

RESOURCE MANAGEMENT ACT 1991

**HURUNUI DISTRICT COUNCIL
AND
CANTERBURY REGIONAL COUNCIL**

RESOURCE CONSENT APPLICATION

BY

CHRISTCHURCH READY MIX CONCRETE LIMITED

Application references: RC130205, CRC142845, and CRC142846

Property location: 11 Gartys Road, Leithfield

Resource consents are sought:

- to extract sand and gravel which would be stockpiled and screened on site and then transported off site. Associated offices, car parking, bunding, landscaping and hard stand areas would be provided, and
- to use land for excavation and deposition over an unconfined aquifer for up to 150,000m³ of natural material (sand, soil, aggregate) to be excavated to a maximum depth of 10m below ground level, and
- to take and use water for dust suppression. Water will be abstracted from the quarry excavation at a volume not exceeding 180m³ per day for dust suppression purposes.

Decision by Hearing Commissioner Dean Chrystal

Hearing held on the 17th – 19th June 2014

1.0 Introduction

- 1.1 Pursuant to instructions from the Hurunui District Council and Canterbury Regional Council I was appointed as Hearing Commissioner to hear and determine the above applications for resource consent (land use). For that purpose I attended the Hurunui District Council offices at Amberley on the 17th – 19th June 2014 where I heard evidence regarding the application. I undertook a site visit of the application site and the surrounding properties and area on 18th of June 2014. I also visited the applicants established sites at Amberley and Woodend on the 23rd June 2014.
- 1.2 Subsequent to the hearing I issued directives seeking further information on a number of matters and putting a timetable in place for that information and any comments on it from the Council reporting officers and submitters. Upon receipt of that information I issued a

minute indicating I had no further questions and allowing for the applicants right of reply. The right of reply was received on the 24th July 2014 at which point the hearing was closed.

- 1.3 Prior to the hearing, s42A (of the RMA) reports were produced and circulated to all parties by Hurunui District Council's Senior Planner Ms Helena Bennett and consultant Environmental Planner Mr Tim Ensor on behalf of Environment Canterbury (ECan).
- 1.4 Evidence for the applicant and submitters (where appropriate) was also pre-circulated prior to the hearing in line with the instructions I had issued.

The Proposal

- 1.5 The proposal was to establish and operate a sand quarry that will be used in the production of concrete and other building products. The application indicated that this would support the growing building and construction industry as part of the Christchurch rebuild. The proposal was to extract sand and gravel and drain, stockpile and screen it on site. The material would then be transported off site via truck and trailer units to Canterbury Aggregates Amberley Sand Plant (located on Amberley Beach Road) or to the company's North End Sand Plant near Woodend.
- 1.6 The proposal would include associated offices, car parking, landscaping/bunding and hard stand areas. No trade or retail sales were to occur from the site, no signage was proposed and it was indicated that no dewatering was to occur from the site.
- 1.7 The accessway to the site was to be located on Gartys Road approximately 100m from that road's intersection with State Highway 1 (SH1). The proposed hours of operation were 6.00am to 6.00pm Monday to Friday and 6.00am to 12.00pm on Saturdays. The site would be closed on Sundays and public holidays.
- 1.8 Excavation was to begin in the centre of the site and progress to the north and south depending on the material that was encountered during excavation. The pit would be excavated to a maximum depth of 10m. Stockpiles could comprise up to 15,000 tonnes of material at any one time. The operation is expected to extract up to 150,000 cubic metres of sand and gravel per year through the use of the following equipment:
- 20 or 30 tonne excavator or dragline excavator;
 - 23 tonne front end loader;
 - 1 to 3 road trucks, collecting products and transporting off site;
 - Occasionally, 2 articulated dump trucks, and a power screen portable dry screening plant.
- 1.9 The proposal as notified would generate a maximum of up to 590 equivalent car movements per day (or 120 truck movements and 10 car movements). Traffic would exit the site turning right onto Gartys Road with 70% of the traffic then turning right onto SH1 and the material carted to the North End Sand Plant in Woodend. The remaining 30% of traffic would turn left heading to the Amberley Beach Road site. There would be no movements west along Gartys Road.
- 1.10 Up to five staff would be present on site while dump trucks are operating. At all other times, staff numbers were anticipated to be limited to no more than two.
- 1.11 Up to 5,000 litres of diesel would be kept on site along with some oil for associated vehicle maintenance. The diesel would be stored in a lockable double skinned fuel storage tank

while the oils would be kept in drums within a locked building and stored on an oil spill deck. An oil spill kit was to be kept on site at all times.

- 1.12 Bunding was proposed along the eastern boundary and the north eastern corner of the site to screen the operation from the state highway and to enable stockpiling of topsoil for the future rehabilitation of the site. The bunds were to be 2m high and would be removed as trees matured to replace them. The bund on the north east corner would remain for the life of the pit to enable screening of the processing area. The bunds would be grassed for stabilisation purposes and to avoid erosion. A row of Lawson cypress would also be planted between the quarry pit, SH1 and Gartys Road.
- 1.13 Once the quarry had reached the end of its useful life (expected to be approximately 10 years) the site was to be rehabilitated. The rehabilitation would involve backfilling parts of the excavation with clean fill to stabilise the sides of the excavation and to create a more natural looking lake feature.

The Site and Surrounding Area

- 1.14 The site is located on the west side of SH1 and the south side of Gartys Road and comprises some 16.6625 hectares.
- 1.15 The topography of the site is generally flat along the State Highway side but contains remnant sand dunes on its north-western boundary. Existing vegetation includes a mixture of gum and pine trees within in the southern and western sections of the site. I noted from my site visit that there has been a reasonable amount of windthrow within the site associated with wind events in September 2013.
- 1.16 The site was previously used for a paint ball activity and a significant amount of 'infrastructure' including numerous tyres which were associated with this activity still exists within the site.
- 1.17 The surrounding environment is characterised by pastoral farming, forestry activity, quarrying (Winstone Aggregates) and other commercial activities ('Pukeko Junction' and 'Castle Park' cafes) along the SH1 frontage. There are smaller 'lifestyle blocks' located to the northwest on a terrace which overlooks the site and to the south-west, including the adjoining sites to the northwest and southwest of the site.
- 1.18 Leithfield Beach Township is located approximately 1.4km to the northeast of the site and Leithfield Township is located approximately 2.5km north of the site. To the west of the site is a stream which is known as Ashworths No 2 Drain while on the other side of the State Highway is Ashworths No 1 Drain.
- 1.19 Gartys Road is identified as a "local road" in the Hurunui District Plan ("the District Plan"). The road is sealed from the SH1 intersection for a distance of approximately 160m. The sealed carriageway is 6.3 metres wide, narrowing slightly at the state highway end and tapering at its western end to tie into an unsealed section. The road has a legal speed limit of 100kph.

