arising from quarrying and related activities within the site will not be significant and can be appropriately managed through conditions of consent.

136. We agree that the proposed conditions concerning on-site noise contained in draft SDC land use conditions 24 – 29 are appropriate to manage noise effects and ensure compliance with the Partially Operative Plan limits. However, we consider that an additional condition relating to the use of a conveyor belt system for the transport of aggregate when extraction activities are located within 250m of the site boundary should be included in the land use consent. Whilst the primary purpose of the conveyor is to mitigate dust emissions and a similar condition is already proposed in respect of the air discharge consent, we note that Mr Farren also acknowledged that there would also be a subsequent noise reduction benefit from the use of conveyors which he factored into his assessment.

137. The main issue of contention concerning noise related to off-site effects on nearby dwellings at 146 and 168 Aylesbury Road is due to truck movements. Whilst rule NOISE R1.3 states that traffic noise generated within a road is a permitted activity, both noise experts approached their assessments on the basis that as a discretionary activity, off site noise effects due to truck movements resulting from the activity should be considered. The supplementary comments provided by Mr Henderson on 4 September also concurred with this approach, on the basis that traffic noise effects are an amenity effect to be considered in relation to GRUZ Policy P1 and GRUZ Policy P8, and as an amenity effect, is a matter of discretion to consider for mineral extraction as a restricted discretionary activity under Rule R21.1.

138. We agree with that approach. Whilst noise generated within a road is a permitted activity, we must exercise our discretion whether or not to disregard such effects under s104(2). The additional traffic and subsequent noise and vibration generated by a specific proposal is an indirect effect of the activity that would not arise if the activity requiring consent were not to establish. In considering such effects, we have also had regard to the arterial road status of Aylesbury Road, and acknowledge that this does anticipate higher traffic numbers that may increase over time.

139. Mr Farren assessed the properties with the potential for elevated truck noise levels to be those located between the site entrance and State Highway 1 via Aylesbury Road. These are 146 and 168 Aylesbury Road and the Burham Camp. In particular we note that the dwelling at 168 Aylesbury Road owned by a submitter, Mr Salkeld, is located very close to the road, in a location and orientation where noise mitigation measures such as acoustic fencing may be difficult to achieve. We heard from Mr Salkeld, who expressed concern with truck noise, and considered that having vehicles travel north rather than south during early morning operations would address this issue.

140. Based on the revised maximum of 400 truck movements per day, Mr Farren assessed daytime noise effects on average days to be negligible to minor in respect of 146 and 168 Aylesbury Road, and negligible in respect of Burnham Camp. He also considered that, in practice, the quarry will develop over time and it could be several years before quarry truck movements reach anticipated levels. Over this intervening period, it would be typical for the underlying ambient traffic noise to also increase.

141. We note that Mr Trevathan concurred with Mr Farren's assessment of off-site truck noise associated with average days and agreed that any adverse effects, including those on a small number of 550 heavy vehicle movement days, would be modest.

142. We accept those assessments and find that the effects of daytime truck noise arising as a consequence of the quarry activity will be minor.

143. The remaining issue was that of the effect of early morning truck movements between 0500 and 0700 hours on up to 15 days per year (reduced from 30), on 146 and 168 Aylesbury Road. Mr Farren assessed the potential noise effect on 168 Aylesbury Road from 0500 – 0600 to be significant. From 0600 – 0700 when existing traffic noise levels will increase, the effect would be noticeable. He considered that effects on 146 Aylesbury Road would range

from noticeable to minor. Effects on Burnham Camp would be negligible. He considered that the significance of truck noise effects may reduce given that the quarry will develop over time, and that mitigation measures such as acoustic fencing may assist in reducing effects. The applicant had offered a condition to maintain a standing offer to provide acoustic fencing at 168 Aylesbury Road.

144. Mr Trevathan agreed with Mr Farren's truck noise assessments

145. and considered that the frequency of early morning movements should be decreased to 12 days per year, and that noise attenuation measures such as façade improvements and mechanical ventilation should also be considered.

146. We had significant concerns with the effects of early morning truck movements of the proposal as notified on 146 and 168 Aylesbury Road. Due to the location and orientation of the dwelling and vehicle access at 168 Aylesbury Road, we also have doubts as to the practicability of an acoustic fence on that property.

147. The applicant has now addressed noise concerns through amendments to the application which were discussed at the hearing and confirmed in the 11 October and 8 November 2024 memorandums. These include a reversal of the direction of quarrying operations to an anti-clockwise order, and the re-routing of 0500 – 0700 hr truck movements to require them to travel north on Aylesbury Road to SH73. The standing offer to provide acoustic fencing at 168 Aylesbury Road would also remain.

148. We agree that the reversal of the quarry operation order will result in a significant improvement in anticipated dust and noise effects on residential properties in Aylesbury Road, as well as the Grass Gobblers property in Grange Road. It will now be approximately 30 years until quarrying commences close to the Grange Road frontage, and 50 years in respect of the Aylesbury Road properties. This means that buffers and planting will be able to be well established, and monitoring and environmental management measures fine tuned before any potential quarrying effects occur.

149. We expressed concern at the potential adverse effects of truck noise on properties on Aylesbury Road to the north of the site, who may not have submitted on the application on the belief that they would not be affected by early morning movements. In our second minute we requested a joint witness statement (**JWS**) from the acoustic experts addressing

this issue, including potential cumulative effects with the proposed Fulton Hogan Wards Road quarry.

150. The JWS dated 2 October concluded that the dwelling with the greatest potential for adverse truck noise effects is 812 Aylesbury Road, which is located approximately 35 m from the edge of the road. Additional noise from trucks between 0500 and 0600 when only the applicant's trucks will be operating would result in a 5dB $L_{Aeq(1hr)}$ relative change which is potentially noticeable. Effects from 0600-0700 would range from minor to noticeable depending on whether Fulton Hogan trucks are treated as part of the existing environment. They considered this to be a reduced effect compared to that on 168 Aylesbury Road.

