

**APPENDIX K**

**Statutory Assessment**



**REPORT**

## Appendix K - Statutory Assessment

*Fulton Hogan 'Roydon Quarry', Templeton (1781870)*

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## 1.0 INTRODUCTION

This document outlines the statutory framework and related considerations governing the approvals required to establish, operate and rehabilitate Fulton Hogan Limited's (Fulton Hogan) proposed Roydon Quarry.

The legislation of relevance to the proposed Roydon Quarry in terms of whether approvals are required to be sought is the Resource Management Act 1991 (RMA). Accordingly, the relevant requirements of the RMA, as well as the relevant objectives, policies and rules of the regional and district planning documents applicable to the proposal, are assessed in the subsequent sections of this document.

## 2.0 RESOURCE MANAGEMENT ACT 1991 – RELEVANT STATUTORY PLANNING DOCUMENTS

The proposed Roydon Quarry site is located in the Selwyn District and within the Canterbury Region. The relevant statutory planning documents developed under the RMA are therefore:

- National Policy Statement for Freshwater Management 2014 (NPS Freshwater).
- Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NESCS).
- Resource Management (National Environmental Standards for Air Quality) Regulations 2004 (NESAQ).
- Resource Management (Measurement and Reporting of Water Takes) Regulations 2010.
- The Canterbury Regional Policy Statement (CRPS).
- The Canterbury Land and Water Regional Plan (LWRP).
- The Canterbury Air Regional Plan (CARP).
- The Selwyn District Plan (SDP).

An assessment of the relevant rules that trigger the need to seek resource consents for the proposed quarrying activity and associated site operations, is contained in Section 3.0 below. Section 4.0 then contains an assessment of the relevant resource management statutory framework that applies to the resource consents being sought for the proposed Roydon Quarry.

## 3.0 RESOURCE CONSENT REQUIREMENTS AND ACTIVITY STATUS

### 3.1 Introduction

This section assesses the applicability of the rules contained in the LWRP, CARP and SDP, and of the regulations contained in the NESCS and NESAQ, in relation to the proposed discharges to land, water and air; earthworks, and the various other activities associated with the establishment and operation of the proposed Roydon Quarry, and rehabilitation of the site upon the completion of quarrying.

## 3.2 National Environmental Standards

### 3.2.1 National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health Regulations 2011 (NESCS)

The NESCS includes regulations which are relevant to the proposal and is discussed further in Section 4.6.2.2 of this appendix. The NESCS applies to land and activities as set out in subclauses (2) to (6) of Regulation 5. The proposed quarrying activity includes soil disturbance and changing the use of the piece of land, which are activities covered by sub clauses (4) and (6) of Regulation 5 respectively.

Under sub clause (7) of Regulation 5, the NESCS applies to any piece of land on which an activity or industry described in the current edition of the Hazardous Activities and Industries List (HAIL)<sup>1</sup> is being undertaken. The need for a land use consent under the NESCS for earthworks associated with the proposed quarrying activity is determined on whether the change in the use of land poses a potential risk to human health (NESCS section 5 subclause (6)). Based on the findings of the combined PSI/DSI report (Appendix H) prepared for the site, it is concluded that the proposed quarry requires a **controlled activity** consent pursuant to Regulation 9 of the NESCS.

### 3.2.2 National Environmental Standards for Air Quality Regulations 2004 (NESAQ)

Given that dust from quarries can contain fine particulates, the regulations under the NESAQ and in particular the standard pertaining to discharges of PM<sub>10</sub>, are relevant to the proposal, and are discussed further in Section 4.6.2.1. Regulation 17 of the NESAQ requires resource consent applications seeking to authorise the discharge of PM<sub>10</sub> in any part of a polluted airshed to be declined in accordance with Regulation 17(1); if the discharge to be expressly allowed by the consent would be likely to increase the concentration of PM<sub>10</sub>, by more than 2.5 micrograms per cubic metre in any part of the polluted airshed. The proposed quarry is located immediately to the west of the Christchurch/Otauhai Clean Air Zone and the Christchurch Airshed, which constitutes a polluted airshed in accordance with Regulation 17 of the NESAQ.

Based on the conclusions of the air quality assessment in Appendix D, given that any PM<sub>10</sub> to be generated from the extraction activities on site are subject to the appropriate dust mitigation measures proposed, it is considered that any discharges from the site will not result in an increase of PM<sub>10</sub> more than 2.5 micrograms per cubic metre in the Christchurch Airshed. Therefore, there is no impediment to granting consent for this application under the NESAQ.

## 3.3 Canterbury Land and Water Regional Plan

### 3.3.1 Introduction

The site is located over a semi-confined or unconfined aquifer and is identified within the Selwyn-Waimakariri Combined Surface and Groundwater Allocation Zone, as shown on Planning Map B-C11 of the LWRP Christchurch Map Series. It is not located within a groundwater protection zone (Planning Map A-C11). The site is also within the Selwyn - Te Waihora Sub-Region as under Section 11 of the LWRP.

The relevant rules applicable to the proposal are located within Section 5 'Region-wide Rules' and Section 11 'Selwyn - Te Waihora Sub-Region' of the LWRP.

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<sup>1</sup> <http://www.mfe.govt.nz/issues/hazardous/contaminated/hazardous-activities-industries-list.html>

### 3.3.2 Land Use Consents

The use of land to excavate material is a permitted activity under Rule 5.175, which provides for the excavation of a volume of more than 100 m<sup>3</sup> of material over an unconfined or semi-confined aquifer as a permitted activity, subject to meeting related conditions (i) and (ii) under this rule. The conditions require that:

- (i) There is more than 1 m of undisturbed material between the deepest part of the excavation and the seasonal high water table level; and
- (ii) The excavation does not occur within 50 m of any surface waterbody.

The proposed extraction does not meet condition (ii) above, as the excavation will occur within 50 m of water races which exist on the site, which fall within the LWRP definition of a surface water body, and therefore requires resource consent as a **restricted discretionary** activity under Rule 5.176.

Rule 5.177 provides for the use of land for the deposition of more than 50 m<sup>3</sup> 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 is located over an unconfined or semi-confined aquifer, where the seasonal high water table is less than 5 m below the deepest point in the excavation, as a controlled activity subject to meeting conditions 1 to 6 of the rule. The proposed activity will meet these conditions as the proposed deposition of material at the site involves only cleanfill (condition 1) and complies with conditions 2 to 6. Therefore, the proposed deposition requires resource consent as a **controlled activity** under Rule 5.177, for the purpose of backfilling (as part of site rehabilitation) as required for the proposed activity.

It is likely that a fixed diesel tank will be installed within two years of commencement of quarry operations. However, until such time it is proposed to carry out refuelling via mobile diesel tankers (falling within the definition of portable tankers) at the site.

The use of land for the storage in a portable container<sup>2</sup> (which includes a mobile tanker) and use of a hazardous substance is a permitted activity under Rule 5.179, subject to the following conditions:

- 1) The substance is approved under the Hazardous Substances and New Organisms Act 1996 and the storage and use of the substance is in accordance with all conditions of the approval; and
- 2) The container(s) are not located within:
  - a) 20 m of a surface water body or a bore; or
  - b) A Community Drinking-water Protection Zone as set out in Schedule 1.

The proposal complies with the two conditions set out under Rule 5.179 and is therefore a **permitted activity**.

The use of land for the storage, other than in a portable container, and use of a hazardous substance is a permitted activity under Rule 5.181, subject to meeting the related conditions 1 to 6 under this rule. The proposed storage of diesel in the fixed tank to be installed at the site will comply with these conditions and is therefore a **permitted activity**.

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<sup>2</sup> Portable Container - means one or more containers of petrol, kerosene or diesel used for refuelling and the container(s) is fixed to a vehicle, towed by a vehicle or transported by helicopter, but does not comprise part of the inbuilt fuel system required to power a vehicle or machine.

### 3.3.3 Discharge Permits

Rule 5.18 provides for the discharge of dust suppressants onto or into land in circumstances where contaminants may enter water as a permitted activity, subject to meeting either of conditions 1 or 2 under this rule. It is proposed that any dust suppressant used on the site will meet Condition 2 and therefore, any discharge associated with the proposed use of dust suppressants for quarrying operations is a **permitted activity** under Rule 5.18.

Rule 5.91 provides for the discharge of any liquid waste or sludge from an industrial or trade process, excluding wastewater, into or onto land, or into or onto land in circumstances where a contaminant may enter water, as a permitted activity, subject to meeting five conditions, one of which is applicable only to the Selwyn Te Waihora sub-region. The volume and application of aggregate wash water in the same holding ponds, will exceed the discharge volumes (10m<sup>3</sup> per day) permitted under condition 1 of Rule 5.91.

Rule 11.5.28 provides for the discharge of any wastewater, liquid waste or sludge waste from an industrial or trade process within the Selwyn Te Waihora sub-region, into or onto land, or into or onto land in circumstances where a contaminant may enter water, as a discretionary activity subject to meeting the relevant conditions 1 to 3 under this rule. The proposal involves the discharge and re-use of aggregate wash water in appropriately sized treatment ponds located in close proximity to the processing plant, which will meet these conditions.

As rule 11.5.28 prevails over Rule 5.92 within the Selwyn Te Waihora sub-region, the proposed discharge requires resource consent as a **discretionary activity** this sub-regional provision. Resource consent is also sought under this rule for the discharge of clean water that is discharged after having passed through the interceptor system that will be designed to capture wash-down water from the impervious hard stand surfaces used for refuelling portable tankers and parking of machinery, as well as discharges associated with the wash down of vehicles and machinery.

Rule 5.96 provides for the discharge of stormwater, other than into or from a reticulated stormwater system, onto or into land where contaminants may enter groundwater as a permitted activity, subject to meeting related conditions 1 and 2 under this rule. Stormwater run-off from the site will naturally drain to the lowest point of the site and then percolate through the gravels providing effective drainage of the site. Following periods of heavy rainfall, there may be times when ponding occurs in the pit.

As the site is currently identified on the LLUR, condition 1 of Rule 5.96 cannot be complied with. Therefore, resource consent is sought for discharge of stormwater requires as a **discretionary activity** under Rule 5.97. Stormwater will be limited in extent and duration (as infiltration capacity of the gravels can be at least 200 mm per hour), and it is expected it will dissipate within 48 hours in order to meet condition 2(b) of Rule 5.96.

Through recent resource consenting hearings, independent commissioners have raised the question of whether cleanfilling and other proposals involving the backfilling of quarry excavations should require a discharge permit for the discharge of contaminants to ground, being both the discharge of cleanfill and any discharge of contaminants from within this material, which may in turn enter water. Given this context, a conservative approach has been adopted whereby resource consent as a **discretionary activity** in accordance with Rule 5.100 of the LWRP is also being sought for this activity, given that cleanfill material forms a key component of the proposed site rehabilitation.

Rule 5.187 provides for the passive discharge of contaminants from contaminated land onto or into land and in circumstances where those contaminants may enter water, as a permitted activity, subject to meeting related conditions 1 to 4 under this rule. While the site will be remediated, the proposal complies with the relevant conditions as set out under this rule, where a combined PSI/DSI report has been prepared for the site as attached in Appendix H in accordance with Rule 5.185. Accordingly, it is considered that the proposal is a **permitted activity** pursuant to Rule 5.187.

## 3.4 Canterbury Air Regional Plan

Both the Christchurch/Otautahi Clean Air Zone and the Christchurch Airshed are located immediately to the east of Dawsons Road, however the site does not fall within either of these areas, as identified on Planning Map 14 of the CARP.

The relevant rules applicable to the proposal are contained under Chapter 7 of the CARP.

Rule 7.35 provides for the discharge of contaminants into the air from the handling of bulk solid materials, while Rule 7.36 provides for the discharge of contaminants into air from the outdoor storage of bulk solid materials. Both activities are permitted subject to meeting a number of conditions under each of these rules.

The meaning of 'handling' is defined in Table 2.1 of the CARP as "extraction, quarrying, mining, processing, screening, conveying, blasting, or crushing of any material"; and therefore forms part of the proposed activities. The proposal will not comply with conditions 1 to 6 of Rule 7.35, which state that the rate of handling shall not exceed 100 tonnes per hour and that the discharges shall not occur within 200 m of a 'sensitive activity', the latter which includes an area within 20 m of the façade of an occupied dwelling. Additionally, the proposed activity will not comply with the conditions of Rule 7.36. Consequently, the activity and is not a permitted activity under Rules 7.35 and Rule 7.36.

The discharge of contaminants associated with the deposition of cleanfill is provided for as a permitted activity under Rule 7.49 of the CARP subject to meeting conditions 1-5 of this rule. As with Rule 7.35, the discharge will occur within 200 m of a sensitive activity on another property (condition 2) and therefore compliance is not achieved with this rule.

Rule 7.63 specifies that any discharge of contaminants into air that is from an industrial or trade premise or process, that does not comply with the relevant permitted activity rules and conditions, that is not a prohibited activity, and is not otherwise provided for by Rules 7.47 to 7.62 of the CARP, is a discretionary activity. Therefore, given the above, resource consent is required for the discharges to air associated within the activity as a **discretionary activity** pursuant to Rule 7.63.

Notwithstanding the above assessment, it is noted that Rule 7.32 provides for the discharge of dust to air beyond the boundary of the property of origin from unsealed surfaces or unconsolidated land, as a permitted activity subject to meeting the conditions 1 to 3, as applicable to the proposal. The proposed activity will meet these conditions as dust management plan (DMP) is prepared in accordance with Schedule 2 of the CARP and will be implemented as required (attached as Appendix D); and the proposed discharges to air will not cause any offensive or objectionable effect beyond the boundary of the property, when assessed in accordance with Schedule 2. Therefore, the proposal does not require any resource consent as being a **permitted activity** in accordance with Rule 7.32.

## 3.5 Selwyn District Plan

### 3.5.1 Introduction

The SDP includes a number of rules which are relevant to the proposal. The proposed quarrying activity and associated operations are for a site located within the Inner Plains Zone as identified on the planning maps. The rules in Parts C1 'Earthworks', C3 'Buildings', C4 'Roding', C6 'Signs and Noticeboards', C7 'Hazardous Substances', C8 'Waste', and C9 'Activities', as contained under the Rural Volume of the SDP, are relevant and have been assessed below.

### 3.5.2 C1 Rural Rules – Earthworks

Under Part D 'Definitions' of the SDP, earthworks include any disturbance to, or excavation, removal or deposition of, soil, earth or any other mineral derived from the ground. The rules relevant to undertaking earthworks at the site are contained in Part C1 'Earthworks'.

Rule 1.2.1 provides for any earthworks as a permitted activity, provided that any soil or earth to be removed from the site is not contaminated. If for any reason, the contaminated soils identified in parts of the site as discussed in the PSI/DSI report (Appendix H) are excavated, it is proposed to appropriately dispose of this material to an authorised off-site facility licensed to accept managed fill. This approach forms part of the unexpected discovery protocol (applicable to the whole quarry development) prepared to address the potential for uncovering any contaminated soil/materials during the proposed earthworks and extraction, as recommended in section 10.0 of the PSI/DSI report in Appendix H. Therefore, the proposal requires resource consent as a **restricted discretionary activity** pursuant to Rule 1.2.2, for the removal of contaminated soil or earth from the site.

Rule 1.7.1 provides for any earthworks which meet the conditions under Rules 1.7.1.1, 1.7.1.2 or 1.7.1.3 as a permitted activity, or as a discretionary activity under Rule 1.7 if these conditions cannot be met. The proposed activity does not comply with these conditions as it involves earthworks (including extraction) exceeding the maximum volume of 5000 m<sup>3</sup> per project, and a vertical cut face where more than 5 % of the total vertical cut is over 2 m; and the site will not be filled and recontoured to the same state as the surrounding land when earthworks cease. Therefore, the proposed earthworks require resource consent as a **discretionary activity** pursuant to Rule 1.7.

### 3.5.3 C2 Rural Rules – Tree Planting

Rule 2.1.1 provides that for the planting of any trees for amenity planting, shelterbelts which meet the relevant condition under Rules 2.1.1.1 to 2.1.1.11, are a permitted activity. The proposal involves the planting of trees for screening, which will be established on the outer side of the site bunds as shown in detail in the LVIA included in Appendix E.

Potential shading issues from the proposed plantings have been modelled as part of the LVIA to ensure adverse shading issues do not occur between 10am and 2pm as per Rule 2.1.1.5 of the SDP. On the Jones Road frontage, the plantings will be maintained to a maximum height of 5m to ensure no shading occurs on the carriageway. On Dawsons Road, the proposed plantings will not shade the road until after 2pm due to the road running north-north-east. On Curraghs Road, proposed plantings will be positioned behind the existing pine shelter belt resulting in no additional shading. The proposed plantings are therefore a **permitted activity** pursuant to Rule 2.1.1.

### 3.5.4 C3 Rural Rules – Buildings

Rule 3.13.6 states that any building which does not comply with Rule 3.13.1.1 shall be a discretionary activity. Table C3.2 in Rule 3.13.1.1 lists the required setbacks for sites greater than 1 ha. The rule requires that any principal building must be setback 5 m from another property boundary, 20 m from an Arterial Road and 10 m from any other road.

