Application for Resource Consent and Assessment of Effects on the Environment

Wheatsheaf Quarry Expansion

Winstone Aggregates, a division of Fletcher Concrete and Infrastructure Limited

Submitted to:

Selwyn District Council
Canterbury Regional Council

BLIGH

July 2024

Report Number: BPE-2024-R-WA-001

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APPLICATION FOR RESOURCE CONSENT

UNDER SECTION 88 OF THE

RESOURCE MANAGEMENT ACT 1991

To: Selwyn District Council
PO Box 90
Rolleston 7643

1) **We, Winstone Aggregates, a division of Fletcher Concrete and Infrastructure Limited (Winstone) (50 Selwyn Road, Selwyn) apply for the following type(s) of resource consent:**

A land use consent to expand the existing Winstone Wheatsheaf quarry, together with associated extraction of aggregates, rehabilitation of the site, associated vehicle movements and supporting activities including effects mitigation, into an additional area of approximately 4 ha of land known as the Sullivan Block.

Stockpiling and processing of aggregates will occur on the existing quarry site using existing processing plant, with vehicle movements utilising the existing heavy vehicle access from Selwyn Road.

Consent is required for the following rule infringement of the Partially Operative Selwyn District Plan – Appeals Version (POSDP):

- The expansion of a quarrying activity is a discretionary activity in accordance with Rule GRUZ-R21.3 of the POSDP.

Consent is also sought in accordance with any rule requirements or rule infringements arising from the activity which have inadvertently been omitted from this application.

An unlimited duration is sought for this consent.

2) **The activity to which the application relates (the proposed activity) is as follows:**

Winstone is seeking to continue their quarrying operations at their Wheatsheaf quarry through expansion of quarrying activities into an adjoining land parcel known as the 'Sullivan Block'.

A detailed description of the activity is contained in Part B (Assessment of Effects on the Environment) of this report.

3) **The site at which the proposed activity is to occur is as follows:**

The existing Wheatsheaf quarry and proposed expansion is located at 50 Selwyn Road, Broadfield, within the General Rural zone of the POSDP.

The land parcels which are the subject of this application are legally described as

- Lot 2 Deposited Plan 80577 (the Sullivan Block) (contained within Record of Title CB46B/185)
- Part Rural Section 6662 and Lot 2-3 Deposited Plan 463714 (616789)
- Lot 4 Deposited Plan 463714 (616790)
- Lot 2 Deposited Plan 478287 and Lot 1 Deposited Plan 467327 and Lot 1 Deposited Plan 25795 (664360)
- Lot 1 Deposited Plan 80577 (CB46B/184)

- Res 388 Block IV Leeston SD – being a gazetted piece of land understood to be owned by Selwyn District Council.

The extraction sought under this consent will primarily occur within the Sullivan Block although a small component of the extraction will occur within the existing quarry to enable extraction to move through the existing quarry batters and walls into the Sullivan Block.

All land parcels are included in these applications owing to the processing, stockpiling and sale of material from the Sullivan Block occurring within the main quarry, and as material is to be transported from the Sullivan Block to these processing and stockpiling areas and then utilise the existing heavy vehicle access.

A copy of the Records of Title for the site are contained in Appendix B.

The location of the site is shown on Figure 1 and is described in further detail in Part B.

4) The full name and address of each owner or occupier (other than the applicant) of the site to which the application relates are as follows:

Selwyn District Council – PO Box 90, Rolleston 7643, as the owner of the gazetted piece of land at 50 Selwyn Road.

5) There are no other activities that are part of the proposal to which this application relates.

6) The following additional resource consents are needed for the proposal to which this application relates and have been applied for:

- Land use consent and a discharge permit for the associated discharge of contaminants under the Canterbury Land and Water Regional Plan (LWRP) for the deposition of more than 50 m^3 of material in any consecutive 12-month period onto land which is excavated to a depth in excess of 5 m below the natural land surface and over an unconfined or semi-confined aquifer (as part of site rehabilitation) which meets the relevant rule conditions, as a controlled activity pursuant to Rule 5.177 of the LWRP.
- Discharges to air from extraction and rehabilitation activities within the expansion area will require consent under Rule 7.63 of the Canterbury Air Regional Plan (CARP) as a discretionary activity.
- Changes to the conditions of RC145099 and RC215749 to align this consent with rehabilitation, landscaping, and other aspects of the Sullivan Block expansion.
- A partial transfer of water permit CRC212834.

7) We attach an assessment of the proposed activity's effect on the environment that–

a. Includes the information requested by clause 6 of Schedule 4 on the Resource Management Act 1991.

b. Addresses the matters specified in clause 7 of Schedule 4 of the Resource Management Act 1991.

c. Includes such detail as corresponds with the scale and significance of the effects that the activity may have on the environment.

8) We attach an assessment of the proposed activity against the matters set out in Part 2 of the Resource Management Act 1991.

9) We attach an assessment of the proposed activity against any relevant provisions of a document referred to in section 104(1)(b) of the Resource Management Act 1991, including the information required by clause 2(2) of Schedule 4 of that Act.

This application includes an assessment against the National Policy Statement for Highly Productive Land, Canterbury Regional Policy Statement and the POSDP.

10) **We attach the following further information required to be included in this application by the district plan, the Resource Management Act 1991, or any regulations made under that Act:**

A draft Dust Management Plan (DMP), a draft Cleanfill Management Plan (CMP) and a draft Quarry Site Rehabilitation Plan (QSRP) are included in the Quarry Management Plan (QMP) contained in Appendix I.

Dated this 8th day of July 2024.

Signature:

Signature of the applicant (or person authorised to sign on behalf of the applicant)

Address for service:

Kevin Bligh
Bligh Planning and Engagement Limited
PO Box 69229
Lincoln
Christchurch 7640
Telephone: 021 0250 6379
Email: kevin@bligh.co.nz

Address for fees/charges:

Tyler Sharratt
Winstone Aggregates, a division of Fletcher Concrete and Infrastructure Limited
PO Box 17-195
Greenlane
Auckland 1546
027 202 9453
Email: tyler.sharratt@winstoneaggregates.co.nz

APPLICATION FOR A CHANGE OF CONDITION ON A RESOURCE CONSENT

UNDER SECTION 127 OF THE

RESOURCE MANAGEMENT ACT 1991

To: Selwyn District Council
PO Box 90
Rolleston 7643

1) **We, Winstone Aggregates, a division of Fletcher Concrete and Infrastructure Limited (Winstone) (50 Selwyn Road, Selwyn) apply for a change of conditions of resource consents in accordance with section 127 of the RMA.**

2) **The full name and address of each owner or occupier (other than the applicant) of the site to which the application relates are as follows:**

   Selwyn District Council – PO Box 90, Rolleston 7643, as the owner of the gazetted piece of land on Selwyn Road.

3) **The application relates to land use consents RC145099 and RC215749 relating to the operation and expansion of the Wheatsheaf Quarry.**

4) **The application relates to changes to conditions as set out in Appendix C, and any consequential amendments to conditions or plans as may be required.**

5) **The requested changes to the consent conditions are as follows:**

   Changes are required to the consent conditions to enable Winstone to:

   - remove quarry walls, batters, bunds, and existing landscaping to allow Winstone work from the existing quarry into the Sullivan Block expansion, allowing extraction to continue below ground level and as a continuation of the existing operation;
   - access the Sullivan Block from the existing quarry site;
   - integrate rehabilitation between the existing quarry and the Sullivan Block; and
   - any other or consequential amendments, to the consent conditions to make these more workable and reflect current site operations while aligning it with the proposed quarry expansion mitigation measures.

   The condition changes proposed are discussed in detail in the supporting documentation included in Part B, and the wording of the changes is included in full in Appendix C.

6) **The site at which the proposed activity is to occur is as follows:**

   The existing Wheatsheaf quarry and proposed expansion is located at 50 Selwyn Road, Broadfield, within the General Rural zone of the POSDP.

   The land parcels which are the subject of this application are legally described as

   - Lot 2 Deposited Plan 80577 (the Sullivan Block) (contained within Record of Title CB46B/185)
   - Part Rural Section 6662 and Lot 2-3 Deposited Plan 463714 (616789)
   - Lot 4 Deposited Plan 463714 (616790)

- Lot 2 Deposited Plan 478287 and Lot 1 Deposited Plan 467327 and Lot 1 Deposited Plan 25795 (664360)
- Lot 1 Deposited Plan 80577 (CB46B/184)
- Res 388 Block IV Leeston SD – being a gazetted piece of land owned by Selwyn District Council.

A copy of the Records of Title for the site are contained in Appendix B.

The location of the site is shown on Figure 1 and is described in further detail in Part B.

7) The other activities that are relevant to the proposal to which this application relates are as follows:

Winstone is seeking new consents from SDC and CRC to continue its quarrying operations at through expansion of the existing Wheatsheaf quarry into the Sullivan Block.

A detailed description of the activity is contained in Part B (Assessment of Effects on the Environment) of this report, together with a discussion of the changes sought to consent conditions. The changes to conditions are outlined in full in Appendix C.

8) We attach an assessment of the proposed activity's effect on the environment that—

a) Includes the information requested by clause 6 of Schedule 4 of the Resource Management Act 1991.

b) Addresses the matters specified in clause 7 of Schedule 4 of the Resource Management Act 1991.

c) Includes such detail as corresponds with the scale and significance of the effects that the activity may have on the environment.

9) We attach an assessment of the proposed change against the matters set out in Part 2 of the Resource Management Act (RMA) 1991.

10) We attach an assessment of the proposed change against any relevant provisions of a document referred to in section 104(1)(b) of the Resource Management Act 1991, including the information required by clause 2(2) of Schedule 4 of that Act.

This application includes an assessment against the Canterbury Regional Policy Statement and the POSDP.

11) We attach the following further information required to be included in this application by the district plan, the Resource Management Act 1991 or any regulations made under that Act:

The proposed changes to conditions are set out in full in Appendix C.

Dated this 8th day of July 2024.

Signature:

Signature of the applicant (or person authorised to sign on behalf of the applicant)

Address for service:

Kevin Bligh
Bligh Planning and Engagement Limited
PO Box 69229
Lincoln
Christchurch 7640
Telephone: 021 0250 6379
Email: kevin@bligh.co.nz

Address for fees/charges:

Tyler Sharratt
Winstone Aggregates, a division of Fletcher Concrete and Infrastructure Limited
PO Box 17-195
Greenlane
Auckland 1546
027 202 9453
Email: tyler.sharratt@winstoneaggregates.co.nz

APPLICATION FOR RESOURCE CONSENT

UNDER SECTION 88 OF THE

RESOURCE MANAGEMENT ACT 1991

To: Canterbury Regional Council
PO Box 345
Christchurch 8140

1) **We, Winstone Aggregates, a division of Fletcher Concrete and Infrastructure Limited (Winstone) (50 Selwyn Road, Selwyn) apply for the following type(s) of resource consents:**

- A land use consent for the deposition of more than 50 m³ of material in any consecutive 12-month period onto land which is excavated to a depth in excess of 5 m below the natural land surface over an unconfined or semiconfined aquifer which meets the relevant rule conditions, as a controlled activity pursuant to Rule 5.177 of the Canterbury Land and Water Regional Plan (LWRP) LWRP; and
- A discharge permit for the associated discharge of contaminants from deposition activities as part of site rehabilitation; as a controlled activity pursuant to Rule 5.177 of the LWRP; and
- A discharge permit under the Canterbury Air Regional Plan (CARP) for the discharge of contaminants into air:
  - from an industrial or trade premise or process, where the proposed quarrying activity does not meet the relevant permitted activity conditions of Rule 7.35, as a discretionary activity pursuant to Rule 7.63, and
  - from site rehabilitation which does not meet the relevant permitted activity conditions of Rule 7.49, as a discretionary activity pursuant to Rule 7.63.

Consent is also sought for any other resource consents which may be required for the proposed activity which have inadvertently been omitted from this application.

A consent duration until 22 July 2042 is sought for these consents.

2) **The activity to which the application relates (the proposed activity) is as follows:**

Winstone is seeking to continue their quarrying operations at their Wheatsheaf quarry through expansion of quarrying activities into an adjoining land parcel known as the Sullivan Block.

A detailed description of the activity is contained in Part B (Assessment of Effects on the Environment) of this report.

3) **The site at which the proposed activity is to occur is as follows:**

The existing Wheatsheaf quarry and proposed expansion is located at 50 Selwyn Road, Broadfield, within the General Rural zone of the POSDP.

The land parcels which are the subject of this application are legally described as

- Lot 2 Deposited Plan 80577 (the Sullivan Block) (contained within Record of Title CB46B/185**)**
- Part Rural Section 6662 and Lot 2-3 Deposited Plan 463714 (616789)
- Lot 4 Deposited Plan 463714 (616790)
- Lot 2 Deposited Plan 478287 and Lot 1 Deposited Plan 467327 and Lot 1 Deposited Plan 25795 (664360)

- Lot 1 Deposited Plan 80577 (CB46B/184)
- Res 388 Block IV Leeston SD – being a gazetted piece of land owned by Selwyn District Council.

The extraction sought under this consent will primarily occur within the Sullivan Block although a component of the extraction will occur within the existing quarry to enable extraction to move through the existing quarry batters and walls into the Sullivan Block.

All land parcels are included in these applications owing to the processing, stockpiling and sale of material from the Sullivan Block occurring within the main quarry, and as material is to be transported from the Sullivan Block to these processing and stockpiling areas and then utilise the existing heavy vehicle access.

A copy of the Records of Title for the site is contained in Appendix B.

The location of the site is shown on Figure 1 and is described in further detail in Part B.

4) The full name and address of each owner or occupier (other than the applicant) of the site to which the application relates are as follows:

Christchurch City Council – PO Box 90, Rolleston 7643, as the owner of the gazetted piece of land at 50 Selwyn Road.

5) There are no other activities that are part of the proposal to which this application relates.

6) The following additional resource consents are needed for the proposal to which this application relates and are being sought concurrently with this application:

Winstone also requires land use consent from the Selwyn District Council (SDC) to authorise the expansion, as well as changes of conditions to SDC consents RC145099 and RC215749, and a partial transfer of water permit CRC212834. These applications are being lodged concurrently.

7) We attach an assessment of the proposed activity's effect on the environment that–

a. Includes the information requested by clause 6 of Schedule 4 on the Resource Management Act 1991.

b. Addresses the matters specified in clause 7 of Schedule 4 of the Resource Management Act 1991.

c. Includes such detail as corresponds with the scale and significance of the effects that the activity may have on the environment.

8) We attach an assessment of the proposed activity against the matters set out in Part 2 of the Resource Management Act 1991.

9) We attach an assessment of the proposed activity against any relevant provisions of a document referred to in section 104(1)(b) of the Resource Management Act 1991, including the information required by clause 2(2) of Schedule 4 of that Act.

This application includes an assessment against the National Policy Statement for Freshwater Management, the Canterbury Regional Policy Statement, the LWRP and the CARP.

10) We attach the following further information required to be included in this application by the regional plan, the Resource Management Act 1991, or any regulations made under that Act:

A draft Dust Management Plan (DMP), a draft updated Cleanfill Management Plan (CMP) and a Quarry Site Rehabilitation Plan (QSRP) are included in the Quarry Management Plan (QMP) contained in Appendix I.

Dated this 8th day of July 2024.

Signature:

Signature of the applicant (or person authorised to sign on behalf of the applicant)

Address for service:

Kevin Bligh
Bligh Planning and Engagement Limited
PO Box 69229
Lincoln
Christchurch 7640
Telephone: 021 0250 6379
Email: kevin@bligh.co.nz

Address for fees/charges:

Tyler Sharratt
Winstone Aggregates, a division of Fletcher Concrete and Infrastructure Limited
PO Box 17-195
Greenlane
Auckland 1546
027 202 9453
Email: tyler.sharratt@winstoneaggregates.co.nz

APPLICATION FOR TRANSFER OF A WATER PERMIT OR DISCHARGE PERMIT

UNDER SECTION 136 OF THE

RESOURCE MANAGEMENT ACT 1991

To: Canterbury Regional Council
PO Box 345
Christchurch 8140

1) **We, Winstone Aggregates, a division of Fletcher Concrete and Infrastructure Limited (Winstone) (50 Selwyn Road, Selwyn) apply to partially transfer the following water permit:**

   CRC212834 which provides for the take and use of groundwater at the Winstone Wheatsheaf Quarry operation at 50 Selwyn Road, Broadfield, to allow the take and use of this water for Lot 2 Deposited Plan 80577 (the Sullivan Block) at 668 Robinsons Road until such time as rehabilitation is completed on the Sullivan Block - meaning the transfer is partial and temporary.

2) **We attach a copy of the water permit.**

3) **The application is to transfer the permit with effect either on the date the consents for the Sullivan Block extensions are granted, or immediately before works commence within the area where the transfer is to apply.**

4) **The proposed site of the transferred permit is:**

   The proposed expansion is located at 668 Robinsons Road, Broadfield, within the General Rural zone of the POSDP.

   The land parcels which are the subject of this application are legally described as

   - Lot 2 Deposited Plan 80577 (the Sullivan Block) (contained within Record of Title CB46B/185**)**
   - Part Rural Section 6662 and Lot 2-3 Deposited Plan 463714 (616789)
   - Lot 4 Deposited Plan 463714 (616790)
   - Lot 2 Deposited Plan 478287 and Lot 1 Deposited Plan 467327 and Lot 1 Deposited Plan 25795 (664360)
   - Lot 1 Deposited Plan 80577 (CB46B/184)
   - Res 388 Block IV Leeston SD – being a gazetted piece of land owned by Selwyn District Council.