Notification

- 1.20 The land use application sought from Hurunui District Council was publicly notified on 30 November 2013. Sixty-nine submissions were lodged on this application. One submission was in support, two were neutral and the remainder were opposed. The submission from Te Ngäi Tüähuriri Rünanga and Te Rünanga o Ngäi Tahu was subsequently withdrawn on 17 March 2014.

- 1.21 Two written approvals obtained under section 95 of the Act were lodged with the application. The approvals were from the following parties:

New Zealand Transport Agency

James Denis Ashworth and Pine Hill Trustees Limited

- 1.22 The written approval of James Denis Ashworth and Pine Hill Trustees Limited was subsequently withdrawn on 12 February 2014.
- 1.23 A land use consent (CRC142845 – To use land for excavation and deposition over an unconfined aquifer for a duration of 20 years) and a water permit (CRC142846 – To take and use water for dust suppression for a duration of 20 years) were notified on a limited basis on the 25 March 2014 to Pine Hill Trust.
- 1.24 Submissions were received from both the land owner (Pine Hill Trust) and the occupier (Mehlhoft Family) requesting that the applications be declined in their entirety.

Application Status

District Plan

- 1.25 I was informed that the site is located within what is known as the General Management Area (GMA) of the District Plan and is also within a flooding and ponding area. The extent of the non-compliances were detailed in the s42A report. The proposal does not comply with rules relating to earthworks, vehicle movements, quarrying, access and natural hazards. Overall in term of the District Plan the proposal was a discretionary activity (unrestricted).

Regional Plans

1. Disturb or excavate land

- 1.26 The ECan s42A report identified non-compliances with the Natural Resources Regional Plan (NRRP) and Proposed Land and Water Regional Plan (PLWRP). The proposal exceeds quantity volumes in both Plans and is overall a discretionary activity.

2. Take and Use Groundwater

- 1.27 The ECan s42A report identified non-compliances with the NRRP and PLWRP. Essentially the applicant had not provided assessments against the relevant conditions associated with a take of groundwater. Of particular relevance was an assessment of well interference effects which Ecan determined may not be acceptable in terms of Schedule 12 of the PLWRP. This pushed the activity into a non-complying status.

Overall Status

- 1.28 In the legal submissions at the hearing Counsel for the applicant Ms Watson said that:

“It is accepted that the general approach of bundling resource consents when there are multiple consents involved applies here and therefore the more stringent classification applies¹.

On this basis all the consents are to be bundled together and it is accepted that overall the proposal should be considered as non-complying. The implication of this is that when you are considering the threshold test under section 104D, you must consider all aspects of the proposal.”

¹Locke v Avon Motor Lodge (1973 4 NZTAP 17(SC))

1.29 I queried Ms Watson on this with regards in particular to the status of the land use consent to the Hurunui District Council because it was clear that in her s42A report Ms Bennett's assessment had been based on a discretionary rather than non-complying status.

1.30 In her right of reply Ms Watson's position appeared to have changed when she said:

"The usual test is that the most restrictive classification should apply to all activities (referring to Locke). However, the Environment Court outlined in Southpark Corporation Limited v Auckland City Council² circumstances where the Locke approach should not be applied:

"... while the Locke approach remains generally applicable, so a consent authority can consider a proposal in the round, not split artificially into pieces, that approach is not appropriate where: (a) one of the consents is classified as a controlled activity or a restricted discretionary activity; and (b) the scope of the consent authority's discretionary judgment in respect of one of the consents required is relatively restricted or confined, rather than covering a broad range of factors; and (c) the effects of exercising the two consents would not overlap or have consequential or flow-on effects on matters to be considered on the other application, but are distinct."

In my submission it is logical to carry out a separate assessment of the water take as it is not an integral part of the activity. The proposal could proceed without the take of water, as water for dust suppression could be trucked-in from another source or an alternative dust suppressant could be used.

However, if ultimately you do not agree and decide to treat the entire proposal as non-complying both limbs of the threshold test under section 104D can be achieved. Taking into account the mitigation offered, the effects of the proposal are no more than minor and the proposal is not "contrary" to the objectives and policies of the relevant plans."

1.31 I have given this some thought and consider that (c) from the Southpark decision is relevant in this situation. The water take is for the purpose of dust suppression and I agree it is not an integral part of the activity and that water could be trucked in for use in suppressing dust. I therefore consider it can be unbundled from the other consents.

Other Regional Consents

1.32 I was informed that applications for consent to discharge dust to air; store hazardous substances; discharge stormwater from hardstand areas; and to install water level and water quality monitoring bores had been made to ECan in relation to the proposal. These consents were or had been processed on a non-notified basis and were not part of these proceedings.

S42A reports

1.33 Both s42A reports concluded that the respective consents should be declined. They did however both recommend a suite of conditions should I be of a mind to grant consents.

1.34 Ms Bennett's report covered various key environmental effects and had been supported by a report from Mr G Densem, landscape architect. Mr Densem had concluded that the site appeared overloaded, and allowed space for only basic mitigation; that the site was inappropriately located adjacent to SH1 and near 16 houses; and that there are significant negative effects on rural amenity, landscape character and naturalness that will not be mitigated by the planned planting, nor compensated for in the long run by the pond contemplated.