The proposed activity involves the construction of 3 m high bunds for screening of the quarry which will be located within 20 m from the site boundary, and are therefore situated within the required setbacks. The bunds are considered as 'buildings' as per the associated definition in Part D of the Rural Volume in the SDP, which includes any structure or part of any structure whether permanent, moveable or immovable. A 'principal building' is defined as any building which is used as part of the primary activity or activities on the site. Therefore, resource consent is required as a **discretionary activity** for the proposed bunds pursuant to Rule 3.13.6, given their location within the required site setbacks.

Fulton Hogan may erect buildings on the site that are closer to internal property boundaries in the future and consent is also sought if this infringement is triggered in the future. These buildings would still be outside the minimum distance from external property boundaries.

It is noted that compliance will be achieved with the other rules in this chapter, including the requirement under 3.11.1.1(b) for less than 5% of the site to be covered by buildings, and 3.12.1.1(b) which requires buildings to be no higher than 12 m above the pre-excavated ground level, and 3.14.1 regarding night lighting.

### 3.5.5 C4 Rural Rules – Roading

Rule 4.4.1 provides for the forming, installation, upgrading, maintenance or replacement of any road as a permitted activity if the relevant standards 4.4.1.1 and 4.4.1.2 under this rule are met. Based on the assessment in Appendix B of the Stantec report (Appendix C), it is proposed to carry out road improvements which will result in road widths in excess of the maximum 7 m carriageway width on a local road, as required under Appendix E10.3 of the SDP.

Resource consent is therefore required as a **discretionary activity** pursuant to Rule 4.4.2, as the carriageway widths associated with the proposed road improvements exceed the standards in Appendix E10.3, as required under standard 4.4.1.2 of Rule 4.4.1.

Rule 4.5.1 provides for the forming, installation, upgrading, maintenance or replacement of any vehicle accessway or vehicle crossing as a permitted activity if the relevant conditions 4.5.1.1 to 4.5.1.8 under this rule are met. Based on the assessment in Appendix B of the Stantec report (Appendix C), the new vehicle crossing associated with the proposed site for heavy vehicle access will exceed the requirements in Appendix E10.2 (Diagram E10.D) of the SDP.

Resource consent is therefore required a **restricted discretionary activity** pursuant to Rule 4.5.2, as the proposed heavy vehicle crossing will be more than what is required under the relevant standard in Appendix E10.2, as required under condition 4.5.1.6 of Rule 4.5.1.

### 3.5.6 C6 Rural Rules – Signs

Rule 6.1.1 allows for outdoor signage as a permitted activity provided that the relevant conditions 6.1.1.1 to 6.1.1.9 are met. Erecting any outdoor sign which does not comply with Rule 6.1.1 is considered as a discretionary activity under Rule 6.1.2. Condition 6.1.1.7 requires that the size of an outdoor sign must not be more than 3 m<sup>2</sup>, with the total area of signage on a site not exceeding 6 m<sup>2</sup>. The proposal involves signage advertising the site entrance, and other signage which will be erected to state that unauthorised access is prohibited to the quarry site, which will exceed the total area of permitted signage for the site, specified under condition 6.1.1.7. Resource consent is therefore required as a **discretionary activity** pursuant to Rule 6.1.2 for the proposed site signage.

Rule 6.4.1 provides for outdoor signage on sites adjoining roads listed as a Strategic Road as a permitted activity, provided that the relevant conditions 6.4.1.1 to 6.4.1.6 are met. Erecting any outdoor sign which does not comply with Rule 6.4.1 is considered as a restricted discretionary activity under Rule 6.4.2. Signage to be erected along Dawsons Road (strategic road under Appendix 9 of the SDP) will exceed the relevant conditions under Rule 6.4.1, including number of words, separation distance between signs, and letter height. Resource consent is therefore required as a **restricted discretionary activity** pursuant to Rule 6.4.2 for proposed signage along a strategic road.

### 3.5.7 C7 Rural Rules – Hazardous Substances

Rule 7.1.1 states that the storage of any hazardous substance shall be a permitted activity if all of the associated conditions are met under this rule. The proposal does not meet condition 7.1.1.1 because a total maximum volume of 15,000 L of diesel is to be stored (in a double-skinned tank, above ground) on site as part of the proposed activity, thereby exceeding the quantity limit of 5,000 L for the storage of diesel specified in Table E15.2 (Appendix E15) under Part E of the Rural Volume, as required under this condition.

Resource consent is therefore required as a **discretionary activity** pursuant to Rule 7.2.1 as the proposed storage of hazardous substances on site does not comply with Rule 7.1.1.

### 3.5.8 C8 Rural Rules – Waste

Rule 8.1.1 provides for activities involving the disposal of solid waste as a permitted activity if the relevant conditions 8.1.1.1 to 8.1.1.3 are met. The proposal involves the deposition of cleanfill material subject to relevant acceptance criteria as part of site rehabilitation upon the completion of quarrying which is unlikely to meet all off the sub-conditions (a) to (h) under condition in 8.1.1.3 (e.g. 3 m<sup>3</sup> per week will be exceeded and if unacceptable material was found it would be stored prior to removal from the site).

Rule 8.1.6 then provides for the use of land for the disposal of solid waste which does not comply with condition 8.1.1.3 as a discretionary activity, provided that any one of the standards and terms under 8.1.6.1 to 8.1.6.3 of this rule are met. The solid waste being disposed of at the site for the proposed rehabilitation is cleanfill only which meets the relevant standard 8.1.6.1. Resource consent is therefore required as a **discretionary activity** pursuant to Rule 8.1.6 for the proposed deposition of cleanfill for site rehabilitation.

### 3.5.9 C9 Rural Rules – Activities

#### 3.5.9.1 9.1 Activities – General

Rule 9.1.1 states that an activity shall be a permitted activity if all associated conditions are met under this rule. The proposal does not meet condition 9.1.1.1 where the proposed quarrying activity does not comply with all other rules of the SDP (Rules 1 to 8). Rule 9.1.2 states that any activity which does not comply with Rule 9.1.1.1 shall have the status of the rule with which it does not comply.

Given that the proposed quarrying activity to which this application relates entails several non-compliances under various rules of the SDP, each requiring discretionary activity resource consents, the quarrying activity itself is considered as a **discretionary activity** pursuant to Rule 9.1.2.

### 3.5.9.2 9.6. Activities and Contaminated Land

Rule 9.6.1 provides for activities to occur on contaminated land providing these do not fall into certain categories. The proposed quarry does not involve these activities and is therefore a **permitted activity** in terms of this rule.

### 3.5.9.3 9.12 Activities and Carparking, Vehicle Crossings, Access and Egress

Rule 9.12.1 states that an activity shall comply with the rules for carparking, vehicle crossings, vehicle access and egress as set out in Rule 4 (Roading), and Appendix 10 of the SDP for specific provisions applying to State Highways, in order to be a permitted activity. Based on the rule assessment table contained in Appendix B of the Stantec report (Appendix C), which includes a detailed assessment of the relevant provisions under Rule 4 (Roading) and Appendix 10 of the SDP, the proposed activity complies with the rules for carparking, vehicle crossings, vehicle access and egress. The proposal is therefore a **permitted activity** pursuant to Rule 9.12.1.

### 3.5.9.4 9.13 Vehicle Movements

Rule 9.13.1 states that any activity which does not exceed the maximum number of vehicle movements specified under this rule shall be a permitted activity. Rule 9.13.1.2 requires that for roads formed, sealed and maintained by Council, the maximum number of vehicle movements for Arterial Roads is 30 ecm/d per site averaged over any one-week period; and for Local Roads is 60 ecm/d per site averaged over any one-week period. The vehicle movements associated with the quarrying activities from the site access proposed along Dawsons (Arterial Road as identified in Appendix E9) and any surrounding local roads including Jones Road, are expected to be up to 1500 heavy vehicle movements per day, and an additional 150 vehicle movements per day for light vehicles.

Based on the assessment in Appendix B of the Stantec report (Appendix C), the proposed activity exceeds the maximum number of vehicle movements for Arterial Roads and local roads, and therefore requires resource consent as a **discretionary activity** pursuant to Rule 9.13.2, for non-compliance with Rule 9.13.1.

### 3.5.9.5 9.16 Noise

Rule 9.16.1 specifies that any activity shall be conducted so as to comply with the maximum noise limits applicable to the Living Zone boundary and the notional boundary of any dwelling, rest home, hospital, or classroom in any educational facility not located within a Living zone, and within the timeframes stated under this rule (as set out under Tables C9.2 and C9.3), in order to be considered as a permitted activity.

As assessed in section 7.1 of the MDA acoustic report in Appendix I, the predicted noise levels exceed the relevant night-time (8.01pm – 7.29am) noise criteria in the SDP as required under Rule 9.16.1, with respect to the early morning and evening works periods sought. The proposal therefore requires resource consent as a **discretionary activity** pursuant to Rule 9.16.2 for exceeding the relevant noise limits under the SDP.

### 3.5.9.6 9.17 Blasting and Vibration

Rule 9.17.1 states that any activity which involves blasting and/or vibration shall be a permitted activity if the related conditions as per Rule 9.17.1.1 and Rule 9.17.1.2 are met. The proposed quarrying activity does not involve any blasting and thus no noise vibration from blasting will occur from the site. Rule 9.17.1.1 is therefore not relevant to the proposal. Rule 9.17.1.2 requires that any activity which involves vibration from sources other than blasting must comply with New Zealand Standard 2631:1985-89 Parts 1-3. However, section 9.1 of the MDA acoustic report in Appendix I, confirms that the relevant standard was withdrawn in 2005 following technical criticism and is therefore not current or valid for assessment.

In lieu of any national guidance, MDA has used alternative criteria commonly adopted to assess construction vibration in New Zealand, as set out in Section 9.1 of the acoustic report (Appendix I). The assessment concludes that construction vibration generated by the proposal complies with the relevant alternative criteria. Based on the conclusions of the assessment in Appendix I, it is considered that the proposal meets the requirements of Rule 9.17.1.2 and is therefore a **permitted activity** pursuant to Rule 9.17.1.

### 3.5.9.7 9.18 Activities and Glare

Rule 9.18.1 states that any activity which involves lighting is a permitted activity, provided that the activity has a maximum light spill not exceeding the thresholds specified in Rules 9.18.1.1 and 9.18.1.2. Owing to the large site size, and the location of buildings near the middle of the site, any light spill generated from the site as a result of the proposed quarrying activity will comply with the relevant maximum thresholds under these rules. The proposal is therefore a **permitted activity** pursuant to Rule 9.18.1.

### 3.5.9.8 9.19 Activities and Dust

Rule 9.19.1 states that stockpiling activity is a permitted activity, provided that stockpiling of any soil or any other unconsolidated material outdoors within 100 m of a dwelling (other than a dwelling on the same property as the stockpiled material), meets one of the requirements set out in Rules 9.19.1.1 to 9.19.1.3. The proposal involves appropriate mitigation and management techniques, including the location of all stockpiled aggregates within the quarry floor, stockpiled materials being set back at least 100 m from site boundaries, and sowing any bunding established along site boundaries with grass or hydro-seeded to achieve swift grass cover, prior to quarrying commencing. The proposal is considered to be consistent with one or more of the requirements in Rules 9.19.1.1 to 9.19.1.3, and is therefore a **permitted activity** pursuant to Rule 9.19.1.

## 3.6 Section 127 of the RMA

Fulton Hogan proposes amendments to the conditions of their existing water permit (CRC182422) for the site, to take and use groundwater for aggregate washing, dust suppression and other activities associated with the proposed Roydon Quarry, as discussed further in Section 4.5. An application for a change of conditions is thus sought as a **discretionary activity** pursuant to section 127(3)(a) of the RMA.

## 3.7 Summary of Rule Assessment

Overall, the proposal requires land use consent from SDC as a **discretionary activity** under the SDP, and land use and discharge permits from CRC as a **discretionary activity** under the LWRP and CARP.

Given the above assessment of rule applicability, this document is an application for the following resource consents:

### From the CRC:

- A land use consent for:
  - extraction which does not meet condition (ii) of Rule 5.175, as a restricted discretionary activity pursuant to Rule 5.176 of the LWRP.
  - the deposition of backfill 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.

- A discharge permit 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 Rules 7.35 and 7.36, and from 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.
  - the discharge of contaminants which may enter water from an industrial or trade process within the Selwyn-Te Waihora sub-region where the proposed settling ponds meet the relevant conditions, and from water collected from the interceptor system which captures contaminants from the wash down of vehicles and machinery, and hard stand surfaces used for refuelling portable tankers and parking of machinery, as a discretionary activity pursuant to Rule 11.5.28, under the Selwyn Te Waihora Sub-Region (Section 11) of the LWRP.
  - the discharge of stormwater into land where contaminants may enter groundwater, where the proposed stormwater from the site does not meet the relevant permitted activity conditions of Rule 5.96, as a discretionary activity pursuant to Rule 5.97 of the LWRP.
  - the discharge to land associated with the deposition of cleanfill material for site rehabilitation, as a discretionary activity pursuant to Rule 5.100 of the LWRP.
- Additionally, an application is also required from CRC as a discretionary activity pursuant to section 127(3)(a) of the RMA, to change conditions of Fulton Hogan's existing water permit (CRC182422), to take and use groundwater from the site for aggregate washing, dust suppression and other activities associated with the proposed Roydon Quarry.
- Consent is also sought for any other resource consents that may be required by the CRC which may have been inadvertently omitted from this resource consent application.

#### **From the SDC:**

- A land use consent for the gravel extraction and processing operation within the Inner Plains zone, for the following rule infringements of the Selwyn District Plan
  - A restricted discretionary activity for the removal of contaminated soil or earth from the site, pursuant to Rule 1.2.2 of the SDP.
  - A discretionary activity for earthworks which do not meet the relevant conditions under Rules 1.7.1.1, 1.7.1.2 and 1.7.1.3, pursuant to Rule 1.7 of the SDP.
  - A discretionary activity for bunds which will be constructed within the required building setbacks for the site, pursuant to Rule 3.13.6 of the SDP.
  - A discretionary activity for carriageway widths associated with the proposed road improvements exceeding the requirements in Appendix E10.3 of the SDP, which does not meet standard 4.4.1.2 of Rule 4.4.1, pursuant to Rule 4.4.2 of the SDP.
  - A restricted discretionary activity for the new heavy vehicle crossing exceeding the requirements of the relevant standard in Appendix E10.2 of the SDP, which does not meet condition 4.5.1.6 of Rule 4.5.1, pursuant to Rule 4.5.2 of the SDP.
  - A discretionary activity for signage exceeding the size requirements for the site, pursuant to Rule 6.1.2 of the SDP.

- A restricted discretionary activity for signage along Strategic Roads, pursuant to Rule 6.4.2 of the SDP.
- A discretionary activity for the storage of hazardous substances up to a maximum of 15,000 L, exceeding the quantity limit specified for the storage of diesel on site, pursuant to Rule 7.2.1 of the SDP.
- A discretionary activity for the deposition of cleanfill for site rehabilitation, pursuant to Rule 8.1.6 of the SDP.
- A discretionary activity for vehicle movements associated with the proposed quarrying activity exceeding the maximum of 30 ecm/d per site averaged over any one-week period for Arterial Roads, and the maximum of 60 ecm/d per site averaged over any one-week period for Local Roads, pursuant to Rule 9.13.2 of the SDP.
- A discretionary activity for the exceedance of the relevant maximum noise limits specified under Rule 9.16.1, pursuant to Rule 9.16.2 of the SDP.
- A discretionary activity for quarrying at the site pursuant to Rule 9.1.2 of the SDP.
- To change land use and to undertake soil disturbance for the purpose of remediation in accordance with Regulation 9 (controlled activity) pursuant to the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011; and
- Any other resource consents or other rule infringements that may be required from the SDC which may have been inadvertently omitted from this resource consent application.

## 4.0 RESOURCE MANAGEMENT DECISION FRAMEWORK

### 4.1 Resource Management Act 1991

Part 2 of the RMA defines the purpose and principles of the RMA, and Part 6 outlines the matters to be considered when making decisions in relation to resource consents. The relevant provisions of these sections are outlined below.

### 4.2 Part 2 of the RMA

In assessing an application for resource consent, a consent authority is required to determine whether the proposal is consistent with the purpose and principles of the Act (Part 2), having regard to the matters set out in section 104, the Fourth Schedule, and any other statutory consideration. Part 2, as set out under sections 5 to 8 of the RMA, outlines the purpose and principles of the Act.

As determined by the Court of Appeal in the recent Davidson<sup>3</sup> case, the Court held that the Supreme Court's decision in *Environmental Defence Society Incorporated v King Salmon Company Limited* [2014] NZSC 41 was a contextual rejection of the "overall judgment" approach (whereby reference was made to Part 2 after consideration of relevant planning instruments). The Supreme Court's decision did not prohibit consideration of Part 2 in the context of resource consent applications. The Court of Appeal in *Davidson* held that decision makers should usually consider Part 2 when making decisions on resource consents, and must do so where

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<sup>3</sup> Davidson Family Trust v Marlborough District Council [2018] NZCA 316.

the relevant planning instruments have not been prepared in a way which reflects Part 2. However, consideration of a consent application under Part 2 may be unnecessary where the relevant planning instruments have clearly been prepared in a way which gives effect to Part 2.