   Except for the Sullivan Block (Lot 2 DP 80577), this land is either within the scope of CRC212834 or CRC213144, which was granted as part of the previous B and C Block expansion of Wheatsheaf Quarry. A copy of the Records of Title for the site is contained in Appendix B.

   The location of the site is shown on Figure 1 with specific detail about the transfer is included in **Appendix D** discussing the reasonable use of the water and the volumes to be transferred and retained.

   The partial transfer will need to expire on or before the expiry date of CRC212834 which is 31 January 2035.

5) **The full name and address of each owner or occupier (other than the applicant) of the site to which the application relates are as follows:**

   Selwyn District Council – PO Box 90, Rolleston 7643, as the owner of the gazetted piece of land at 50 Selwyn Road.

6) **The other activities that are part of the proposal to which the application relates are as follows:**

Several other resource consents are required from both CRC and SDC for the proposed quarry expansion. These are outlined in the other forms included with this application and discussed in further detail in Part B.

7) **We attach an assessment of the proposed activities effect on the environment that—**

a) Includes the information requested by clause 6 of Schedule 4 on the Resource Management Act 1991.

b) Addresses the matters specified in clause 7 of Schedule 4 of the Resource Management Act 1991.

c) Includes such detail as corresponds with the scale and significance of the effects that the activity may have on the environment.

8) **We attach an assessment of the proposed activity against the matters set out in Part 2 of the Resource Management Act (RMA) 1991.**

9) **We attach an assessment of the proposed activity against any relevant provisions of a document referred to in section 104(1)(b) of the Resource Management Act 1991, including the information required by clause 2(2) of Schedule 4 of that Act.**

This application includes an assessment of the National Policy Statement for Freshwater Management, the Canterbury Regional Policy Statement and the Canterbury Land and Water Regional Plan.

10) **We attach the following further information required to be included in this application by the regional plan, the Resource Management Act 1991, or any regulations made under that Act:**

A copy of CRC212834.

Dated this 8th day of July 2024.

Signature:

Signature of the applicant (or person authorised to sign on behalf of the applicant)

Address for service:

Kevin Bligh
Bligh Planning and Engagement Limited
PO Box 69229
Lincoln
Christchurch 7640
Telephone: 021 0250 6379
Email: kevin@bligh.co.nz

Address for fees/charges:

Tyler Sharratt
Winstone Aggregates, a division of Fletcher Concrete and Infrastructure Limited
PO Box 17-195
Greenlane
Auckland 1546
027 202 9453
Email: tyler.sharratt@winstoneaggregates.co.nz

RESOURCE CONSENT CRC212834

Pursuant to Section 104 of the Resource Management Act 1991

The Canterbury Regional Council (known as Environment Canterbury)

GRANTS TO:	Fletcher Concrete and Infrastructure Limited
A WATER PERMIT (S14):	To take and use groundwater.
COMMENCEMENT DATE:	19 Jun 2001
DATE CONSENT NUMBER ISSUED:	08 Jan 2021
EXPIRY DATE:	31 Jan 2035
LOCATION:	58 Selwyn road, Broadfield

SUBJECT TO THE FOLLOWING CONDITIONS:

1 Water may be taken only from bore M36/20476, 150 millimetres diameter and 52 metres deep, at map reference NZTopo50 BX23:57216-73082.

2 Water may be taken from bore M36/20476 at a rate not exceeding 8 litres per second, with a volume not exceeding 5,439 cubic metres in any period of 7 consecutive days, and 41,728 cubic metres between 1 July and the following 30 June.

3 Water shall only be used for dust suppression purposes in the area of land shown on attached plan CRC165729, which forms part of this consent.

4 The consent holder shall, before the first exercise of this consent, install an easily accessible straight pipe(s), with no fittings or obstructions that may create turbulent flow conditions, of a length at least 15 times the diameter of the pipe, as part of the pump outlet plumbing or within the mainline distribution system.

5 The consent holder shall before the first exercise of this consent:

a.

i. install a water meter that has an international accreditation or equivalent New Zealand calibration endorsement, and has pulse output, suitable for use with an electronic recording device, which will measure the rate and the volume of water taken to within an accuracy of plus or minus five percent as part of the pump outlet plumbing, or within the mainline distribution system, at a location that will ensure the total take of water is measured; and

ii. install a tamper-proof electronic recording device such as a data logger that shall time stamp a pulse from the flow meter at least once every 60 minutes, and have the capacity to hold at least one season's data of water taken as specified in clauses (b)(i) and (b)(ii), or which is telemetered, as specified in clause (b)(iii).

b. The recording devices shall:

i. be set to wrap the data from the measuring device such that the oldest data will be automatically overwritten by the newest data (i.e. cyclic recording); and

ii. store the entire season's data in each 12 month period from 1 July to 30 June in the following year, which the consent holder shall then download and store in a commonly used format and provide to the Canterbury Regional Council upon request in a form and to a standard specified in writing by the Canterbury Regional Council; or

iii. shall be connected to a telemetry system which collects and stores all of the data continuously with an independent network provider who will make that data available in a commonly used format at all times to the Canterbury Regional Council and the consent holder. No data in the recording device shall be deliberately changed or deleted.

c. The water meter and recording devices shall be accessible to the Canterbury Regional Council at all times for inspection and/or data retrieval.

d. The water meter and recording devices shall be installed and maintained throughout the duration of the consent in accordance with the manufacturer's instructions.

All practicable measures shall be taken to ensure that the water meter and recording devices are fully functional at all times.

6 Within one month of the installation of the measuring or recording devices, or any subsequent replacement measuring or recording devices, and at five-yearly intervals thereafter, and at any time when requested by the Canterbury Regional Council, the consent holder shall provide a certificate to the Canterbury Regional Council, Attention Regional Leader - Monitoring and Compliance, signed by a suitably qualified person certifying, and demonstrating by means of a clear diagram, that:

a. The measuring and recording devices have been installed in accordance with the manufacturer's specifications; and

b. Data from the recording device can be readily accessed and/or retrieved in accordance with clauses (b) and (c) of condition (5).

7 The Canterbury Regional Council, Attention Regional Leader - Monitoring and Compliance, shall be informed within five days of first exercise of this consent by the consent holder.

8 Access to allow water level measurements to be taken in the bore(s) shall be established, and maintained, via a bung and socket with a minimum diameter of 20 millimetres installed in the bore casing or headworks.

9 If the irrigation system is used to distribute diluted effluent, fertiliser or added contaminants the consent holder shall ensure:

a. An effective backflow prevention device is installed and operated within the pump outlet plumbing or within the mainline to prevent the backflow of contaminants into the water source; and

b. The backflow prevention device is tested at the time of installation and annually thereafter by a suitably qualified or certified person in accordance with Canterbury Regional Council approved test methods for the device used; and

c. The test report is provided to the Canterbury Regional Council Attention Regional Leader - Monitoring and Compliance, within two weeks of each inspection.

Advice Note: *This is not authorisation to discharge fertiliser or other contaminants to land, water or air under section 15 of the Resource Management Act.*

10 The consent holder shall take all practicable steps to:

a. Ensure that the volume of water used for dust suppression does not exceed that required to minimise dust emissions; and

b. Avoid leakage from pipes and structures.

11 The Canterbury Regional Council may, once per year, on any of the last five working days of May or November, serve notice of its intention to review the conditions of this consent for the purposes of dealing with any adverse effect on the environment which may arise from the exercise of the consent.

12 If this consent is not exercised before 30 September 2019 then it shall lapse in accordance with section 125 of the Resource Management Act.

Issued at Christchurch on 8 January 2021

Canterbury Regional Council

Plan CRC165729

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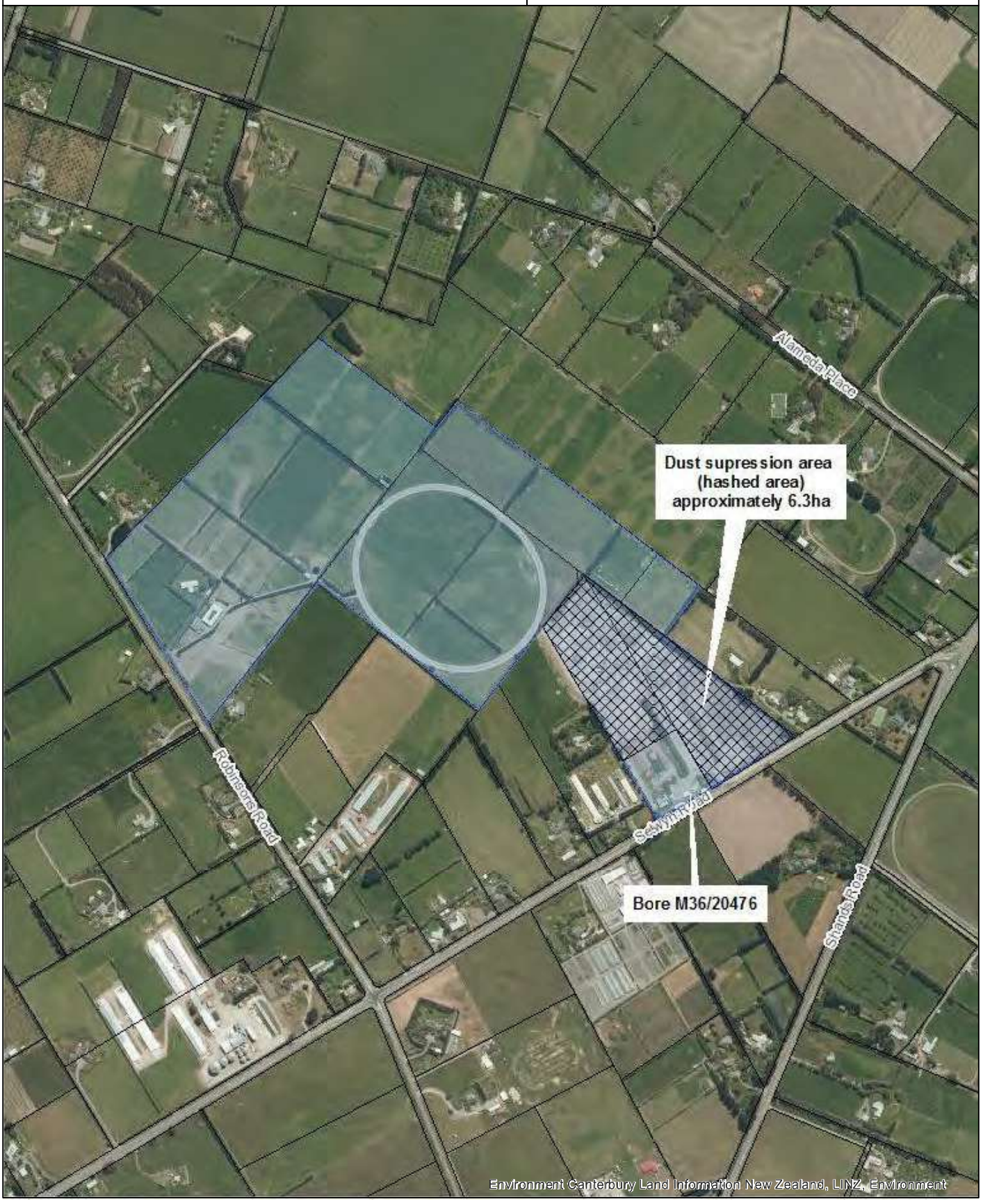
Scale: 1:8,000 @A4

Map Created by Environment Canterbury on 18/07/2016 10:37:00 a.m.



PART B – ASSESSMENT OF EFFECTS ON THE ENVIRONMENT

1.0 INTRODUCTION

Winstone Aggregates, a division of Fletcher Concrete and Infrastructure (Winstone) operates a quarry at 50 Selwyn Road, Broadfield (Wheatsheaf Quarry) on approximately 50 hectares (ha) of land fronting Selwyn Road and Robinsons Road. The site has been quarried since the 1940's being formerly operated by Selwyn Quarries Limited and has been owned and operated by Winstone since 2016. The existing quarry operates under a suite of resource consents from both Selwyn District Council (SDC) and Canterbury Regional Council (CRC).

With the amount of consented extractable resource within the existing quarry reducing, Winstone is seeking to expand the extent of its extraction operation into an adjoining area of land (the Sullivan Block). This proposed expansion follows from previous expansions consented in 2016 and 2022.

The Sullivan Block is approximately 4.17 ha, and most of this is proposed to be quarried by this proposal with the balance being setback areas providing for bunds and planting, an access track from Robinsons Road, and an area not to be quarried owing to potential contamination.

Both the existing quarry and the proposed quarry expansion are shown on Figure 1.

The proposed Wheatsheaf Quarry expansion will involve extraction of aggregate material so that the quarry floor maintains at least one metre (1 m) of separation depth to the highest groundwater level, and rehabilitation of the expansion site with cleanfill, overburden and topsoil, subsoil and clean reject aggregate material.

Other activities that will occur on site include the management of adverse effects through the provision of bunding, maintenance of screen planting, and other mitigation measures.

The proposal is an expansion of the existing operation over a larger area, and most aspects of the activity will remain as they do now. Exceptions to this being extracting through existing quarry walls and batters to access the expansion areas, extraction and rehabilitation within that area, providing for access from the Sullivan Block to the existing quarry, and changes to the location of screen planting and bunding.

Processing and stockpiling of material from the expansion area will continue to occur at the existing Wheatsheaf Quarry with aggregate extracted from the Sullivan Block to be transported to the existing processing plant where it will be processed and then stockpiled and sold.

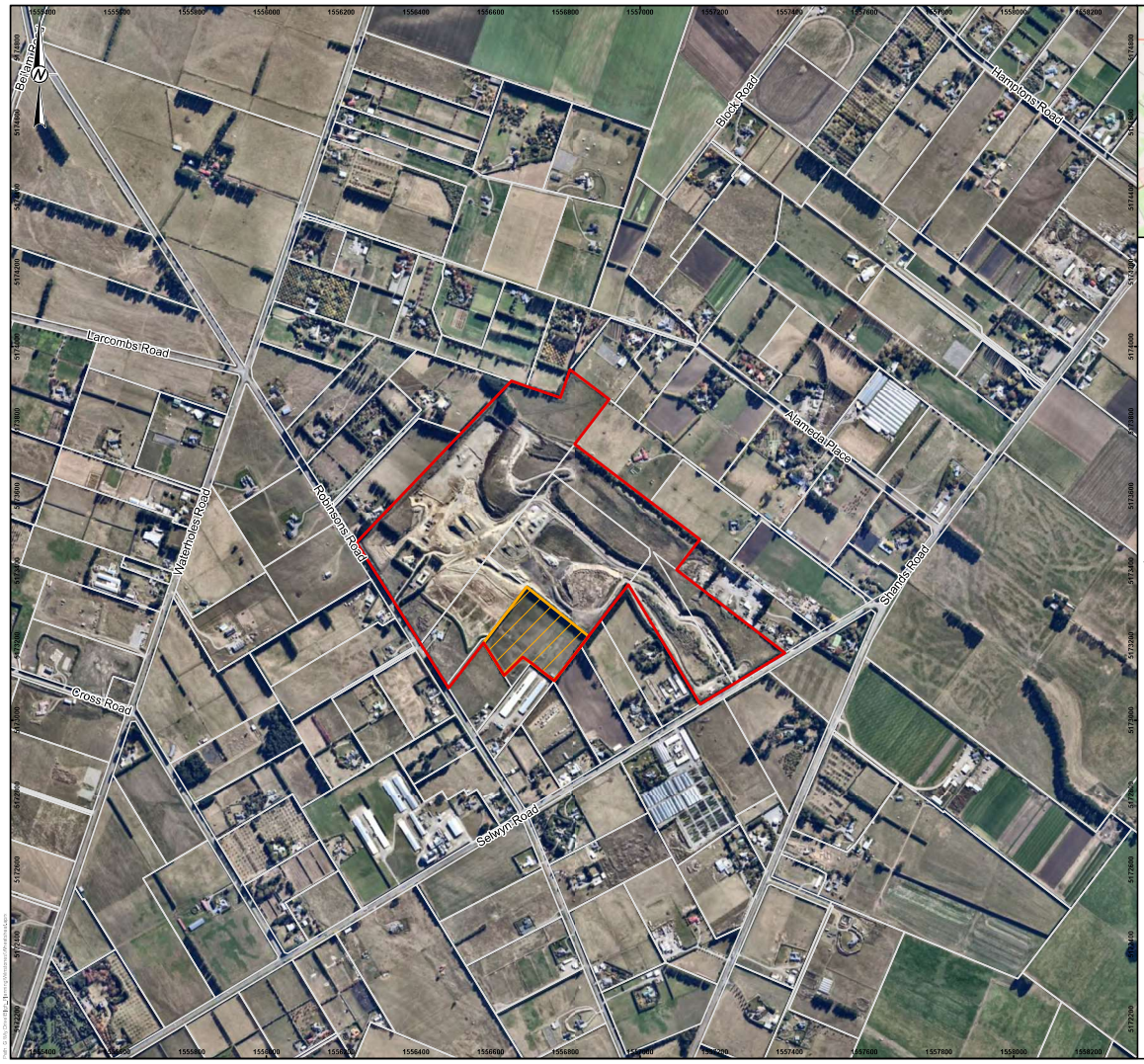
Volumes of product extracted from the expansion area are expected to remain generally consistent with the existing operation so no increase in traffic movements is proposed from the expansion activity. Access to the site will remain from the existing Wheatsheaf Quarry heavy vehicle access onto Selwyn Road.