² [2001] NZRMA 350 at paragraph [15]

- 1.35 Ms Bennett concluded that the proposal would have positive economic effects for the applicant and positive social and economic effects for those individuals, businesses and other community members engaged in or with the activity through employment, the supply of associated goods, and the use of quarried materials. In addition, she recognised that there were limited locations within Canterbury as to where sand which is suitable for the production of concrete and other building products was available for extraction.
- 1.36 Nevertheless, Ms Bennett had concluded that the proposal would have significant adverse effects on landscape character and visual amenity values and as such, it was her opinion that it was not consistent with Part 2 of the Act and should be declined.
- 1.37 Mr Ensor's report addressed the issues of ground and surface water quality and quantity and the effects the proposed quarry might have on these. He was supported by evidence from Mr E van Nieuwkerk a hydrogeologist. Mr van Nieuwkerk had concluded that the assessment of quantitative effects on groundwater and surface water provided in the AEE was incomplete. He had recommended that the applicant provide further information with respect to the expected water usage for dust suppression and the drawdown effects this might have on nearby active water supply bores. He had recommended that a suite of specific data be provided including a simplified transient numerical groundwater model, and that a draft Groundwater Management Plan that sets out the planned monitoring, appropriate mitigation measures, and a process to be followed, should the effects on groundwater be more than minor be prepared.
- 1.38 Mr Ensor said that the proposal was consistent with the relevant objectives and policies of the Regional Policy Statement (RPS), but could not conclude it was consistent with those of the NRRP and PLWRP. He went on to say that the application was not capable of passing through the gateway tests in Section 104D and that the proposed activities would not be consistent with the purpose of the RMA.
- 1.39 He concluded by saying that for the most part the applicant had provided information or proposed mitigation measures that had satisfied him that any adverse effects associated with the proposed quarry activity will be acceptable. However, he said the issue of interference effects on neighbouring bores remained and the information provided by the applicant to date had not satisfied him that these specific effects would be acceptable.
- 1.40 Based on the above, Mr Ensor recommended that the application be declined unless an appropriate assessment could be undertaken or mitigation measures proposed to demonstrate that effects on neighbouring bore owners will be minor. He said that if this information were to be provided at the hearing he would consider changing his recommendation to one to grant the applications.

2.0 The Hearing

The applicant's case

- 2.1 Ms Watson took me through the various applications associated with the proposal. She advised that applications to discharge to air; discharge stormwater to land; the storage of hazardous substances and to install bores had all now been granted non-notified by Ecan.
- 2.2 Ms Watson noted two amendments to the proposal to address concerns expressed by Ms Bennett and submitters which were an increase in the height of the bunds to 3m and to construct a perpendicular return to further screen views from passers-by; and to plant an additional row of Leyland Cypress along Gartys Road and SH1.

- 2.3 In terms of the bore impact Ms Watson said that the applicant accepts that it is uncertain whether effects will be minor. However she said given monitoring is proposed and if an effect caused by the activity is identified the bore is able to be drilled deeper or the property connected to the rural water supply in which case the effect can be considered minor.
- 2.4 Ms Watson also noted that as a result of the concerns raised in evidence by Babbage Consultants Ltd on behalf of Mr Les Smart regarding Ashworths No. 1 Drain Pattle Delamore Partners had undertaken further calculations and had concluded that in a worst case scenario the proposed pit would be contributing approximately 1% of the carrying capacity of the drain, which she submitted the effects of were less than minor.
- 2.5 In relation to the s42A reports Ms Watson considered that Ms Bennett's assessment was incorrect and the effects on landscape character and amenity values were minor taking into account the mitigation proposed. She said that section 104(2) clarifies that a consent authority has the discretion to disregard an adverse effect of an activity on the environment if the plan permits an activity with that effect when applying the test under section 104D. In this regard she referred to the conclusions reached by Ms Torgerson and Mr Hay in relation to the levels of dust and noise expected in a rural environment.
- 2.6 Ms Watson also questions the weight which had been given by Mr Ensor to Objective WQN7 and Policy WQN19 of the NRRP. She submitted that the approach he had taken was akin to placing this policy on a pedestal. She said that if a proposal is contrary to an objective or policy this does not mean that the application does not pass the second gateway test. This she submitted would undermine the fundamental weighing of effects and plan provisions contemplated by section 104(1)(a). She said the judgement is against the objectives and policies of the relevant plan as a whole.
- 2.7 Commenting on Mr Densem's and Ms Bennett's conclusions that the site was inappropriate for a quarry Ms Watson said that this highlighted an issue which quarries often run up against, being the perception that they are industrial activities and hence by virtue of this fact not expected in the rural zone. In her submission the opposite was in fact correct – quarries are not only appropriate in the rural zone but by their very nature the rural zone is the only area which can accommodate them. She noted that there was no quarry zone in the District Plan and therefore if quarries are to establish in the District the Rural zone is the most suited to this activity.
- 2.8 Ms Watson went on to note that the classification of an activity as discretionary did not mean that it was not recognised in a particular zone. She referred to the example in *Brooks v Western Bay of Plenty District Council* where the Court stated the proposal is anticipated within the rural zone as a discretionary activity. She said it was therefore considered that if the generated adverse environmental effects can be avoided, remedied or mitigated, the activity is likely to be acceptable and consideration of an alternative location is not required.
- 2.9 In relation to the existing environment Ms Watson did not accept the suggestion that potential subdivision and dwelling development should be considered. She said that it was well recognised that the "environment" embraces the future state of the environment as it might be modified by permitted activities and/or the implementation of resource consents already granted. However, that this was tempered with the fact that the future environment must not be artificial. She said that the approach taken by the Environment Court in *Burgess v Selwyn District Council* supports the position that additional dwellings are not part of the environment for the purposes of the assessment required under section 104.