In this case, owing to the age of the SDP in particular, consideration has been given to Part 2 as well as the Objectives and Policies of the relevant planning instruments. It is assessed that consent can be granted under both Part 2 and the relevant planning documents.

Part 2 of the RMA outlines the purpose and principles of the Act. Section 5 states the purpose of the Act as sustainable management.

Section 6 of the RMA identifies matters of national importance which shall 'be recognised and provided for', while section 7 identifies other matters which shall 'be had regard to' under the Act. There are no section 6 matters of relevance to this proposal.

The following section 7 matters are considered to be relevant:

- (b) the efficient use and development of natural and physical resources;*
- (c) the maintenance and enhancement of amenity values;*
- (f) maintenance and enhancement of the quality of the environment*
- (g) any finite characteristics of natural and physical resources*

Subject to the implementation of the proposed operational control and mitigation measures, it is considered that the proposed activity is consistent with section 7 (b), (c), (f) and (g) as it will enable the efficient use and development of an important aggregate resource, while not adversely affecting amenity values or the quality of the overall environment. Specifically with regard to section 7 (g), enabling the extraction of the aggregate resource prior to future development of the land enables a high value aggregate resource to be accessed in close proximity to areas where it is required.

Section 8 of the RMA requires specific regard to be had to the principles of the Treaty of Waitangi (Te Tiriti o Waitangi). It is considered that, for this proposal there are no specific Treaty of Waitangi matters requiring consideration in accordance with section 8 of the RMA.

Given the nature of the proposal, together with the mitigation measures proposed and the benefits to be derived, it is considered the proposal is consistent with Part 2 of the RMA and accords with the relevant matters set out under RMA sections 5 to 8.

### 4.3 Section 104

For any resource consent application, section 104 of the RMA requires the consent authority, in making a decision 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 the AEE report and are supported by the technical assessments included as Appendices. An assessment of the proposal against the relevant provisions of the Canterbury Regional Policy Statement (CRPS), the LWRP, the CARP and the SDP are contained in the following sections of this document.

The National Policy Statement for Freshwater Management 2014 (NPS Freshwater), the Resource Management (National Environmental Standards for Air Quality) Regulations 2004 (NESAQ), the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NESCOS), and the Resource Management (Measurement and Reporting of Water Takes) Regulations 2010 (RWT), are all relevant to the proposal. The NPS Freshwater, the NESAQ, the NESCOS and the RWT are each discussed below under Section 4.6.

The assessments for each of the statutory documents relevant to the proposal under Section 4.6 conclude that there are no impediments to granting consent for this application; and that the proposed quarrying activity and associated site operations are consistent with the relevant objectives and policies of the identified planning documents.

#### 4.4 Section 104B, 105 and 107

Under section 104B, a consent authority may grant or refuse the application for a discretionary activity and if it grants such an application, may impose conditions under section 108.

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 the Air Quality Assessment (Appendix D), and in Section 5.0 of the AEE report in relation to the discharges to land, alternative methods of discharge have been considered and the reasons for the applicant's proposed choice explained. The effects arising from the discharges proposed are considered to be acceptable subject to mitigation measures 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.

As concluded in the assessment of effects on water resources under Section 6.2 of the AEE, 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.

#### 4.5 Section 127

Fulton Hogan proposes to change the conditions of their existing water permit (CRC182422) to take and use groundwater at the site as part of this application. The existing permit is currently used for the irrigation of land. A change of conditions under s127 of the RMA is therefore required in order to take and use groundwater for aggregate washing, dust suppression, irrigation of rehabilitated areas and other ancillary activities associated with the proposed Roydon Quarry.

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 were 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.*

...
- 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 subdivision consents. In accordance with subsection (1)(b) this application does not relate to a condition on the duration of the consent, and it is noted that the existing water permit CRC182422 has an expiry date of 1 July 2032.

Section 127(3) of the RMA states that for such applications, sections 88 to 121 apply, the application is 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 6.2.4 of the AEE report, it is proposed to change only those conditions of the existing groundwater water permit to provide for a different use of the water take, with no increase in volumes proposed, and for a use which is primarily non-consumptive in nature. Therefore, it is considered that there will be essentially no change in effects from the change of conditions sought to the existing consent.

Section 127(4) of the RMA states that for determining who is adversely affected by the change or cancellation, the CRC must consider every person who made a submission on the original application and who may be affected by the changes proposed. We understand<sup>4</sup> that the original water take consent application pertaining to the permit granted as CRC182422, was processed on a non-notified basis and therefore there were no submitters on the original application pursuant to section 127(4)(a). Irrespective of this however, Fulton Hogan is seeking that all applications for resource including this change of conditions are publicly notified.

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<sup>4</sup> Phone call confirmation from CRC on 7 November 2018.

As discussed in Section 6.2.4 of the AEE report, the effects of the proposed change of conditions to the existing water permit held for the site by Fulton Hogan, are considered to be no different to those which are currently authorised by the consent, and that no person is considered to be adversely affected by the proposed change of conditions.

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 below.

## 4.6 Relevant Statutory Documents

### 4.6.1 National Policy Statement for Freshwater Management 2014 (NPS Freshwater)

The NPS Freshwater contains objectives relating to water quality, water quantity, integrated management, tangata whenua roles and interests, the national objectives framework, monitoring plans and accounting for freshwater takes and contaminants. The objectives are supported by policies which largely direct regional councils to make or change regional plans in order to provide for specific requirements identified in the NPS Freshwater.

While the LWRP provisions incorporate the matters that CRC are required to address, as this application proposes a land use activity overlying a groundwater resource it is considered pertinent to consider the relevant water quality objectives in Section A of the NPS Freshwater. Objective A1 aims to safeguard the life-supporting capacity of ecosystems, indigenous species and the health of people and communities from both the development of land and discharges of contaminants. Objective A2 aims to maintain or improve the region's freshwater resources.

The proposed activity will not adversely impact on the groundwater resource underlying the site as the material will be cleanfill and will be deposited at least 1 m above highest recorded groundwater levels. Therefore, the underlying groundwater resource will not be adversely affected, the health of people and the community will be safeguarded, and the quality of the groundwater will at least be maintained.

The proposal also involves take and use of groundwater for quarrying operations therefore consideration of the water quantity objectives in Section B of the NPS Freshwater is also relevant. Objective B1 aims to safeguard the life-supporting capacity, ecosystem processes and indigenous species by sustainably managing the taking and using of fresh water. Objective B3 seeks to improve and maximise the efficient allocation and use of water, and Objective B5 aims to enable communities to provide for their economic well-being, including productive economic opportunities, in sustainably managing fresh water quantity, within limits.

This application includes a change of conditions to Fulton Hogan's existing water permit CRC182422 at the site to take groundwater. The proposed take will be of a rate or volume that is considered reasonable for the proposed quarry processes and will remain in line with what is provided for under the existing consent conditions. This groundwater resource is readily available at the site and is to be used in an efficient and sustainable manner, subject to a range of monitoring and control measures. It is where access to large water volumes for dust mitigation, washing and processing of extracted aggregates as essential components of a gravel extraction process, are crucial to the successful operation of the Roydon Quarry. This in turn assists in support of rebuilding and development within Christchurch, as the quarry is expected to provide a long-term source of aggregate and continuation of supply; and will be designed with appropriate mitigation and remediation measures.

On this basis, the proposal is considered to be consistent with the NPS Freshwater.

## 4.6.2 National Environmental Standards

### 4.6.2.1 National Environmental Standards for Air Quality (NESAQ)

As dust from quarries can contain fine particulates, the NESAQ standard of relevance to this application is PM<sub>10</sub>.

Regulation 17 of the NESAQ requires resource consent applications seeking to authorise the discharge of PM<sub>10</sub> in any part of a polluted airshed to be declined in accordance with Regulation 17(1); if the discharge to be expressly allowed by the consent would be likely, at any time, to increase the concentration of PM<sub>10</sub> by more than 2.5 micrograms per cubic metre in any part of the polluted airshed.

There are exemptions to this requirement including under Regulation 17(2) if the discharge is the same or less than that under an existing resource consent for the same activity on the site, or under Regulation 17(3) if the emissions can be offset by PM<sub>10</sub> reductions by the applicant elsewhere within the same airshed.

The proposed quarry is located just to the west of the Christchurch/Otauhai Clean Air Zone, and the Christchurch Airshed which constitutes a polluted airshed in accordance with Regulation 17 of the NESAQ.

While there is some potential for PM<sub>10</sub> to be generated from the extraction activities on site, provided that the dust mitigation measures proposed for the quarry are effectively implemented, and given that gravel processing will be concentrated near the middle of the site, it is considered the discharges of PM<sub>10</sub> from the proposed quarry will be small. Accordingly, any discharges from the site will not result in an increase of PM<sub>10</sub> more than 2.5 micrograms per cubic metre in the Christchurch Airshed and there is no impediment to granting consent for this application.

### 4.6.2.2 National Environmental Standards for Assessing and Managing Contaminants in Soil to Protect Human Health (NESCO)

The NESCO provides a nationally consistent set of planning controls and soil contaminant values and ensures that land affected by contaminants in soil is appropriately identified and assessed before it is developed and, if necessary, the land is remediated and managed to ensure any adverse effects on human health are likely to be minor. All territorial authorities (district and city councils) are required to give effect to and enforce the requirements of the NESCO.

Regulation 5 sets out the land and the activities to which the national controls apply. The NESCO applies to an activity described in any of subclauses (2) to (6) of Regulation 5. The proposed quarrying activity includes soil disturbance and changing the use of the piece of land, which are activities covered by sub clauses 4 and 6 of Regulation 5 respectively.

Under sub clause 7 of Regulation 5, the NESCO applies to any piece of land on which an activity or industry described in the current edition of the Hazardous Activities and Industries List (HAIL)<sup>5</sup> is being undertaken. A combined PSI/DSI report (Appendix H) has been prepared for the site.

The need for a land use consent under the NESCO for earthworks associated with the proposed quarrying activity is determined on whether the change in the use of land poses a potential risk to human health (NESCO section 5 subclause (6)). While the findings of the combined PSI/DSI (Appendix H) indicate that the development requires a controlled activity consent under Regulation 9 of the NESCO, it concludes that any areas where heavy end TPH have been identified can be managed through targeted excavation and off-site disposal material. Where soil from the site requires off-site disposal, it can be disposed of at a facility licensed to accept managed fill. Accordingly, Section 10.0 of the PSI/DSI report in Appendix H provides a set of recommendations to manage such soils based on the results of the investigations. Notwithstanding these recommendations, Fulton Hogan intends to remove contaminated soil from the site prior to any extraction works in such areas, rather than re-use it on site.

<sup>5</sup> <http://www.mfe.govt.nz/issues/hazardous/contaminated/hazardous-activities-industries-list.html>

Any adverse effects on human health as a result of the proposal are assessed as being less than minor, and any associated risks can be effectively managed and are acceptable. Therefore, there is no impediment to granting consent for this application for a controlled activity pursuant to Regulation 9 of the NESCS.

#### **4.6.2.3 Resource Management (Measurement and Reporting of Water Takes) Regulations 2010 (RWT)**

The RWT regulations apply to holders of certain water permits, which allow fresh water to be taken at a rate of 5 litres/second (l/s) or more pursuant to Regulation 4(1).

As part of this application, Fulton Hogan is seeking a change of conditions under s127 of the RMA to their existing water permit (CRC182422) held for the site, which currently allows for the take and use of groundwater for the irrigation of land. It is proposed that water will be supplied to the site to be used for aggregate washing, dust suppression, irrigation and other ancillary quarrying activities through the proposed change the conditions of CRC182422.

The existing permit CRC182422 allows for a water take of 9.5 l/s which exceeds the threshold specified under Regulation 4(1), therefore the RWT is relevant to the proposal and requires consideration. Regulation 4(2) of the RWT however states that the regulations do not apply to a water permit if the taking of water under the permit is non-consumptive, in that:

- (a) the same amount of water is returned to the same water body at or near the location from which it was taken; and
- (b) there is no significant delay between the taking and returning of the water.

While the groundwater take to be used for aggregate washing will be primarily non-consumptive in nature, there will be some losses through the aggregate washing and dust suppression processes and therefore the take will be required to be metered.

Accordingly, Fulton Hogan has recently installed a water meter on the bore M36/0257, for the existing groundwater take at the site. As such, no further consideration is required for the proposed water take pursuant to Regulation 4(2). Therefore, there is no impediment to granting consent for the proposed change of conditions under the RWT.

### **4.6.3 Regional and District Planning Instruments – Assessment of Objectives and Policies**

#### **4.6.3.1 Introduction**

A detailed assessment of the proposal against the relevant objectives and policies of the Canterbury Regional Policy Statement (CRPS), the Canterbury Land and Water Regional Plan (LWRP), the Canterbury Air Regional Plan (CARP) and the Selwyn District Plan (SDP) is contained in the tables below.

#### **4.6.3.2 Canterbury Regional Policy Statement**

The CRPS became operative on 15 January 2013 and was revised in February 2017. It provides an overview of the resource management issues in the Canterbury region. The CRPS contains objectives, policies and methods to address the region's resource management issues with a goal to achieve integrated management of the region's natural and physical resources.

Chapter 5 (Land-Use and Infrastructure), Chapter 6 (Recovery and Rebuilding of Greater Christchurch), Chapter 7 (Freshwater), Chapter 14 (Air Quality), Chapter 15 (Soils), Chapter 17 (Contaminated Land) and Chapter 18 (Hazardous Substances) of the CRPS contain objectives and policies which are relevant to the proposal.

#### **4.6.3.3 *Canterbury Land and Water Regional Plan***

The LWRP was made operative on 1 February 2017 and identifies the resource management outcomes or goals for managing land and water resources in Canterbury to achieve the purpose of the RMA.

The site is located over a semi-confined or unconfined aquifer and is identified within the Selwyn-Waimakariri Combined Surface and Groundwater Allocation Zone, as seen on Planning Map B-C11 of the LWRP Christchurch Map Series. Planning Map A-C11 shows that the site is not located within a groundwater protection zone.

The objectives and policies are included within sections 3 and 4 respectively of the LWRP and largely relate to protecting groundwater resources and the efficient use of water, while recognising the benefits of gravel extraction for the construction and roading industry, for economic activity and for the re-build of Christchurch.

#### **4.6.3.4 *Canterbury Air Regional Plan***

The CARP became operative on 31 October 2017. The CARP implements an air quality management framework for the region through processes and methods for managing air quality resources in Canterbury, which will achieve the purpose of the RMA. The purpose of the CARP is to establish a resource management approach that manages the human influences on air quality in the region so that people's health and wellbeing is optimised.

The objectives and policies are set out in sections 5 and 6 respectively of the CARP. Both the Christchurch/Otautahi Clean Air Zone and the Christchurch Airshed immediately adjoin the proposed site along the east boundary with Dawsons Road, however the site itself does not fall within either of these areas as identified on Planning Map 14 of the CARP.

#### **4.6.3.5 *Selwyn District Plan***

The Selwyn District Plan (SDP) was made fully operative on 3 May 2016 and consists of two volumes, being the Township Volume and the Rural Volume. The site is identified under the Rural Inner Plains zone as per the SDC Planning Maps. The objectives and policies relevant to this application are therefore contained within Part B as set out under the Rural Volume of the SDP. Parts B1 'Natural Resources', B2 'Physical Resources LURP' and B3 'Health Safety Values' contain the objectives and policies relevant to the proposal.