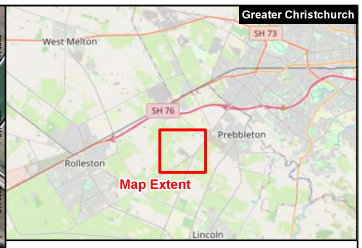
A change of conditions is sought to consents RC145099 and RC215749 to enable the proposed expansion to be integrated with the existing site. It is not considered any changes to conditions are required to the other existing consents for the site, but if they are, this application seeks to provide for this.

This document[1] is a resource consent application, including an assessment of effects on the environment (AEE), seeking the required resource consents from SDC and CRC to authorise the proposed Wheatsheaf Quarry expansion.

The application forms for the various applications are contained in Part A (Application Forms for Resource Consent) of this document.

[1] Your attention is drawn to the document, "Report Limitations", as attached in Appendix A. The statements presented in that document are intended to advise you of what your realistic expectations of this report should be, and to present you with recommendations on how to minimise the risks to which this report relates which are associated with this project. The document is not intended to exclude or otherwise limit the obligations necessarily imposed by law on BPE, but rather to ensure that all parties who may rely on this report are aware of the responsibilities each assumes in so doing.





LEGEND

- Site Boundary
- Expansion Area - Sullivan Block
- Parcel Boundary

NOTES

1. Aerial image: Nearmap WMTS
2. Map image: OpenStreetMap: © OpenStreetMap (and) contributors, CC-BY-SA nearmap,com:
3. Schematic only, not to be interpreted as an engineering design or construction drawing.
4. All areas and distances are indicative.

0 250 500 METRES

REFERENCE SCALE: 1:10,000 at A3.

PROJECTION: NZGD 2000 New Zealand Transverse Mercator

CLIENT

WINSTONE AGGREGATES WHEATSHEAF QUARRY

TITLE

SULLIVAN BLOCK
LOCATION MAP

BLIGH

YYYY-MM-DD	2024-07-03
PREPARED	AE
APPROVED	KB
REPORT	WHT
REV.	0

FIGURE **01**

2.0 SITE AND SURROUNDING AREA

2.1 Subject site

The site is located between the townships of Prebbleton and Rolleston, approximately 15 km southwest of Christchurch City centre.

The site contains the existing Wheatsheaf Quarry and the land into which the quarry is to expand (the 'Sullivan Block').

The existing Wheatsheaf Quarry is a recognised quarry operation under GRUZ-SCHED1 of the Partially Operative Selwyn District Plan – Appeals Version (POSDP), encompassing approximately 45 ha of land. The Record of Titles for the site are included in Appendix B.

The land is zoned General Rural under the POSDP. The existing quarry and the Sullivan Block are shown on Figure 1.

The Wheatsheaf Quarry has been subject to recent consent expansions in 2016 and 2022 and extraction is currently occurring in the southeastern part of the existing quarry within the 'C' Block. It is expected that extraction in this area will be completed in the coming 2 years, at which time quarry operations would move into the Sullivan Block, should consent be obtained.

The existing Wheatsheaf Quarry comprises a quarry with associated cleanfilling operation, haul roads, processing plant and stockpiling, a workshop and site office, an area for storage of quarry plant and machinery and other ancillary facilities such as water tanks, storage containers, and a range of environmental mitigation measures such as existing perimeter site bunding and planting around the edge of the consented quarry, sealed parking, and internal roads.

An above ground tank is installed on the site near the workshop and is used for refuelling machinery on site; the tank is refuelled via a road tanker. Additionally, there is a truck washdown pad near the diesel tank. The existing hours of operation are 6 am to 6 pm, Monday to Friday and 7 am to 1 pm on Saturday, with conditions addressing the scale of intensity of activities at certain times within these hours.

The Sullivan Block is currently vacant but was formerly used for used for low intensity pastoral grazing.

A Preliminary Site Investigation (PSI) undertaken by Pattle Delamore Partners (PDP) for the Sullivan Block, and contained in Appendix E, has identified an area of contamination in the southeast corner of the Sullivan Block (being an historic farm rubbish dump) and no extraction is proposed within this area.

Additionally, a search of CRC's Listed Land Use Register (LLUR) has identified the potential presence of Hazardous Activities and Industries List (HAIL) sites within parts of the existing quarry having a HAIL activity status of G3 Landfill associated with historical clean filling.

No further extraction is proposed within areas which have been used for filling on the existing site, although quarrying through the existing quarry batters and walls (which consist of natural material) to access the Sullivan Block will occur. The PSI included in Appendix E confirms that these areas are not contaminated.

The site is located within the Plains Flood Management and Liquefaction Damage Unlikely overlays and is also within the Inner Plains/ Te Urumanuka ki Ana-ri Rural Density Special Control Area overlays according to the POSDP planning maps.

2.2 Existing resource consents

The existing quarry is authorised under numerous resource consents from SDC and CRC which are summarised in Table 1 below.

Table 1: Resource consents held for existing site

Consent reference	Authorised activities	Grant and Expiry dates (if applicable)
SDC consents		
SDC145099 (as amended by RC145693)	To expand the existing Wheatsheaf Quarry onto the adjoining land to the northwest and to increase the maximum annual production volume to 700,000 tonnes.	Granted on 16 May 2014
SDC145438	To construct, operate and maintain a 15,000 litre above ground diesel storage tank and refuelling pad.	Granted 9 April 2014
SDC185382	To convert an existing dwelling into an office and smoko room, and to utilise existing sheds in conjunction with the quarry on the adjoining property.	Granted 16 August 2018
RC215749	Land Use Consent RC215749 for extension to an existing quarry and backfilling operation at 692 and 706 Robinsons Road, Prebbleton	Granted 27 June 2022
CRC consents		
CRC223408	To discharge contaminants to air.	01 Feb 2022 to 03 Sept 2045
CRC223410	To expand the area of land used for quarrying activities.	01 Feb 2022 to 03 Sept 2045
CRC223412	Install diesel storage tank and re-fuelling pad.	01 Feb 2022 to 03 Sept 2045.
CRC223415	To discharge stormwater to land (from diesel tank area)	01 Feb 2022 to 03 Sept 2045.
CRC212834	Take and use groundwater.	08 Jan 2021 to 31 Jan 2035.
CRC213142	To use land for quarrying activities (extraction and cleanfilling)	22 July 2022 to 22 Jul 2042
CRC213143	To use land for deposition of fill	22 July 2022 to 22 Jul 2042
CRC213144	To use water for dust suppression	22 July 2022 to 22 Jul 2042
CRC213145	To discharge contaminants to air	22 July 2022 to 22 Jul 2042
CRC213146	To discharge contaminants (cleanfill) onto and into land where they may enter groundwater	22 July 2022 to 22 Jul 2042

2.3 Surrounding rural environment and land uses

The character of the surrounding environment has been described in the Landscape and Visual Impact Assessment (LVIA) prepared by DCM Urban included in Appendix F. The surrounding environment is characterised by the vast and flat topography of the Canterbury plains.

The existing site is framed by Robinson Road, along the southwestern boundary, the existing quarry operations along the north-eastern boundary and a mix of land uses along the southern boundary.

The LVIA discusses how land use in the wider receiving environment, along Robinsons Road and Selwyn Road, is a combination of pastoral farmland and rural production activities, including an agricultural contracting and feed supply business, poultry farming and a plant nursery, while also containing several rural residential dwellings. The overall area is characterised by large, grassed

paddocks with boundaries often delineated by well-established shelterbelts consisting of predominantly exotic species (such as pine and macrocarpa), reflecting the productive agricultural character of the area.

Figure 2 shows the site and the surrounding area with dwellings within 250 m of the area to be quarried through the Sullivan Block expansion. It noted however that many of these dwellings are already closer to the existing quarry, and this is discussed in more detail in Section 9.2 of this AEE.

The natural character of the surrounding environment is modified, with a highly legible rural character and land use. The LVIA concludes that the receiving environment is considered to have a moderate to low sensitivity to change owing to the modified rural character of the working rural landscape containing several existing land uses (quarrying, farming, agricultural industry), a variation in landscape and built structures (rural dwellings, barns, greenhouses, bunds) as well as clearly identifiable vegetation patterns (large areas of grassed paddocks, with taller vegetation clustered around buildings and along boundaries).

2.4 Roading network, site access and parking

Access to the main quarry site is from an existing heavy vehicle formed accessway located at 50 Selwyn Road. This access runs through land owned by the applicant and land understood to be owned by SDC and leased by the applicant.

Selwyn Road, in the vicinity of the site, is identified as an Arterial Road by the POSDP.

Parking is readily available at the existing quarry site.

2.5 Geology and soils

The New Zealand Geological Survey map identifies the geology of the site and the surrounding area as Holocene River deposits, and more specifically Modern River floodplain/low-level degradation terrace being un-weathered, variably sorted gravels, sand, silts and clay (identified as Q1)[2]. Such deposits are common across the Canterbury Plains and this and similar gravels are being mined at several locations within the Christchurch and Selwyn Districts.

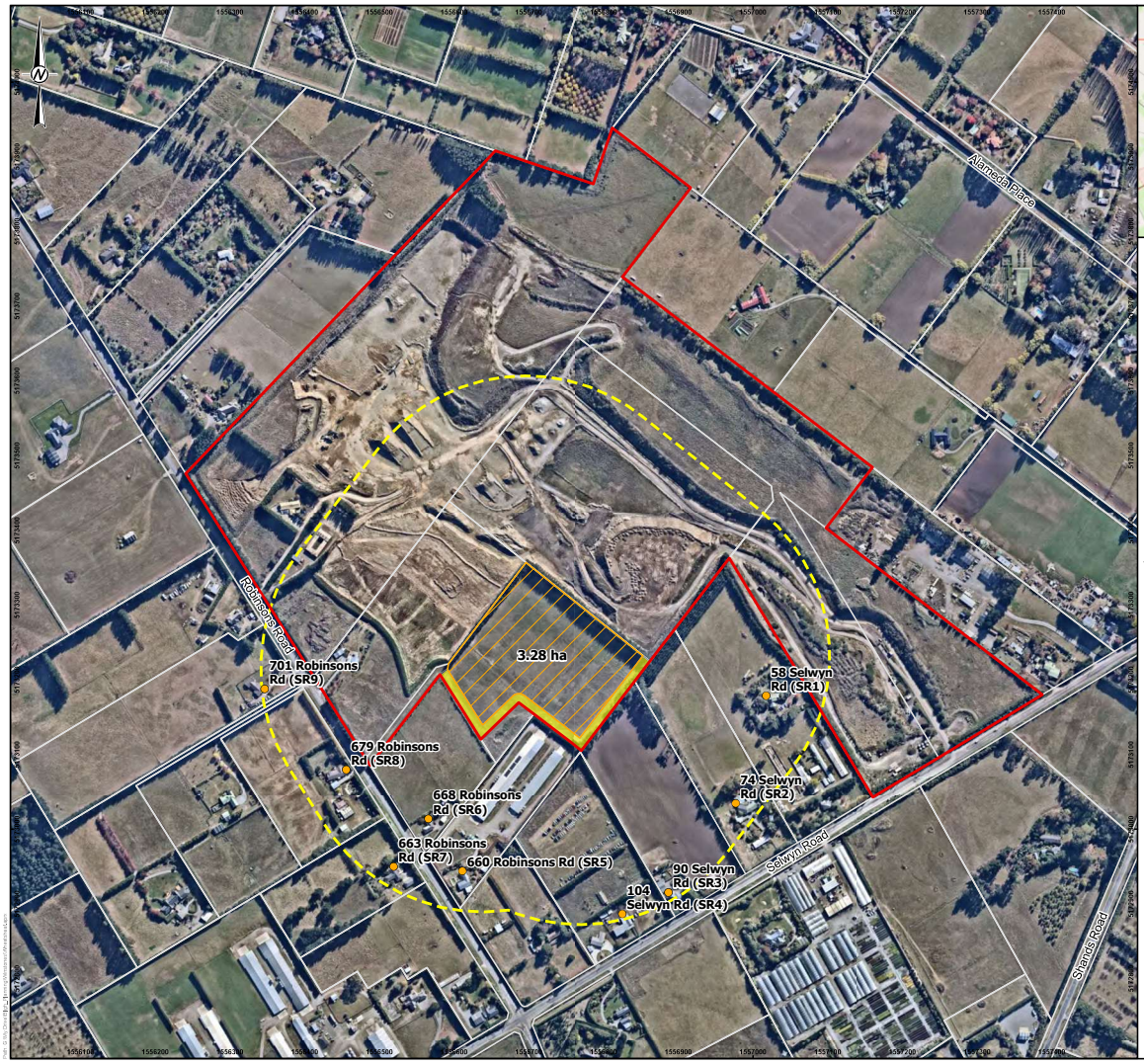
These gravels exhibit characteristics appearing consistent with the nature of the material that is currently quarried by Winstone at the site.

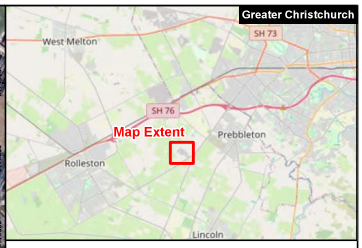
Landcare Research's Our Environment[3] website identifies the site as having a land use capability of LUC 3 and therefore meets the definition of Highly Productive Land under the National Policy Statement for Highly Productive Land (NPS-HPL).

The LWRP planning maps do not identify the site as being within a high soil erosion risk area.

[2] https://data.gns.cri.nz/geology/

[3] https://ourenvironment.scinfo.org.nz/





LEGEND

- Site Boundary
- Expansion Area - Sullivan Block
- Expansion Area Buffer - 250 m
- Parcel Boundary
- Bund - 10 m
- Nearby Houses

NOTES

1. Aerial image: Nearmap WMTS
2. Map image: OpenStreetMap: © OpenStreetMap (and) contributors, CC-BY-SA
nearmap,com:
3. Schematic only, not to be interpreted as an engineering design or construction drawing.
4. All areas and distances are indicative.

0 200 400 METRES

REFERENCE SCALE: 1:5,000 at A3.

PROJECTION: NZGD 2000 New Zealand Transverse Mercator

CLIENT

WINSTONE AGGREGATES WHEATSHEAF QUARRY

TITLE

HOUSES WITHIN 250 METRES OF THE SULLIVAN BLOCK EXPANSION AREA

BLIGH

YYYY-MM-DD	2024-07-03
PREPARED	AE
APPROVED	KB
REPORT	WHT
REV.	2

FIGURE **02**

2.6 Water resources

The site is identified as being over a semi-confined/unconfined aquifer within the Selwyn-Waimakariri Combined Surface & Groundwater Allocation Zone by Canterbury Maps and sits outside the Christchurch Groundwater Protection Zone. The site is outside the Waimakariri River surface catchment area identified by the Waimakariri River Regional Plan (WRRP) but is within the Kowai/Waimakariri Water Race surface water catchment.

SDC water races run along the southern side of Robinsons Road and western side of Selwyn Road, although no extraction will occur within 50 m of these water races, being more than 170 m from the extent of extraction, and accordingly the races have not been considered further.

As discussed in the Groundwater Assessment prepared by Land Water People (LWP) and included in Appendix G, the Wheatsheaf Quarry is located within a sequence of alluvial gravels, sands, silts and clay that extend from the ground surface to a depth of several hundred metres. These highly permeable alluvial sediments host a spatially extensive aquifer that contains a significant groundwater resource.

Groundwater is interpreted to primarily be recharged by a combination of infiltrating rainfall (land surface recharge) across the area west of the Wheatsheaf Quarry and flow losses from the Waimakariri River, with minor contributions from irrigation and seepage losses from streams, rivers, and water races. Groundwater discharge from the aquifer system occurs via spring-fed surface waterways on the lowland plains south-east of the quarry site, with an uncertain volume also discharged via off-shore seepage. Significant volumes of groundwater are taken from this aquifer system for consumptive use including domestic, municipal and irrigation water supply.

Water level measurements show the aquifer in the vicinity of the Wheatsheaf Quarry is permanently saturated from a depth of between 15 m to 17 m below the natural ground surface. Above this depth, the groundwater table fluctuates over time by several metres. This temporal variation in water table depth reflects seasonal and inter-annual variations in the balance between variable groundwater recharge (particularly from rainfall) and relatively constant outflows to surface water and offshore.

The LWRP anticipates that extraction will typically maintain a separation distance of more than 1 m between the base of any quarry excavation and the highest groundwater level (HRGWL) inferred for a site.

In the case of this site, monitoring of groundwater levels and modelling by LWP has determined that with an extraction depth of approximately 9.5 to 10 m, a minimum 1 m separation will be maintained to the HRGWL even at times when groundwater levels are elevated.