- 2.10 Ms Watson said that in assessing the adverse effects of the activity, it was important to recognise the nature of the surrounding environment, including the fact that it is a rural working environment. She noted that to the east of the site machinery operating at a debarking plant can be clearly viewed from SH1. Beyond that site was a Winstones quarry, which although it cannot be seen from the State Highway, contributes to the wider environment.
- 2.11 Ms Watson reminded me that an assessment under section 104 requires consideration of both positive and adverse effects in reaching a broad balanced overall view. She said the need for the sand was described in the evidence of Mr Grant and that high quality sand was only available at certain locations and that testing had shown that the quality of the sand at this site is particularly high. She said that the positive benefits of a proposal in making efficient use of a resource and enabling the supply of aggregate were matters to be taken into account and that it was also relevant that once rehabilitated the amenity of the site would be vastly improved from its current state.
- 2.12 In referring to Part II (of the RMA) matters Ms Watson said that Judge Smith in *Yaldhurst Rural Residents Association Incorporated v Christchurch City Council*, had recognised that the Christchurch earthquake or its impact cannot be ignored and the enabling of the reconstruction of the city and the safety of its inhabitants are a matter of critical importance.
- 2.13 Ms Watson concluded by saying that *“taking into account both the positive and adverse effects of the proposal, it is submitted the purpose of the Act is better achieved by the granting of consent”*.
- 2.14 In response to a question I posed Ms Watson said that considerable weight could be afforded the PLWRP. She also indicated that she would consider the *Wilson v Selwyn District Council* case in relation to the existing environment in her right of reply.
- 2.15 Mr Grant, a director of Christchurch Ready Mix Concrete Ltd (CRM), described the applicants history and set out why this site had been chosen. He said that the material at the site had a particle size that made it suitable for blending to produce specialty sands needed in the Canterbury market. He considered that no other existing nearby sand extraction operations were able to provide the type of material in the concentration levels that came from bore sampling including the nearby pit recently consented by Winstone Aggregates.
- 2.16 Mr Grant said the location meant that traffic from the site did not have to pass any residences to reach a major highway; and that existing trees on the site provided immediate screening of the operation from the western side.
- 2.17 In describing the operation Mr Grant said that it was proposed to excavate and stockpile the sand and then to transport it to either CRM’s North End or Amberley sites for processing. He said at times larger coarser material will be screened out but in general the operation will consist of the excavation, stockpiling and transportation of sand.
- 2.18 Mr Grant indicated that the bunds would be formed and grassed at the commencement of the operation along the boundary with Gartys Road and the State Highway. He said that bunds were industry best practice to mitigate noise and visual effects and were commonly used throughout Canterbury.
- 2.19 In terms of actual quarrying Mr Grant indicated that an excavator would generally be used for the extraction operation but at times a dragline may also be used. He said that at the initial stage of excavation the excavator would be at ground level but as groundwater was exposed the excavator would sit on a lower terrace to maximise the reach of its arm. The

proposed extraction operation would begin around the middle of the site and would generally progress north and south concurrently in order to select the most appropriate material for processing.

- 2.20 Mr Grant said much of the material would be extracted and stockpiled for 3-4 days to drain out any excess water, then loaded directly on to road trucks for cartage to North End Sand or Amberley processing plants. He advised that some material would be screened with a mobile "Powerscreen" to screen out aggregate that was not suitable for resale. This material would be used in the rehabilitation of the site. He indicated that the stockpiles would be no greater than 10,000 cubic metres and would not exceed 4 metres in height. He said that being on the lower terrace would mean that the stock piles would generally not be visible from the road.
- 2.21 Mr Grant said dust suppression and management was a constant requirement on quarry sites and this was managed by way of water tankers to wet down haul roads or sprinklers to keep stockpiles damp when conditions required it.
- 2.22 In terms of the rehabilitated site Mr Grant said the finished lake could be used as a recreation reserve and transferred to the District Council or if the District Council did not wish this to occur CRM would retain ownership and maintain the site on an on-going basis.
- 2.23 In response to questions Mr Grant said that the Hurunui District contained good sand resources particularly in proximity to the former coastal ridge. He also advised me that the quarried sand would be used as part of the Christchurch rebuild, including in sports turf, masonry, and block and pipework.
- 2.24 I questioned Mr Grant further in relation to the dragline and he indicated that it would only be used intermittently and that the majority of work would be done by an excavator. He also advised me that the 6am start time was to provide truck fleet flexibility and that only the loading of trucks would take place prior to 7am, with no excavation occurring.
- 2.25 With regards to the bunds Mr Grant said that there was sufficient top soil to create 3m high bunds. He also indicated to me that all being good it would take around 7 years to excavate the site and 12 months to rehabilitate it.
- 2.26 Mr Craig, a landscape architect, noted that the site was not subject to any statutory landscape constraints and that there were no significant or salient landscape features within the site such as waterbodies, native vegetation or rock outcrops.
- 2.27 He said that the landscape character of the site was not rare or discernibly finite in any way and that its character was rural where open space and vegetation comprise the principal land use and land cover. He noted that the site was visible from SH1 and Gartys Road and considered that its amenity was moderately low at present due to the unkempt state arising from previous recreational land use.
- 2.28 Mr Craig also noted that there were no significant or important views across the site to, for example, the Southern Alps, foothills or the coast. He said that the landscape character of the receiving environment was diverse due to the mix of activities that occurs there.
- 2.29 In terms of landscape and visual effects Mr Craig said that apart from the presence of a relatively small building (100m² and 5.2m high), road access and vehicle manoeuvring area, most of the activity would occur, to varying degrees, below natural ground level which would contribute to its concealment. He considered however that the quarry pit would introduce a significant and enduring change in landform and that other visual effects arising from the activity would include the access road, workshop building, hardstand vehicle

parking and manoeuvring area, shelter belt type screen planting and an earth bunding along part of SH1.

- 2.30 Mr Craig said that residents in nearby dwellings would not be visually affected due to the presence of existing and proposed screen planting; and intervening landform. He also said that with screen planting and earth mounding those travelling SH1 and Gartys Road will not be able to see into the site. He considered the chief visual effect as viewed from beyond the site will be of shelterbelt type planting.
- 2.31 With regard to the relevant District Plan provisions, Mr Craig considered that the proposed activity was anticipated to occur in the rural zone subject to the appropriate avoidance, remediation and mitigation of adverse effects. In addressing these Mr Craig said that avoidance involved selection of a site that had no significant or important landscape features or character. He also noted that the co-location of the site within a receiving environment where diverse activity, some of which is similar to that proposed, already occurs contributes to the avoidance of adverse effects along with a limitation on overly intrusive tall buildings, equipment and structures.
- 2.32 Mr Craig went on to say that visual effects were fully mitigated by screening with existing and proposed planting and to a limited extent, earth bunding. He noted that there would be a staged remediation of the site following the cessation of quarrying involving re-vegetation and creation of a pond, which may be accessible to the public for recreational and amenity purposes.
- 2.33 Mr Craig concluded that the proposal and its effects were appropriate within the landscape of its setting and with regard to what was anticipated by the District Plan and that any landscape and visual adverse effects will be significantly less than minor.
- 2.34 I queried Mr Craig on the impact of the proposal at the 'gateway' to the Hurunui District. He did not consider the site as a significant 'entry' point in landscape terms
- 2.35 I asked, with reference to his evidence, what Mr Craig considered to be temporary lifespan – interim effect. He said that he considered the quarry to be a temporary activity from a landscape perspective. Mr Craig also indicated that the trees would be planted at a height of 600mm and would reach 2m plus within 2-3 years.
- 2.36 I queried Mr Craig as to whether it would be appropriate to retain the screening post rehabilitation. He considered it was not necessary to see the rehabilitated area but suggested it might be acknowledged in some way by signage.
- 2.37 I also asked about the sand dune on the north-west boundary and lack of trees along the south west boundary. Mr Craig accepted there might be some merit in pulling back further from the sand dune and said he would need to investigate this further along with the trees along the south-west boundary.
- 2.38 In terms of forestry clearance Mr Grant said trees would remain until required to be removed.
- 2.39 Mr Chesterman's evidence revised the number of truck movements down to 60 per day (30 in and 30 out) which is substantially less than the 120 referred to in the application. As I understood it his assessment was based on this level of movement and that this was now the basis of the application.
- 2.40 Mr Chesterman assessed the traffic effects associated with the proposal including traffic generation and road safety. He considered the proposed quarry would not result in adverse traffic safety or efficiency effects on the surrounding road network. He identified that there