**Table 1: Canterbury RPS – relevant objectives and policies.**

Objectives and Policies	Comment
<b>Chapter 5 – Land Use and Infrastructure</b>	
<p><b>Objective 5.2.1 Location, design and function of development</b></p> <p><i>Development is located and designed so that it functions in a way that:</i></p> <p>1...</p> <p>2. <i>enables people and communities, including future generations, to provide for their social, economic and cultural well-being and health and safety; and which:</i></p> <p>a) <i>maintains, and where appropriate, enhances the overall quality of the natural environment of the Canterbury region, including its coastal environment, outstanding natural features and landscapes, and natural values;</i></p> <p>b) <i>...</i></p> <p>c) <i>Encourages sustainable economic development by enabling business activities in appropriate locations;</i></p> <p>d) <i>minimises energy use and/or improves energy efficiency;</i></p> <p>e) <i>enables rural activities that support the rural environment including primary production;</i></p> <p>f) <i>is compatible with, and will result in the continued safe, efficient and effective use of regionally significant infrastructure;</i></p> <p>g) <i>avoids adverse effects on significant natural and physical resources including regionally significant infrastructure, and where avoidance is impracticable, remedies or mitigates those effects on those resources and infrastructure;</i></p>	<p>A number of roading upgrades and access improvements are proposed to accommodate the vehicle movements associated with the proposed quarry. In designing these, Fulton Hogan has consulted with Council staff, as well as NZTA and KiwiRail to develop safe and efficient designs which incorporate existing and proposed transport connections in the area.</p> <p>These upgrades will ensure safe and efficient traffic outcomes are delivered to meet future strategic transport requirements for both district and regionally significant roads, and the railway network. The proposal is consistent in particular with objectives 5.2.2 and 5.2.3, and related policies 5.3.2 and 5.3.7, given that the proposed quarry traffic movements will integrate with the CSM2 upgrade works currently being undertaken.</p> <p>Furthermore, the proposed roundabout design options (Appendix C) for the Dawsons and Jones Road intersection upgrades, will not only improve the safety of the railway level crossing further south on Dawsons Road, but will replace an intersection with an extensive history of accidents. The new layout will provide for both traffic associated with the quarry but will improve safety for all vehicle movements occurring at this point. The proposal will therefore result in the safe and efficient functioning of the network's arterial roads, and of the regionally significant transport infrastructure.</p> <p>Modelling of vehicle movements from the proposed site demonstrates that the majority of vehicle movements will utilise the arterial network, as opposed to local roads upon leaving the site, which is designed to accommodate high traffic volumes and consistent with the intended function of these roads. In turn, this assists in mitigating effects that may otherwise be associated with heavy vehicle movements passing by sensitive receivers on local roads.</p>

Objectives and Policies	Comment
<p>h) ...</p> <p>i) <i>avoids conflicts between incompatible activities.</i></p>	
<p><b>Objective 5.2.2 Integration of land use and regionally significant infrastructure</b></p> <ol style="list-style-type: none"> <li>1. <i>To recognise the benefits of enabling people and communities to provide for their social, economic and cultural well-being and health and safety and to provide for infrastructure that is regionally significant to the extent that it promotes sustainable management in accordance with the RMA.</i></li> <li>2. <i>To achieve patterns and sequencing of land-use with regionally significant infrastructure in the wider region so that:</i> <ol style="list-style-type: none"> <li>a) <i>development does not result in adverse effects on the operation, use and development of regionally significant infrastructure.</i></li> <li>b) <i>Adverse effects resulting from the development of regionally significant infrastructure are avoided, remedied or mitigated as fully as practicable.</i></li> <li>c) <i>There is increased sustainability, efficiency and liveability.</i></li> </ol> </li> </ol>	
<p><b>Objective 5.2.3 Transport Network</b></p> <p><i>A safe, efficient and effective transport system to meet local regional, inter-regional and national needs for transport, which:</i></p> <ol style="list-style-type: none"> <li>a) <i>supports a consolidated and sustainable urban form;</i></li> <li>b) <i>avoids, remedies or mitigates the adverse effects of transport use and its provision;</i></li> <li>c) <i>provides an acceptable level of accessibility; and</i></li> <li>d) <i>is consistent with the regional roading hierarchy identified in the Regional Land Transport Strategy</i></li> </ol>	

Objectives and Policies	Comment
<p><b>Policy 5.3.2 Development Conditions</b></p> <p><i>To enable development including regionally significant infrastructure which:</i></p> <ol style="list-style-type: none"> <li>1. <i>Ensure that adverse effects are avoided, remedied or mitigated, including where these would compromise or foreclose:</i> <ol style="list-style-type: none"> <li>a) <i>existing or consented regionally significant infrastructure;</i></li> <li>b) <i>options for accommodating the consolidated growth and development of existing urban areas;</i></li> <li>c) <i>the productivity of the region's soil resources, without regard to the need to make appropriate use of soil which is valued for existing or foreseeable future primary production, or through further fragmentation of rural land;</i></li> <li>d) <i>the protection of sources of water for community supplies;</i></li> <li>e) <i>significant natural and physical resources;</i></li> </ol> </li> <li>2. <i>Avoid or mitigate:</i> <ol style="list-style-type: none"> <li>a) <i>natural and other hazards, or land uses that would likely result increases in the frequency and/or severity of hazards;</i></li> <li>b) <i>reverse sensitivity effects and conflicts between incompatible activities, including identified mineral extraction areas;</i></li> </ol> </li> </ol> <p><i>and</i></p> <ol style="list-style-type: none"> <li>3. <i>Integrate with:</i> <ol style="list-style-type: none"> <li>a) <i>the efficient and effective provision, maintenance or upgrade of infrastructure; and</i></li> <li>b) <i>transport networks, connections and modes so as to provide for the sustainable and efficient movement of people, goods and services, and a logical, permeable and safe transport system</i></li> </ol> </li> </ol>	

Objectives and Policies	Comment
<p><b>Policy 5.3.7 Strategic land transport network and arterial roads</b></p> <p><i>In relation to strategic land transport network and arterial roads, the avoidance of development which:</i></p> <ol style="list-style-type: none"> <li>1. <i>adversely affects the safe efficient and effective functioning of this network and these roads, including the ability of this infrastructure to support freight and passenger transport services; and</i></li> <li>2. <i>in relation to the strategic land transport network and arterial roads, to avoid development which forecloses the opportunity for the development of this network and these roads to meet future strategic transport requirements.</i></li> </ol>	
<p><b>Policy 5.3.8 Land use and transport integration</b></p> <p><i>Integrate land use and transport planning in a way:</i></p> <ol style="list-style-type: none"> <li>1. <i>that promotes:</i> <ol style="list-style-type: none"> <li>a) <i>the use of transport modes which have low adverse effects;</i></li> <li>b) <i>the safe, efficient and effective use of transport infrastructure, and reduces where appropriate the demand for transport;</i></li> </ol> </li> <li>2. <i>that avoids or mitigates conflicts with incompatible activities; and</i></li> <li>3. <i>where the adverse effects from the development, operation and expansion of the transport system:</i> <ol style="list-style-type: none"> <li>a) <i>on significant natural and physical resources and cultural values are avoided, or where this is not practicable, remedied or mitigated; and</i></li> <li>b) <i>are otherwise appropriately controlled.</i></li> </ol> </li> </ol>	

Objectives and Policies	Comment
<b>Chapter 6 – Recovery and Rebuilding of Greater Christchurch</b>	
<p><b>Objective 6.2.1 Recovery Network</b></p> <p><i>Recovery, rebuilding and development are enabled within Greater Christchurch through a land use infrastructure framework that:</i></p> <ol style="list-style-type: none"> <li>1. ...</li> <li>2. ...</li> <li>3. ...</li> <li>4. ...</li> <li>5. ...</li> <li>6. <i>maintains or improves the quantity and quality of water in groundwater aquifers and surface water bodies, and quality of ambient air;</i></li> <li>7. <i>maintains the character and amenity of rural areas and settlements;</i></li> <li>8. ...</li> <li>9. <i>integrates strategic and other infrastructure and services with land use development;</i></li> <li>10. <i>achieves development that does not adversely affect the efficient operation, use, development, appropriate upgrade, and future planning of strategic infrastructure and freight hubs;</i></li> <li>11. <i>optimises use of existing infrastructure; and</i></li> <li>12. ...</li> </ol>	<p>Enabling the extraction of gravel from the site assists in support of rebuilding and development within Christchurch as sought by objective 6.2.1. The quarry is expected to provide a long-term source of aggregate in close proximity to key areas of demand within Greater Christchurch and will ensure the continuation of aggregate supply.</p> <p>At the same time, the quarry has been designed with appropriate mitigation and remediation measures to ensure that any effects of the proposed quarry on groundwater, air quality, and character and amenity values are acceptable.</p> <p>As noted above, the proposal seeks to actively integrate the proposed quarry and associated roading upgrades with the construction of the CMS2 transport infrastructure and associated roading network upgrades, in line with objective 6.2.4. Wider impacts associated with the proposal have been considered so as to enhance transport safety at the at the Dawsons/Jones Road intersection, and design access to the site so that the majority of vehicle leaving the site quickly access Main South Road as opposed to travelling along local roads.</p>

Objectives and Policies	Comment
<p><b>Objective 6.2.4 Integration of transport infrastructure and land use</b></p> <p><i>Prioritise the planning of transport infrastructure so that it maximises integration with the priority areas and new settlement patterns and facilitates the movement of people and goods and provision of services in Greater Christchurch, while:</i></p> <ol style="list-style-type: none"> <li>1. <i>managing network congestion;</i></li> <li>2. <i>...</i></li> <li>3. <i>...</i></li> <li>4. <i>...</i></li> <li>5. <i>optimising use of existing capacity within the network; and</i></li> <li>6. <i>enhancing transport safety.</i></li> </ol>	
<p><b>Policy 6.3.4 Transport effectiveness</b></p> <p><i>Ensure that an efficient and effective transport network that supports business and residential recovery is restored, protected and enhanced so that it maintains and improves movement of people and goods around Greater Christchurch by:</i></p> <ol style="list-style-type: none"> <li>1. <i>avoiding development that will overload strategic freight routes;</i></li> <li>2. <i>providing patterns of development that optimise use of existing network capacity and ensuring that, where possible, new building projects support increased uptake of active and public transport, and provide opportunities for modal choice;</i></li> <li>3. <i>providing opportunities for travel demand management;</i></li> <li>4. <i>requiring integrated transport assessment for substantial developments; and</i></li> <li>5. <i>improving road user safety.</i></li> </ol>	

Objectives and Policies	Comment
<p><b>Policy 6.3.5 Integration of land use and infrastructure</b></p> <p><i>Recovery of Greater Christchurch is to be assisted by the integration of land use development with infrastructure by:</i></p> <ol style="list-style-type: none"> <li>1. ...</li> <li>2. <i>Ensuring that the nature, timing and sequencing of new development are co-ordinated with the development, funding, implementation and operation of transport and other infrastructure in order to:</i> <ol style="list-style-type: none"> <li>a) <i>optimise the efficient and affordable provision of both the development and the infrastructure;</i></li> <li>b) <i>maintain or enhance the operational effectiveness, viability and safety of existing and planned infrastructure;</i></li> <li>c) <i>protect investment in existing and planned infrastructure; and</i></li> <li>d) <i>ensure new development does not occur until provision for appropriate infrastructure is in place</i></li> </ol> </li> <li>3. <i>Providing that the efficient and effective functioning of infrastructure, including transport corridors, is maintained, and the ability to maintain and upgrade that infrastructure is retained</i></li> <li>4. ...</li> <li>5. <i>Managing the effects of land use activities on infrastructure, including avoiding activities that have the potential to limit the efficient and effective, provision, operation, maintenance or upgrade of strategic infrastructure and freight hubs.</i></li> </ol>	

Objectives and Policies	Comment
<b>Chapter 7 – Fresh Water</b>	
<p><b>Objective 7.2.1 Sustainable management of fresh water</b></p> <p><i>The region’s fresh water resources are sustainably managed to enable people and communities to provide for their economic and social well-being through abstracting and/or using water for irrigation, hydro-electricity generation and other economic activities, and for recreational and amenity values, and any economic and social activities associated with those values, providing:</i></p> <ol style="list-style-type: none"> <li>1. <i>the life-supporting capacity ecosystem processes, and indigenous species and their associated freshwater ecosystems and mauri of the fresh water is safe-guarded;</i></li> <li>2. <i>the natural character values of wetlands, lakes and rivers and their margins are preserved, and these areas are protected from inappropriate subdivision, use and development and where appropriate restored or enhanced; and</i></li> <li>3. <i>any actual or reasonably foreseeable requirements for community and stockwater supplies and customary uses, are provided for.</i></li> </ol>	<p>While it is proposed to use groundwater for the quarrying operations, no new groundwater takes are required as part of the proposal and no additional water volumes are sought. Water will be obtained from an existing water permit for the site which currently provides for irrigation, and potentially through capturing rainfall in water tanks. This approach provides for efficient and sustainable management of the groundwater resource; and is consistent with objectives 7.2.1, 7.2.2 and Policy 7.3.4. The proposal contains appropriate design and a number of control measures so that the sustainable use of freshwater will be provided for. It is noted that the water take is also metered in accordance with Resource Management (Measurement and Reporting of Water Takes) Regulations 2010 (RWT) as discussed above in Section 6.6.2.3. Additionally, the existing conditions of the water permit to take groundwater from the site, already prescribe actions to be taken by the consent holder during periods of low groundwater levels, and no changes are being sought to these conditions. Any effects on groundwater quantity from the proposed take are assessed as being less than minor in Section 6.2.4 of the AEE report.</p>
<p><b>Objective 7.2.2 Parallel processes for managing fresh water</b></p> <p><i>Abstraction of water and the development of water infrastructure in the region occurs in parallel with:</i></p> <ol style="list-style-type: none"> <li>6. <i>improvements in the efficiency with which water is allocated for abstraction, the way it is abstracted and conveyed, and its application or use;</i></li> <li>7. <i>the maintenance of water quality where it is of a high standard and the improvement of water quality in catchments where it is degraded; and</i></li> </ol>	<p>A range of mitigation measures and management techniques have been incorporated into the proposal that will ensure any potential effects on groundwater and surface water effects are avoided, remedied or mitigated; therefore, the proposal meets policies 7.3.6 and 7.3.7. The application of appropriate consent conditions can address any areas of uncertainty that may exist, and appropriate remediation measures can be provided should they be required, so as to ensure the proposal is consistent with the policy direction of Chapter 7. These include maintaining a separation distance of 1 m between the quarry pit floor and the highest recorded groundwater level at the site, through only cleanfill being used for backfilling, spill management measures, and through careful management and use of interceptor</p>

Objectives and Policies	Comment
<p>8. <i>the restoration or enhancement of degraded fresh water bodies and their surroundings.</i></p>	<p>systems in relation to the storage and use of hazardous substances and wash facilities.</p> <p>Due to the absence of natural surface water bodies in close proximity to the site, the assessment in Section 6.2.2 concludes that onsite extraction will not result in any effects on surface water.</p>
<p><b>Objective 7.2.3 Protection of intrinsic value of waterbodies and their riparian zones</b></p> <p><i>The overall quality of freshwater in the region is maintained or improved, and the life supporting capacity, ecosystem processes and indigenous species and their associated fresh water ecosystems are safeguarded.</i></p>	
<p><b>Policy 7.3.4 Water Quantity</b></p> <p><i>In relation to the management of water quantity:</i></p> <p>1. <i>to manage the abstraction of surface water and groundwater by establishing environmental flow regimes and water allocation regimes which:</i></p> <ul style="list-style-type: none"> <li>a) <i>manage the hydrological connections of surface water, groundwater and the coastal environment;</i></li> <li>b) <i>avoid long-term decline in groundwater levels and saltwater intrusion of coastal groundwater resources;</i></li> <li>c) <i>protect the flows, freshes and flow variability required to safeguard the life-supporting capacity, mauri, ecosystem processes and indigenous species including their associated ecosystems and protect the natural character values of fresh water bodies in the catchment, including any flows required to transport sediment, to open the river mouth, or to flush coastal lagoons;</i></li> </ul>	

Objectives and Policies	Comment
<p>d) <i>provide for any existing or reasonably foreseeable needs of surface water or groundwater for individual, marae or community drinking water or stockwater supplies;</i></p> <p>e) <i>support the exercise of customary uses, including any flows required to maintain wetlands or water quality for customary uses; and</i></p> <p>f) <i>support any flow requirements needed to maintain water quality in the catchment; and, having satisfied the requirements in (a) to (f), provide for:</i></p> <p>g) <i>recreational values (including the patterns and timing of flow variability desired by recreational users) and amenity values; and</i></p> <p>h) <i>any actual or reasonably foreseeable demand for abstraction (for uses other than those listed in (d) above), unless Policy 7.3.4(2) applies; and</i></p> <p>2. <i>Where the quantum of water allocated for abstraction from a water body is at or exceeds the maximum amount provided for in an environmental flow and water allocation regime:</i></p> <p>a) <i>avoid any additional allocation of water for abstraction or any other action which would result in further over-allocation; and</i></p> <p>b) <i>set a timeframe for identifying and undertaking actions to effectively phase out over-allocation; and</i></p> <p>c) <i>effectively addresses any adverse effects of over-allocation in the interim.</i></p>	

Objectives and Policies	Comment
<p><b>Policy 7.3.5 Water quantity and land uses</b></p> <p><i>To avoid, remedy or mitigate adverse effects of land uses on the flow of water in surface water bodies or the recharge of groundwater by:</i></p> <ol style="list-style-type: none"> <li>1. <i>controlling the diversion of rainfall run-off over land, and changes in land uses, site coverage or land drainage patterns that will, either singularly or cumulatively, adversely affect the quantity or rate of water flowing into surface water bodies or the rate of groundwater recharge; and</i></li> <li>2. <i>managing the planting or spread of exotic vegetation species in catchments where, either singularly or cumulatively, those species are or are likely to have significant adverse effects on flows in surface water bodies.</i></li> </ol>	
<p><b>Policy 7.3.6 Fresh water quality</b></p> <p><i>In relation to water quality</i></p> <ol style="list-style-type: none"> <li>1. <i>to establish and implement minimum water quality standards for surface water and groundwater resources in the region, which are appropriate for each water body considering:</i> <ol style="list-style-type: none"> <li>a) <i>the values associated with maintaining life supporting capacity, ecosystem processes and indigenous species including their associated ecosystems, and natural character of the water body;</i></li> <li>b) <i>any current and reasonably foreseeable requirement to use the water for individual, marae or community drinking water or stockwater supplies, customary uses or contact recreation;</i></li> <li>c) <i>the cultural significance of the fresh water body and any conditions or restrictions on the discharge of contaminants that may be necessary or appropriate to protect those values; and</i></li> <li>d) <i>any other current or reasonably foreseeable values or uses; and</i></li> </ol> </li> </ol>	