As noted in the Groundwater Assessment, monitoring of groundwater quality at the Wheatsheaf Quarry indicates historical quarrying and cleanfill activities have resulted in some minor effects on aesthetic water quality (slightly elevated Total Alkalinity, Hardness and Electrical Conductivity). While some relatively minor exceedances of groundwater quality triggers specified in Condition 34 of CRC213412 are recorded, these are short-term, localised and do not appear to indicate any significant or ongoing adverse effects on groundwater quality from historical or ongoing activities on the Wheatsheaf Quarry site.

2.7 Meteorology and existing air quality

Wind can have a significant impact on the potential for air quality effects; however strong, dry winds intensify dust emissions. It is, therefore, important to understand the local meteorology to assess the potential for air quality effects to arise.

The topography in the region consists of low-lying, flat plains (Canterbury Plains), which spans 180 km along the eastern coast. The prevailing winds on the Canterbury Plains are north-easterly or south-westerly winds which are typical along the eastern coast of the South Island. The Canterbury region is also influenced by the Southern Alps Mountain Range, which is located to the west of the region. The most notable effect that the range has on the region is that of the strong, dry north westerly winds.

As discussed in the Air Quality Assessment (AQA), prepared by Air Quality Consultants NZ (AQCNZ) and contained in Appendix H, meteorological data has been obtained from the on-site Wheatsheaf Quarry meteorological station, for the period 2020 to 2023. The is replicated in Figure 3 below.

AQCNZ has also reviewed the closest publicly available wind data from the Lincoln Broadfield Meteorological station, which is operated by NIWA, approximately 4 km south of the quarry. AQCNZ has observed the data collected at Wheatsheaf Quarry closely resembles corresponding wind data from Lincoln and therefore AQCNZ considers using the on-site data to be appropriate.

As discussed by AQCNZ, based on the data from Wheatsheaf Quarry, it is apparent that there are variations between the spring/summer and autumn/winter wind patterns. The spring/summer months experience more northeast/east-northeast winds, while the autumn/winter months typically experience winds from the south and northeast. In general, the area is dominated by low wind speeds (< 5 m/s) caused by stable weather conditions, particularly during winter. However, during summer, there is a relatively high frequency of winds from the northeast and east-northeast. Strong winds (>5 m/s), which can exacerbate dust emissions, show a similar pattern with winds being predominately from the northeast and to a lesser extent from the south and northwest. Strong winds also occur from the northwest albeit at a lower frequency. Winds from the east to southeast are very infrequent.

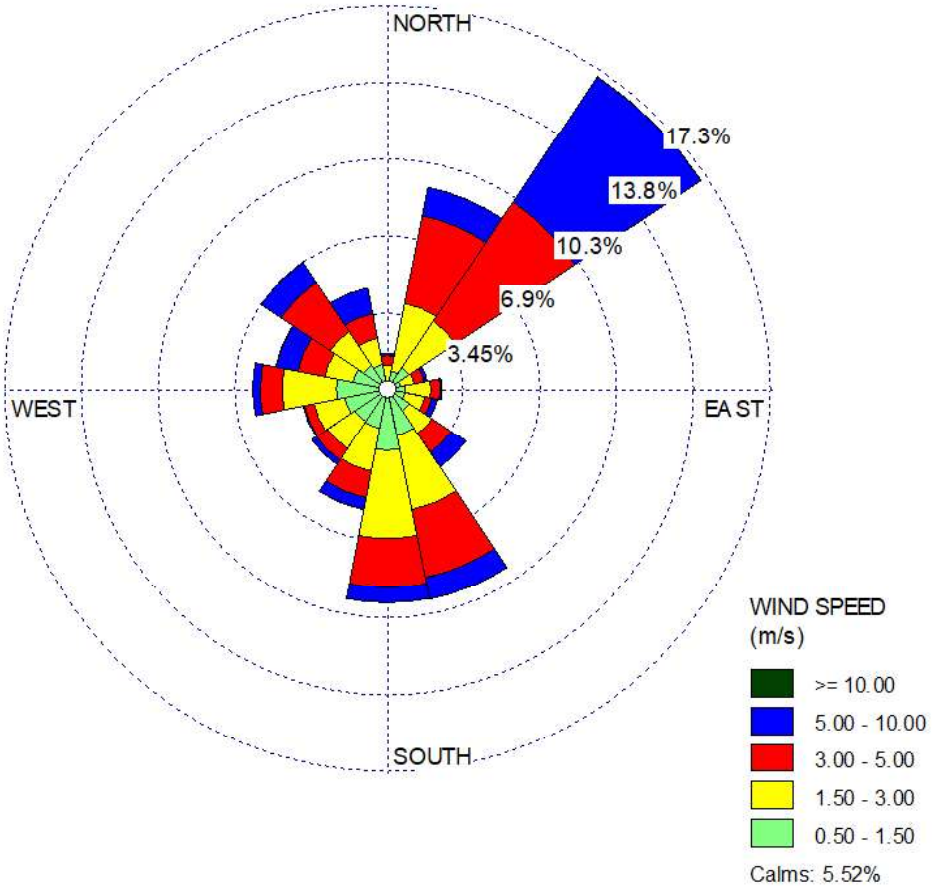


Figure 3: Wind Rose of Wheatsheaf Quarry meteorological station (1 January 2020 to 31 December 2023)

2.8 Archaeological and cultural sites

There are no archaeological sites, statutory acknowledgement areas, rūnanga sensitive areas or silent file areas near the site.

2.9 Ecological values

The site is highly modified and is currently vacant but was formerly used for grazing, with the terrestrial vegetation on the site predominantly consisting of exotic species, being shelter belts and pasture, none of which are protected under the relevant planning documents.

There are no sites of special wildlife significance within proximity to the site.

The closest watercourse is the water race approximately 170 m to the south of the site as discussed in Section 2.6 above.

Overall, the ecological values of the site are considered low.

3.0 EXISTING ENVIRONMENT

When processing a resource consent, regard must be had to what constitutes the "environment". An understanding of the environment is necessary to inform the assessment of the effects of a proposal.

Section 95A(8) and section 104(1)(a) each require an assessment of the adverse effects or actual and potential effects on the environment to make the public notification decision and determining whether a consent should be granted or declined.

What constitutes the environment has been subject to several court cases and case law has confirmed that the "environment" includes the existing environment and the future environment as it may be modified by the carrying out of permitted activities and the implementation of resource consents which have been granted and which are likely to be implemented.

The existing environment at the Wheatsheaf Quarry site includes the environment as it is modified by the operation of the existing Wheatsheaf Quarry and associated authorised activities such as heavy vehicle movements. The existing environment does not extend to the future environment as it would be modified by the operation of the quarry expansion being proposed through this application.

In relation to the existing environment, this includes the existing quarry activities which are not proposed to be changed by these applications outlined as follows:

- The existing processing and stockpiling areas including crushing plant are to remain in their present location.
- Existing extraction volumes and rates for extractable resource from within the existing quarry is provided for by existing consent conditions, and this is not proposed to change.
- Hours of operation are proposed to be consistent with the existing quarry and consent conditions.
- Vehicle generation as authorised by the existing consent will not change.
- Noise conditions applying to the existing quarry will not change.
- Existing bunding that does not require modification through this consent application will remain (with other bunding to be amended).
- The existing quarry and cleanfill conditions allowing for deposition of cleanfill within the existing quarry.
- Effects of existing consented discharges to groundwater are contained in the present environment.
- Dust emissions from existing quarrying activities exist and are authorised by the existing consents.
- Water take and use permit(s) exist and no additional volume is required for the proposed expansion.

It would therefore be reasonable for CRC and SDC to only consider the effects arising from quarrying activities associated with the expansion and indeed only those that go beyond the scope of permitted and already consented activities, as opposed to effects that already occur on the existing site.

While processing, stockpiling, load out and transportation of material from the expansion area will occur within the main site, in general terms, these effects will be no greater than those which presently occur on site.

4.0 DESCRIPTION OF PROPOSAL

4.1 Introduction

Winstone is proposing to extend its quarrying operations into an area of approximately 3.5 ha of rural land adjacent to its existing quarry operations at Wheatsheaf. The extraction activities proposed will follow on from quarry activities that have occurred through the most recent extension of the quarry approved in 2022 which authorised the B and C Block extraction.

Extraction activities are proposed to be undertaken in the Sullivan Block in stages, followed by progressive rehabilitation of the extraction areas. Material will be transported by dump trucks, via internal haul roads to the existing Wheatsheaf Quarry processing plant, where processing of the material will take place.

The application is for progressive excavation from the quarry floor 9 to 10 metres below ground-level, consistent with the same volumes that are currently processed at the existing quarry site.

All traffic movements between the expansion excavation area and the processing plant on the existing quarry are also below natural ground level in that the proposed haul roads are over areas which have been previously worked-out.

In designing this proposal, Winstone has been mindful of the conditions imposed on previous consents and has sought to design this proposal in a way which is consistent with the quarrying methods and mitigation measures which have worked well for these processes. Similarly, Winstone has also been mindful not to change key aspects of the existing operation, such as rates of processing, hours of operation or traffic movements.

In that regard, many aspects of the proposal design and mitigation measures reflect conditions contained in the resource consents for the existing operations.

Extraction will not occur in the Sullivan Block until extraction from the existing consented quarry areas is complete. Areas of the previous expansion that will serve as haul roads for this expansion, or which previously served as batters or bunding areas will now be removed and rehabilitated through the Sullivan Block extension.

4.2 Methodology for quarry development

Winstone, and its predecessor companies, have been undertaking this methodology of quarrying and rehabilitation in the immediate area over the last 10 to 15 years, although the site has been in existence for approximately 40 years. The nature of the assessments supporting this application, have been determined using actual data from the site such as:

- Wind measurements (including wind direction/frequency/ and wind velocity) and meteorological data monitoring at the site.
- Actual measurements of audibility at representative receptor locations.
- Dust monitoring data from existing operations.
- Compliance monitoring conducted by CRC and SDC and by Winstone and its consultants.

The application is supported by a Quarry Management Plan (QMP) which includes draft management plans pertaining to Dust, Cleanfilling, Spills and Rehabilitation. This is attached in draft format as Appendix I.

The draft QMP and the various management plans contained within it are provided in draft format and are intended to be indicative only to assist with understanding the proposal. As such, they are not intended to limit the scope of this application in any way and are subject to change, including should the consents be granted.

4.3 Site preparation

It is anticipated that quarry areas will be developed in stages generally working from the west or north generally in a south and/or eastern direction. Prior to quarrying commencing in a stage, topsoil and subsoil overburden material will be removed from each stage of the expansion area.

Topsoil removal will be undertaken at ground level using an excavator and dump trucks, in combination with a loader.

Extraction of the aggregate resource will occur by working from the existing quarry areas so quarrying can commence at the level of the existing quarry floor. Once quarrying in one stage of the site is nearing completion, the next stage of topsoil removal will take place. This process is then repeated as the site develops.

Topsoil and overburden material removed through the first stage of site preparation will be used to form bunds along the southern and eastern boundaries of the site (external boundaries). Around 10,000 m^3 of compacted material is required for bunding and this bund formation material may be supplemented with existing clean reject aggregate, aggregate wash-water silts or aggregate from within the existing quarry should not enough topsoil and subsoil material be available from the initial site preparation works within the Sullivan Block.

The new bunds will be approximately 3 m high and grassed following establishment. Generally, these site preparation works will be completed within a four-week window – in accordance with past practice at the site.

Any existing bunding, batters and quarry walls on internal boundaries of the site adjoining the Sullivan Block will be removed as necessary enable access to the Sullivan Block from the existing quarry.

There are evergreen shelterbelts, grown initially to provide shelter for farming and lifestyle blocks, along the full lengths of the external boundaries but these are not located on Winstone land. Winstone has however proposed to the neighbour at 668 Robinsons Road that Winstone maintains and enhances the existing planting on the southern boundary of the Sullivan Block with Lot 1 DP 25127 (668 Robinsons Road). This is discussed further in the LVIA included in Appendix F.

Winstone is open to discussing similar arrangements with those properties adjoining the Sullivan Block along Selwyn Road, although it is also proposed to establish a strip of native vegetation on Winstone land along this boundary to screen the Sullivan Block from these locations.

4.4 Extraction, processing and transportation

Extraction of the aggregate resource will involve a continuation of the processes that have been used through the existing quarry operations.

Following site preparation within a stage, extraction of aggregate is undertaken using standard quarrying machinery typically involving a loader which loads dump trucks, although other machinery may be used from time to time to enable the efficient extraction of the aggregate resource. Extraction of the aggregate resource itself will occur by working from the existing quarry areas so quarrying can commence at the level of the existing quarry floor, minimising noise and dust effects.

Aggregate will not be stockpiled within the Sullivan Block but rather will be extracted and loaded by the loader into the truck as it arrives within the expansion. Once loaded, these trucks will exit the expansion area and travel via internal haul roads to the existing processing plant where the material will be processed, stockpiled, and sold.

Quarry operations will move generally in a south and/or east direction as the quarry develops.

Considering the retention of material within the setbacks between the excavation area and external site boundaries, and the exclusion of the area which has been identified as contaminated by PDP in the PSI included in Appendix E, and accounting for material within the existing site batters, the total extraction area proposed for this consent application is approximately 3.5 ha of previously unquarried land, which equates to approximately 350,000 to 400,000 bank cubic metres (BCM) of aggregate.

This volume has been determined by assuming an average extraction depth of approximately 9 to 10 m below pre quarry ground level across the site, allowing for approximately 300 to 400 mm of topsoil and overburden to be removed, provision for some batter slopes, and at least a 1 m freeboard to be retained between the quarry pit floor and the highest groundwater level at the site.

Annual production from the quarry is expected to be in the vicinity of 100,000 - 200,000 m^3, which is well within the current maximum limits for the quarry of 700,000 tonnes per annum (approximately 350,000 m^3) although these volumes will be subject to Winstone's operational requirements and customer demand.

Based on these production rates it is anticipated that the quarry will be worked out within approximately 2 to 3 years with additional time provided as a buffer for extraction works, but primarily to enable the completion of cleanfilling and site rehabilitation. Extraction of aggregate will not exceed 600 tonnes per hour, up to a maximum of 4000 tonnes per day. It is noted that no hazardous substances will be stored within the expansion site, with refuelling of quarry machinery to take place at the main quarry site.

4.5 Quarry material

The site has been selected by Winstone because of its proximity to the existing operation and because of the quality, and depth of the material known at this site.

Aggregates extracted up to 10 metres below the surface will be in a damp state (based on existing site observations), and the application will require that the material is transported back to the main quarry site from the excavation area to be stored for further processing, in areas that are managed using static and mobile dust suppression methods – consistent with Winstone's long-term quarry operations.

The primary characteristics of the extracted material are:

- Material below the fine silt layer that contains few fines and is suitable for a variety of end use options such as roading/ concrete/ manufacture/base course/ and specialist gravel mixes.
- That in its damp state, finer material is not an issue for transportation and storage.

In accordance with past practice, cessation of quarrying operations occurs during high wind events to avoid material being entrained in ambient dust from the rural areas and riverbed areas generally and the quarry.

4.6 Water use

Winstone is proposing to continue to take and use water from the consented bore at its Wheatsheaf Quarry site and extend the area over which this water is applied (by way of a partial transfer to CRC212834) to include all the Sullivan Block to provide for dust suppression, bund vegetation establishment and site rehabilitation.

While a new use permit CRC213144 was used for the B and C Block extensions, the Supreme Court decision in *Cloud Ocean Water Ltd v Aotearoa Water Action Incorporated & Ors* [2023] NZSC 153 decision has determined that this approach is no longer appropriate.

The Sullivan Block will be progressively rehabilitated, and extraction of saleable aggregate under this application will not commence until the previous extension is exhausted of saleable aggregate. As such, there will be no additional active dust generating quarry area open at any one time within the expansion than currently exists for the existing quarry operations.

Therefore, the volume of water currently authorised for abstraction will be sufficient to ensure that dust is controlled within the extension. However, it is necessary to formally transfer water to cover the Sullivan Block as it is not covered by the existing permits.

A detailed assessment of the water required to be transferred to that part of the site it is not covered by is outlined in the Air Quality Assessment in Appendix H.

If it was considered necessary by CRC, Winstone would be open to discussing the surrender CRC213144 prior to the proposed partial transfer taking effect on the Sullivan block, however this would have no effects basis as such, as the total volume of water to use across the entire property will remain unchanged.

4.7 Hours of operation and duration

The Sullivan Block will operate between the hours of 7 am to 6 pm, Monday to Friday and 7 am to 1 pm on Saturday. This is the same hours of operation as the existing Wheatsheaf Quarry.

It is proposed that the regional consents sought (except for the partial transfer) have a term consistent with the B and C Block expansions to expire in July 2042. This will provide consistency between the

consents and allow for a longer duration of groundwater monitoring to occur post closure of the B, C and Sullivan Blocks.

The partial transfer will need to expire on or before the expiry date of CRC212834 which is 31 January 2035.

An unlimited duration is sought for the land use consent from SDC.

4.8 Visual screening and setbacks

Visual effects will be managed through bunding and planting, and retention of the external perimeter shelterbelts on adjoining land where the owners of these sites are agreeable to the plantings being managed by Winstone.

The proposal includes an extension of the bund as approved by SDC consent RC215749 along the rear boundary of 692 Robinsons Road to 668 Robinsons Road and wrap around the boundary along the rear of properties on Selwyn Road, and on the inside of the contaminated land identified in the PSI.