151. In our third minute we noted that it was unclear from the JWS how the term "noticeable" corresponds to the magnitude or adversity of such effects. This raised the question as to whether there are adverse effects on parties who were not notified or did not make submissions based on information in the notified application.

152. We were provided with legal submissions from the applicant on 13 December, and an additional statement from SDC from Mr Henderson dated 16 December, accompanied by a legal opinion. We have found that the amendments to early morning truck routes are within the scope of the application as publicly notified.

153. We also sought further clarification from Mr Farren at the reconvened hearing of 18 December. Mr Farren confirmed that the 5dB increase from 0500-0600hrs received at 812 Aylesbury Road is at the low end of the spectrum – and verging on being minor.

154. We also note that although the acoustic JWS and legal advice discussed potential effects on the property at 515 Wards Road, the Wards Road route is no longer being proposed, as now included in condition 70, with all early morning truck movements required to travel north to the SH73 intersection.

155. On the basis of the above discussion we agree that the proposed amendments to early morning truck movements to travel north on Aylesbury Road are within the scope of the application, and that they will not give rise to significant adverse noise effects on any other dwellings, including that at 812 Aylesbury Road. The amendments address the concerns we had regarding early morning noise effects on 146 and 168 Aylesbury Road.

156. For the above reasons we find that actual and potential effects of both on and off-site noise and vibration arising from the quarry operation will be appropriately avoided, remedied or mitigated and will be minor.

Transportation Effects

157. We heard expert evidence on Transport Effects from Mr Metherell for the applicant and peer review evidence from Mr Carr for SDC.

158. We note that the application as publicly notified proposed 750 heavy vehicle movements per day, and that the Integrated Traffic Assessment (**ITA**) prepared by Mr Metherell in respect of the proposal was based on that number. The maximum number of movements was reduced to 400 (with provision for up to 550 movements on 15 days per annum) prior to the hearing to address noise related effects. The assessment and conclusions reached in the original ITA were; therefore, based on higher heavy vehicle movements than is now proposed.

159. We have considered the transportation related effects of the proposal on the basis of the above amendment.

160. Aylesbury Road is an Arterial Road in the PODP and provides a connection to Burnham Road south of State Highway 1 (SH1) about 2.7km south of the Site access. Aylesbury Road meets Bealey Road which then connects to State Highway 73 (SH73) about 7.4 km to the north of the Site access.

161. Mr Metherell advised that Aylesbury Road past the site carries what he considers to be low traffic volumes of less than 500 vehicles per day (vpd), even though it has an Arterial road classification.

162. Traffic volumes increase past the Burnham Military Camp to approximately 3700 vpd on a weekday. SH1 carries traffic volumes that are significantly higher, at approximately 14,000vpd. Mr Metherell observed on multiple occasions that the SH1/Aylesbury Road intersection has some peak period congestion on the side roads, with the northern approach from Aylesbury Road experiencing long queues in the afternoon peak period. There has been a previous history of serious crashes at the intersection leading to

implementation of a lower speed limit that is activated by vehicles turning at the intersection. We were advised that New Zealand Transport Agency (**NZTA**) are presently nearing completion of design of a new roundabout at the SH1/Aylesbury Road intersection proposed to be constructed in the 2024 – 27 Land Transport Programme period as part of a safety improvement package. Mr Metherell advised that the design takes into account the higher level of potential traffic generation of the proposed quarry as notified.

163. The ITA recommended that heavy vehicle movements be limited to 250 per day until the SH1/Aylesbury Road intersection is upgraded by the NZTA. This is included in draft conditions offered by the applicant, which we were advised had been agreed to by NZTA. We have adopted this condition in our decision.

164. The submission by KiwiRail sought that the draft Level Crossing Safety Impact Assessment (**LCSIA**) prepared in respect of the Aylesbury Road level crossing be updated to include an assessment of the effects on the level crossing from the operation of Burnham Quarry including an assessment of the level crossing in relation to the existing intersection at State Highway 1, and the proposed upgrade to a single lane roundabout. In our first minute we requested an updated LCSIA to be provided. An addendum to the LCSIA prepared by Aurecon dated 4 October 2024 was provided to us.

165. The addendum report concludes that: *"With the change in RCA scores the Future Scenario with only background traffic growth outlined in the LCSIA report now meets Criterion 1. The addition of quarry traffic to the level crossing has changed level of risk for the Future scenario from Medium-Low Risk to Medium Risk.*

166. *However, no additions are proposed to the recommendations list included in the 2022 LCSIA as with the addition of quarry traffic the recommended upgrades ensure the crossing meets Criterion 1 and 2 for the Proposal and Criterion 2 for the Future Scenario, meeting KiwiRail's minimum requirements for an existing level crossing."*

167. We are satisfied that the concerns expressed in the KiwiRail submission have been adequately addressed by the LCSIA addendum.

168. Mr Metherell described proposed seal widening improvements on Aylesbury Road between the site access and Two Chain Road to accommodate the additional traffic safely and

efficiently. A range of other improvements and controls are proposed through the conditions of consent that reflect the ITA recommendations, including:

(a) Adjusting kerb positions at Aylesbury Road intersection with Two Chain Road and Wards Road to better accommodate heavy vehicle movement at specific traffic generation thresholds.

(b) Consent conditions limiting the use of local roads by heavy vehicles accessing the quarry.

(c) A transportation management and routing plan (**TMRP**).

169. He considered the site access will be designed to comply with District Plan requirements and located where there is good visibility, as Aylesbury Road is straight, with wide verges.

170. Mr Metherell confirmed that the assessment matters under rule TRAN-R8.2 for High Trip Generating Activities are restricted to those in TRAN-MAT8. We note that these relate to the provision of an ITA dealing with matters concerning access and on-site manoeuvring areas associated with the activity, and effects on efficiency, accessibility of the site, and the land transport network. These do not include amenity related effects. He also considered that rule TRAN-R7 relating to Rural Vehicle Movements and Associated Parking does not apply, as the site fronts an arterial road, and the rule only applies to local and collector roads. This was also addressed by Ms Kelly and confirmed by Mr Henderson.