Objectives and Policies	Comment
<p>2. <i>to manage activities which may affect water quality (including land uses), singularly or cumulatively, to maintain water quality at or above the minimum standard set for that water body; and</i></p> <p>3. <i>where water quality is below the minimum water quality standard set for that water body, to avoid any additional allocation of water for abstraction from that water body and any additional discharge of contaminants to that water body, where any further abstraction or discharges, either singularly or cumulatively, may further adversely affect the water quality in that water body:</i></p> <p>a) <i>until the water quality standards for that water body are met; or</i></p> <p>b) <i>unless the activities are undertaken as part of an integrated solution to water management in the catchment in accordance with Policy 7.3.9, which provides for the redress of water quality within that water body within a specified timeframe.</i></p>	
<p><b>Policy 7.3.7 Water quality and land uses</b></p> <p><i>To avoid, remedy or mitigate adverse effects of changes in land uses on the quality of fresh water (surface or ground) by:</i></p> <p>1. <i>identifying catchments where water quality may be adversely affected, either singularly or cumulatively, by increases in the application of nutrients to land or other changes in land use; and</i></p> <p>2. <i>controlling changes in land uses to ensure water quality standards are maintained or where water quality is already below the minimum standard for the water body, it is improved to the minimum standard within an appropriate timeframe.</i></p>	

Objectives and Policies	Comment
<p><b>Policy 7.3.8 Efficient allocation and use of fresh water</b></p> <p><i>To improve efficiency in the allocation and use of fresh water by:</i></p> <ol style="list-style-type: none"> <li>1. <i>ensuring the infrastructure used to reticulate and apply water is highly efficient relative to the nature of the activity, for any new take or use of water;</i></li> <li>2. <i>ensuring the infrastructure used to reticulate and apply water is increasingly efficient (where not already highly efficient) for existing takes and uses of water, having regard to:</i> <ol style="list-style-type: none"> <li>a) <i>the nature of the activity;</i></li> <li>b) <i>the benefits and costs of achieving a higher level of efficiency;</i></li> <li>c) <i>practicable options to implement any change required; and</i></li> <li>d) <i>the physical environment in which the activity takes place.</i></li> </ol> </li> <li>3. <i>ensuring the quantities of water allocated, as part of a water allocation regime or by grant of water permit, are no more than are necessary for the proposed use for all activities, including urban uses and municipal supplies;</i></li> <li>4. <i>recognising the importance of reliability in supply for irrigation;</i></li> <li>5. <i>recognising the potential for efficiency in infrastructure through combined uses of water and energy efficient infrastructure; and</i></li> <li>6. <i>promoting the integrated management and use of fresh water resources within or across catchments.</i></li> </ol>	

Objectives and Policies	Comment
<b>Chapter 14 – Air Quality</b>	
<p><b>Objective 14.2.1 Maintain or improve ambient air quality</b>  <i>Maintain or improve ambient air quality so that it is not a danger to people’s health and safety and reduce the nuisance effects of low ambient air quality.</i></p>	<p>A range of operational controls and mitigation measures are proposed to manage dust emissions associated with the proposed Roydon Quarry. These include measures to avoid and mitigate potential adverse effects on air quality, so that the quarry activity does not detract from the existing air quality, or adversely impact on any sensitive receivers.</p> <p>The recommended dust mitigation measures as contained in the Air Quality Assessment and DMP for the site (Appendix D) are consistent with or exceed good industry practice and will control dust to an acceptable level, so that no significant dust nuisance or health effects relative to applicable air quality guidelines and standards will result from the proposal. Any discharge to air from the site will not be offensive or objectionable beyond the site boundary.</p> <p>General and targeted mitigation measures will also help to mitigate PM<sub>10</sub> and respirable crystalline silica emissions so that concentrations of these dust fractions are below the applicable health-based criteria.</p> <p>The proposal is therefore consistent with the objectives and policies of Chapter 14.</p>
<p><b>Objective 14.2.2 Localised adverse effects of discharges on air quality</b> <i>Enable the discharges of contaminants into air provided there are no significant localised adverse effects on social, cultural and amenity values, flora and fauna, and other natural and physical resources.</i></p>	
<p><b>Policy 14.3.3 Avoid, remedy or mitigate localised adverse effects on air quality</b>  <i>To set standards, conditions and terms for discharges of contaminants into the air to avoid, remedy or mitigate localised adverse effects on air quality.</i></p>	
<p><b>Policy 14.3.5 Relationship between discharges to air and sensitive land uses</b>  <i>In relation to the proximity of discharges to air and sensitive land-uses:</i></p> <ol style="list-style-type: none"> <li>1. <i>To avoid encroachment of new development on existing activities discharging to air where the new development is sensitive to those discharges, unless any reverse sensitivity effects of the new development can be avoided or mitigated.</i></li> <li>2. <i>Existing activities that require resource consents to discharge contaminants into air, particularly where reverse sensitivity is an issue, are to adopt the best practicable option to prevent or minimise any actual or likely adverse effect on the environment.</i></li> <li>3. <i>New activities which require resource consents to discharge contaminants into air are to locate away from sensitive land uses and receiving environments unless adverse effects of the discharge can be avoided or mitigated.</i></li> </ol>	

Objectives and Policies	Comment
<b>Chapter 15 – Soils</b>	
<p><b>Objective 15.2.1 Maintenance of soil quality</b>  <i>Maintenance and improvement of the quality of Canterbury's soil to safeguard their mauri, their life supporting capacity, their health and their productive capacity.</i></p>	<p>Section 6.3 of the AEE concludes that the proposal will not adversely affect soil resources. The proposed measures for storing top and subsoils removed during the quarrying process in bunds, will ensure that the soil resource is effectively protected, while gravel extraction is taking place at the site. Measures will include that bunding is either grassed or covered to minimise erosion losses and prevent degradation and are therefore consistent with objective 15.2.2 and related policies 15.3.1 and 15.3.2. Any extra soil which may be brought into the site will be of a high standard meeting the definition of cleanfill. The loss of the site from productive use will be temporary, given that it will be returned to a pastoral state or other appropriate activity, upon completion of rehabilitation which will occur in accordance with the rehabilitation plan (Appendix G).</p> <p>Appropriate storage and use of hazardous substances, together with a Spill Management Plan, which will include having spill kits available to clean up spills, and undertaking staff training to avoid spills, will help ensure that soil and groundwater resources are not contaminated by the proposed quarrying operation.</p> <p>As per the recommendations in Section 10.0 of the PSI/DSI contained in Appendix H, contaminated soils on site will be managed or removed from site so as not to adversely impact soil and water quality, and an unexpected discovery protocol will be implemented should any unexpected contaminated soil or materials be uncovered during earthworks.</p>
<p><b>Objective 15.2.2 Prevention of soil erosion</b>  <i>Prevention of new significant induced soil erosion, and the reduction of significant existing induced erosion.</i></p>	
<p><b>Policy 15.3.1 Avoid remedy or mitigate soil degradation</b>  <i>In relation to soil:</i></p> <ol style="list-style-type: none"> <li>1. <i>to ensure that land-uses and land management practices avoid significant long-term adverse effects on soil quality, and to remedy or mitigate significant soil degradation where it has occurred, or is occurring; and</i></li> <li>2. <i>to promote land-use practices that maintain and improve soil quality.</i></li> </ol>	
<p><b>Policy 15.3.2 Avoid and remedy significant induced soil erosion</b>  <i>To avoid significant new induced soil erosion resulting from the use of land and as far as practicable remedy or mitigate significant induced soil erosion where it has occurred. Particular focus is to be given to the desirability of maintaining vegetative cover on non-arable land.</i></p>	

Objectives and Policies	Comment
<b>Chapter 17 – Contaminated Land</b>	
<p><b>Objective 17.2.1 Protection from adverse effects of contaminated land</b>  <i>Protection of people and the environment from both on-site and off-site adverse effects of contaminated land.</i></p>	<p>The PSI/DSI contained in Appendix H concludes that any contaminated soils can be effectively managed in order to achieve consistency with objective 17.2.1.</p>
<p><b>Policy 17.3.1 Identify potentially contaminated land</b>  <i>To seek to identify all land in the region that was historically, or is presently, being used for an activity that has, or could have, resulted in the contamination of that land, and where appropriate, verify the existence and nature of contamination.</i></p>	<p>The proposed management techniques for the contaminated parts of the site include targeted excavation areas and off-site disposal of contaminated soils. Where off-site disposal may be required, it is proposed to dispose of at a facility appropriately licenced to accept such material, so as to protect people and the surrounding environment from both on-site and off-site adverse effects of contaminated land. In addition, site-specific recommendations included in Section 10.0 of the PSI/DSI will be adopted to ensure that any actual or potential adverse effects of contamination, or any discharges thereof from the contaminated land, shall be avoided, remedied or mitigated in a manner that does not lead to further adverse effects; achieving consistency with policies 17.3.2 and 17.3.3.</p>
<p><b>Policy 17.3.2 Development of, or discharge from contaminated land</b>  <i>In relation to actually or potentially contaminated land, where new subdivision, use or development is proposed on that land, or where there is a discharge of the contaminant from that land:</i></p> <ol style="list-style-type: none"> <li>1. <i>a site investigation is to be undertaken to determine the nature and extent of any contamination; and</i></li> <li>2. <i>if it is found that the land is contaminated, except as provided for in Policy 17.3.3, the actual or potential adverse effects of that contamination, or discharges from the contaminated land shall be avoided, remedied or mitigated in a manner that does not lead to further significant adverse effects</i></li> </ol>	
<p><b>Policy 17.3.3 Contaminants may remain in the land</b>  <i>Where land has been identified as being contaminated, contaminants should only be allowed to remain in the ground if discharges of contaminants beyond the site to air, water or land will not result in significant risk to human health or the environment.</i></p>	

Objectives and Policies	Comment
<b>Chapter 18 – Hazardous Substances</b>	
<p><b>Objective 18.2.1 Avoid, remedy or mitigate adverse effects</b>  <i>Adverse effects on the environment from the storage, use, disposal and transportation of hazardous substances are avoided, remedied or mitigated.</i></p>	<p>Fuel and lubricants to be used for quarry plant and machinery are the only hazardous substances to be stored on site. Given Fulton Hogan’s proposed management of such storage and use, the proposal is not considered to result in any adverse effects on soil and groundwater resources and therefore meets objective 18.2.1. A volume of 15,000 L (maximum) of diesel will be stored on site in a double skinned tank, and all storage will be in accordance with the requirements of relevant legislation, including storage being on impervious surfaces with secondary containment.</p>
<p><b>Objective 18.2.2 New contamination of land</b>  <i>To avoid contamination of land.</i></p>	
<p><b>Policy 18.3.1 Protection of sensitive areas and activities</b>  <i>Avoid actual or potential adverse effects, resulting from the use, storage or disposal of hazardous substances, in the following locations:</i></p> <ol style="list-style-type: none"> <li>1. ...</li> <li>2. ...</li> <li>3. <i>In areas of unconfined or semi-confined aquifer, where the depth to groundwater is such that there is a risk of contamination of that groundwater</i></li> <li>4. ...</li> <li>5. ...</li> </ol>	
<p><b>Policy 18.3.2 Avoid, remedy or mitigate adverse effects</b>  <i>To avoid, remedy or mitigate adverse effects on the environment, including contamination of land, air and water, associated with the storage, use, transportation or disposal of hazardous substances.</i></p>	<p>In accordance with policy 18.3.1, an appropriate separation depth to highest recorded groundwater levels will be maintained to eliminate any risk of contamination of the underlying aquifer, and any refuelling with portable tankers will take place well above the bottom of the pit floor. The proposal is therefore consistent with policy 18.3.1, noting the range of mitigation and management techniques to avoid new contamination of land sought under objective 18.2.2. Machinery will be well maintained to limit the potential for any hydraulic fluid spills, and machine operators and site staff will be trained in spill avoidance techniques in line with policy 18.3.2.</p> <p>Nonetheless, the proposal is consistent with this policy through the development of a Spill Management Plan and contingency measures for the site, including the availability of spill kits in the event of an emergency. Lastly, any soil contaminated as a result of a spill will be removed and appropriately disposed of to an authorised off-site facility.</p>

**Table 2: Canterbury LWRP – relevant objectives and policies.**

Objectives and Policies	Comment
<b>Section 3 – Objectives</b>	
<p><b>Objective 3.5</b> <i>Land uses continue to develop and change in response to socio-economic and community demand.</i></p>	<p>The proposed quarry will be established in close proximity to and is to provide a long-term source of aggregate for Christchurch, where it is eventually expected to replace aggregate resource supplied by existing quarries in the area. The proposed Roydon Quarry therefore achieves consistency with objective 3.5 by providing a continued supply of aggregate to address demand, after which the associated areas of land will be appropriately rehabilitated for future uses when quarrying is complete. Related policies 4.93 and 4.94 providing for gravel extraction are also relevant to this proposal and recognise the value of the gravel resource for the demand within the Canterbury region and enable the extraction, provided that effects on ground water quality are minimised.</p> <p>The proposed excavation and backfilling will not intercept groundwater as a buffer of at least 1 m above the highest recorded groundwater level from the base of the quarry, and thus from where backfill activities, will be ensured in line with policy 4.19. Cleanfilling will not take place over a Groundwater Protection Zone, and any potential effects of leaching associated with proposed cleanfilling for the site have been assessed as being less than minor, as discussed under section 6.2.3 of the AEE report. Monitoring of bores which Fulton Hogan has already installed at the site will occur to ensure groundwater in the vicinity of the site is not being contaminated as a result of quarry operations. The potential for hydrocarbons to significantly contaminate groundwater as a result of any spills or the like in surface soil is assessed as being unlikely, with an identified groundwater depth unlikely to rise above 11 m bgl beneath the site.</p> <p>Machinery operators and site staff will be trained in spill avoidance techniques, and a spill kit will be kept on site and staff trained in its use, in accordance with a Spill</p>
<p><b>Objective 3.6</b> <i>Water is recognised as essential to all life and is respected for its intrinsic values.</i></p>	
<p><b>Objective 3.8</b> <i>The quality and quantity of water in fresh water bodies and their catchments is managed to safeguard the life-supporting capacity of ecosystems and ecosystem processes, including ensuring sufficient flow and quality of water to support the habitat and feeding, breeding, migratory and other behavioural requirements of indigenous species, nesting birds and, where appropriate, trout and salmon.</i></p>	
<p><b>Objective 3.9</b> <i>Abstracted water is shown to be necessary and reasonable for its intended use and any water that is abstracted is used efficiently.</i></p>	
<p><b>Objective 3.10</b> <i>Water is available for sustainable abstraction or use to support social and economic activities and social and economic benefits are maximised by the efficient storage, distribution and use of the water made available within the allocation limits or management regimes which are set in this Plan.</i></p>	

Objectives and Policies	Comment
<p><b>Objective 3.13</b></p> <p><i>Groundwater resources remain a sustainable source of high-quality water which is available for abstraction while supporting base flows or levels in surface water bodies, springs and wetlands and avoiding salt-water intrusion.</i></p>	<p>Management Plan. Machinery will be regularly inspected and well maintained to limit the potential for hydraulic or fuel leaks. All spill events will be recorded, including the volume of any spill and a record of any clean up action taken, with any soil contaminated owing to a spill to be removed and appropriately disposed of to an authorised off-site facility. Having regard to the mitigation measures proposed to ensure groundwater is not adversely affected, consistency is achieved with objective 3.13, where the proposal incorporates measures to ensure that the groundwater resource remains a sustainable source of high quality water for other uses.</p>
<p><b>Objective 3.23</b></p> <p><i>Soils are healthy and productive, and human-induced erosion and contamination are minimised.</i></p>	<p>Topsoil removed during the quarrying process to be stored for use in progressive rehabilitation, on completion of quarried areas followed by revegetation of the site, is subject to a range of measures proposed. In this way, the proposal ensures that the soil resource is effectively protected to minimise erosion losses and prevent any soil damage or degradation, demonstrating consistency with objective 3.23.</p>
<p><b>Objective 3.24</b></p> <p><i>All activities operate at good environmental practice or better to optimise efficient resource use and protect the region's fresh water resources from quality and quantity degradation.</i></p>	<p>The applicant's proposal is to extract the gravel resource, having regard to the range of design, operational controls and mitigation measures proposed, to ensure water and soil resources are not adversely affected. It is considered that the proposal is consistent with the abovementioned objectives and policies of the LWRP. The proposal enables gravel extraction vital for growth and redevelopment of infrastructure and buildings to occur, while avoiding and mitigating potential adverse effects on the environment.</p>
<p><b>Section 4 – Policies</b></p>	
<p><b>Groundwater</b></p>	
<p><b>Policy 4.7 Strategic policies – groundwater management</b></p> <p><i>Resource consents for new or existing activities will not be granted if the granting would cause a water quality or quantity limit set in Sections 6 to 15 to be breached or further over allocation (water quality and/or water quantity) to occur or in the absence of any water quality standards in Sections 6 to 15, the limits set in Schedule 8 to be breached. Replacement consents, or new consents for existing activities may be granted to:</i></p> <p>(a) <i>allow the continuation of existing activities at the same or lesser rate or scale, provided the consent contains conditions that contribute to the</i></p>	