These bunds will be constructed from the stripped overburden, and grassed, with a total setback for the bund and planting strip of a minimum of 10 m from the external site boundaries.

As discussed in Section 4.3, there are evergreen shelterbelts, grown initially to provide shelter for farming and lifestyle blocks, along the full lengths of the external boundaries but these are not located on Winstone land. Winstone has however proposed to the neighbour at 668 Robinsons Road that Winstone maintains and enhances the existing planting on the southern boundary of the Sullivan Block with Lot 1 DP 25127 (668 Robinsons Road).

Winstone is open discussing similar arrangements with those properties adjoining the Sullivan Block along Selwyn Road, although it is also proposed to establish a strip of native vegetation on Winstone land along this boundary to screen the Sullivan Block from these locations.

4.9 Site access and security

Access to the Sullivan Block will be from the existing quarry, while access to the main quarry site will remain from 50 Selwyn Road.

No access to the Sullivan Block for quarrying purposes, except for undertaking maintenance of plantings, will be provided off Robinsons Road, and only Winstone staff and contractors and authorised visitors will access the site.

The main quarry site is locked when not in operation and the existing fencing around the site will be retained. If there are any gaps or damage to this fencing either on the main site or the Sullivan Block, this will be fixed prior to quarrying commencing on the site.

4.10 Cleanfilling

Resource consent is sought for cleanfilling as well as rehabilitation with materials that are removed during site preparation, however no minimum backfill level is intended and the ability to cleanfill is included simply as an option for Winstone if they consider it offers a more suitable rehabilitated landform.

If cleanfilling does occur, it is proposed to use worked-out areas for cleanfilling once an area that does not impede on the extraction operation becomes available, and/or for reinstating final batter slopes. This will allow for the progressive rehabilitation whereby extraction activities are closely followed by cleanfilling and site rehabilitation.

All material to be used in the backfilling and rehabilitation of the site is to be cleanfill material meeting the definition of cleanfill under the LWRP and will be in accordance with a Cleanfill Management Plan (CMP). A copy of the existing CMP for the Wheatsheaf Quarry, updated to include the Sullivan Block is included in draft within QMP included as Appendix I.

Any cleanfill accepted into the Sullivan Block would be materials meeting the LWRP cleanfill definition (considered generally equivalent to Class 4 Controlled Fill under the WasteMINZ 2023 guidelines).

Cleanfill material brought to the site will pass over the Winstone Quarry weighbridge and be unloaded at the 'tip head'. Required testing and visual inspections of the quality of the cleanfill coming in will assist in ensuring that the material meets consent requirements, with any unacceptable loads being turned away from the site. Should an unacceptable load reach the tip head and be unloaded, it will be removed from the cleanfill area for transportation to landfill.

Where filling with these materials does occur within the Sullivan Block, placement of a 1.0-metre layer of virgin excavated natural material (VENM) at the base of the excavation will occur, to increase separation between maximum groundwater levels and overlying cleanfill thereby increasing the potential for attenuation of any contaminants which may be mobilised.

It is not proposed that the entire site will be backfilled to the original ground level although as a minimum, there will be 300 mm of topsoil restored across the quarried area as discussed in the Groundwater and Soil assessments.

4.11 Rehabilitation and end use

Rehabilitation will occur progressively over the site once areas of extraction (in stages) have been completed. This will be undertaken pursuant to the rehabilitation requirements of the QSRP, a draft of which is included as Appendix I.

Rehabilitation will primarily involve re-spreading and contouring of overburden and stored or imported topsoil materials, stabilisation of quarry faces and grassing of completed and restored extraction areas to create a free draining and stable landform. The batter slope to external boundaries on completion of rehabilitation will be no steeper than 1 vertical (v):3 horizontal (h).

Topsoil and subsoil materials which have been stored following site preparation will be used in the site rehabilitation by providing a final topsoil layer. During the quarry's operational life, these materials will either be covered or grassed to prevent wind-blown erosion losses, primarily as site bunding. It is important to note that while rehabilitation will be progressive, some rehabilitation works can only take place once all quarrying operations have ceased. Rehabilitation will be based on the following principles:

- Develop a free draining landform.
- Re-grass by spreading stored topsoil and subsoil and replanting with suitable grass species as soon as practicable.
- Ensure any areas where works have been completed are left in a safe and stable condition.
- Establish stable grassed areas to a slope of no more than 1v:3h to reduce erosion.
- Control weeds.
- Monitor and maintain rehabilitated areas to ensure they are functioning appropriately post-closure pursuant to the QSRP.

If it is necessary to expedite the early stages of rehabilitation, additional topsoil and cleanfill material may be brought to the site prior to site bunding being disestablished or where further topsoil is required.

On completion of quarrying and rehabilitation activities, Winstone will remove all mobile machinery from the site and secure the site suitable for its ongoing use. The final rehabilitated ground level is yet to be determined but will ultimately depend on the applicant's plans for future use of the site.

As a minimum, there will be 300 mm of topsoil restored across the quarried area as discussed in the Groundwater Assessment and Section 4.10 above.

4.12 Changes to existing consents

To enable the expansion of the site, some changes are required to existing consents for the Wheatsheaf Quarry.

When the last quarry expansion was granted in 2022, the Commissioner queried whether a change of conditions should have been obtained[4]. While the consents were approved without the need for this,

[4] Para 4.11 of Commissioner Decision on *Applications to the Selwyn District Council (RC 215749) and Canterbury Regional Council (CRC213142, CRC213143, CRC213144, CRC213145, and CRC213146 by Winstone Aggregates Limited (a Division of*

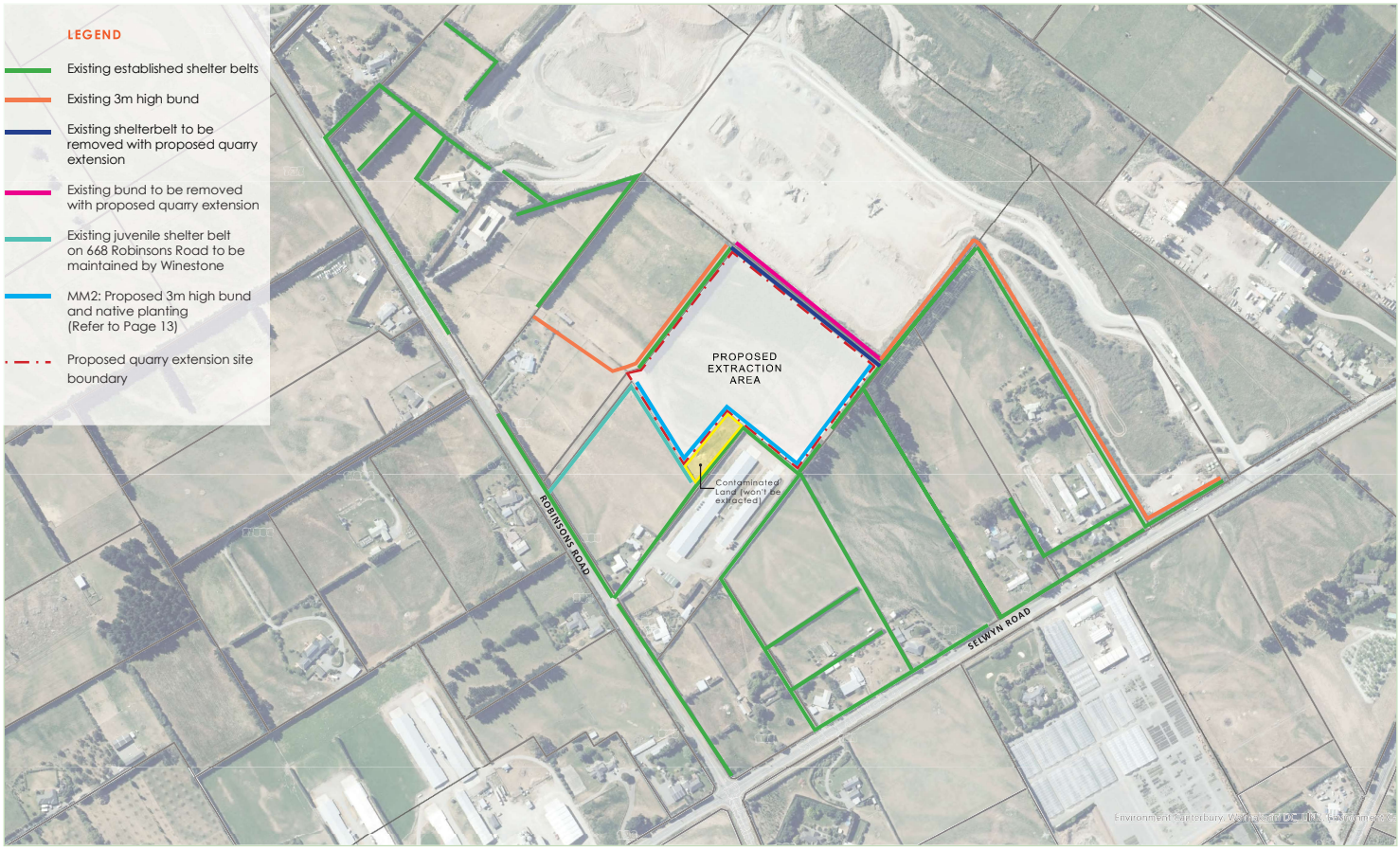
a subsequent surrender of consents obtained in 2016 was required, in part to overcome the need for not changing conditions.

This application seeks changes to conditions to provide the appropriate scope for changes on the existing site. These involve changes to SDC consents RC145099 and RC215749 as it is necessary to remove some existing bunding and planting along the northern and western boundaries to enable quarrying to move into these areas in the future through the removing of existing batters and quarry walls.

The LVIA included as Appendix F includes detailed updated mitigation plans which would essentially replace some of the plans attached or referenced in RC215749 and which encompasses the quarry expansion landscaping.

If any other changes or consequential amendments are identified as being required through the process, including to other consents, this application seeks to provide scope to cover these in so far as they are needed to accommodate the proposal.

Fletcher Concrete and Infrastructure Limited) for land use and discharge consents associated with an extension to an existing quarry and backfilling operation at 692 and 706 Robinsons Road, Prebbleton.



A. EXISTING SHELTER BELT AND BUND PLAN (1: 4,000 @ A3)

Map / image source: Canterbury Maps

0 60m 110m 170m 220m

1:4,000 @ A3

5.0 RESOURCE CONSENT REQUIREMENTS

An assessment of the relevant rules that trigger the need to seek resource consents from SDC and CRC are summarised in Table 2 below.

The reasons for why these consents are required and what aspects of the activity are permitted are discussed in more detail in the Statutory Assessment included in Appendix M.

Table 2: Reasons for resource consent

Consent	Rule
Canterbury Land and Water Regional Plan (LWRP)	
A land use and discharge permit associated with site rehabilitation.	The land use and discharge of contaminants associated with rehabilitation of the quarry site is a controlled activity in accordance with Rule 5.177 of the LWRP.
A partial water permit transfer	The partial transfer of consent CRC212834 to the expansion area, to take or use water for gravel extraction (and ancillary activities) is a discretionary activity in accordance with Rule 11.5.39 of the LWRP.
Canterbury Air Regional Plan (CARP)	
A discharge permit for the discharge of contaminants to air.	The discharge of contaminants into air, from an industrial or trade premise or process, where the proposed quarrying activity does not meet the relevant permitted activity conditions of Rule 7.35, and from site rehabilitation, including the disposal of cleanfill which does not meet the relevant permitted activity conditions of Rule 7.49, as a discretionary activity pursuant to Rule 7.63 of the CARP.
Partially Operative Selwyn District Plan - Appeals Version	
A land use consent to expand, operate, and rehabilitate a quarry.	The expansion of a quarry is a discretionary activity in accordance with Rule GRUZ-21.3 where the processing of the extracted material will take place less than 500 m, and excavation takes place less than 200 m, from the notional boundary of any lawfully established sensitive activity.

Additionally, resource consent is also required from SDC for a discretionary activity pursuant to section 127 of the RMA, to change the conditions of consents RC145099 and RC215749.

As noted previously, it is not considered any changes to conditions are required to the other existing consents for the site, but if they are, these applications also seek to provide for these.

6.0 ASSESSMENT OF EFFECTS ON THE ENVIRONMENT

6.1 Introduction

The actual and potential effects associated with the establishment, ongoing operation, and rehabilitation of the quarry expansion, changes to conditions on the main quarry site, and partial transfer of the water permit is assessed in sections 6.2 to 6.12. The means of avoiding, remedying, or mitigating any adverse effects are also discussed where relevant. The effects of the proposed expansion and the change of conditions are discussed below:

- Effects on character and amenity values
- Visual and landscape effects
- Noise effects
- Transportation effects
- Effects on water resources
- Effects on soil resources
- Ecological effects
- Effects on air quality
- Effects on cultural values
- Cumulative effects
- Positive effects

As outlined in section 3.0, the existing environment at the site includes the environment as it is modified by the operation of the existing Wheatsheaf Quarry and associated authorised activities. As such, only any difference between effects of the existing consented operation and the proposed expansion are relevant in relation to the effects identified above, and where appropriate commentary is provided below.

In addition, SDC and CRC are entitled to apply the permitted baseline and disregard an adverse effect of an activity on the environment if the plan permits an activity with that effect (under section 104(2)). Consideration of the permitted baseline is relevant in terms of extraction of material greater than 1 m of the highest groundwater level.

6.2 Effects on character and amenity values

Quarrying is defined as a primary production activity by the National Planning Standards and the POSDP, a rural activity by the Canterbury Regional Policy Statement (CRPS) and is anticipated within the rural area by the POSDP, subject to appropriate management of effects.

The surrounding environment includes primary production and other rural activities with a low density of residential dwellings.

Amenity values associated with an area generally relate to an area's landscape and visual amenity values, the noise environment and air quality values. The POSDP places a focus on the need to avoid, remedy or mitigate adverse effects on amenity values, with the General Rural zone objectives and policies seeking to maintain or enhance rural character and amenity values of rural areas, including through enabling primary production while managing adverse effects of intensive primary production and mineral extractive industries.

Potential effects on amenity values typically associated with quarry operations include dust, noise, visual and landscape, and traffic effects. These matters have all been assessed in the following sections of this AEE with supporting technical assessments in respect of air quality, noise and landscape and visual effects, which confirm that adverse effects of the proposal on the amenity values of the area can be appropriately avoided, remedied, or mitigated.

It is further noted that while quarrying will expand into a new area under the consents sought, Winstone will be progressively rehabilitating previously extracted area.

Considering the sequential programme of rehabilitation, when a new area of excavation is replaced by an area rehabilitated back to pasture, there is no demonstrable change to rural character or amenity

values. The overall maximum active quarry area requiring water suppression will also be limited to be consistent with the existing Wheatsheaf Quarry site.

Heavy vehicle movements on local roads are often a source of concern for residents with respect to amenity effects. Heavy vehicle movements will be within the volumes currently associated with the existing quarry and there will be no increase in the scale or intensity of traffic effects arising from this proposal. Selwyn Road is also an arterial road carrying relatively high volumes of traffic already, meaning that any effects associated with transportation of material will be less noticeable than if they were to occur on local roads with very low volumes of traffic movements.

There exists the potential for effects on dwellings close to the expansion area to arise and specific discussion of effects in this context is included in the AQA, Noise Assessment and LVIA included as appendices to this application. Overall, it is concluded that subject to implementing the proposed mitigation measures, any adverse effects will be less than minor on these receptors.

Overall, it is considered any effects on rural character and amenity values will be less than minor and there will be little change from the present operation when having regard to the scale and intensity of the operation and the progressive nature of rehabilitation.

6.3 Visual and landscape effects

While the visual effects associated with alluvial gravel pits are typically less than those associated with hard rock quarries, to manage the potential for adverse visual effects from the quarry expansion, Winstone proposes to develop planting and earth bunding in accordance with the mitigation plan included in the LVIA. The LVIA has assessed the effects of the quarry expansion (and changes to conditions) which has been summarised below.

6.3.1 Effects on landscape character

The expansion site is not within an outstanding natural landscape area or any areas of historical, spiritual or cultural significance.

The proposed quarry expansion will result in modifications to the topography of the site below natural ground level. However, the operation and implementation of the proposed quarry expansion is unlikely to disrupt the perception of the natural features, landcover and land uses which consolidates to create the existing landscape character, as any modifications will be concealed given the flat terrain of the surrounding area and given:

- the retention of the existing earth bunds except where these are to be removed to enable quarrying into the Sullivan Block.
- the establishment of proposed 3 m high earth bunds along the southern and eastern external boundaries of the Sullivan Block.
- recontouring and replanting of the ground surface is proposed as a mitigation measure and will be in keeping with the existing landscape character and what is anticipated to be encountered through rehabilitation of previous quarry areas on the Wheatsheaf Quarry.
- well established vegetation exists around the external perimeter of the extension block, along both the southern and eastern boundaries, albeit not on the Winstone property.
- We understand Winstone has agreed with the owner of 668 Robinsons Road to be responsible for maintaining and enhancing the existing plantings on the mutual boundary with this site. Winstone also proposes to plant native vegetation on its own site between the bund and boundary adjacent to those properties on Selwyn Road.

Owing to the location next to existing quarry operations, and the relatively small size of the expansion area, it is considered that the proposed expansion will not adversely affect the sensory qualities or existing rural landscape character of the receiving environment or compromise any sensitive views from a landscape perspective.