was sufficient capacity on SH1 to accommodate the predicted increase in traffic movements and considered that the safety of the highway would not be compromised by the quarry proposal.

- 2.41 Mr Chesterman said that the SH1 / Gartys Road intersection was identified as operating satisfactorily and that quarry generated traffic would not noticeably alter this. He said that the proposed improvements to the intersection had been discussed and agreed with the NZTA as being appropriate. He also noted that there would be no effects from quarry traffic on any local roads to the west of the site because the quarry trucks would not be heading in that direction.
- 2.42 Overall Mr Chesterman supported the proposal from a traffic perspective and the thrust of the traffic related conditions suggested by Council.
- 2.43 I queried Mr Chesterman with regards to whether a right turn bay within the State Highway was necessary. He noted that the road was to be widened to allow vehicles to pass on the outside of vehicles turning into Gartys Road but did not consider a right hand turn acceleration lane was necessary. He noted that the right hand turn lane provided further to the south into Ashworths Beach Road had been provided due to higher traffic volumes.
- 2.44 Mr Hay, an acoustic consultant, provided evidence in relation to noise. He concluded that the current ambient noise environment in the area surrounding the site was dominated by vehicle traffic, particularly on SH1. He said that having considered the existing ambient noise environment and also a range of guidance documents for appropriate noise levels to ensure the protection of amenity, he was of the view that the District Plan noise limits provide appropriate protection of amenity for neighbouring residents.
- 2.45 Mr Hay said that the predicted noise levels from the proposed quarry could comply with the daytime noise limits and, subject to appropriate selection of equipment and noise mitigation measures, comply with the night-time noise limit between 0600 and 0700 hours. He said that compliance could be achieved with no extraction taking place. He accepted however that reversing alarms could create an annoyance in the morning.
- 2.46 He did not consider any matters raised by submissions caused him to reconsider the conclusions he'd reached and he generally agreed with the noise conditions suggested in the S42A report. However, he disagreed with the conclusion that the activity would result in unacceptable adverse noise effects at surrounding dwellings.
- 2.47 In response to questions and issues raised by submitters Mr Hay said that a noise monitoring system was unnecessary, but that monitoring once the site had become established should be undertaken at 6 monthly intervals for the first two years to ensure compliance, with the results provided to the Council. He said that the first monitoring should be undertaken within a month of the quarry operation beginning.
- 2.48 Ms Torgenson, an environmental engineer, said that based on water balance modelling carried out for the proposed excavation site, there was the potential for the groundwater levels in the area to change, which could have an effect on existing bore M34/0170 (Ms Melhopt's bore) and the water levels in the drain located to the west of the quarry site. She did not consider that any other shallow bores in the area were likely to be affected by the excavation activity.
- 2.49 Ms Torgenson said that given the uncertainty to which levels within bore M34/1070 or the drain may be affected, a groundwater level monitoring regime was proposed for the duration of the consent with the purpose of monitoring groundwater levels to determine the actual

effect on the bore and the drain. She said that if monitoring of water levels demonstrated that the quarrying activity adversely affected the supply provided by bore M34/0170, further investigation of the cause would be carried out, and if necessary, measures to provide a suitable supply of water would be implemented. These measures may include drilling bore M34/0170 deeper or providing a connection to the existing reticulated water supply.

- 2.50 Ms Torgenson said that if groundwater level monitoring indicates that there may be an adverse effect on the drain, further investigation of the cause, and the development of remedies to mitigate the adverse effect will be pursued.
- 2.51 Ms Torgenson was of the view that the excavation works and the ancillary activities, when managed properly, were unlikely to have an adverse effect on the groundwater quality, or the quality of down-gradient surface water bodies. She said that proposed conditions incorporating groundwater quality monitoring and site management measures, including accidental spill response measures, would ensure that potential effects arising from the quarry activities were avoided or mitigated.
- 2.52 Finally, with respect to nuisance dust, Ms Torgenson said dust generation from the initial development of the site and from vehicle-generated dust presented the greatest potential for off-site effects. It was her view that when the activities were carried out in accordance with the proposed consent conditions attached to CRC145675 (discharge of dust to air consent), the potential effects from dust would not be objectionable or offensive beyond the property. She said that a key condition of that consent was the obligation to develop and implement a site-specific dust management plan, prepared in accordance with the Good Practice Guide for Assessment and Managing the Environmental Effects of Dust Emissions (MfE 2001) and that this dust management plan will be incorporated into the Gartys Road Quarry Management Plan (QMP).
- 2.53 Ms Foote, a planning consultant, concluded that the proposal was entirely suitable for the site and would not result in any adverse effects that were no more than minor apart from those associated with well interference which cannot be demonstrated to be no more than minor. She considered that the proposed sand extraction activity would provide economic benefits by providing much needed high quality sand product for the Christchurch rebuild. She also said that sand extraction sites such as this needed to locate somewhere and rural zones were the most appropriate locations for such activities. She considered this particular site had a number of defining characteristics that made the site ideal including access directly to SH1 which avoids the need to traverse local roads and its location a sufficient distance from neighbouring dwellings.
- 2.54 Ms Foote considered that overall with regard to the Environment Canterbury consents, the proposal met the second threshold test under S104D of the RMA for a non-complying activity, whereby the sand extraction activities would not be contrary to the objectives and policy framework of the Regional Plans. She considered that with regard to the District Council consents any adverse effects had been deemed to be no more than minor and the proposal was consistent with Part 2 of the Act and therefore could be approved subject to appropriate conditions.
- 2.55 In response to a question I posed, Ms Foote said that she considered the activity to be temporary due to the approximately 7 years it would take to extract the site.