Objectives and Policies	Comment
<p><i>phasing out of the over allocation (water quality and/or water quantity) within a specified timeframe; or</i></p> <p><i>(b) exceed the allocation limit (water quality and/or water quantity) to a minor extent and in the short-term if that exceedance is part of a proposal to phase out the overallocation within a specified timeframe included in Sections 6 to 15 of this Plan.</i></p>	
<p><b>Policy 4.77 Groundwater Protection</b></p> <p><i>The use of bores or galleries, including decommissioned bores, does not result in the contamination of surface water or groundwater through backflow of water, or surface water and contaminants entering bores or galleries.</i></p>	
<p><b>NPS Freshwater</b></p>	
<p><b>Policy 4.8A Strategic policies [From NPS-FM 2014]</b></p> <p>1. <i>When considering any application for a discharge the consent authority must have regard to the following matters:</i></p> <p><i>(a) the extent to which the discharge would avoid contamination that will have an adverse effect on the life-supporting capacity of fresh water including on any ecosystem associated with fresh water and</i></p> <p><i>(b) the extent to which it is feasible and dependable that any more than minor adverse effect on fresh water, and on any ecosystem associated with fresh water, resulting from the discharge would be avoided.</i></p> <p>2. <i>When considering any application for a discharge the consent authority must have regard to the following matters:</i></p>	

Objectives and Policies	Comment
<p>(a) <i>the extent to which the discharge would avoid contamination that will have an adverse effect on the health of people and communities as affected by their contact with freshwater; and</i></p> <p>(b) <i>the extent to which it is feasible and dependable that any more than minor adverse effect on the health of people and communities as affected by their contact with fresh water resulting from the discharge would be avoided.</i></p> <p>3. <i>This policy applies to the following discharges (including a diffuse discharge by any person or animal):</i></p> <p>(a) <i>a new discharge or</i></p> <p>(b) <i>a change or increase in any discharge – of any contaminant into fresh water, or onto or into land in circumstances that may result in that contaminant (or, as a result of any natural process from the discharge of that contaminant, any other contaminant) entering fresh water.</i></p> <p>4. <i>Paragraph 1 of this policy does not apply to any application for consent first lodged before the National Policy Statement for Freshwater Management 2011 took effect on 1 July 2011.</i></p> <p>5. <i>Paragraph 2 of this policy does not apply to any application for consent first lodged before the National Policy Statement for Freshwater Management 2014 takes effect.</i></p>	
<p><b>Policy 4.8B Strategic policies [From NPS-FM 2014]</b></p> <p>1. <i>When considering any application, the consent authority must have regard to the following matters:</i></p>	

Objectives and Policies	Comment
<p>(a) <i>the extent to which the change would adversely affect safeguarding the life-supporting capacity of fresh water and of any associated ecosystem and</i></p> <p>(b) <i>the extent to which it is feasible and dependable that any adverse effect on the life-supporting capacity of fresh water and of any associated ecosystem resulting from the change would be avoided.</i></p> <p>2. <i>This policy applies to:</i></p> <p>(a) <i>any new activity and</i></p> <p>(b) <i>any change in the character, intensity or scale of any established activity – that involves any taking, using, damming or diverting of fresh water or draining of any wetland which is likely to result in any more than minor adverse change in the natural variability of flows or level of any fresh water, compared to that which immediately preceded the commencement of the new activity or the change in the established activity (or in the case of a change in an intermittent or seasonal activity, compared to that on the last occasion on which the activity was carried out).</i></p> <p>3. <i>This policy does not apply to any application for consent first lodged before the National Policy Statement for Freshwater Management 2011 took effect on 1 July 2011.</i></p>	
<p><b>Discharge of contaminants</b></p>	
<p><b>Policy 4.13 Discharges of Contaminants to land or water</b></p> <p><i>For other discharges of contaminants into or onto land where it may enter water or to surface water bodies or groundwater (excluding those passive discharges to</i></p>	

Objectives and Policies	Comment
<p><i>which Policy 4.26 applies), the effects of any discharge are minimised by the use of measures that:</i></p> <ul style="list-style-type: none"> <li><i>(a) first, avoid the production of the contaminant;</i></li> <li><i>(b) secondly, reuse, recovers or recycles the contaminant;</i></li> <li><i>(c) thirdly, minimise the volume or amount of the discharge; or</i></li> <li><i>(d) finally, wherever practical utilise land-based treatment, a wetland constructed to treat contaminants or a designed treatment system prior to discharge; and</i></li> <li><i>(e) in the case of surface water, results in a discharge that after reasonable mixing meets the receiving water standards in Schedule 5 or does not result in any further degradation in water quality in any receiving surface waterbody that does not meet the water quality standards in Schedule 5 or any applicable water conservation order.</i></li> </ul>	
<p><b>Policy 4.14 Discharges of Contaminants to land or water</b></p> <p><i>Any discharge of a contaminant into or onto land where it may enter groundwater (excluding those passive discharges to which Policy 4.26 applies):</i></p> <ul style="list-style-type: none"> <li><i>(a) will not exceed the natural capacity of the soil to treat or remove the contaminant; and</i></li> <li><i>(b) will not exceed available water storage capacity of the soil; and</i></li> <li><i>(c) where meeting (a) and (b) is not practicable, the discharge will:</i> <ul style="list-style-type: none"> <li><i>(i) meet any nutrient limits in Schedule 8 or Sections 6 to 15 of this Plan; and</i></li> <li><i>(ii) utilise the best practicable option to ensure the size of any contaminant plume is as small as is reasonably practicable; and</i></li> </ul> </li> </ul>	

Objectives and Policies	Comment
<p>(iia) ensure there is sufficient distance between the point of discharge, any other discharge and drinking-water supplies to allow for the natural decay or attenuation of pathogenic micro-organisms in the contaminant plume; and</p> <p>(iii) not result in the accumulation of pathogens, or a persistent or toxic contaminant that would render the land unsuitable for agriculture, commercial, domestic, cultural or recreational use or water unsuitable as a source of potable water or for agriculture; and</p> <p>(iv) not raise groundwater levels so that land drainage is impeded.</p>	
<p><b>Policy 4.19 Earthworks, land excavation and deposition of material into land over aquifers</b></p> <p>The discharge of contaminants to groundwater from earthworks, excavation, waste collection or disposal sites and contaminated land is avoided or minimised by ensuring that:</p> <p>a) activities are sited, designed and managed to avoid the contamination of groundwater;</p> <p>b) existing or closed landfills and contaminated land are managed and monitored where appropriate to minimise any contamination of groundwater</p>	
<p><b>Policy 4.26 Hazardous Substances and hazardous activities</b></p> <p>Any discharges of hazardous substances from contaminated land, including existing and closed landfills, are managed to ensure that adverse effects beyond the site boundary on people's health or safety, on human or stock water supplies, or on surface water are avoided.</p>	

Objectives and Policies	Comment
<p><b>Water management</b></p>	
<p><b>Policy 4.63 Abstraction of Water</b></p> <p>Any abstraction of groundwater is subject to conditions specifying:</p> <ul style="list-style-type: none"> <li>a) the maximum instantaneous rate of take;</li> <li>b) a maximum seasonal volume based on reasonable use determined in accordance with Schedule 10 over the period the water is required;</li> <li>c) the area or property within which the water is to be used;</li> <li>d) the location of the abstraction;</li> <li>e) any minimum groundwater levels at which abstraction ceases if specified in Sections 6 to 15;</li> <li>f) any other conditions to regulate the rate or volume of water that may be abstracted relative to the estimated volume of groundwater stored in a groundwater zone, if specified in Sections 6 to 15</li> </ul>	
<p><b>Policy 4.64 Abstraction of Water</b></p> <p>Where existing abstractors do not have a maximum seasonal or annual allocation, to impose these conditions, determined in accordance with Schedule 10, when any of the following occur:</p> <ul style="list-style-type: none"> <li>a) resource consent conditions are changed in accordance with Section 127 of the RMA;</li> <li>b) ...</li> <li>c) ...</li> <li>d) the consent authority determines that a review of consent conditions is required to impose seasonal or annual volumes in a catchment</li> </ul>	

Objectives and Policies	Comment
<p><b>Policy 4.65 Efficient Use of Water</b></p> <p><i>The rate, volume and seasonal duration for which water may be taken will be reasonable for the intended use.</i></p>	
<p><b>Policy 4.67 Efficient Use of Water</b></p> <p><i>Enable the spatial and temporal sharing of allocated water between uses and users, subject to the existing consent holders retaining priority access to the water during the remaining currency of those consents, and provided that the rate of taking or volume of water consented for abstraction from a catchment does not exceed the environmental flow and water allocation limit for surface water or stream depleting groundwater, or the groundwater allocation limit for that catchment.</i></p>	
<p><b>Gravel extraction</b></p>	
<p><b>Policy 4.93 Gravel Extraction</b></p> <p><i>Recognise the value of gravel extraction for construction and maintenance of infrastructure, for economic activity, for flood management purposes and for the re-build of Christchurch.</i></p>	
<p><b>Policy 4.94 Gravel Extraction</b></p> <p><i>Enable the extraction of gravel from land, provided adverse effects on groundwater quality are minimised and remediation is undertaken to minimise any ongoing risk of groundwater contamination.</i></p>	

**Table 3: Selwyn Te Waihora sub-region – relevant policies.**

Section 11.4 - Policies	Comment
<p><b>Policy 11.4.26</b></p> <p><i>Only reallocate water to existing resource consent holders at a rate and volume that reflects:</i></p> <p>a) <i>for irrigation takes, reasonable use as calculated in accordance with Schedule 10; and</i></p> <p><i>for other takes, despite Policy 4.50(b)(i), an amount of water that is reasonable and demonstrates efficient use of water for the particular end use.</i></p>	<p>The proposed quarry site is located within the Selwyn-Waimakariri Combined Surface and Groundwater Allocation Zone.</p> <p>The change of conditions to the water permit CRC182422 is seeking to take and use groundwater for aggregate washing, dust suppression and other quarrying activities, in addition to irrigation which it currently provides for. The proposed take will be of a rate or volume that is considered reasonable for the proposed quarry processes and will remain in line with what is provided for under the existing consent conditions. This groundwater resource is readily available at the site and is to be used in an efficient manner, subject to a range of monitoring and control measures. Water will also be recycled through wash water ponds to reduce volumes taken. Access to this water volume for dust mitigation, washing and processing of extracted aggregates is essential to support the various components of the quarry operation.</p>
<p><b>Policy 11.4.27</b></p> <p>b) <i>Any replacement shall not include any water that has been transferred to another site.</i></p>	
<p><b>Policy 11.4.28</b></p> <p><i>Prior to the transfer of any existing resource consent to take and use water for irrigation to another site, if no annual volume has been applied to the resource consent, then an annual volume shall be applied in accordance with Schedule 10.</i></p>	<p>Given the scale and economic significance of the of the proposed land use, and provided that the proposed measures and the consent conditions are effectively implemented and adhered to, it is considered that the proposed take and use of groundwater for quarry operations is consistent with the Section 11 policies identified above for the Selwyn Te Waihora sub-region.</p>

**Table 4: CARP – relevant objectives and policies.**

Objectives and Policies	Comment
<b>Section 5 – Objectives</b>	
<p><b>Objective 5.2</b> <i>Ambient air quality provides for the health and wellbeing of the people of Canterbury.</i></p>	<p>The general thrust of the objectives within section 5 of the CARP is to ensure that air quality is maintained where it is acceptable, and that it is improved where it is degraded, while also ensuring that any discharges to air maintain the amenity values of the receiving environment. Objective 5.2 seeks that ambient air quality provides for the health and wellbeing of the people of Canterbury, while any offensive and objectionable effects and noxious or dangerous effects on the environment are required to be generally avoided under Objective 5.9. A range of management and mitigation measures will be implemented at the site as outlined in the Air Quality Assessment in Appendix D, in order to ensure that dust generated from the site and associated quarrying operations is not a nuisance beyond the site boundary.</p>
<p><b>Objective 5.6</b> <i>Amenity values of the receiving environment are maintained.</i></p>	
<p><b>Objective 5.7</b> <i>Discharges from new activities are appropriately located to take account of adjacent land uses and sensitive areas.</i></p>	
<p><b>Objective 5.9</b> <i>Offensive and objectionable effects and noxious or dangerous effects on the environment are generally avoided.</i></p>	
<p><b>Objective 5.10</b> <i>Development and innovation in technology that have the potential to improve air quality are enabled.</i></p>	
<b>Section 6 – Policies</b>	
<p><b>Policy 6.1</b> <i>Discharges of contaminants into air, either individually or in combination with other discharges, do not cause:</i></p>	<p>The relevant objectives in section 5 of the CARP are implemented through the policies in Section 6, which are generally set out according to types of activities generating discharges to air. Policy 6.1 aims to ensure that discharges of contaminants to air do</p>

Objectives and Policies	Comment
<ul style="list-style-type: none"> <li>a) <i>diverse effects on human health and wellbeing; or</i></li> <li>b) <i>adverse effects on the mauri and life supporting capacity of ecosystems, plants or animals; or</i></li> <li>c) <i>significantly diminished visibility; or</i></li> <li>d) <i>significant soiling or corrosion of structures or property.</i></li> </ul>	<p>not cause adverse effects on human health and wellbeing, diminished visibility, or adverse effects on the mauri/life supporting capacity of ecosystems, plants or animals. As detailed in the assessment in Appendix D, a range of mitigation and management measures will be implemented at the site to ensure that dust does not cause any of the above adverse effects.</p>
<p><b>Policy 6.8</b> <i>Offensive and objectionable effects are unacceptable and actively managed by plan provisions and the implementation of management plans.</i></p>	<p>Policy 6.8 states that offensive and objectionable effects are unacceptable and these need to be actively managed by plan provisions and the implementation of management plans. Fulton Hogan is committed to working under a DMP as discussed in detail in the Air Quality Assessment report (Appendix D). A draft DMP describing the dust management measures has been prepared and is included as Appendix B to the Air Quality Assessment, which will be updated and maintained by Fulton Hogan as required.</p>
<p><b>Policy 6.9</b> <i>Discharges into air from new activities are appropriately located and adequately separated from sensitive activities, taking into account land use anticipated by a proposed or operative district plan and the sensitivity of the receiving environment.</i></p>	<p>Provided that mitigation and monitoring, which will be covered in the DMP for the site is thoroughly implemented to control dust to an acceptable level, the effects of the proposed discharges to air can be managed to an acceptable level, and will not be offensive or objectionable beyond the boundary. This includes extensive continuous PM<sub>10</sub> monitoring and wind monitoring, linked to trigger the cessation of dust generating activities.</p>
<p><b>Policy 6.11</b> <i>When evaluating resource consent applications recognise locational constraints on activities, when imposing terms and conditions.</i></p>	
<p><b>Policy 6.12</b> <i>Where activities locate appropriately to mitigate adverse effects on air quality a longer consent duration may be available to provide on-going operational certainty.</i></p>	<p>Policy 6.9 requires that discharges into air from new activities are appropriately located and adequately separated from sensitive activities, with consideration being given to land use anticipated by a proposed/operative district plan and the receiving environments' level of sensitivity. Measures proposed for controlling dust are consistent with good industry practice. Additionally, more specific measures have been proposed in relation to the identified receptors where it has been assessed that higher standards of dust mitigation are required, despite appropriate separation distances being established with the closest sensitive locations, as far as practicable. Such measures include wind condition monitoring, where works will cease during periods of strong wind; and continuous monitoring when working close to any sensitive locations.</p>
<p><b>Policy 6.13</b> <i>Minimise the cumulative effects of discharges of contaminants into air by requiring:</i></p> <ul style="list-style-type: none"> <li>a) <i>permitted discharges to apply good environmental practices; and</i></li> <li>b) <i>discharges allowed by a resource consent to apply the best practicable option.</i></li> </ul>	

Objectives and Policies	Comment
<p><b>Policy 6.23</b>  <i>Avoid significant increases in the concentration of PM<sub>10</sub> in ambient air within a gazetted airshed by establishing thresholds and performance standards for the discharge of PM<sub>10</sub> within the associated Clean Air Zone.</i></p>	<p>Furthermore, Policy 6.13 seeks to minimise the cumulative effects of discharges of contaminants into air by requiring discharges allowed by a resource consent to apply the best practicable option. Subject to implementing the mitigation measures specified in Appendix D, it is considered the activity will operate in accordance with the best practicable option. The Air Quality Assessment (Appendix D) concludes that no significant dust nuisance or health effects relative to the applicable air quality standards and guidelines will be generated as a result of the proposed quarrying activity.</p>
<p><b>Policy 6.25</b>  <i>Applications for resource consent for discharges into air from industrial or trade activities or large-scale fuel burning devices classified as discretionary shall address:</i></p> <ul style="list-style-type: none"> <li>a) <i>where the discharge includes PM<sub>10</sub>, the mass emission rate of the proposed discharge relative to the total emission rate of all discharges within the Clean Air Zone; and the degree to which the proposed discharge exacerbates cumulative effects within the Clean Air Zone; and</i></li> <li>b) <i>localised effects of the proposed discharge and the location of sensitive receptors; and</i></li> <li>c) <i>available mitigation and emission control options; and d. the duration of consent being sought and the practicability for the effects of the discharge to be reduced over time.</i></li> </ul>	<p>Policy 6.25 specifically relates to discharges from industrial and trade activities and seeks that applications for resource consent from such discharges classified as discretionary, shall address localised effects of the proposed discharges and the location of sensitive receptors, the available mitigation and emission control options; and the duration of consent being sought and the practicability for the effects of the discharge to be reduced over time. The proposed extraction activity is constrained to areas where resource exists at the necessary quality, and which are suitability sized that a financially viable operation within appropriate environmental controls can be established. As set out in the AEE, this site presents the most suitable such site within proximity to Christchurch.</p>
<p><b>Policy 6.28</b>  <i>Manage discharges of odour and dust from the storage, transfer, handling, treatment or disposal of liquid or solid waste, by ensuring that any discharges from those activities are appropriately located.</i></p>	<p>It is considered that the location of the proposed extraction area is appropriate, being located in a rural area in proximity to other quarrying activities and close to the major area of demand, being Christchurch. Furthermore, given the nature of the discharges from a quarry site and the proposed management practices, the proposed Roydon Quarry is very unlikely to contribute a more than negligible amount of any PM<sub>10</sub> to concentrations in the adjoining Christchurch Airshed to the east of the site (Section 8.0, Appendix D). As such, given the proposed location, quarrying activities can be reasonably expected within this vicinity and are considered acceptable for the proposed site.</p> <p>Based on the above assessment, the proposed activity at the site is consistent with the relevant objectives and policies of the CARP.</p>