The quarry expansion will not adversely affect any existing vegetation patterns except for removing existing internal shelterbelts along the western and northern boundary of the expansion area. Overall effects on landscape character are assessed as low (less than minor).

6.3.2 Effects on landscape values

Overall, the LVIA considers that the proposal is consistent with the Objectives and Policies relating to the character and amenities of the Rural zone with effects being less than minor. Quarrying is a rural activity as defined under the CRPS, and with the establishment of the bunds and existing shelter belts during operation, the aesthetic coherence of the site will be maintained within the existing landscape context. There will be a change in the openness of the rural landscape but not one that is considered adverse in terms of amenity. The proposed activity allows for future rehabilitation for a permitted rural activity or another suitable activity at the time quarrying ceases.

6.3.3 Effects on visual amenity

Given the scale and location of the proposed quarry expansion, the views for road users will be limited to sections along Selwyn and Robinsons roads. At these points, views will be partial, and only limited to the proposed earth bunding and screened by existing and proposed vegetation (which will slightly alter views) with no significant disruptions expected, resulting in less than minor visual effects.

The proposed quarry expansion is anticipated to have minimal direct impacts on surrounding residents. Existing screening measures, such as dense vegetation, including shelterbelts, and fencing, already provide visual mitigation. The introduction of extended earth bunding (3m high) may partially alter some views, but the overall effect is expected to be low and temporary until the bund is removed. Additionally, Winstone proposes to maintain and enhance vegetation on adjoining boundaries if the neighbours wish and will plant a row of native trees along the Sullivan Block boundary adjacent to properties on Selwyn Road

Given the existing views of the operating quarry and the proposed mitigation measures, the magnitude of change is considered low to very low, with less than minor visual effects.

6.4 Noise effects

Noise generation will originate from the operation of quarry machinery (during site preparation, extraction, and rehabilitation activities), operation of the processing plant, and heavy vehicle movements as well as other activities occurring on the quarry site.

A full assessment of the potential noise effects associated with the proposed quarry expansion is contained in the noise assessment by Marshall Day Acoustics (MDA) and included as Appendix J.

The noise assessment considers the noise emissions arising from activities in the expansion area and in the existing quarry site, against the existing consent conditions and POSDP noise provisions and discusses the effects of the activity on nearby receivers, taking into consideration mitigation proposed through bunding along the eastern and southern boundaries together with retention of existing bunding around the perimeter of the quarry.

Noise from excavation, aggregate extraction, cleanfilling and rehabilitation activities in the quarry expansion area will be below 46 dB LAeq at the notional boundary of any nearby dwelling. This complies with the 55 dB LAeq POSDP daytime noise limit. Furthermore, cumulative noise from the expansion activity, plus other plant within the main quarry will not exceed 50 dB LAeq (complying with the POSDP and existing consent condition noise limits).

Noise levels arising from construction (initial topsoil removal and establishment of the boundary earth bunds) will comply with the construction noise limits in NZS 6803:1999.

Subject to the establishment of the bunding outlined, it is concluded that noise effects from the proposed activity, including any arising from construction noise (such as bund building), will be acceptable in the context of the local environment, and will be consistent with current operations.

6.5 Transportation effects

Adverse effects of heavy vehicle movements such as noise, vibration, and spillage of material on roads can be a source of nuisance to nearby residents. Furthermore, transportation effects can arise through vehicle movements and design and use of access, parking and loading.

In terms of nuisance effects, vehicles on the site will be well maintained, thereby minimising noise and exhaust emissions. In addition, Winstone staff are trained and well experienced in how to load road truck and trailers to avoid spillage, and all laden heavy vehicles leaving the quarry are visually inspected to reduce the risk of quarry products being spilled on public roads and clean up measures will be implemented if required.

Vehicles will continue to use the existing established site access onto Selwyn Road which is appropriately design for heavy vehicle access and has been used successfully over the life of the quarry.

Vehicle movements associated with the quarry expansion will not constitute a high trip generator as set out in TRAN-Table 2 of the POSDP, while vehicle movements associated with the quarry expansion will not increase in their intensity from what presently occurs, including the limits authorised under the RC145099. It is considered that the continuation of these vehicle movements, being a replacement for resource volumes being exhausted within the existing quarry, will have no change in effects to what currently exists and for which any effects have been appropriately mitigated by the existing well-constructed heavy vehicle access and can be accommodated by the arterial road that the vehicles use for access. As such, it is considered that the effects associated with the proposed activity on the transportation network will be indiscernible from the current vehicle movements from the site.

The existing quarry provides sufficient carparking around the building edge to accommodate the day-to-day parking demands while there are also ample metalled areas to accommodate additional carparking demands as needed. The parking and circulation aisles are of sufficient dimensions to enable all vehicles to enter and exit the quarry in a forward manner.

There is also more than sufficient space to accommodate the manoeuvring associated with these vehicles, and sufficient internal length to accommodate heavy vehicles should several arrive at the same time.

Therefore, transportation effects are considered negligible.

6.6 Effects on water resources

6.6.1 Introduction

Potential effects on groundwater and surface water quality from the proposed extraction activities within the expansion area are associated with the excavation process and spills of fuels and lubricants on site as well as backfilling. Furthermore, extraction has the potential to impact surface waterways if there is a waterbody near the site, or if the extraction activities affect groundwater which is hydraulically connected to a surface waterbody.

A range of mitigation measures have been incorporated into the proposal that will ensure that these potential effects are avoided, remedied, or mitigated, noting that the quarry has been operating in this area for 40 years with best practice measures in place to manage effects on water resources.

6.6.2 Effects on groundwater quality

While experience, case law[5] and the planning framework under the LWRP recognises that the act of quarrying itself has very little potential to contaminate groundwater providing it occurs above groundwater levels (being provided for as a permitted activity under Rule 5.175), other activities taking place within a quarry such as the management of hazardous substances, use of machinery and backfilling can pose an increased risk to groundwater.

As discussed in the Groundwater Assessment contained in Appendix G, groundwater quality monitoring for the existing quarry site indicates some minor effects on aesthetic water quality (slightly elevated Total Alkalinity, Hardness and Electrical Conductivity) resulting from historical quarrying operations toward the south-eastern end of the site. However, monitoring results do not appear to

[5] Road Metals Company Ltd v CCC Environment Court decision C163/05.

indicate any significant or ongoing adverse effects on groundwater quality from historical or ongoing activities on the Wheatsheaf Quarry site.

As further noted in the Groundwater Assessment, groundwater monitoring results indicate any contamination of groundwater occurring on the Wheatsheaf Quarry site is intermittent, localised and does not represent ongoing contamination of groundwater at levels exceeding the Trigger Values established under Condition 34 of CRC213142[6].

6.6.2.1 Effects associated with extraction activities

Winstone proposes to excavate to a maximum depth of 1 m above the highest groundwater level at the site, so that groundwater will not be intercepted by excavations and there remains a separation distance between the quarry pit floor and highest groundwater levels in accordance with the permitted activity standards for excavation under the LWRP and as such any effects associated with the extraction activity in the extension area meet the permitted baseline.

This separation distance, together with there being no storage of hazardous substances or refuelling activities proposed within the Sullivan Block means the potential for groundwater contamination arising from this application is very low.

Winstone already adopts a range of measures into its operational procedures at Wheatsheaf Quarry to manage any adverse effects on both soil and groundwater resources, including a Site Environmental Management Plan for the site, which addresses spills and is included in draft within Appendix I.

Machinery is well maintained to limit the potential for any hydraulic fluid spills. However, in the event of a hydraulic oil or fuel leak, appropriate contingency measures such as spill kits and staff training are already in place to manage such an event. Any soil contaminated because of a spill will be removed and appropriately disposed of to an authorised off- site facility.

The site will also be securely locked when works are not taking place. This limits the likelihood of unauthorised access to the site which could increase the potential for some form of contamination to occur.

Overall, it is considered that the extraction activity on the Sullivan Block is unlikely to affect groundwater quality.

6.6.2.2 Effects arising from backfilling

Backfilling has the potential to result in the contamination of groundwater through the leaching of contaminants from inappropriate fill material, and through leaching occurring because of backfill material becoming saturated once it has been placed in the quarry. Material used for backfilling may include quarry overburden and subsoils, process fines, unsaleable product or imported cleanfill material.

Of the materials to be used in the backfilling, it is considered that cleanfill material imported from off site has the greatest potential to result in contamination of groundwater resources underlying the site.

Accordingly, material sourced from off site will be subject to a cleanfill tracking system already used by Winstone for the existing quarry and which is discussed in more detail in the draft updated CMP included in Appendix I. This system includes the following requirements:

- The name of the company that delivered the cleanfill to the site.
- The date of deposition.
- The source of the cleanfill.
- A description of the cleanfill.
- The approximate quantity of cleanfill.

[6] Which, with the exception of Nitrate-Nitrogen, are set at levels <50 percent of the relevant Maximum Acceptable Values (MAV) established by the Water Services (Drinking Water Standards for New Zealand) Regulations 2022.

All material to be imported to the site will meet the CRC definition of cleanfill as outlined in the LWRP. Additionally, any contractor responsible for excavation of the cleanfill at its source and/or for its transportation to the site will not deposit cleanfill at the site without having signed a formal agreement with Winstone that the deposited cleanfill will meet the acceptance criteria specified above.

The deposited cleanfill shall be inspected by quarry site staff before it is placed in its final position on site. The Groundwater Assessment discusses mitigation measures for managing effects associated with backfilling on site, including:

- Where filling is to occur, placement of a 1.0-metre layer of VENM at the base of the excavation to increase separation between maximum groundwater levels and overlying fill thereby increasing the potential for attenuation of any contaminants which may be mobilised.
- Limiting cleanfill materials to those meeting the LWRP cleanfill definition (considered generally equivalent to Class 4 Controlled Fill under the WasteMINZ 2023 guidelines).

The Groundwater Assessment further recommends that conditions like those specified for the B and C block consents be established for the monitoring and reporting of groundwater levels and groundwater quality for the duration of quarrying and rehabilitation activities in the Sullivan Block. Winstone would be willing to discuss potential locations for such monitoring locations further with CRC.

In terms of effects from filling, the Groundwater Assessment discusses how maintenance of a minimum 1 metre unsaturated zone under the fill materials will eliminate the potential for direct mobilisation of contaminants into groundwater and provide some degree of attenuation for any contaminants entrained in infiltrating soil water. Additional separation between cleanfill materials and groundwater during periods of extreme high groundwater levels will be achieved by placement of a 1.0-metre-thick layer of VENM along the base of the excavation under any areas where cleanfill is deposited.

In summary, given the quarry floor will be above expected seasonal high groundwater levels, the material to be deposited is only cleanfill, the mitigation measures proposed such as 1 m of VENM being placed between the base of the excavation and filling where this does occur, and adherence to a CMP, it is considered that any potential effects on groundwater quality from backfilling activities will be no more than minor.

6.6.2.3 Effects on groundwater users

As discussed in the Groundwater Assessment, the nearest bore located directly down-gradient of the Sullivan Block is M36/5310 located approximately 285 metres from the southern margin of the Sullivan Block and is recorded as being screened between 42.5 and 44.0 m mbgl.

The log from this bore records layers of '*clay bound gravel*' from 18 to 34 and 36 to 40 mbgl indicating that there is likely to be an indirect hydraulic connection between shallow groundwater underlying the Wheatsheaf Quarry and the screened interval in this bore.

The next closest bore immediately down-gradient of the quarry site is BX23/1222, located approximately 440 metres south-east of the southern boundary of the Sullivan Block. This bore is screened between 115.7 and 118.7 mbgl so again is unlikely to be in direct hydraulic connection with shallow groundwater.

All bores screened in the shallower 22.5 to 36.0mbgl water-bearing layer are either located over 500 metres down-gradient from the Sullivan Block or at least 170 metres cross-gradient. Consequently, given the construction (depth) and location (distance) of private wells downgradient of the Wheatsheaf Quarry the potential for cleanfilling activities to adversely affect water quality in neighbouring bores is significantly reduced.

It is noted a registered drinking water supply being bores BX23/0783 and BX23/0864, supply ID BRO005[7] for Broadfield School has been identified in proximity (generally cross gradient) to the site,

[7] https://hinekorako.taumataarowai.govt.nz/publicregister/supplies/view/?id=84164c30-8464-ed11-9560-002248930713

with the population supplied by this well is recorded as being 150 people. As discussed in the Groundwater Assessment, owing to the distance of these bores from the site – more than 1 km, any potential for adverse effects on these bores from activities on the Sullivan Block are significantly reduced.

Having regard to the above and the measures discussed in relation to fill material and groundwater quality monitoring recommendations in section 6.6.2.2, it is considered that effects on groundwater users will be less than minor.

6.6.3 Effects on surface water quality

In some instances, gravel extraction and cleanfilling has the potential to impact surface waterways. This may occur if there is a waterbody near the site, or if the quarry affects groundwater which is hydraulically connected to a surface waterbody.

The Groundwater Assessment has discussed the closest natural water body to the site are Dawsons Creek and Spring Creek approximately 5 km to the east and south of the site respectively. The Selwyn River is located approximately 12 km south of the site, and the Waimakariri River is 15 km to the north of the site. Due to the distance from the site, these waterbodies are considered to have a minimal influence on groundwater fluctuations under the site and due to quarrying activities only occurring above the groundwater table, on-site extraction will not have any influence on these rivers.

SDC water races run along the southern side of Robinsons Road and western side of Selwyn Road, although no extraction will occur within 50 m of these water races, being more than 170 m from the extent of extraction. That separation distance is adequate to ensure that potential effects on water quality within the water races are avoided.

Owing to the absence of natural surface water bodies on or near the site and given that effects on the groundwater resource will be less than minor given minimal influence on these rivers, there are unlikely to be any adverse effects on surface water quality resulting from the proposed quarry expansion.

6.6.4 Effects on groundwater quantity

It is proposed that water will be supplied to the extension site for aggregate washing, dust suppression, irrigation of grassed areas and rehabilitation through a partial transfer of the existing water take and use permit CRC212834 over the Sullivan Block which is not within the area identified for CRC212834 or CRC213144.

As the existing groundwater take will simply be used for the same purposes across a different area, with no increase in volumes, it is considered that there will be essentially no difference in effects on groundwater quantity than what currently occurs as a result of the existing Wheatsheaf Quarry operation.

An assessment of the amount of water to be transferred, and why this volume is required, is discussed in Appendix D.

6.6.5 Conclusion

In conclusion, adverse effects on water resources arising from the proposal will be no more than minor given the nature of the quarry operation above the HRGWL, and operational controls around not storing hazardous substances within the expansion area, managing spills, securing the site, maintenance of machinery and controls on backfilling. Furthermore, groundwater level and quality monitoring will be undertaken consistent with requirements for the existing Wheatsheaf Quarry operation. There will be no effects on groundwater quantity as no additional groundwater take is required, and only a partial transfer to enable the water to be used across the expansion area.

6.7 Effects on soil resources

6.7.1 Effects on soil quality and soil properties

Topsoil and subsoils removed prior to excavation will be appropriately stored to prevent degradation and erosion losses, prior to being used in site rehabilitation. There is some potential for soil

contamination to occur within the expansion area through a spill from machinery prior to the soil being removed for storage. Machinery will be well maintained to limit the potential for any hydraulic fluid spills and spill management protocols already exist for the site which will apply to the expansion area. This will detail appropriate contingency measures in the form of operational practices, spill kits and staff training that will be in place to manage any hydraulic oil or fuel leak. All spill events will be recorded, including the volume of any spill and a record of any clean up action taken, with any contaminated soil being appropriately disposed of to an authorised off-site facility.

A Soils Assessment has been prepared by Pattle Delamore Partners (PDP), included as Appendix K. The proposal involves the removal of topsoil, storage in bunds (or stockpiles) and at the end of the quarry operation the topsoil will be combined with silt from the quarry operation, and imported topsoil to provide a soil that has at least the same depth as the original site. Any soil disturbance is likely to result in disruption to soil properties, including soil compaction, loss of soil structure, and degradation of soil aggregates during removal, transport and storage and compaction during placement. These impacts can lead to impeded soil drainage (reducing air and water flow pathways in the soil), reduced soil water storage capacity, and reduced soil pores for biological activity if not managed properly.

Adherence to the Soil Management Plan (most importantly during the removal and placement of the subsoil and topsoil materials) will ensure the effects on soil properties are minimised. Re-vegetation to pasture will be undertaken as soon as practicable after topsoil placement. This will minimise possible deterioration of soil structure and development of erosion problems on bare cultivated soils.

6.7.2 Effects on soil productivity

Landcare Research's Our Environment mapping identifies the area to be quarried as having a land use capability classification of LUC3 which is considered highly productive land in the context of the NPS-HPL. An Agricultural Productivity Assessment (APA) included as Appendix L, has been produced by Agri Intel to assess the current and potential productive capability of the land, considering relevant NPS-HPL factors from a productivity perspective, in accordance with clause 3.10 of the NPS-HPL.

Clause 3.10 of the NPS-HPL sets out exemptions for highly productive land subject to permanent or long-term constraints, allowing highly productive land to be subdivided, used, or developed for activities not otherwise enabled under clauses 3.7, 3.8, or 3.9.