171. We agree that the rules contained in the PODP transport section do not include any requirements pertaining to amenity values in relation to traffic generating activities on arterial roads. However, we note that the assessment matters pertaining to mineral extraction activities in rule GRUZ R21.1 do include such requirements. In our discussion on noise effects we have concluded that the amenity effects of off-site heavy vehicle movements are a relevant consideration and we have concluded that noise and vibration effects due to such movements will be minor. We do not consider that any other amenity related effects will arise from heavy vehicle movements.

172. Mr Metherell considered that with the proposed conditions of consent, that the proposal can be supported from a transportation engineering effects perspective.

173. The evidence of Mr Carr for SDC reviewed the transportation effects of the proposal. Mr Carr considered that provided the mitigation measures identified and relied on in the ITA are captured in the conditions of consent, that the transportation related effects of the proposal will be appropriately managed. However, his evidence identified several matters that at the time of his preparing evidence had not been addressed in proposed conditions. Mr Carr and Mr Henderson both considered that they required resolution before consent can be granted.

174. These matters related to the timing of Aylesbury Road widening, conditions concerning unsealed sections of Kerrs and Sandy Knolls Roads, Transport Management and Routing Plan provisions, and controls on daily vehicle movement numbers.

175. Following the evidence of Mr Metherell and additional conditions offered by the applicant, Mr Carr provided supplementary comments at the hearing. He considered that some further amendments were required to the draft conditions to fully align with comments made during the hearing and his further comments above, but these were now of a relatively minor nature rather than presenting a fundamental difficulty for the granting of consent (from a transportation perspective).

176. In accordance with our first minute, we were provided with a Transport Joint Witness Statement (**JWS**) addressing remaining areas of concern, and we are satisfied that most remaining transport effects issues have now been addressed in the proposed conditions.

177. The remaining matter of contention between the experts was that of whether or not a rolling average should be included in conditions relating to maximum traffic volumes. Mr Carr noted that the ITA is based on a 'typical' scenario of "around" 300 heavy vehicle movements per day. The draft conditions did not include a control on this figure and he considered it technically possible that the expected maximum of 400 heavy vehicles per day could occur frequently. He considered that there is merit in putting in place a provision for a 'rolling average' value of 300 heavy vehicle movements per day being generated by the site, to align with the ITA analysis. Mr Henderson concurred with this suggestion.

178. Mr Metherell disagreed that a rolling average is necessary, as the ITA had been prepared using a higher daily movement number, and the maximum was not expected to represent an 'everyday' and ongoing traffic volume. He considered this will still apply to the lower

maximum levels now proposed. His analysis showed there is only marginal difference in transport effects between the assessed average day and maximum day.

179. We have considered whether or not a rolling average condition should be included in the SDC conditions. We note that a rolling average condition is already proposed in relation to the Aylesbury Road widening. We agree with Mr Carr and Mr Henderson that there is benefit in including a rolling average condition for daily heavy vehicle movements. Whilst we acknowledge Mr Metherell's opinion that the maximum was not expected to represent an everyday volume, the ITA was based on a typical scenario of 300 movement per day, and this has been relied on by the Council and submitters in assessing the proposal and its potential effects. The inclusion of a rolling average condition will provide some additional certainty that the number and effects of heavy vehicle movements will be consistent with that contained in the ITA.

180. On the basis of the evidence heard and the above discussion, we find that with the imposition of appropriate conditions, as are now proposed, the transportation related effects of the proposed quarry operation will be appropriately avoided, remedied or mitigated and will be minor.

Effects on Landscape Values and Visual Amenity

181. The application as lodged was subject to a landscape strategy plan prepared by Boffa Miskell, which was modified following the initial hearing to reflect the reversal of phasing for quarry operations. This decision is based on the final version of the plan dated 20 January 2025.

182. We note the landscape strategy includes the following features:

- A 1 km long, 3m high permanent bund planted in native vegetation to be established during Phase 1 (initial setup and construction) extending south from the Aylesbury Road site entrance.
- Retention of all linear boundary shelter belts during the life of the quarry operation – to be reinforced to maintain a robust visual screen including planting of gaps in the locations of discussed access points.

- Establishment of temporary 3m high topsoil stockpiles within a 17.5m minimum setback from the edge of each quarry for each phase, providing a temporary bund, with the topsoil being reused for rehabilitation of batter slopes constructed at an average gradient of 1(v):2(h) and planted in native vegetation at the completion of each extraction phase.
- Rehabilitation of the approximately 10m deep pit following each extraction phase, including resurfacing with 400mm of subsoil and topsoil, and sowing with grass seed, to establish pasture for farming activities.
- Establishment of 100m wide setbacks planted in native vegetation along the Grange Road and Aylesbury Road frontages opposite neighbouring rural dwellings. These are to be established from the commencement of phase 6 of extraction.

183. We also note that the proposal has been amended such that the active quarrying area for each stage will not exceed 27ha (reduced from 40ha as notified). This means that at any one time, a maximum of 27 ha of the 362ha site will be used for active quarry operations. The balance of the site at any time, being approximately 335ha in area, will contain pasture or other permitted rural activities (at either existing or post rehabilitation ground level), or permanent planting, including existing boundary shelter planting and up to 30 ha of indigenous planting. The majority of the site will therefore be used for permitted rural activities, and we accept that the landscape and amenity effects of such permitted activities are anticipated in a working rural environment. As such, consideration of landscape and visual amenity effects is only necessary in relation to the 27ha area of active quarry operations existing at any one time, and ensuring successful rehabilitation.

184. We heard expert landscape evidence from Mr Girvan on behalf of the applicant, and Ms Byrne, who conducted a peer review on behalf of the SDC.

185. Mr Girvan considered that the quarry had been designed to address potential adverse landscape effects and ensure the proposed quarrying activity will be successfully absorbed within Canterbury's Low Altitude Plains working rural landscape. The landscape does not form any outstanding natural feature or landscape or special amenity landscape. The site is presently a working dairy farm with exotic grasses, shelterbelts, and farm infrastructure including pivot irrigators.

186. The existing shelter planting would be retained and screening enhanced by a planted bund, and temporary topsoil stockpile bunds. The topsoil would be used for batter slope rehabilitation to establish native planting.