Submitters

- 2.56 The issues raised in submissions can be summarised as follows:

The impact of noise from activities proposed on site.

Dust emissions

Effects on ecological values

Effects on rural amenity values

Impact of the activity on the hydrology of the wider area

Services to the site

Effects of stormwater discharge

Decrease in property values

Impact of traffic on Gartys Road and State Highway 1

Visual effects

Cumulative effects

Concerns about compliance and monitoring of consent conditions

Contamination of groundwater from leaks

Spills from machinery working on site and via contaminated fill used to rehabilitate or stabilise the pit.

The lowering of groundwater levels potentially affecting springs and streams.

- 2.57 At the hearing I heard from a number of submitters who elaborated on the issues raised above.
- 2.58 Mr Coombe questioned the limited use of the dragline considering it would be used more than the excavator due to the water in the pit. He also felt that the bunding proposed needed to be higher to reduce the noise impact. He went on to criticise the noise measurements provided by the applicant noting that the area had completely changed through the loss of trees since the noise readings were taken. He considered noise measurements should be redone and questioned who would monitor noise levels.
- 2.59 Mr Coombe raised concerns about trucks turning from SH1 having to cross the centreline on Gartys Road. He also felt that truck movements should be monitored to ensure that the stated vehicle movements and start times were being met.
- 2.60 Mr Coombe questioned whether the water in his bore would be “sucked dry” by the quarry operation. He considered the ‘water report’ was vague on this issue, but accepted that it was difficult to measure.
- 2.61 In terms of the landscape issues Mr Coombe raised concerns about the boundary screening trees being blown over as a result of their number being reduced and questioned why new trees weren’t being planted at a higher height. He also questioned who would maintain the site post rehabilitation.
- 2.62 Mr Coombe said he was concerned that his (and others) house values would drop as a result of the quarry. He suggested, although did not support it with evidence, that banks would not provide for loans near a quarry.
- 2.63 Mr Coombe noted that this was a rural environment and that one of the reasons for living here was for the quality of life it provided. He said that a quarry coming into a rural area which hasn’t had one in the past would make a difference to the rural character. He

concluded by stating that he didn't consider a quarry activity should be permitted in this area.

- 2.64 Ms Melhopt indicated that she was a beneficiary of the Pinehill Trust and lived in the closest dwelling to the proposed quarry site. She indicated that the house was old and had been restored, but that it had no insulation or double glazing.
- 2.65 Ms Melhopt also expressed concerns regarding the timing of the noise assessment and the subsequent loss of trees. She was also concerned about the 6am start time and felt that the noise assessment had been vague around how the terrace above the site would be affected by the quarry. She also raised concerns around reserving alarms on vehicles and the screening of material onsite. She considered that Council enforcement on previous issues associated with the site had been limited.
- 2.66 Ms Melhopt expressed particular concerns about the impact of the proposal on her domestic water bore. She considered that there was a vagueness about the water quality issues. She advised me that the water in the bore was not currently tested. She was also concerned about the loss of water in the Ashworth No 2 drain.
- 2.67 In terms of the landscaping proposed Ms Melhopt did not consider 3m bunds were high enough to screen the activity from the State Highway and considered it would be difficult to get vegetation growing in this environment. She also raised concerns about the potential loss of trees along Gartys Road which would be necessary in order to provide electricity to the site.
- 2.68 Ms Melhopt considered the emphasis on the Christchurch rebuild to be an excuse and felt that if the sand on the site was so special then it would result in other quarries establishing. She also raised concerns about traffic safety; effective monitoring (would surveillance of the site be provided) how any complaints would be dealt with and would a phone number be available with a quick response to follow.
- 2.69 In response to a question I had posed Ms Melhopt considered community meetings would be useful and she felt that if consent were to be granted a suite of conditions should be put in place.
- 2.70 Ms O'Brien raised similar concerns to those above regarding noise, hours of operation, dust, the height of bunds, tree height at planting, the precedent the proposal would create, appropriate monitoring and dealing with complaints. She also considered that the applicant's site at Woodend was an eyesore and was concerned this site would become a similar eyesore.
- 2.71 Ms O'Brien said that the terrace was special to locals and would be affected by the development. She also raised concerns about ratepayers having to pay for the continued upkeep of the site post rehabilitation.
- 2.72 Mr Harper, who indicated that he had previously quarried in the Amberley Beach area, said he was a neutral submitter but had grave misgivings about the proposal based on his experience. He said that while he supported the expansion of the industry it was on the basis that all consent conditions were strictly adhered to without exception.
- 2.73 Mr Harper said that a dragline would be necessary to operate the site and that an excavator wouldn't be enough. He considered both would need to be used simultaneously on a permanent basis to achieve the extraction levels quoted by the applicant. He said the chains associated with draglines were noisy and that the rattling of empty trucks between 6am and 7am would create disturbance. He considered that a monitoring system would be required

onsite with camera's to ensure conditions were being met. He went on to comment extensively on the Amberley Beach operation.