The APA outlines that the three tests of Clause 3.10(1) on the NPS-HPL are satisfied by this proposal.

In accordance with Clause 3.10(1)(a) there are permanent or long-term constraints on the land that means the use of the highly productive land for land-based primary production is not able to be economically viable for at least 30 years, including:

- The property is not currently operating at its maximum agricultural productivity and faces challenges in supporting an efficient and productive dry stock grazing operation, relative to a similar large-scale farming operation.
- As a standalone unit, the site cannot generate enough income to cover interest, taxes, and a return for management, noting there would be high establishment and operational costs.
- The block of land would have to be incorporated into a bigger growing operation to achieve sufficient scale to enable the landowner to maximise productivity. However, extensive fragmentation within the local area, characterised by rural lifestyle-sized lots and an existing quarry, precludes options for land consolidation.
- While there are some reasonably practical options for improved land management, such as addressing existing infrastructure and soil fertility deficiencies, the lack of irrigation and the significant existing fragmentation result in permanent and long-term constraints on the land that means the use of the highly productive land for land based primary production is not able to be economically viable.

This proposal will not contribute significantly to any additional fragmentation of land-based primary production on HPL, as this land is not being subdivided into smaller lots and the surrounding landscape is highly fragmented. The existing quarrying activity means this proposal is unlikely to

result in further reverse sensitivity concerns on surrounding land-based primary production. This supports Clause 3.10 (1b).

The combined net environmental, social, cultural, and economic effects of the proposal outweigh the costs associated with the loss of HPL. The benefits provide a more valuable and sustainable alternative to land-based primary production. This supports Clause 3.10 (1c).

The proposal is likely to result in only a temporary loss in agricultural productivity, as the applicant has plans to rehabilitate the land to a productive state post quarrying, which will be achieved through implementation of a Soil Management Plan (included in Section 7.0 of the Soils Assessment in Appendix LK) and the QSRP included in draft in Appendix I.

The NPS-HPL is discussed further in the Statutory Assessment contained in Appendix M, however any effects on soil productivity are considered less than minor.

6.7.3 Effects associated with contaminated soil

As discussed in Section 2.1, a search of CRC's Listed Land Use Register (LLUR) has identified the potential presence of Hazardous Activities and Industries List (HAIL) sites within parts of the existing quarry having a HAIL activity status of G3 Landfill associated with historical clean filling.

No extraction is proposed within areas which have been used for filling on the existing site, although quarrying through the existing quarry batters and walls (which consist of natural material) to access the Sullivan Block will occur. The PSI included in Appendix E confirms that these areas are not contaminated.

While the Sullivan Block is not identified on the LLUR, PDP has undertaken a PSI (contained in Appendix E) to understand the historical and current land use practices at the site to assess if past or present activities have resulted in ground contamination. Based on the findings of the PSI, a HAIL category G3 (Landfill sites) has been applied to an area of the site in the southern-eastern corner of the investigation area ('piece of land') where there was evidence of an old pit partially backfilled where there is potential for hazardous materials/contaminated soils to be present.

This area has been excluded from the area to be quarried within the site. Therefore, as the 'piece of land' is not being modified in any way as part of the future quarrying activities, the NESCS is not applicable as there will be no associated soil disturbance or land use change on the 'piece of land'.

6.8 Ecological effects

As noted in Section 2.9, the terrestrial vegetation on the site predominantly consists of exotic species, being shelter belts and pasture, none of which are protected under the relevant planning documents. Owing to the modified nature of the environment at the site, resulting from many years of farming, any effects on terrestrial ecology values from quarrying within the extension area will be negligible.

Given the above assessment determines there will be low potential for adverse effects on water quality, there will also be no adverse effects on aquatic ecology arising from this proposal.

6.9 Effects on air quality

6.9.1 Introduction

The main discharge to air from quarrying operations is particulate matter (dust), primarily in the coarse size fraction (generally greater than 30 µm in diameter) that can generate nuisance effects, and effects associated with fine particulate matter that can cause health effects from the respirable particulate fraction less than ten microns in diameter (PM_{10}).

An AQA has been prepared by AQCNZ and is included as Appendix H. The air quality effects arising from the proposed expansion are summarised below.

6.9.2 Dust nuisance effects

The primary concern with dust is its ability to cause an effect that could be considered 'offensive' or 'objectionable'. To assess whether a dust event has the potential to be offensive or objectionable, the

Ministry for the Environment Good Practice Guide for Assessing and Managing Dust (2016) recommends the FIDOL (frequency, intensity, duration, offensiveness and location) assessment tool. AQCNZ has undertaken a FIDOL assessment to assess the potential for dust nuisance effects arising from the proposal.

Dust nuisance effects include impacts on visual amenity and visibility (dust clouds), dust deposition on property, including vehicles, washing lines and roof tops and impacts on structures, such as abrasion. Effects of dust deposition on plant life can also occur where there are significantly high dust deposition loadings and sensitive vegetation but are typically only a concern when in very close proximity to a source.

As shown in Figure 2 there are nine (9) sensitive receptors (not owned by the applicant) identified within 250 m of the expansion area. Having assessed the site activities that have the potential to cause dust discharges against the FIDOL factors, AQCNZ considers that it is unlikely that dust from onsite activities will cause dust nuisance effects at sensitive receptor locations. This is based on the following findings:

- Nearby receptors are only downwind of the proposed Sullivan Block during high-risk wind speeds at a frequency that is considered "infrequent" (SR1, SR2, SR3, SR4 and SR9) or "moderately frequent" (SR5, SR6, SR7 and SR8).
- No receptor is considered 'Close' as all the receptors are at least 100 m from the extraction area. Receptors SR1, SR5, SR6, SR7 and SR8 are at an 'Intermediate' distance (between 100 and 200 m) and receptors SR2, SR3, SR4 and SR9 are considered 'Distant'. At these distances dust effects are expected to be minimal.
- Initial works such as overburden stripping and bund formation will occur at the same ground level relative to the surrounding receptors. However, once the 3 m high bund is established, the pathway for the dust is not directly open and therefore, the bund will help to reduce dust intensity in certain metrological conditions. Extraction will work from the current pit floor outwards from the toe of the pit, this means there will always be a pit wall between during extraction between the activity and the receptors and the pit wall will have the same effect on the dust pathway, which should result in containing most dust effects.
- Winstone will use a range of proven best industry practice dust mitigation measures and work in accordance with a Dust Management Plan (these are outlined in further detail in the AQA).
- Winstone will undertake visual monitoring alongside continuous monitoring of dust and wind conditions. Monitors are configured to send out alerts if values exceed predefined trigger values. Given these measures, if a dust event was to occur it is expected to be short in duration, being only the time to recognise that dust emissions are occurring and to implement any additional mitigation that might be required (this is outlined in further detail in section 6.9.4 below).
- The site has a good compliance history in terms of nuisance dust effects.

Given that sensitive receptors SR5, SR6, SR7 and SR8 are within an intermediate distance from the source (100 to 200 m), and they are downwind at a frequency considered "moderately frequent", additional targeted mitigation has been adopted to further reduce any residual dust effects that might occur being the following stop work trigger as discussed in Section 7.6.1 of the AQA:

Quarry activities (except dust suppression measures) within 250 metres of a sensitive receptor location must not be undertaken when:

1. *Wind speed reaches or exceeds 7 m/s (10-minute average); and*
2. *Quarry activities would be directly upwind of a sensitive receptor (10-minute average wind direction); and*
3. *Less than 1 mm of rain has fallen during the preceding 12 hours.*

6.9.3 Health effects

Potential health effects resulting from suspended dust are associated with particles smaller than ten microns in diameter, which can cause respiratory illness. This particulate size fraction is commonly referred to as PM_{10} or the respirable particulate fraction.

As discussed in the AQA, PM_{10} and $PM_{2.5}$ discharges are normally associated with combustion activities, such as vehicle emissions and domestic home heating, however these size fractions have also been found to be associated with quarrying activities, primarily vehicles travelling on haul roads (through the grinding and pulverising of material as vehicles travel along these surface) and the crushing and screening of aggregates.

There will be no new haul roads established as part of the Sullivan Block and no aggregate processing will occur in this area, therefore, PM_{10} and $PM_{2.5}$ emissions from this source will be minimal. Furthermore, materials will be retained in a wet state, minimising any potential for any dust emissions (TSP or PM_{10}/$PM_{2.5}$).

Discharges from vehicles will be further minimised by ensuring that vehicles are appropriately maintained, travel at the posted quarry speed limits (20 kph), and the surface on which they travel is well maintained and watered. Furthermore, no increase in vehicle numbers on site are required to undertake this expansion activity, therefore vehicle related emissions will be at the same intensity as currently exists such that there will be a negligible effect on local air quality from vehicle operation, assuming that the below mitigation measures are appropriately implemented.

Respirable Crystalline Silica (RCS) can also be present in the dust generated by quarrying operations, however the risk associated with overburden (soil and weathered rock) removal and aggregate extraction is much lower compared to freshly processed rock. Given that there will be no crushing undertaken on the Sullivan Block, the risk of RCS exposure will be low. AQCNZ also notes that any mitigation used to control dust will also control RCS emissions.

Overall, AQCNZ considers the potential for PM_{10} and $PM_{2.5}$ discharges from the proposed expansion to be very low to negligible, providing that the proposed mitigation measures are implemented. Furthermore, off-site concentrations of these air pollutants are likely to be well below the relevant air quality standards and guidelines, namely, the National Environmental Standards for Air Quality, Ministry for the Environment Ambient Air Quality Guidelines (NZAAQG) and the World Health Organisation air quality guidelines.

6.9.4 Dust mitigation measures and monitoring

The Wheatsheaf Quarry is already subject to extensive dust suppression controls, and as such, Winstone's staff are well educated and trained in dust management. These mitigation measures are detailed in the AQA and draft DMP. Table 5 of the AQA summarises all the measures described in the DMP to control air discharges from the expansion site.

The DMP is updated on an annual basis to reflect improvements in dust mitigation and to ensure continual improvement in reducing dust nuisance across the site and will be updated to incorporate the expansion if consents are granted.

The following monitoring is also proposed:

- Visual dust monitoring will be implemented as per Table 6 of the AQA
- Continuous dust monitoring with telemetry to measure PM_{10} concentrations which can send out alarms if dust concentration exceeds threshold values (as specified in the AQA).
- Continuous wind speed and wind direction monitoring with telemetry, which can send out alarms, and for the Sullivan Block there will be a stop work trigger when wind direction is from 280° through to 40°, wind speeds are greater than 7 m/s as a 1-hour average and there has been less than 1mm of rainfall for 12 hours prior.

6.9.5 Summary

Overall, it is concluded that provided the mitigation measures are implemented and monitored for their effectiveness in accordance with the DMP, the activity is unlikely to result in any adverse

environmental effects beyond the Site boundary and the effects are therefore considered to be less than minor.

6.10 Effects on cultural values

There are no known waahi tapu sites or other sites of significance within the expansion area and furthermore, there are no proposed direct discharges to water, no disturbance of significant indigenous flora and fauna, and no identified areas of ecological significance on the site.

A key cultural concern in relation to these types of activities is effects on water resources. As discussed previously, there are no natural surface waterways near the site while the potential effects on groundwater resources have been assessed as less than minor with a separation distance of at least 1 m being maintained to the HRGWL.

There are also no heritage structures or sites identified within the expansion area. Consequently, the proposal is not considered to have any potential adverse effects on cultural values. It is, however, considered appropriate that a condition is imposed to address accidental discovery of Koiwi Tangata or taonga.

6.11 Cumulative effects

The technical reports have discussed cumulative effects where relevant and found these to be acceptable.

While the Sullivan Block adjoins the existing quarry, limits on active working areas are not proposed to change while extraction rates and vehicle movements will not increase beyond those that presently exist, meaning that the scale and intensity of the quarry will generally remain the same throughout its life despite progressing through the expansion area.

The expert conclusions, combined with the various mitigation measures proposed will ensure that any cumulative effects of the proposal will be less minor.

6.12 Positive effects

The proposed activity contributes several positive effects for the Selwyn District and wider Canterbury economy.

A sustained supply of aggregate is required to provide for new building, construction and roading projects, but is also needed to maintain and redevelop existing infrastructure.

To construct and maintain roads, port or airport facilities, or other significant built structures without aggregate would be totally impracticable, if not impossible, while aggregates also form an important component of manufactured products such as ready mixed and asphaltic concrete, precast concrete beams and panels, blocks, pavers, pipes, and the like.

It is noted that several quarry sites across the greater Christchurch and Selwyn area have now been exhausted or are nearing completion. This does not only include those sites that were originally zoned for quarrying under previous planning documents, but also sites which are outside identified quarry zones or designated Council sites, and which have been authorised through resource consents. Providing for the supply of aggregates near the areas demand, reduces economic, environmental, and social costs that would be increased should new quarries have to be established at greater distance to where they are required.

Furthermore, the proposed expansion area is a continuation of an established quarry site and can utilise existing quarry infrastructure for processing of the aggregates extracted from the site. By enabling the quarry to continue to develop, the life of the site and the millions of dollars invested in terms of the infrastructure and effects mitigation measures at that site, can continue to be utilised for an extended period. Winstone's processing plants can produce a range of higher value aggregate products which provides an additional benefit compared with establishing a quarry operation elsewhere with less versatile processing plant.

An additional benefit that is provided through the extraction of the resource is that extraction from the site does not preclude ongoing use of the site for rural production and other authorised activities either during quarrying, or at the completion of quarrying.

In addition to the positive effects of the proposal discussed above, the proposed activity will generate direct employment for Winstone's on site staff and indirect employment for numerous other workers within the construction and roading industries including truck drivers, administrative staff, and contractors.

6.13 Conclusion

Overall, it is considered that the potential adverse effects of this proposal on the environment will be no more than minor, and in many cases negligible.

7.0 ALTERNATIVES

7.1 Introduction

An assessment of alternative methods of discharge, including discharging into any other receiving environment, is required under section 105 of the Resource Management Act 1991 (RMA) for any application seeking to discharge contaminants. An assessment of alternatives is also necessary for activities likely to have significant adverse effects.

Having regard to the AEE contained within Section 6.0 of this report and the supporting technical assessments, it is not considered that this proposal will have significant adverse effects. Therefore, an assessment of alternatives has been completed in respect of the applications for the discharge of contaminants.

7.2 Discharges to air

With respect to the discharge of contaminants to air, this discharge reflects the location of the Sullivan Block and the existing Winstone Wheatsheaf quarry site, the type of material to be extracted, site rehabilitation measures, vehicle access directions, and the direction and strength of wind. For quarry activities it is through the adoption of appropriate dust mitigation "methods" of discharge that the effects of such activities can be controlled and minimised.

As discussed in Section 6.9, the presence of rural dwellings means these areas are more sensitive. In recognition of this, proposed mitigation measures, which include specific operational controls relative to wind speed and direction to minimise effects on the nearby sensitive receptors, are proposed. Targeted measures are proposed in respect of higher risk dwellings as discussed in the AQA.

It is considered that the suite of mitigation measures proposed will ensure that potential dust effects can be managed to an acceptable level. Other emissions, such as those generated by the operation of on-site machinery, are considered negligible.

Overall, it is concluded that the proposed method of discharge (for contaminants to air) is the only practicable method and with the quarry operational design and effects mitigation measures proposed it is considered to represent good practice within the local aggregate industry.

7.3 Discharges to land

When disposing cleanfill to land, there is the potential for contaminants within cleanfill to become saturated and seep into the ground. Notwithstanding this, the effects of this occurring from cleanfill is considered to have no more than minor adverse environmental effects as discussed in Section 6.6. Additionally, a metre of VENM material is to be retained between any cleanfill and the base of the quarry excavation providing further mitigation beyond the 1 m separation that will be retained to the HRGWL.

Overall, it is concluded that the proposed method of discharge is the only practicable method of discharging contaminants from cleanfill to land, other than a change of activity such as not cleanfilling and only rehabilitating the base of the excavation.

8.0 CONSULTATION

8.1 Pre-application discussions

While not having held formal pre-application meetings, Winstone has advised SDC and CRC of these applications. Winstone is happy to meet with both SDC and CRC to discuss the applications if required, once they have been accepted for processing.

Acknowledging the high workload of SDC and CRC staff currently, Winstone has advised that upon the application being formally accepted for processing by SDC and CRC, Winstone is agreeable to a s37 extension being applied to the applications until a processing planner can be allocated.

8.2 Local community

Winstone has not undertaken detailed consultation with the local community regarding this application as it is considered potential effects are limited to immediately adjoining properties. Winstone has however informed nearby properties of this application and extended an invitation to meet with any parties who would like to do so.

Winstone has a generally good relationship with its neighbours and intends to seek written approvals from nearby property owners and occupiers, including any identified as being affected, once the application is formally accepted by SDC and CRC.

No other parties are adversely affected by the proposal owing to the limited change in scale and intensity proposed. In this regard, the activity represents a continuation of well-established quarrying practices, across an extended area of land.

9.0 REGULATORY/STATUTORY CONSIDERATIONS

9.1 Introduction

This section provides a brief overview of the relevant provisions of the RMA and associated statutory plans governing the resource consents required to construct, operate, and rehabilitate the expansion site. A full assessment of the relevant resource management decision framework that applies to the resource consents being sought for the quarry expansion and the change of consent conditions is provided in the Statutory Assessment, included as Appendix M of this application document.