187. The shelter planting and bunding, and the location of quarry activities below natural ground level will mean that there are limited public views into the site for the life of the quarry. This would be further enhanced by 100m wide permanent native planting near dwellings on Aylesbury and Grange Roads. We consider that condition 49 of the conditions set also should include maintenance of planting contained within the 100m setbacks required under condition 48, as discussed at the reconvened hearing.

188. In response to an issue raised in the peer review of Ms Byrne concerning viability of rehabilitation planting on batter slopes, Mr Girvan considered that this would need to be carefully managed to ensure success. However, Mr Girvan was confident that this could be successfully achieved.

189. He considered that overall, the potential for adverse landscape and visual effects will remain limited with any residual long-term effects progressively rehabilitated as landscape mitigation is gradually established through successive phases.

190. Ms Byrne provided peer review comments on behalf of the SDC. She concurred with Mr Girvan's conclusions in relation to landscape and visual effects, and considered that the Landscape Effects Assessment was 'fit for purpose'. She identified an issue concerning the establishment and long-term success of rehabilitation planting on proposed 1:1 batter slopes. Having heard the evidence and responses of Mr Girvan, he considered that there is an opportunity to address this issue through amendment to proposed condition 41 (now condition 44) to include reference to plant trials in the landscape management plan. We note that this had been included in the applicant's amended conditions.

191. On the basis of the evidence heard, we find that actual and potential adverse effects in terms of landscape and rural amenity values will be consistent with the anticipated rural zone environment, and will be less than minor.

Effects on Soil Productivity and Management of Contaminated Soils

Background

192. In this section of our decision we address effects on soil productivity and management of contaminated soils that currently exist on site. We heard that no material will be brought onto the site. Hence, there is no risk of contaminants being introduced from imported materials.

193. The site is not classified as highly productive land in terms of the National Policy Statement for Highly Productive Land 2022. Therefore, this policy statement is not relevant our decision.

194. The site contains three areas that have or had activities listed on the Hazardous Activities and Industries List (**HAIL**) occurring, identified through a Preliminary Site Investigation (**PSI**) conducted on the site (AEE Appendix 11 & 11a). The following HAIL activities have been categorised:

    a. G3 - Landfill sites;

    b. G5 - Waste disposal to land;

    c. G6 – Bulk Storage of Fertiliser; and

    d. A17 - Storage tanks or drums for fuel, chemicals or liquid waste.

    These are described in more detail in the evidence.

Discussion of Issues

Effects on Soil Productivity

195. The evidence of Ms McCusker addressed the effects of the proposal on soil productivity. She stated[27] the Applicant is proposing to manage the soils that are affected by quarrying to achieve the same level of soil productivity as currently occurs. The soil management methodology to achieve this is outlined in section 7 of her evidence. This was not challenged by other expert witnesses.

[27] Paragraphs 10.1

196. This methodology included controls on soil distribution and placement, use of pasture to prepare the soil for agricultural uses and to stabilise the soil, and soil monitoring to confirm progress of the soils along their rehabilitation pathway.

197. The relevant soil experts provided[28] us with agreed wording for a consent condition addressing preparation of a soil management plan that [amongst other matters] "*ensures that the removal, management and placement of soil avoids or minimises impacts on the soil properties prior to and following placement, and that the re-established soil retains or exceeds the soil versatility of the original soil on the site*".

198. In spite of this we tested (via Minute 3) the condition relating to depth of top soil post rehabilitation to provide some certainty that this stated target could be met. We sought further information regarding whether condition 74(c)(i) proposed[29] in relation to RC235522 (requiring a minimum 200mm depth of topsoil supporting successful establishment of all planted areas), is sufficient to support condition CRC241002 20(a) – "*ensure that the removal, management and placement of soil avoids or minimizes impacts on the soil properties prior to and following placement, and that the re-established soil retains or exceeds the soil versatility of the original soil on the site*."

199. This was in light of the statement in Chris Edmonds' supplementary evidence (3 September 2024) that the average depth of topsoil on the site is 350mm. In order to implement CRC241003 20(a), we questioned whether the minimum depth of topsoil should be 350mm.

200. Ms McCusker responded to this issue in her supplementary evidence[30]. She outlined that Mr Edmond's evidence indicated that the average level of topsoil across the entire site was 350mm. This describes the total depth of soil which is a mixture of topsoil and subsoil. We noted that the discrepancy was due in part to Mr Edmonds interpretation of soil types. Ms McCusker stated that due to the site's size, there will be years in which the average depth of soil removed is approximately 300mm. There is a risk that some topsoil may mix with the subsoil, therefore, the Applicant had provided a conservative estimate of 200mm of topsoil to be rehabilitated.

[28] Joint Witness Statement of Katherine McCusker, Lisa Scott, Renate Vosloo and Peter Callander Topic: Soils and Future Land Use, 26 September 2024.
[29] In the Applicants October 2024 condition set.
[30] 9 December 2024.

201. She clarified that following rehabilitation there will be a layer of a minimum of 200mm of subsoil under the topsoil, providing at least 400mm of soil (topsoil and subsoil) suitable for plant growth. The subsoil will be a mixture of subsoil from the site and silts from the quarried material. We heard that these are conservative estimates and greater depth of soil is expected.

202. In Ms McCusker's opinion, given the variation in topsoil depth across the site, it is appropriate for the consent condition to require a minimum of 200mm of topsoil and a minimum of 400mm of soil (topsoil and subsoil) as it effectively recreates the depth of soil that is currently on the northern corner of the site and improves the depth of soil in other areas of the site, which will re-establish pasture and crop production.

203. When questioned, Ms McCusker considered that soil versatility would be maintained, noting that the addition of silt would be expected to increase versatility. None of the ECAN witnesses or submitters challenged Ms McCusker's additional evidence relating to soil productivity. We accept her evidence on this matter.

Findings

204. On the basis of the evidence described above and subject to the conditions of consent, we find that adverse effects of the proposal on soil productivity will be appropriately avoided, remedied or mitigated and that soil productivity will be maintained.