**Table 5: SDP – relevant objectives and policies.**

Objectives and Policies	Comment
<b>B1 Natural Resources</b>	
<b>B1.1 Land and Soil Objectives</b>	The proposal achieves consistency with objectives B1.1.1 and B1.1.2 by reducing the risk of any discharges which may result in contamination and effectively managing soils during the proposed extraction and rehabilitation processes; as well as by appropriately disposing of any contaminated soils at authorised offsite facilities licenced to accept such material.
<p><b>Objective B1.1.1</b>  <i>Adverse effects of activities on the District's land and soil resources are avoided, remedied or mitigated.</i></p>	Several controls and mitigation measures are to be applied to the storage and use of hazardous substances on site as detailed in Section 4.8 of the AEE, and this is consistent with policy B1.1.1 to ensure that the risk of contaminating land is reduced. The proposal in this respect includes elements such as staff training in avoiding spills, development of a Spill Management Plan and access to spill kits, and storage on impervious surfaces with secondary containment.
<p><b>Objective B1.1.2</b>  <i>People and their property are not affected by contaminated soil or unstable land and any adverse effects on the environment are avoided, remedied or mitigated.</i></p>	Policy B1.1.2 seeks to avoid adverse effects on people through exposure to contaminated land and mitigate or remedy any adverse effects on the environment. Contaminated soils identified in those parts of the site discussed in the PSI/DSI (Appendix H) can be appropriately managed to avoid any adverse effects on people's health and the environment, in accordance with the recommendations detailed in section 10.0 of the report (as related to policy B1.1.3). Further, the proposal seeks to avoid any new land contamination through applying secure and effective management and mitigation measures around hazardous substances, in accordance with the requirements of relevant legislation.
<b>B1.1 Land and Soil Policies – Contaminated Land</b>	
<p><b>Policy B1.1.1</b>  <i>Ensure any activity involving hazardous substance or waste disposal is carried out in a way which reduces the risk of contaminating land or soil.</i></p>	Proposed measures for storing topsoil removed during the quarrying process to be used for progressive rehabilitation on completion of quarried areas, followed by revegetation of the site, are consistent with policy B1.1.7. In this way, the proposal
<p><b>Policy B1.1.2</b>  <i>Avoid adverse effects on people through exposure to contaminated land and mitigate or remedy any adverse effects on the environment.</i></p>	
<p><b>Policy B1.1.3</b>  <i>Encourage the management of contaminated sites so that effects on peoples' health or on the environment are avoided.</i></p>	

Objectives and Policies	Comment
<b>Land and Soil Policies – Soil Damage</b>	<p>ensures that the soil resource is effectively protected, to minimise erosion losses and prevent any soil damage or degradation. Soil which may be brought into the site will be of a high standard meeting the definition of cleanfill. Site rehabilitation is proposed to occur in accordance with the rehabilitation plan contained in Appendix G with cleanfill to be managed in accordance with a cleanfill management plan contained in Appendix F.</p>
<p><b>Policy B1.1.7</b></p> <p><i>Avoid removing large quantities of topsoil from sites unless:</i></p> <ul style="list-style-type: none"> <li>• <i>The site will be covered in hardstanding; or</i></li> <li>• <i>The topsoil will be replaced and the site replanted, when the activity ceases.</i></li> </ul>	
<b>B1.3 Water Objectives</b>	<p>A range of mitigation measures have been incorporated into the proposal that will ensure any potential effects on water resources are avoided, remedied or mitigated. The proposal is consistent with objectives B1.3.1, B1.3.3 and policy B1.3.4 given an appropriate separation distance (1 m depth) will be maintained between the quarry pit floor and the expected maximum groundwater seasonal levels, during the proposed extraction operations. In addition, appropriate land management practices and controls will be employed in relation to the use and storage of hazardous substances at the site, including maintaining quarry machinery and vehicles, training site staff in spill avoidance techniques and in spill management, in accordance with a Spill Management Plan. Provided that all proposed measures are thoroughly adhered to, to ensure that water resources are effectively protected, the proposal is consistent with policy B1.3.4.</p> <p>The closest natural waterbody to the site is identified as being the Waimakariri River (approximately 12.5km north of the site) which is hydraulically connected to the groundwater system. However, as concluded in section 6.2.2, the proposed onsite extraction will occur well above the groundwater table and due to the significant flow volumes, is not expected to have any impacts to the river. The SDC water race identified at the site will be unaffected by the proposed quarrying operations up stream</p>
<p><b>Objective B1.3.1</b></p> <p><i>Contamination of ground water or surface water is avoided and/or mitigated, and water quality improved in degraded waterbodies through changes in land management practices and controls on land uses likely to cause waterbody contamination.</i></p>	
<p><b>Objective B1.3.3</b></p> <p><i>Protect and enhance the amenity values along waterbodies.</i></p>	
<b>B1.3 Water Policies – Ground and Surface Water</b>	
<p><b>Policy B1.3.4</b></p> <p><i>Manage land to protect water resources and avoid, remedy, or mitigate adverse effects on surface water quality and quantity, and aquatic habitat from activities and development, including:</i></p> <ul style="list-style-type: none"> <li>• <i>Activities locating close to waterbodies; or</i></li> </ul>	

Objectives and Policies	Comment
<ul style="list-style-type: none"> <li>Activities which may result in surface run-off of contaminants, or leaching of contaminants into groundwater.</li> </ul>	of the site. No other natural surface water bodies are identified on or in close proximity to the site.
<b>B2 Physical Resources LURP</b>	
<b>B2.1 Transport Networks – Objectives</b>	<p>The integrated transportation assessment undertaken by Stantec and included in Appendix C has considered several traffic elements and it is considered that the proposed quarry transportation aspects have been effectively integrated with district and regional transport planning. Consistency is therefore achieved with objectives B2.1.1 and B2.1.2. Detailed analysis of the anticipated quarry vehicle movements and development of the access arrangements and roading upgrades, in conjunction with the construction and design of the ongoing CMS2 upgrades, will ensure a well-managed approach to deliver the safe and efficient operation of surrounding roads. This includes taking into account vehicle queuing effects generated by the proposal on the Dawsons Road railway level crossing, which informed significant intersection upgrades (as proposed mitigation) discussed in section 6.8 of the AEE. In this way, the proposal does not compromise but seeks to enhance the associated land transport infrastructure for future use, in order to minimise adverse effects on surrounding land uses and on road users.</p> <p>Overall, the upgrades proposed to the district roads in collaboration will improve the current situation at the Dawsons/Jones Road intersection, with vehicle movements able to be accommodated by the surrounding network. The proposal is consistent with policy B2.1.3, which seeks to manage the traffic effects of activities in considering the hierarchy of roads. The integrated traffic assessment for the proposal (Appendix C) assessed the surrounding roads according to their function and classification, in considering various destinations affiliated with the transport of aggregate from the quarry; particularly for the arterial roads being Dawsons Road and Jones Road pursuant to policy B2.1.3. The detailed study is used to inform options for the Dawsons and Jones Road intersection upgrade, noting that policy B2.1.11 seeks to</p>
<p><b>Objective B2.1.1</b></p> <p><i>An integrated approach to land use and transport planning to ensure the safe and efficient operation of the District’s roads, pathways, railway lines and airfields is not compromised by adverse effects from activities on surrounding land or by residential growth.</i></p>	
<p><b>Objective B2.1.2</b></p> <p><i>An integrated approach to land use and transport planning to manage and minimise adverse effects of transport networks on adjoining land uses, and to avoid “reverse sensitivity” effects on the operation of transport networks.</i></p>	
<p><b>B2.1 Transport Network Policies – Roads and Pathways</b></p>	
<p><b>Policy B2.1.3</b></p> <p><i>Recognise and protect the primary function of roads classified as State Highways or Arterial Roads in Appendix 9, to ensure the safe and efficient flow of through traffic en route to its destination.</i></p>	
<p><b>Policy B2.1.4(a)</b></p> <p><i>Ensure all sites, allotments or properties have legal access to a legal road which is formed to the standard necessary to meet the needs of the activity considering:</i></p>	

Objectives and Policies	Comment
<ul style="list-style-type: none"> <li><i>the number and type of vehicle movements generated by the activity;</i></li> <li><i>the road classification and function; and</i></li> </ul> <p><i>any pedestrian, cycle, public transport or other access required by the activity.</i></p>	<p>ensure roads are designed and upgraded to an appropriate standard to achieve safety and efficiency.</p> <p>Effects on the safe flow of traffic along the identified state highways and arterial roads, will be appropriately mitigated by transport design, as sought under Policy B2.1.4(b).</p>
<p><b>Policy B2.1.4(b)</b></p> <ul style="list-style-type: none"> <li><i>Avoid or mitigate adverse effects on the safe flow of traffic along State Highways and Arterial Roads from new property access or new/expanded activities which generate a high level of traffic movements.</i></li> </ul>	<p>Separation of the proposed heavy vehicle access and the use of the existing vehicle crossing for light vehicle access will also help provide for safe and efficient flow of vehicle movements along Jones Road (policies B2.1.10 and B2.1.12).</p> <p>The proposed site signage is for advertising the site entrance, and other advisory signage will be erected to clearly indicate unauthorised access is prohibited to the quarry site. Fulton Hogan will ensure that these signs along with any signage to be erected along Dawsons Road, are appropriate as serving a practical purpose for what is a large site, and that measures are taken to avoid any impacts on the traffic safety for all road users, therefore the proposal achieves consistency with Policy B2.1.10.</p>
<p><b>Policy B2.1.5</b> <i>Promote the strategic planning of transport networks to achieve a high level of connectivity and provision for sustainable transport including public transport, cycling and walking.</i></p>	<p>As discussed in Section 3.5.3 of this document, the proposed planting of trees for screening to be established on the outer side of the site bunds, are shown in detail in the LVIA in Appendix E. The assessment demonstrates that these plantings will be maintained to ensure that any shading will comply with the relevant provisions and are therefore permitted under Rule 2.1.1 of the SDP; therefore the proposal achieves consistency with Policy B2.1.13.</p>
<p><b>Policy B2.1.6</b></p> <p><i>Avoid adverse effects of on-road parking and loading generated by surrounding land uses on rural roads.</i></p>	<p>The application considers the wider impacts of the proposal to provide a site access design which will result in the majority of vehicles leaving the site quickly accessing Main South Road, as opposed to travelling along local roads. The traffic assessment by Stantec (Appendix C) includes detailed analysis of the anticipated quarry vehicle movements in conjunction with the construction and design of the ongoing CMS2 upgrades. This will ensure safe and efficient outcomes for the operation of surrounding roads, including for the Dawsons Road railway level crossing, which</p>
<p><b>Policy B2.1.8</b></p> <p><i>Ensure roadside signs are designed and positioned so they can be read quickly and clearly by motorists without causing prolonged distraction from the road or sudden vehicle manoeuvres.</i></p>	<p>The application considers the wider impacts of the proposal to provide a site access design which will result in the majority of vehicles leaving the site quickly accessing Main South Road, as opposed to travelling along local roads. The traffic assessment by Stantec (Appendix C) includes detailed analysis of the anticipated quarry vehicle movements in conjunction with the construction and design of the ongoing CMS2 upgrades. This will ensure safe and efficient outcomes for the operation of surrounding roads, including for the Dawsons Road railway level crossing, which</p>
<p><b>Policy B2.1.10</b></p> <p><i>Ensure vehicle crossings, intersections, pathways, roadside signs and noticeboards are designed and positioned to ensure good visibility for all road users, and to allow safe passage, access and egress.</i></p>	<p>The application considers the wider impacts of the proposal to provide a site access design which will result in the majority of vehicles leaving the site quickly accessing Main South Road, as opposed to travelling along local roads. The traffic assessment by Stantec (Appendix C) includes detailed analysis of the anticipated quarry vehicle movements in conjunction with the construction and design of the ongoing CMS2 upgrades. This will ensure safe and efficient outcomes for the operation of surrounding roads, including for the Dawsons Road railway level crossing, which</p>

Objectives and Policies	Comment
<p><b>Policy B2.1.11</b>  <i>Ensure roads are designed, constructed, maintained and upgraded to an appropriate standard to carry the volume and types of traffic safely and efficiently.</i></p>	<p>informed significant intersection upgrades (as proposed mitigation) discussed in section 6.8 of the AEE; by taking into account potential queuing effects generated by the proposed quarry. The detailed consideration and implementation of these effects on roads and the railway line in the vicinity of the site; to deliver appropriate mitigation measures and integrated traffic design for the proposal, therefore achieves consistency with Policy B2.1.26.</p>
<p><b>Policy B.2.1.12</b>  <i>Avoid new property access directly on to the State Highway or Arterial Roads unless there is no alternative legal access available, or effects on the safe and efficient flow of traffic along the road will be minor.</i></p>	
<p><b>Policy B2.1.13</b>  <i>Avoid planting trees or hedges in positions or allow them to grow to heights where they will shade roads for prolonged periods during winter.</i></p>	
<p><b>Policy B2.1.26 (Effects on the environment and reverse sensitivity effects - Roads and Railway Lines)</b>  <i>Encourage heavy vehicles to use routes which bypass townships, where practical and appropriate, and avoid new residential development along heavy vehicle bypasses.</i></p>	
<p><b>B2.4 Waste Disposal – Objectives</b></p>	
<p><b>Objective B2.4.2</b>  <i>Adverse effects on the environment from the collection, treatment, storage or disposal of waste are reduced.</i></p>	

Objectives and Policies	Comment
<p><b>B2.4 Waste Disposal Policies</b></p>	
<p><b>Policy B2.4.5</b></p> <p><i>Ensure any site or facility used to collect, temporarily store or redistribute waste, is designed, sited and managed to:</i></p> <ul style="list-style-type: none"> <li><i>a) Avoid the risk of leaching of contaminants into ground or surface water;</i></li> <li><i>b) Avoid adverse effects of litter, vermin or odour on surrounding properties;</i></li> <li><i>c) Mitigate any adverse effects from transporting waste on the road network and the safety of other road users;</i></li> <li><i>d) Protect the values of any outstanding natural features and landscapes; any sites with special ecological, heritage, or cultural values; or the natural character of waterbodies; and</i></li> <li><i>e) Avoid the risk of creating a natural hazard through locating such facilities on land prone to inundation, instability or erosion.</i></li> </ul> <p><i>Provide for appropriate temporary, short-term storage for hazardous substances in the waste stream</i></p>	
<p><b>Policy B2.4.6</b></p> <p><i>Avoid any large scale facilities for disposing of solid waste in the District, unless any adverse effects, including any cumulative effects, on the environment will be minor.</i></p>	
<p><b>Policy B2.4.7</b></p> <p><i>Recognise that Tāngata whenua have a particular interest in the treatment and disposal of waste; and ensure appropriate consultation is undertaken with them on this matter.</i></p>	

Objectives and Policies	Comment
<p><b>Policy B2.4.8</b> Ensure appropriate after-care of land used to dispose of waste.</p>	
<b>B3 Health Safety Values</b>	
<b>B3.2 Hazardous substances – Objectives</b>	<p>The storage of all hazardous substances at the site will be in accordance with the requirements of relevant legislation and will incorporate a range of measures to ensure the proposal is consistent with objective B3.2.1. As detailed under section 4.8 of the AEE, measures will be taken to avoid, remedy or mitigate any adverse effects to human health, the site and surrounding rural environment, and to the natural environment, arising from the use and storage of hazardous substances for the proposed quarry.</p> <p>The storage of hazardous substance onsite enables the efficient operation of the proposed quarry, which is anticipated as a discretionary activity (Rule 9.2.1) under the site’s rural zoning. Subject to the mitigation and management techniques for the proposed site, and given the nature and scale of the quarrying operations, the quantity of fuel storage proposed is considered to be acceptable and any potential effects are assessed as being less than minor. Therefore, the proposal is consistent with policy B3.2.1(a).</p> <p>The measures for the safe use and storage of hazardous substances include but are not limited to, staff training to avoid and manage spills, development of a Spill Management Plan, and provision of spill kits in the event of an emergency. All storage will be on impervious surfaces with secondary containment; and any refuelling is to occur on a covered concrete refuelling pad. The proposal is therefore consistent with objective B3.2.2 and policy B3.2.1(b), and ensures that soil and groundwater resources are effectively protected to avoid contamination resulting from hazardous substances.</p>
<p><b>Objective B3.2.1</b> To ensure that adequate measures are taken to avoid, remedy or mitigate any adverse effects to human health, to the amenity of townships, the rural environment and to the natural environment arising from the manufacture, storage, transport on water bodies and disposal of hazardous substances.</p>	
<p><b>Objective B3.2.2</b> To ensure that adequate measures are taken during the manufacture, storage and disposal of hazardous substances to avoid, remedy or mitigate any adverse effects to the health of livestock and other farm animals, to domestic animals, to flora and fauna, and to the life-sustaining capacity and amenity values of waterbodies, land and soil resources.</p>	
<b>B3.2 Hazardous substances – Policies</b>	
<p><b>Policy B3.2.1(a) Manufacture and Storage</b> Allow appropriate quantities and classes of hazardous substances to be stored in the rural area to provide for land use activities that are consistent with the District Plan objectives and policies for those areas; and</p>	