The statutory planning documents under the RMA relevant to this application are:

- National Policy Statement for Freshwater Management (NPS-FM)
- National Policy Statement for Highly Productive Land (NPS-HPL)
- Resource Management (National Environmental Standard for Sources of Human Drinking Water) Regulations 2007 (NES-DW)
- Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NESCS)
- Canterbury Regional Policy Statement (CRPS)
- Canterbury Land and Water Regional Plan (LWRP)
- Canterbury Air Regional Plan (CARP)
- Operative Selwyn District Plan (SDP)
- Partially Operative Selwyn District Plan - Appeals Version (POSDP)

An assessment of the relevant rules that trigger the requirement to seek resource consents from CRC and SDC, and the activities that are permitted are also summarised in the Statutory Assessment.

The objectives and policies of the POSDP have been through a hearing process with decisions notified and appeals lodged. It would appear the only appeals that are applicable to the objectives and policies relevant to this application are around matters pertaining to transmission lines and noise from rural activities in so far as making these more permissive – meaning the objectives and policies are essentially beyond challenge in respect of a proposal of this nature.

As such, it is considered that considerably more weight should be accorded to the objectives and policies of the POSDP and as such an assessment against the objectives and policies of the operative SDP has not been undertaken here.

The Statutory Assessment concludes that given the location and design of the quarry expansion, together with the range of mitigation measures proposed, the proposal is consistent with the policy framework of the relevant statutory documents. It is similarly concluded that granting consents would be consistent with the purpose of the RMA and its principles.

9.2 Notification

Sections 95A to 95F of the RMA set out requirements in relation to the public and limited notification of resource consent applications. Sections 95A, 95B, 95D and 95E have relevance to this application.

The steps in section 95A relate to whether public notification should be given. With regards to its requirements:

- Step 1: The applicant does not request public notification, section 95C is not relevant as this relates to requests for further information; and the application is not made jointly with one to exchange recreation reserve land. Therefore, public notification is not mandatory under section 95A(2)(a).
- Step 2: The application is not subject to a rule or national environmental standard that precludes public notification or a boundary activity and is not for a controlled activity. Public notification is therefore not precluded under section 95A(4)(a).
- Step 3: The application is not subject to a rule or national environmental standard that requires public notification; and, as demonstrated in Section 6.0 of this report, the proposal will not or is not likely to have adverse effects on the environment that are more than minor in relation to section 95D. Therefore, the application need not be publicly notified under section 95A(7)(a).
- Step 4: No special circumstances are considered to exist in relation to the application that would warrant the application being publicly notified, therefore public notification is not required under section 95A(9)(a).

Therefore, in applying the tests set out under section 95A of the RMA, and having regard to the discussion below, it is considered that the application should not be publicly notified.

The steps in section 95B relate to whether limited notification should be given. With regards to its requirements:

- Step 1: There are no affected protected customary rights groups or customary marine title groups; and the proposed activity is not identified as being on, adjacent to, or affecting land that is the subject of a statutory acknowledgement. Therefore, there are no specific people or groups that are affected, to whom limited notification should be given under section 95B(4).
- Step 2: The application is not subject to a rule or national environmental standard that precludes limited notification; and the application is not for a controlled activity. Therefore, limited notification is not precluded under section 95B(5)(a).
- Step 3: The application is not for a boundary activity, but the consent authority must notify any other person they determine to be affected under section 95E. Under section 95E, no parties are considered adversely affected to an extent that is minor, and therefore, limited notification is not required to these parties under section 95B(9).
- Step 4: No special circumstances are considered to exist in relation to the application that would warrant limited notification, therefore limited notification is not required under section 95B(10)(a).

Therefore, in applying the tests set out under section 95B of the RMA, and having regard to the discussion below, it is considered that the application could proceed on a non-notified basis. While we note that CRC and has typically taken an approach of notifying surrounding owners and occupiers within 250 m of new quarries and quarry expansions, we note that the most recently consented quarry expansion we are aware of at the KB Contracting and Quarries site on Miners Road Yaldhurst, did not

have this approach applied, and was processed non-notified despite several houses being less than 250 m from the extraction area[8].

Notwithstanding this, if any parties are to be limited notified, we would expect such notification would be limited to parties who are closer to the Sullivan Block than the existing quarry.

We further note the provisions of the POSDP are designed such that sensitive activities[9] seeking to establish within certain distances of quarry operations are required to obtain resource consent to address potential reverse sensitivity effects. This is set out in GRUZ-REQ11.

The relevant sensitive activity setbacks under GRUZ-REQ11 are 200 m to any authorised excavation associated with extracting or winning aggregate and 500 m to any authorised processing or aggregate recovery. The effect of these provisions in some instances can be that if a quarry expansion were to be granted, some sensitive activities may require consent post grant of the expansion, that in some cases they otherwise did not require.

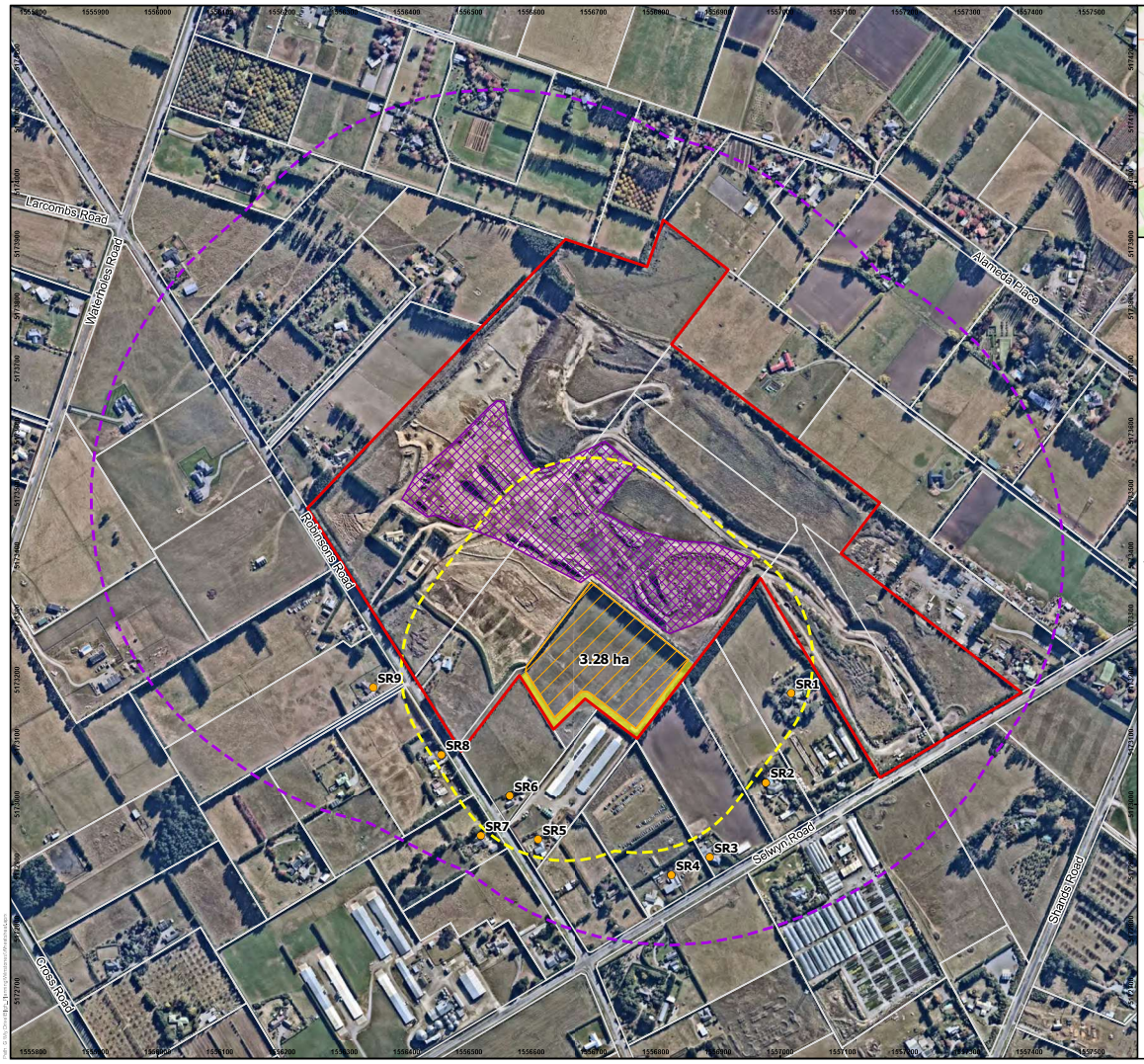
It is considered that as such setbacks already apply to the existing quarry through its recognition in GRUZ-SCHED1 of the POSDP and the consents granted for the activity, and it would be reasonable for SDC to only consider these effects only as they relate to land that is not already within existing setback distances under this rule. As shown indicatively on Figure 5, it appears that no properties should experience an increase in this setback distance arising from the Sullivan Block expansion, owing to the 500 m setback applicable to existing processing plant, on the Wheatsheaf Quarry.

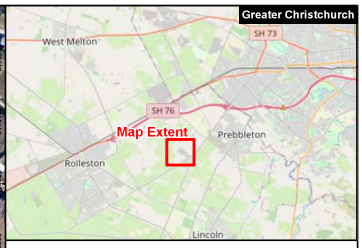
As such, it is considered no parties would be potentially affected because of this setback requirement, should consent be granted.

[8] CRC230102, CRC230103, CRC230106, CRC232377 and CRC233309

[9] Means any:

a. residential activity
b. visitor accommodation
c. community facility
d. educational facility





LEGEND

- Site Boundary
- Expansion Area - Sullivan Block
- Expansion Area Buffer - 200 m
- Existing Indicative Processing Area
- Processing Area Buffer - 500 m
- Parcel Boundary
- Bund - 10 m
- Sensitive Receptors

NOTES

1. Aerial image: Nearmap WMTS
2. Map image: OpenStreetMap: © OpenStreetMap (and) contributors, CC-BY-SA
nearmap,com:
3. Schematic only, not to be interpreted as an engineering design or construction drawing.
4. All areas and distances are indicative.

0 300 600
METRES

REFERENCE SCALE: 1:6,000 at A3.

PROJECTION: NZGD 2000 New Zealand Transverse Mercator

CLIENT

WINSTONE AGGREGATES WHEATSHEAF QUARRY

TITLE

SULLIVAN BLOCK - INDICATIVE SETBACK DISTANCES IN THE CONTEXT OF GRUZ-REQ11

BLIGH

YYYY-MM-DD	2024-07-02
PREPARED	AE
APPROVED	KB
REPORT	WHT
REV.	0

FIGURE **05**

9.3 Section 104 and 104B

For any resource consent application, section 104 of the RMA requires the consent authority, in deciding on a resource consent application, to have regard to:

- The actual and potential effects on the environment of allowing the activity (section 104(1)(a)).
- 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 (section 104(1)(ab)).
- The relevant provisions of any national environmental standard, other regulation, national policy statement, coastal policy statement, regional policy statement or proposed regional policy statement, plan, or proposed plan (section 104(1)(b)).
- Any other matters considered relevant or necessary to consider (section 104(1)(c)).

The actual and potential effects associated with the proposal have been assessed in Section 6.0 of this document and found to be at most, no more than minor, and in many cases negligible.

An assessment of the proposal against the provisions of the relevant statutory planning documents is contained in the Statutory Assessment in Appendix M, and the proposal is found to be consistent with the relevant objectives and policies. Under section 104B, if a consent authority grants such an application, it may impose conditions under section 108.

9.4 Sections 105 and 107

Section 105 of the RMA requires regard be had to the following matters for discharge permit applications:

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.

As discussed in Section 7.0, alternative methods of discharge have been considered and the reasons for the applicant's proposed choice explained. There are only minor effects expected to arise from the discharges proposed.

Section 107 directs that a consent authority shall not grant a discharge permit, if after reasonable mixing, the discharge is likely to give rise to the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials, any conspicuous change in the colour or visual clarity, any emission of objectionable odour, the rendering of fresh water unsuitable for consumption by farm animals, and any significant adverse effects on aquatic life.

Having regard to the assessment of effects on water resources as discussed in Section 6.6, it is considered that after reasonable mixing, any discharge is unlikely to give rise to any of the adverse effects described in section 107(1)(c) to (g) on either the underlying groundwater resource or any surface water body.

9.5 Section 127

Section 127 of the RMA allows the holder of a resource to apply to a consent authority for a change or cancellation of a condition of the consent, subject to the following provisions:

> *1) The holder of a resource consent may apply to a consent authority for a change or cancellation of a condition of the consent, subject to the following:*
>
> *a) the holder of a subdivision consent must apply under this section for a change or cancellation of the consent before the deposit of the survey plan (and must apply under Section 221 for a variation or cancellation of a consent notice after the deposit of the survey plan); and*

b) no holder of any consent may apply for a change or cancellation of a condition on the duration of the consent.

2) Repealed.

3) Sections 88 to 121 apply, with all necessary modifications, as if—

a) the application was an application for a resource consent for a discretionary activity; and

b) the references to a resource consent and to the activity were references only to the change or cancellation of a condition and the effects of the change or cancellation respectively.

3A) …

4) For the purposes of determining who is adversely affected by the change or cancellation, the local authority must consider, in particular, every person who —

a) made a submission on the original application; and

b) may be affected by the change or cancellation.

Subsection (1)(a) is not relevant as it applies only to applications seeking changes to subdivision consents. In accordance with subsection (1)(b) this application does not relate to a condition on the duration of the consent.

Section 127(3) of the RMA states that, sections 88 to 121 apply, with the application to be processed as if the application is for a discretionary activity (section 127(3)(a)) and all aspects of the application, including the assessment of effects, only need to relate to the changes being sought (section 127(3)(b)).

As discussed in Section 2.0 of this report, it is proposed to change the conditions to enable the expansion to occur and for any other or consequential amendments and changes to the accompanying consent plans.

Section 127(4) of the RMA states that to determine who is adversely affected by the change or cancellation, the local authority must consider every person who made a submission on the original application and who may be affected by the changes proposed.

We understand some previous applications have been limited notified and received submissions. Activities already established through these processes include the effects of processing on the quarry site, the same number of traffic movements, a site office, and cleanfilling and rehabilitation components.

The effects of these activities were therefore part of the wider effects considerations, and it is not considered that anyone who did or did not make a submission on previous applications will be adversely affected by changes proposed.

The landscape mitigation plans included with the LVIA provide for a comprehensive visual and landscape mitigation approach which addresses potential and existing effects associated with the existing site and proposed expansion.

Accordingly, no person is considered adversely affected by the proposed change of conditions with potentially affected parties being those adjacent to the expansion area as opposed to the changes to conditions which seek to address logistical matters for quarrying into the Sullivan Block by the changes proposed.

Given that section 127 of the RMA specifies that an application to change conditions of a resource consent is subject to the requirements of sections 88 to 121, section 104 matters have been assessed, above.

10.0 SUMMARY OF MITIGATION MEASURES

A summary of the mitigation measures that have been proposed throughout this application and the supporting technical assessments is outlined below.

These measures reflect proposed avoidance, remediation and mitigation measures specifically developed for the quarry expansion, to ensure effects are managed to an acceptable level.

This list is not intended to be an exhaustive list of design and mitigation measures, but rather a list of the primary mitigation measures. Rather than being designed to specifically restrict or limit what is proposed, these are provided as a basis for discussion with SDC and CRC.

For the avoidance of doubt, these measures do not limit the scope of the existing consents.

- Maintaining dust generating areas at no more than 4.24 hectares across the expansion area and the wider quarry site.
- No processing of aggregates within the expansion area.
- Landscaping and planting are to be undertaken in accordance with the Landscape Mitigation Plans prepared by DCM Urban and included within the LVIA.
- Installation of bunds around the external site boundaries and planting where appropriate.
- The expansion shall only operate between the hours of 7 am to 6 pm Monday to Friday and 7 am to 1 pm Saturdays. No work shall occur on Sundays or public holidays.
- Not increasing the amount of water used across the total site area, including the expansion.
- Progressively rehabilitating areas where quarrying and filling has been completed.
- A range of dust control and monitoring measures, including operating in accordance with a Dust Management Plan.
- Excluding extraction within the land identified as contaminated by the PSI.
- Adhering to an accidental discovery protocol.
- Cleanfilling in accordance with a Cleanfill Management Plan and placement of 1.0 m of VENM at the base of any cleanfill.
- Adhering to a Soils Management Plan.

11.0 CONCLUSION

Winstone is seeking to expand its quarry operations at Wheatsheaf Quarry into an additional area of approximately 3.5 ha and change several conditions of existing consents.

The potential effects associated with the proposed quarrying expansion and the change of conditions are assessed in Section 6.0 and accompanying expert assessments.

The AEE identifies that the adverse effects of the proposal will be no more than minor and, in many cases, negligible, with no person being adversely affected.

The proposed activity will also have positive effects including maintaining production and transportation of aggregate products to meet demand within Selwyn and the wider Canterbury area, while providing for effective site rehabilitation.

The proposed expansion and change of consent conditions is consistent with Part 2 of the RMA and the applicable policy framework of the relevant planning documents, as assessed in Appendix M .

In addition, there are no barriers to granting the resource consents being sought, including pursuant to sections 104, 104B, 105, 107 and 127 of the RMA.