Management of Contaminated Soils

205. Mr Wilson provided a summary statement of evidence outlining the PSI work that had been undertaken and a proposed methodology for identifying and managing contaminated soils on the site. His evidence was not disputed by any parties and his management approach (which is outlined in the conditions of consent) appeared to be supported by the ECAN witnesses as it covered their recommendations in the respective s42A Reports.

206. The aforementioned HAIL sites were considered by Mr Wilson to be small and isolated. The limited soil testing undertaken across the site (15 locations) showed no evidence of any impacts within the surface soils associated with historic forestry and farming operations. The greatest potential for any land contaminating activities is related more to the recent

farming operations, and Mr Wilson did not expect these to cause land contamination that would affect the proposed use of the site as a quarry.

207. The proposed approach to manage the identified potential contamination sources is to undertake a Detailed Site Investigation (**DSI**) for each centre pivot zone (this was amended to each stage of quarrying) at least six months prior to the commencement of quarrying activities. This will ensure that any potential contamination source is identified. The results would be used to prepare a Remedial Action Plan which would outline areas that need to be managed/remediated prior to or as part of the next stage of quarrying.

208. We note that no imported fill will be used on site and any contaminated soil discovered in DSIs will not be placed within excavated areas.

209. The methodology for management of any contaminated soils as outlined by Mr Wilson is reflected in the conditions of consent headed Contaminated Material and Accidental Discovery of Contaminated Material Protocol (CRC421002). These conditions were not challenged by the ECAN officers or submitters.

Findings

210. On the basis of the evidence of Mr Wilson described above and subject to the conditions of consent, we find that contaminated soil will be appropriately managed, thereby avoiding, remedying or mitigating adverse effects on soil and groundwater resources.

Ecological Effects

211. Expert evidence on ecological effects was provided by Mr Hooson. He noted that because the site is entirely intensively managed farmland, the potential ecological effects of the proposed quarry are limited. As part of site rehabilitation, over the life of the project, approximately 30ha will be rehabilitated with native planting. Mr Hooson stated that site rehabilitation offers an opportunity to restore representative indigenous vegetation and habitat for indigenous fauna to an area of the Canterbury Plains that has almost no naturally occurring vegetation remaining.

212. Mr Hooson concluded that overall, and in the long term, with the indigenous plantings that are proposed as part of the site's progressive rehabilitation, the proposal is expected to

result in a net gain in indigenous biodiversity at the site[31]. Mr Hooson's evidence was not disputed by the parties. We accept his conclusions and find that in the long term the proposal is expected to result in positive ecological effects.

Effects on Archaeological Values

213. Archaeological evidence was provided by Mr Wadsworth on behalf of the applicant. He stated[32] that while there is a wider history of Māori and European occupation in the Burnham area, insufficient evidence was found during the assessment research to suggest that the proposed area of works was occupied beyond pastoral uses prior to 1900. He considered it to be unlikely that pre-1900 archaeological material would be uncovered during works in the area.

214. Mr Wadsworth recommended that the proposal could proceed under an archaeological discovery protocol. This discovery protocol is included in the proffered conditions of consent that we have adopted. We accept his evidence and find that any adverse effects in archaeological values are likely to be less than minor.

Effects on Cultural Values

215. The Te Taumutu Rūnanga and Te Ngai Tuahuriri Runanga have been notified and did not make submissions regarding the proposal. The reporting officers have not identified any sites of cultural significance likely to be affected. The applicant has undertaken consultation with Mahaanui Kurataiao Ltd (**MKT**) that represents both Te Taumutu Runanga and Te Ngai Tuahuriri Runanga. MKT stated that iwi are not opposed to quarrying, but noted the following:

    a. Concerns regarding the contamination of groundwater from heavy metals or hydrocarbons from quarrying works, or nitrogen from farming discharges;

    b. Preference that post-rehabilitated land include indigenous planting for rehabilitation;

    c. That post-rehabilitation land should not be used for dairy farming or dairy support to reduce nitrogen loading on groundwater.

[31] Evidence in chief of Scott Hooson, para 1.6.
[32] Evidence in chief of Tristan Wadsworth, para 9.1.

216. The applicant assessed the proposal in relation to the Mahaanui Iwi Management Plan 2013 (**MIMP**) in section 7.3 of the AEE. Ms Vosloo and Ms Korevaar agreed that the applicant is proposing to undertake their operation in a manner that is broadly consistent with the outcomes sought in the MIMP. Mr Henderson also considered that, based on acceptance of the proffered conditions, any cultural effects associated with the proposal are appropriately addressed. We note that the conditions include appropriate limits on post-rehabilitation land use to prevent any significant contamination of groundwater.

217. Approximately 30ha of indigenous planting is proposed over the life of the project. We determine that, subject to the comprehensive set of conditions we have imposed, the proposal will appropriately protect and safeguard the mauri of air and water.

Positive Effects of the Proposal, Including Economic Effects

218. Economic evidence was provided by Mr Hensen on behalf of the applicant. He stated[33] that aggregate has low value but is bulky and heavy to transport, so transport costs rise rapidly if such material has to be carried to an area from afar. He noted that, while there are several existing or consented quarries in the Christchurch hinterland where aggregate could be sourced, there are benefits for competition and supply security in widening the range of available quarries. A larger network of active quarries improves the choice, reliability and timeliness of supply, as well as exerting the pressure on each quarry to search for efficiencies to improve its competitive position.

219. Mr Hensen concluded[34] that regional economic well-being and the efficient use of resources will be served by the addition of the proposed quarry as this increases competition between suppliers and choice for consumers, with lower economic cost of supplies and environmental effect than sourcing aggregates at greater distance.

220. The applicant's economic assessment was reviewed by Property Economics on behalf of SDC. This peer review concluded that the economic benefits of the proposal have not been well established but noted that this is not itself a reason to restrict competition (i.e. refuse consent). They advised that the net economic benefits need to be weighed against any adverse environmental or social cost associated with the proposal.

[33] Evidence in chief of Michael Hensen, para 3.3.
[34] Evidence in chief of Michael Hensen, para 9.2.