Objectives and Policies	Comment
<p><b>Policy B3.2.1(b) Manufacture and Storage</b></p> <p><i>Ensure hazardous substances are used and stored under conditions which reduce the risk of any leaks or spills contaminating land or water.</i></p>	
<p><b>B3.4 Quality of the Environment - Objectives</b></p>	<p>The proposal is consistent with objective B3.4.1 and policy B3.4.1 which seek to enable a variety of activities in the rural area, while maintaining rural character and managing effects of quarrying on nearby sensitive receivers. It has been identified that a high quality aggregate resource exists at the site. Enabling the extraction activity to secure a continued supply of aggregate has significant economic benefits.</p> <p>Measures to control adverse effects and maintain the quality of the environment include development of earth bunding and retention of existing shelterbelts around the site, establishing new vegetative screening along the site boundaries prior to the quarrying commencing, and progressive site rehabilitation upon completion of quarried areas.</p> <p>The detailed LVIA included as Appendix E and the assessment in section 6.9 of the AEE concludes that owing to attributes contributing to amenity values, such as greenery, flatness of the area and reduced sensitivity of the receiving environment, along with the opportunities this affords in terms of providing a rural outlook, it is considered that successful visual mitigation can be achieved. New screening will be consistent with vegetation within the receiving environment, so as to maintain predominant vegetation cover and consistency with the existing rural area (Policy B3.4.6). Any signage associated with the proposed quarry will be designed to avoid adverse nuisance or visibility effects on rural outlook, in line with policy B3.4.10.</p> <p>Having regard to policy B3.4.13, the acoustic assessment in Appendix I and the assessment in section 6.7 of the AEE report concludes that any noise effects generated by the proposal will be acceptable subject to the recommended conditions of consent. Appropriate acoustic conditions will be adopted to assist in avoiding and</p>
<p><b>Objective B3.4.1</b></p> <p><i>The District's rural area is a pleasant place to live and work in.</i></p>	
<p><b>Objective B3.4.2</b></p> <p><i>A variety of activities are provided for in the rural area, while maintaining rural character and avoiding reverse sensitivity effects.</i></p>	
<p><b>B3.4 Quality of the Environment - Policies</b></p>	
<p><b>Policy B3.4.1 Rural Character</b></p> <p><i>Recognise the Rural zone as an area where a variety of activities occur and maintain environmental standards that allows for primary production and other business activities to operate.</i></p>	
<p><b>Policy B3.4.3 Rural Character</b></p> <p><i>Avoid, remedy or mitigate significant adverse effects of activities on the amenity values of the rural area.</i></p>	
<p><b>Policy B3.4.6 Rural Character</b></p> <p><i>Maintain low levels of building density in the Rural zone and the predominance of vegetation cover.</i></p>	

Objectives and Policies	Comment
<p><b>Policy B3.4.11 Glare and Nightglow</b>  <i>Avoid night lighting shining directly into houses, other than a house located on the same site as the activity, or from vehicles using roads in the District.</i></p>	<p>mitigating noise effects, to a level which does not disturb people on adjoining properties.</p>
<p><b>Policy B3.4.13 Noise and Vibration</b>  <i>Recognise temporary noise associated with short-term, seasonal activities as part of the rural environment, but ensure continuous or regular noise is at a level which does not disturb people indoors on adjoining properties.</i></p>	<p>Consistent with policy B3.4.16, the proposed DMP for the site in Appendix D includes dust management control measures which will be adhered to, to ensure effective mitigation of any nuisance effects on adjoining dwellings, as a result of dust from stockpiled material or earthworks undertaken at the quarry.</p>
<p><b>Policy B3.4.15 Noise and Vibration</b>  <i>Avoid, remedy or mitigate adverse effects caused by excessive or prolonged vibration.</i></p>	<p>The assessment of effects in Section 6.0 of the AEE concludes that overall, the adverse effects of the proposal on the environment will be minor, subject to the proposed mitigation measures to be implement for the establishment, operation and rehabilitation of the Roydon Quarry. The proposal therefore achieves consistency with Policy B3.4.20 by ensuring that appropriate mitigation measures will be in place to manage the effects on the environment, including but not limited to, the proposed daytime hours of operation, visual and acoustic mitigation measures including bunding and screen planting, site access design and upgrades to public roads, dust depression measures, appropriate water management including effects on groundwater, and progressive site rehabilitation.</p>
<p><b>Policy B3.4.16 Dust</b>  <i>Mitigate nuisance effects on adjoining dwellings caused by dust from earthworks, or stockpiled material.</i></p>	<p>The proposal also includes a suite of management plans to mitigate and monitor these effects as detailed in Section 9.0 of the AEE, including a Dust Management Plan, a Quarry Rehabilitation Management Plan, a Spill Management Plan and a Cleanfill Management Plan; which will be appropriately addressed in the conditions of consent granted. These plans will allow for changes to be made as and when required, to ensure that effects on the surrounding environment will continue to be addressed over the life of the quarry.</p>
<p><b>Policy B3.4.17 Shading</b>  <i>Ensure buildings and trees do not excessively shade adjoining properties.</i></p>	
<p><b>Policy B3.4.18 Shading</b>  <i>Ensure buildings are setback a sufficient distance from property boundaries to:</i></p> <ul style="list-style-type: none"> <li>a) <i>Enable boundary trees and hedges to be maintained;</i></li> <li>b) <i>Maintain privacy and outlook for houses on small allotments; and</i></li> <li>• <i>Encourage a sense of distance between buildings and between buildings and road boundaries where practical.</i></li> </ul>	

Objectives and Policies	Comment
<p><b><i>Policy B3.4.20 Reverse Sensitivity Effects</i></b></p> <p><i>Ensure new or upgraded road infrastructure and new or expanding activities, which may have adverse effects on surrounding properties, are located and managed to mitigate these potential effects.</i></p>	

### 4.6.3.6 Other Matters

#### 4.6.3.6.1 Introduction

In accordance with section 104(1)(c) of the RMA, the following other strategies and plans are also relevant to the application for approvals for the proposed Roydon Quarry.

#### 4.6.3.6.2 Iwi Management Plans

Section 11.3 of the LWRP requires that the following Iwi Management Plans apply to sites within the Selwyn Te Waihora Sub-region:

##### *Mahaanui Iwi Management Plan 2013*

The Iwi Management Plan of Mahaanui (IMP) is prepared and mandated by the six Papatipu Rūnanga of Ngā Pākihi Whakatekateka o Waitaha and Te Pātaka o Rākaihautū. The IMP is the principal mana whenua planning document for this Runanga. The IMP provides a statement of Ngāi Tahu objectives, issues and policies for natural resource and environmental management in the takiwā. The plan is a tool for tāngata whenua to express kaitiakitanga and protect taonga and its relationship between tāngata whenua. Policies of particular relevance to this proposal are contained in the Part 5, 'Wāhi Tuarima' and explained below.

Section 5.2 – Ranginui, contains air discharge policies which are relevant to the proposal. Specifically, Policy R1.1, which seeks to protect the mauri of air from adverse effects associated with discharge to air activities. The proposal is consistent with this policy as section 6.4 of the AEE report confirms that contaminants to air are considered to be less than minor, as emissions can be managed to an acceptable level. The proposal will implement a suite of mitigation measures proposed in the Air Quality Assessment (Appendix D) and reflected in the draft Dust Management Plan included as Appendix B to the Air Quality Assessment. In addition, targeted mitigation measures will provide specific protection for the closest rural residential properties.

Policy R1.4 supports the use of indigenous plantings and restoration projects as a means to offset and mitigate industrial, agricultural and residential discharges to air. The proposal is consistent with this policy as existing vegetation will be retained and enhanced and Fulton Hogan is committed to incorporating native vegetation where practicable into screening (earth bunding) and has nurseries and gardening staff to achieve this.

Section 5.3 – Wai Māori, contains objectives and policies relating to water. There are no surface water ways in close proximity to the site, with the exception of SDC owned water races which end within the site. Given the absence of natural surface water bodies on or near the site and that there will be negligible adverse effects on groundwater, there are not considered to be any adverse effects on surface water as a result of the proposed quarrying activities. Site rehabilitation will also progressively restore groundcover across worked areas and provide a form of further element of attenuation of stormwater and run-off discharges.

Effects on groundwater resources have been assessed as less than minor with no excavation to take place below the highest recorded ground water level. The mitigation measures proposed for the storage and use of hazardous substances, vehicle maintenance, and compliance with clean fill standards will assist in the protection of the water resource due to the avoidance of adverse effects. This demonstrates consistency with relevant objectives 5.3(1), 5.3(2), 5.3(3), 5.3(8), 5.3(9) and policies WM1.1, WM1.2 and WM2.2.

Section 5.4 – Papatūānuku, contains objectives and policies relating to land and soil resources. It is considered that the proposal will not have adverse effects on soil quality, and the maintenance of machinery and the implementation of a Spill Management Plan will further assist in the protection of soil resources. Hazardous substances stored on site will be managed so as to not adversely impact soil resources as discussed in relation to water quality. Topsoil and subsoils removed prior to excavation will be appropriately stored to prevent degradation and erosion losses, prior to being used in site rehabilitation. As discussed above, the proposal has incorporated stormwater design features to ensure stormwater is appropriately managed. The scale of the works and measures indicate that objectives 5.4(1), 5.4(3) and policies P1.1, P6.1, P6.3 are met.

Analyses of identified contaminated land within the areas of HAIL activity is outlined within the PSI/DSI report contained in Appendix H. These identified contaminants will be managed appropriately and in accordance with relevant regulations, therefore meeting Policy P10.1. Earthworks activities will avoid damage or modification to wāhi tapu as there are no heritage structures or sites identified on the site, as identified in Policy P11.6.

The proposal has been assessed in Section 6.0 of the AEE report and in the preceding sections of this report which covers the requirements outline in Policy P13.2. A quarry management plan has been prepared, and rehabilitation of the site will progressively occur. Where practicable, Fulton Hogan will also incorporate native vegetation during rehabilitation of the site, which is in accordance with Policy P13.3.

In addition to the assessment of the relevant IMP policies above, Fulton Hogan has also received a report prepared by Mahaanui Kuraitaiao Ltd (Manawhenua Environmental Services) in relation to the proposal, dated 26<sup>th</sup> March 2018. This report represents Te Ngāi Tūāhuriri Rūnanga and Te Taumutu Rūnanga (Te Runanga o Ngai Tahu), who hold manawhenua over the proposed site location as it is within their takiwā. It provides feedback on the proposal from Kaitiaki (Environmental) Portfolio Committees from nga Rūnanga, following an assessment of the proposal in relation to the relevant policies contained in the IMP (including an evaluation of policies P13.2 and P.13). The conclusions of the report on behalf of both Te Ngāi Tūāhuriri Rūnanga and Te Taumutu Rūnanga state that no cultural impact assessment is required, followed by recommendations for the implementation of Accidental Discovery Protocol (ADP), and to ensure that Fulton Hogan continues to engage with Mahaanui Kuraitaiao as the proposal progresses. As outlined within Section 9.0 of the AEE, the proposed mitigation measures for the Roydon Quarry include appropriate ADP as required. The applicant will also continue to engage with Mahaanui Kuraitaiao, however the report confirms that both of the Kaitiaki Portfolio Committees have declined Fulton Hogan's invitation to be part of the Community Advisory Group.

### ***Te Waihora Joint Managements Plan (Mahere Tukutahi o Te Waihora) 2005***

The Te Runanga o Ngāi Tahu Freshwater Policy Statement 1999 (FPS) has been prepared by Te Runanga o Ngāi Tahu. The FPS provides a foundation for resource management agencies and Papatipu Runanga planning for freshwater within the rohe of Ngāi Tahu.

In relation to the discharge of contaminants, objective 6.2 and policies 6.2(1) to restore, maintain and protect the mauri of a waterbody in that the groundwater will not be intercepted and there will be a separation distance of 1 m between the quarry pit floor and expected maximum seasonal groundwater levels. Mitigation measures assist in avoiding adverse effects on water resources through the storage and use of hazardous substances, vehicle maintenance and compliance with cleanfill standards. This assists in ensuring the direct discharge of contaminants to water are avoided, which protects the water's capacity to renew its groundwater.

Overall, the discharge is not considered to have an adverse effect on cultural values of Te Runanga o Ngāi Tahu and the proposal is consistent with the policy framework of the IMP.

### ***Te Runanga o Ngai Tahu Freshwater Policy Statement 1999***

The Te Waihora Joint Management Plan has been prepared by Te Rūnanga o Ngāi Tahu with advice from the Te Waihora Management Board (local Papatipu Rūnanga representatives) and the Department of Conservation. The plan contains long-term objectives, policies and methods for effective integrated management of the Joint Management Plan Area and the natural and historic resources within the area.

Surface water will be effectively managed on site through stormwater detention measures, mitigation measures and site rehabilitation. This promotes effective water management that provides for the relationship of Ngāi Tahu with their ancestral lands, water, sites, wāhi tapu, wāhi taonga, and other taonga of Te Waihora, as outlined in section 2.3 - Ngā wai, policy 2.31. Effects on groundwater resources will also be avoided, as excavation will not penetrate the ground water level. There are also no surface water ways on the site. This assists in the protection of freshwater ecosystems and habitats of Te Waihora, which is consistent with section 4.2 – water, policy 4.2.1 of the plan.

## Summary

There are no known heritage structures, waahi tapu sites or other sites of significance on the proposed quarry site. Furthermore, there are no proposed discharges to water and no disturbance of significant indigenous flora and fauna, and no identified areas of ecological significance on the site. Effects on groundwater resources have been assessed as minor (as detailed in section 6.2 of the AEE) with no excavation to take place below the highest recorded ground water level. The mitigation measures proposed for the storage and use of hazardous substances, vehicle maintenance, and compliance with clean fill standards will assist in the protection of the water resource due to the avoidance of adverse effects. Overall, the proposal is considered to be consistent with the relative objectives and policies of the Iwi Management Plan of Mahaanui, the Te Runanga O Ngāi Tahu Freshwater Policy Statement 1999 and the Te Waihora Joint Management Plan.

### 4.6.3.6.3 Waimakariri River Regional Plan 2004

The Waimakariri River Regional Plan 2004 (WRRP) is operative and promotes the sustainable and integrated management of the Waimakariri catchment's rivers, lakes, hydraulically-connected groundwater and river and lake beds. In some instances, gravel extraction has the potential to impact surface waterways. This may occur if there is a waterbody in close proximity to the site, or if the quarry affects groundwater which is hydraulically connected to a surface waterbody. The WRRP has been considered given that the Waimakariri River has been identified as the closest natural waterbody to the site, as being located approximately 12 km to the north of the proposed quarry.

As discussed in Section 3.6 of the AEE report, the Waimakariri River is a significant recharge source that is known to lose water to the regional groundwater system. However, it is considered to have a minimal influence on groundwater fluctuations below the site due to the significant distance. There is a network of water races and stormwater channels in the area surrounding the proposed quarry site. Section 3.6, however, concludes that the shallow groundwater levels are much lower (some 13.5 m deep on average) than the base of these water races and channels, therefore no hydraulic connection exists between these water bodies. Water will infiltrate from the water races and channels to replenish groundwater, although it is noted that no groundwater from the identified Aquifer 1 will flow towards them. In addition, the assessment in Section 6.2.2 of the AEE concludes that due to the significant flow volumes and proposed quarrying only occurring above the groundwater table, on-site extraction will not have any influence on the Waimakariri River. It is therefore considered that the WRRP is not relevant to the proposal and as such, no further assessment has been undertaken in relation to its provisions.

## 5.0 SUMMARY OF STATUTORY ASSESSMENT

This report has assessed the proposal to establish, operate and rehabilitate the proposed Roydon Quarry against the relevant statutory framework and related considerations.

The assessment concludes that the proposed quarrying activity and associated site operations achieve Part 2 of the RMA and are consistent with the relevant objectives and policies of the CRPS, LWRP, CARP, SDP and any other relevant planning documents identified; and that there are no impediments to granting consents for this application under the relevant NPS Freshwater, NESAQ and NESCS.

The relevant matters set out in sections 104, 105, 107 and 127 lead to the conclusion that overall the potential adverse effects of the application can be appropriately avoided, remedied or mitigated to a level which is minor. The resource consents can therefore be granted subject to appropriate conditions.



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