- 2.74 Mr Harper was critical of the lack of a sprinkler system to control dust emanating from the stock piles. He considered stock piling at the Amberley Beach site was "*totally out of control*". He also said that the site could not operate without having to be dewatered and went on to describe how this would need to occur. He also raised issues around the height of the bunds, landscaping, traffic safety and the rehabilitation of the site.
- 2.75 Mr Harper and Mr Dean provided a video they had shot of the applicants operation at Amberley Beach. In particular they focused on the issue of dust associated with that quarry.
- 2.76 Mr Stringer indicated that he had purchased a block of land to the west of the proposed quarry site due to its character, and the surrounding countryside. He said that he was waiting to see what happened with the application before deciding whether to build. His concerns related to visual effects and noise and he considered there needed to be bunding all around the site which was higher than that proposed.
- 2.77 Mr Stringer said that he had spoken to a real estate agent regarding the value of his property who had advised that there were a huge amount of people who wouldn't want to live near a quarry.
- 2.78 Mrs Coombe considered that the proposal would devalue their property and that they could not sell the property due to the quarry proposal. She felt that the proposal was too close to the State Highway and neighbours. In this regard she considered that the existing landscaping was not sufficient and that the visual effects would be significant on the wider landscape.
- 2.79 Mrs Coombe was concerned about the impacts of the proposal on water quality. She also considered that the noise assessment was incorrect in that a post stripper across SH1 could now be heard since trees on the site were lost due to wind. She further suggested that the noise assessment was conducted under calm conditions and felt that the noise emulating from the quarry operation would impact upon rural amenity.
- 2.80 Mrs Coombe said that the applicant did not put covers on their trucks and said that their current operation at Amberley Beach was not complying with the conditions of consent. Overall for reasons of effects on rural character, increased traffic, noise, effects on water quality and property values she did not want the proposal to go ahead.
- 2.81 Mr Andrew Smart presented evidence on behalf of Mr Lewis Smart. He said that Mr L Smart had concerns about the impact of the proposal on rural lifestyle, the safety of traffic, groundwater contamination and dust and he disagreed with the noise reports finding. He also disagreed with the comparison made to farming activities with regards to dust noting that rural living is a chosen lifestyle and that farming activities don't come close to a 6 day a week quarry.
- 2.82 Mr L Smart also questioned the location of the quarry at the entrance to the Hurunui District. He also said that there would be a greater degree of certainty if field work was to be done before the works began on the quarry.
- 2.83 Mr Les Smart farmed to the east of SH1 and expressed concern in particular about ground water flows. He said that there was a lot of underground water flow in the area and had engaged Mr J Spence of Babbage to assess the implications of the quarry on these flows. Mr Spence said in his evidence that the raising of the groundwater profile was likely to result in additional water entering Ashworth No 1 Drain which had the potential to overload the drain

and result in flooding of the surrounding area. Mr Spence said that there was no evidence of what the effects of increased ground water would have on the drain, which he noted can back up and flood Mr Smart's property. He recommended that further assessment was required. Mr Smart then asked what management plan was to be put in place with regards potential flooding, in particular drainage coming from north of Gartys Road.

- 2.84 Mr Smart went on to refer to the potential of contaminants being taken through to Saltwater Creek, dust and soil being blown across the road in north-west winds due to the fragile soil and considered there was insufficient bunding. He also said that there were no vibes in the community that the quarry was wanted or that the community would benefit from it and he considered that the community's expectations were that the amenity values would be enhanced particularly at this gateway to the Hurunui. He believed that there were alternatives to what was being proposed, the most logical being the river beds of the Waimakariri, Ashley and Kowai rivers.
- 2.85 Mr Smart was also critical of the noise assessment saying he had serious concerns about the predicted levels. He also considered no account had been taken of the effects of wind and distance on noise. In particular he felt that dwellings on the terrace would be subjected to a lot more noise in the prevailing easterly wind.
- 2.86 Finally, Mr Smart considered the rehabilitated site would be of no benefit to the community and would in reality be a massive pond attracting ducks and geese which were already difficult to control.

Reporting Officer Responses

- 2.87 Mr Densem considered that the revisions made by the applicant had generally taken care of the visual concerns he had, particularly the higher bunds and the double line of trees. He went onto say that he would be even more comfortable if a more sustainable form of land use at the end of the quarries life could be provided for. He referred to an 'end of life' plan which had considered recreational opportunities for the site and how it might add value to residential neighbours through a pleasant outlook.
- 2.88 Mr Densem considered that some trees could be removed once the rehabilitation was complete to allow for views into the site which he viewed as important. He felt that any rehabilitation should be developed with input from neighbours. Issues that might be addressed he considered were the removal of trees, new planting, linkages and uses of the site.
- 2.89 In response to a question I posed, Mr Densem said he considered the quarry to be a temporary activity within the landscape because it can conceivably within a planning period be visualised as being rehabilitated. He also said that the site had some scenic value at the moment and that the underlying condition was of average rural amenity and value rather than low. He noted that rural amenity on the west of the site is slightly elevated due to the terrace looking into it i.e. it was part of the outlook of residential neighbours.
- 2.90 Ms Bennett said that in terms of visual effects the amendments proposed by the applicant had addressed her concerns. She did consider that there needed to be conditions on the maintenance of the bunds.
- 2.91 Ms Bennett remained concerned about the impact on amenity values, particularly with regards to noise due to the ongoing rather than intermittent nature of the activity; even though the baseline was that it met the noise standards.

- 2.92 Ms Bennett accepted that a collaborative approach to the end use of the site would be appropriate. She also considered that if consent were to be granted the storage of the overburden on site needed to be shown and monitored; a bond placed on the rehabilitation of the site; and that the hours of operation begin at 7am rather than 6am.
- 2.93 Mr van Nieuwkerk considered that the assessment of effects on ground water still needed to be firmed up and that having established that effect then a trigger level could be set. I queried Mr van Nieuwkerk as to what he considered this might involve. He said that it would need three monitoring bores and the undertaking of hydraulic testing.
- 2.94 In light of Mr L Smart's submission Mr van Nieuwkerk also considered that the issue of stormwater runoff was worth exploring further.
- 2.95 Mr Ensor said he was satisfied with most water quality and water quantity issues and the mitigation measures proposed. He said that there was likely to be some stream depletion on the Ashworth No. 2 Drain but that he was comfortable that the impacts would be low. He said the potential breaching of the confined aquifer was an issue but noted that test bores had reached 9.2m and confinement had not been reached.
- 2.96 In terms of plan weighting he said that the appeals on the PLWRP did not focus in detail on the rules relevant to well interference. He also said in response to the legal submission of Ms Watson that the bore interference aspects of the plans were very specific and that these needed to be separated out.
- 2.97 Mr Ensor said overall he remained in a reasonably similar position to his s42A report. He said that while he was happy with down gradient issues he was not persuaded by the applicants proposed condition regarding the impact on the Pinehill Trust bore. In particular any lag in ground water effects was going to be difficult to pick up. He considered however that this could be fixed.

Further Information

- 2.98 At the conclusion of the actual hearing phase I indicated that there were a number of matters that had arisen during the course of the hearing that required further consideration and addressing by the applicant. Some of those had already been noted by the applicant however I set out the key matters to which I sought further information and issued directions on each as follows:

1. Groundwater

It was established that the options available were:

- A suite of monitoring conditions as presently proposed by the application;
- The undertaking of further assessment work to establish whether mitigation or remediation is necessary;
- Drilling a deep bore regardless of the above;
- Connecting the property in question to the existing reticulated public water supply system regardless of the above.

The applicant was directed to reconsider and confirm their position regarding bore (M34/0170) and the potential effects upon it.