221. Overall, we accept Mr Hensen's evidence that there likely to be some long-term economic benefits associated with the proposal. Given that approximately 30ha of the site will be rehabilitated with native planting, we have found that in the long term the proposal is expected to result in positive ecological effects. We have taken these positive effects into account in evaluating the applications under section 104(1) of the Act.

Section 104(1)(b) RMA National Environmental Standards, Policy and Regulations

National Environmental Standards for Air Quality

222. The National Environmental Standards for Air Quality (**NESAQ**) include regulations applicable to the processing of resource consents. Regulation 17 of the NESAQ directs a consent authority to decline an application for a resource consent to discharge PM_{10} if the discharge would be likely, at any time, to increase the concentration of PM_{10} (calculated as a 24-hour mean under Schedule 1 of the NESAQ) by more than 2.5µg/m^3 in any part of a polluted airshed. The proposed quarry is not located in or near a polluted airshed.

223. Based on the mitigation measures proposed, we accept the expert evidence that the limitations specified in the NESAQ are unlikely to be breached by the discharges from the quarry. We find that the NESAQ does not prevent granting of consent in this case.

National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health

224. The National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (**NES-CS**) is administered by territorial authorities (SDC in this case). A land use consent under the NES-CS has been sought from SDC. We find that the requirements of the NES-CS have been met in this regard.

Resource Management (Measurement and reporting of water takes) Regulations 2010

225. The water metering regulations set minimum recording and reporting requirements for all consented takes greater than 5 L/s. The regulations prevail over regional rules and

conditions on water permits, unless the rule or condition is more stringent than the regulations.

226. Given the Applicant's take is greater than 20 L/s, they are required to comply with all aspects of the regulations, including measuring in 15-minute periods and daily reporting.

227. We have included consent conditions that are consistent with the water metering regulations.

The National Policy Statement for Freshwater Management 2020

228. The National Policy Statement for Freshwater Management 2020 (**NPSFM**) provides national level direction for the management of freshwater in New Zealand.

229. The application includes an assessment against the NPSFM in section 8.2 of the AEE and noted that CRC have not yet reviewed their planning documents to implement the NPSFM. The Applicant's assessment is summarised in paragraph 193 of Ms Korevaar's s42A Report. Overall, Ms Korevaar considered the proposal is not contrary to the policy direction in the NPSFM . We accept this.

Resource Management National Environmental Standards for Sources of Human Drinking Water 2007

230. Regulation 12 of the National Environmental Standards for Sources of Human Drinking Water (**NES-DW**) relates to the imposition of a consent condition if an activity may significantly adversely affect a registered drinking-water supply. The only registered drinking-water supply in the immediate downgradient vicinity of the proposed quarry is the NZDF supply to Burnham military camp. Based on the evidence at the hearing there is no credible risk of a significant adverse effect to that supply so there is no requirement under the NES-DW to impose a consent condition based on Regulation 12.

Resource Management (National Environmental Standards for Freshwater) Regulations 2020

231. The Resource Management (National Environmental Standards for Freshwater) Regulations 2020 (**NES-F**) regulates farming activities, works within or near wetlands (including discharges to wetlands), the reclamation of rivers and structures affecting fish passage. The proposal does not involve any works of this nature. Therefore, the NES-F is not relevant.

Section 104(1)(b) RMA Relevant Objectives and Policies

Canterbury Regional Policy Statement

232. We note that Mr Henderson substantially agreed with the applicant's assessment of relevant policies of the Canterbury Regional Policy Statement (**CRPS**) insofar as it pertains to the land use activities. The exception was in relation to transport matters, which we are satisfied are now resolved.

233. Ms Vosloo provided an assessment against the relevant objectives and policies of Chapters 5 (Land Use and Infrastructure), 7 (Freshwater) 14 (Air Quality), 15 (Soil) and 18 (Hazardous Substances), and considered that, with the exception of a concern regarding post rehabilitation activities, the proposal is generally consistent with them. Ms Korevaar also concluded that the application is consistent with the matters in Chapters 5 and 7 and considered that given the LWRP is required to give effect to the CRPS, provided the proposal is consistent with the LWRP, additional specific assessment against the CRPS is not required.

234. Ms Kelly agreed with these assessments and considered that concerns raised by Ms Vosloo in relation to the consistency of post rehabilitation activities with Policies 7.3.6 (avoid additional discharge of contaminants that may further adversely affect water quality) and 7.3.7 (controlling changes in land uses to ensure water quality standards are maintained) were now addressed by the covenant imposed in conditions 32 and 33 of consent RC241002 limiting future land use activities on rehabilitated areas. We agree.

235. On the basis of the above discussion we find that the proposal is consistent with the relevant provisions of the CRPS.

Canterbury Air Regional Plan

236. We note that both Ms Vosloo and Ms Kelly substantially agreed that the proposal is consistent with the relevant objectives and policies of the Canterbury Air Regional Plan (**CARP).** There was also general agreement between the air quality experts Mr Curtis for the applicant and Mr Van Kekem for the CRC as to the effects of contaminants discharged to air from the proposal. These are reflected in the JWS and in amendments adopted by the applicant in the final set of conditions proffered which we have discussed in this decision.

237. We have found that the adverse effects of contaminant discharges to air from the site are likely to be minor.

238. On this basis we find that the proposal is consistent with the relevant objectives and policies of the CARP.

Canterbury Land and Water Regional Plan

239. Both Ms Vosloo and Ms Korevaar provided assessments against relevant objectives and policies of the Canterbury Land and Water Regional Plan (**CLWRP**). We note that there was general agreement between Ms Korevaar and Ms Kelly relating to objectives and policies concerning take and use of water.

240. Ms Vosloo considered that in principle, the proposal was not consistent with Objectives 3.6, 3.8A and 3.24 and Policies 4.2, 4.4, 4.7, 4.13 and 4.14 in relation to maintaining groundwater quality. However, she also considered that there was opportunity to provide for more effective mitigation to address these concerns. Further mitigation by way of amendments and proposed conditions was proposed and we have adopted the proposed conditions.

241. We have found that, subject to the conditions of consent, the adverse effects of the proposal on groundwater quality and drinking water quality will be appropriately avoided, remedied or mitigated. On this basis we find that the proposal is consistent with the relevant objectives and policies of the CLWRP.

Operative and Partially Operative Selwyn District Plans

242. Both Mr Henderson and Ms Kelly agreed that the proposal is generally consistent with the objectives and policies of both the Operative and Partially Operative Selwyn District Plans. The matters of agreement are identified in the evidence of both experts, and we accept those conclusions.

243. In particular we note that Policy GRUZ-P1 of the PODP seeks the maintenance of rural character and amenity by managing adverse effects of mineral and extractive industries, recognising that primary production activities can produce effects such as noise and traffic that may be noticeable to residents and visitors to the General Rural Zone

244. Policy GRUZ-P8 enables mineral extraction in the General Rural Zone while managing the spatial extent and effects of mineral extraction activities in order to maintain the amenity values of sensitive activities and residential activities; internalising adverse environmental effects as far as practicable, including by using industry best practice and management plans; and avoiding mineral extraction on highly productive land.

245. We note that these are "enabling" policies that recognise that extractive industries may establish in the rural zone, and that whilst adverse effects will be managed to maintain rural character and amenity values, not all effects may be internalised and some noticeable effects may occur.

246. Mr Henderson did not consider that the proposal can be considered consistent overall with the objective and policies of the ODP and PODP, given the outstanding concerns in relation to transportation effects identified in Mr Carr's assessment and the noise effects arising from the truck movements raised by Dr Trevathan.

247. We are now satisfied that the amendments to the proposal and proposed consent conditions, which we have discussed in this decision, have adequately addressed these concerns.

248. Accordingly, we find that the proposal is consistent with the relevant objectives and policies of the operative and partially operative district plans.

Section 105(1) RMA Consideration of Alternatives

249. In relation to the proposed discharges, we are required to have regard to:
   (a) the nature of the discharge and the sensitivity of the receiving environment to adverse effects; and
   (b) the applicant's reasons for the proposed choice; and
   (c) any possible alternative methods of discharge, including discharge into any other receiving environment.

250. With regard to alternative quarry sites, Mr Hensen stated[35] that estimates of the annual production and remaining stocks of the 17 or so existing quarries identified in Christchurch's hinterland suggest there could be sufficient resource available to meet somewhere between 14 and 20 years of further production at current annual demand levels. However, he noted that demand for new sources of quarry material is likely to increase in the future, partly in response to population growth fuelling new building for residential and work purposes. Mr Hensen considered that there are benefits for competition and supply security in widening the range of available quarries for aggregate supply. We accept these conclusions.

251. Ms Campbell submitted that the proposed quarry is appropriately located in the district's rural zone, on an arterial road close to major transport routes, on a large well screened site with few close neighbours. Mr Van Kekem considered that it is appropriate from an air quality perspective for a quarry to be situated in a rural environment generally well separated from nearby sensitive receptors. We are satisfied that the risk to groundwater and nearby drinking water supplies can be appropriately mitigated. We conclude that the selected site is suitable for the proposed quarry development and that adverse effects can be adequately mitigated.

252. In terms of alternative methods of discharge, the applicant has modified the proposal to use aggregate conveyers when quarrying occurs within 250m of sensitive receptors. This will reduce dust emissions from heavy vehicle movements close to dwellings. We accept the advice of the air quality experts that this amendment will reduce the risk of adverse dust effects at neighbouring properties.

[35] Evidence in chief of Michael Hensen, para 3.8.

253. The applicant and s42A officers have appropriately addressed section 105 matters. We record that we have had regard to the nature of the discharge and sensitivity of the receiving environment, the applicant's reasons for the proposed choice, and possible alternative methods of discharge in reaching our decision.

Part 2 of the Act

254. We accept the opinions of the planning experts that the matters listed in Part 2 of relevance to the applications have been given regard in the relevant planning documents. Given our view that the proposal is generally consistent with the policy direction in those documents, we do not consider it necessary to refer to Part 2 matters, in accordance with the Court of Appeal decision in *RJ Davidson*.[36]

255. We find no reasons to conclude that the regional or district planning documents have been prepared in any less than a competent manner, nor that there is any need to give further consideration to the applications in accordance with Part 2 of the Act.

256. We nevertheless record our finding that granting the applications would be consistent with Part 2. A grant of consents would achieve the sustainable management purpose of the RMA and meet the associated principles. With respect to s7(b), we find that the project will enable the efficient use and development of the aggregate resource contained within the site and is well located to make efficient use of the existing road network infrastructure. We highlight that we have recognised and provided for the concerns of Māori and have had particular regard to the maintenance of amenity values and of the quality of the environment.

Duration of Consents

257. The applicant seeks unlimited durations for the SDC and CRC land use consents. A 20-year term is sought for the water take and a duration of 35 years is requested by the applicant for the remaining consents. Shorter consent durations have been recommended by the council officers. Ms Campbell in the applicant's reply stated that the duration for which the

[36] RJ Davidson family Trust v Marlborough District Council [2018] NZCA 316.

various consents ought to be granted is the most significant outstanding issue between Burnham 2020 and the Council reporting officers.

Duration of the Water Take Consent

258. We note that the site is located within an over-allocated zone (SGWAZ) and that Policy 4.74 is important for consideration of the duration of consent.

259. Policy 4.74 of the LWRP states:

Resource consents for the use of land for farming activities and the associated discharge of nutrients in catchments that are within a Nutrient Allocation Zone in which water quality outcomes are not met (areas coloured Red on the Series A Planning Maps) and resource consents for water take and use in catchments or groundwater allocation zones that are over-allocated will generally be for a specified term not exceeding 15 years (with any nutrient losses from farming, nutrient discharges, and rates and volumes of water taken being subject to regular review under section 128(1)(a) of the RMA) if the land use and associated nutrient discharges or water take and use may impede the ability of the community to find an integrated solution to manage water quality and the over-allocation of water. The general presumption of a 15 year maximum term will not necessarily be applicable in relation to the taking and use of water for regionally significant infrastructure.

260. The Applicant provided a condition set for the water take and use in October 2024 for comment. This included a consent duration of 20 years. The ECAN officers requested us to note Ms Korevaar had recommended a duration of 10-15 years in accordance with Policy 4.11 of LWRP in her s42A Addendum dated 4 September 2024. Ms Korevaar considered that the uncertainty described in support of a shorter duration is relevant, as well as the LWRP policy guidance which directs short durations for applications to take and use water in over-allocated zones.

261. However, in her s42A Report[37] Ms Korevaar stated that subject to greater certainty around the water requirements for the quarrying activity, "*I consider a 20 year duration may be appropriate, given:*

a. The take and use of water for quarrying activities is a key component of the mitigation measures for the wider quarrying activities;

[37] Paragraph 248

b. Compared to the existing consent, the proposal represents a significant reduction in the volume of water allocated to the SGWAZ."

262. The evidence provided by the Applicant with regard to the amount of groundwater required was discussed in the groundwater take effects section of our decision. This evidence removed the uncertainties referred to by Ms Korevaar.

263. The Right of Reply addressed the duration of this consent[38]. In particular it noted that the proposal takes into account the over-allocated status of the catchment by:

(a) Reducing the proposed water take by 41.6%, far exceeding the minimum reduction of 10% specified in Policy 4.50 of the CLWRP; and

(b) More than doubling the 19.3% reduction that would be proportionately required by all users to remedy overallocation in the catchment.

264. We note there is a significant reduction from the existing water allocation.

265. We have decided to grant the water take and use permit for 20 years. The reasons for this include:

- The consent significantly reduces an existing water allocation;
- The take and use of water for quarrying activities is a key component of the mitigation measures for the wider quarrying activities;
- The Applicant's evidence removed any uncertainty with respect to the volumes of water needed for quarrying and rehabilitation irrigation;
- The water take and use will not impede the ability of the community to find an integrated solution to manage water quality and the over-allocation of water;
- The permit provides a degree of certainty for the Applicant noting that considerable investment is required to implement the proposal;
- The monitoring and review clauses in the water permit conditions of CRC222635 enable refinements to the allocated volumes over time which promotes efficient use of water.

<u>Duration of Other Consents</u>

266. Mr Edmonds stated that the proposal involves installation of approximately $25 million of fixed plant that would be difficult to relocate. Grass Gobblers Limited submitted that much of the equipment is mobile and can be relocated, weakening the argument in favour of long-term consents. We find that the capital investment involved in establishing the quarry

[38] Paragraphs 2.19 to 2.22.

is significant and that there are also substantial costs associated with obtaining resource consents and ongoing monitoring. We are mindful of the expected life of the quarry and note that security of investment is an important factor in our decision on duration.

267. Ms Kelly noted[39] that the key factors supporting the terms of consent sought by the applicant are:

- Provision of security of term is consistent with sustainable management;
- The level of adverse effects of the activity on the environment, particularly in the Regional Council's sphere, are very low;
- It is not likely that a significantly better site will become available in the future;
- The site's zoning (General Rural in the Partially Operative District Plan) is the most appropriate for quarrying;
- There is no significant uncertainty about the effectiveness of the conditions proposed for mitigating the activity's effects;
- The consents will all have review conditions that could be used to address any unforeseen issues;
- The economic life of the quarry (approximately 60 years, depending on demand) supports a longer term of consent; and
- While there is potential for new technologies, methods and environmental standards, they can be addressed by review conditions.

268. Ms Kelly recognised the appeal of aligning the duration of the water take and use consent with the duration of the discharge consents but considered that this is not necessary for environmental reasons. She stated that the discharge consents relate to effects that are well understood and can be properly and responsively managed through the proposed conditions. We agree.

269. We find that the reasons put forward by Ms Kelly for granting long-term consents are sound. We accept that the quarry site is appropriate and that adverse effects can be avoided or mitigated. This is a major, long-term project where considerable investment will be required in infrastructure, native plantings and monitoring. Good practice mitigation is proposed and the conditions we intend to impose are comprehensive. We consider that granting long-term consents will provide appropriate security of investment for the applicant in this case.

[39] Evidence in chief of Claire Kelly, para 11.5.

270. We conclude that the conditions we have imposed will adequately address the concerns expressed by submitters and officers whilst also providing for a review of those conditions should any adverse effects arise from the exercise of the consents, in accordance with section 128 of the Act.

271. For the above reasons, we determine that consent durations will be:
    - Unlimited for the SDC and CRC land use consents;
    - 35 years for the CRC discharge consents; and
    - 20 years for the CRC water take and use consent.

Conditions of Consent

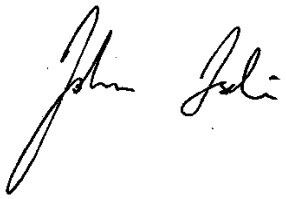
272. The parties provided substantial input to refine potential conditions of consent following the initial hearing. Revised conditions and comments on the same have been circulated in accordance with our directions. Further refinement of proposed conditions occurred at the reconvened hearing on 18th December 2024. As a result, a final set of proffered conditions was provided by the applicant on 20th December 2024. Corrections to plans and appendices attached to these conditions were provided on 20th January 2025.

273. We have considered all that information, including comments from officers and submitters, in making our determination on conditions. Any matters of significance regarding conditions that were disputed between the parties have been discussed during our evaluation of effects. We note that there was ultimately a high degree of agreement between the officers and the applicant regarding suitable conditions of consent.

Decision

274. **For the above reasons, it is the decision of the Canterbury Regional Council and the Selwyn District Council, pursuant to sections 104, 104A, 104B, 105 and 107, and subject to Part 2 of the Resource Management Act 1991, to grant the applications by Burnham 2020 Limited for consents CRC241000, CRC2410001, CRC2410002, CRC222635 and RC235522 for the durations we have specified and subject to the conditions attached.**

Dated this 12th day of February 2025



John Iseli (Chair)

Graham Taylor

Craig Welsh

Hearing Commissioners