2. Flooding

During the hearing the issue of potential surface water flooding from north of the site was raised by a submitter and the impact it might have as a result of the quarrying of the site and associated works. Both Mr Nieuwkerk and Ms Torgerson accepted that this had not been considered and was worthy of further investigation.

The applicant was directed to consider whether surface water flooding stemming from north of Gartys Road would have any adverse impacts as a result of the quarry operation and associated works.

3. Landscaping

During the hearing potential amendments to the landscape plan were proposed by the applicant and other associated landscape matters were raised which required consideration. These included:

- Landscaping treatment details around the southern and western boundaries, including the dune areas;
- The extent of the 3m bund along the State Highway;
- Bund maintenance; and
- Rehabilitations/closure planning.

The applicant was directed to address the above matters in report and plan form.

2.99 I then set in place a programme for the information to be provided by the applicant and allowed for a response from the Council reporting officers and submitters. The applicant's response included a suite of conditions dated 1 July 2014. The relevant matters and responses from the Council reporting officers and submitters are addressed in turn below and where appropriate I have for convenience added the relevant response in Ms Watson's right of reply.

2.100 I note at this point that some of the responses received from submitters were beyond the scope outlined in my 3rd Minute. I do not propose to consider those comments further. The matters raised were for the most part traversed extensively at the hearing and if they had not been it is not appropriate now for me to consider them.

Groundwater

Applicant

2.101 In terms of the groundwater issue Ms Torgerson in her supplementary evidence said she had had further discussions with Mr van Nieuwkerk and agreed that carrying out a hydrogeological test in the proposed up-gradient monitoring bore (located on the proposed quarry site) would provide adequate site specific information regarding the aquifer parameters, such as hydraulic conductivity. She said once the testing was carried out, and the results analysed to confirm the site specific aquifer parameters, the drawdown modelling can be re-run with site specific aquifer parameters to confirm the expected drawdown impact to bore M34/0170. She said it was at this stage that the anticipated potential effect to bore M34/0170 will be confirmed and a final determination can be made as to whether the bore will be affected such that it will be necessary to provide an alternative water supply.

2.102 Ms Torgerson said that she and Mr van Nieuwkerk agreed that a consent condition could be drafted which required a hydrogeological test to be carried out on the proposed up-gradient monitoring bore and the further assessment of the drawdown modelling to determine

whether it was necessary to provide an alternative supply prior to commencement of the excavation works. They agreed the condition should include the requirement that the proposed test method be submitted to ECan prior to carrying out the test and that the results and the assessment of the results with respect to the potential effects on bore M34/0170 shall also be submitted to ECan.

- 2.103 Ms Torgerson indicated that it was her view that this would provide greater certainty regarding the potential adverse effects on the users of bore M34/0170 and as a consequence, potential adverse effects to the users can be avoided or mitigated before excavation commences. Furthermore, this approach would avoid the need to carry out longer term water level monitoring in bore M34/0170 as previously proposed.

Responses

- 2.104 Ms Mehlhopt remained concerned about the impact of the proposal on their water supply and about how any proposed testing would accurately indicate any potential changes in water levels. She also identified the inconvenience of drilling a deeper bore; was dubious as to whether a connection to the Ashley rural water supply was possible and was concerned about ongoing costs associated with a new water supply.
- 2.105 Mr Ensor acknowledged that Mr Nieuwkerk and Ms Torgerson had discussed and agreed an appropriate solution to the groundwater interference effects issue. He said that in principle, Mr Nieuwkerk agreed that a consent condition could be drafted to adequately address these effects. He noted a condition requiring hydraulic testing of the shallow aquifer in a bore drilled on the proposed quarry site, the subsequent analysis and assessment of effects based on the test results and the implementation of mitigation measures based on the identification or otherwise of an effect had been proposed by the applicant. Mr Ensor said he was comfortable that this concept would address the issue of well interference effects provided the condition was worded appropriately.
- 2.106 Mr Ensor said that while he agreed with the concept of a condition to address effects on bore M34/0170, he considered that the applicants proposed condition should be redrafted to provide more clarity and certainty. He said that the notable changes from the condition proposed by the applicant are:
1. The specification of two types of tests. This removes the need for ECan's approval as to the appropriateness of the test while providing a reasonable level of flexibility;
 2. The requirement for the testing, assessment and any subsequent mitigation to occur prior to mineral extraction activities occurring. This removes the risk of an effect occurring without immediate mitigation; and
 3. The estimated change in water level that defines an effect is clearly outlined. This ensures all parties are clear when mitigation measures need to be implemented. The water level change trigger is lifted directly from the NRRP and PLWRP.
- 2.107 The version of the condition provided in Mr Ensor's memorandum contained significant changes from that proposed by the applicant and as identified in the right of reply below there remained some differences between the applicant and ECan over this issue.
- 2.108 In her right of reply Ms Watson said that CRM had some concerns with the alternative conditions proposed by ECan, in particular that it specifies that the bore should not experience an interference effect exceeding 20% of the available drawdown. She said that this was the screening criteria for potential effects on neighbouring bores and did not mean

that the neighbouring bore would actually experience an effect and further that there was the potential that the bore did not need 80% of the available drawdown to produce its yield.

- 2.109 Ms Watson said that although the wording of the condition proposed by ECan was largely accepted further changes were requested by CRM. She said that if CRM has employed its best endeavours to consult with the owners and occupier of 45 Gartys Road and the effects have been appropriately avoided or mitigated it should not be prevented from exercising its consent.

Aquifer Penetration

Applicant

- 2.110 The applicant proposed a condition to help generate further information regarding the depth of the top and bottom of the low permeability layer confining the first aquifer as follows.

At least one of the bores consented under CRC142848 shall be drilled to 11 m below the current ground level and an assessment shall be made of the geological strata. The assessment shall consider whether extraction to a depth of 10 metres below the ground level is likely to breach the confining layer.

Response

- 2.111 Ms Mehlhopt expressed concerns about only one bore being drilled to determine at what depth the aquifer was.

- 2.112 Mr Ensor said Mr Nieuwkerk had reviewed the condition and had proposed a minor change by deleting reference to 11m below current ground level and requiring confirmation of the thickness of the confining layer. Mr Ensor further noted that the applicant had been granted land use consent to drill monitoring bores to a maximum depth of 15m and he considered it therefore may not be possible to confirm the thickness of the confining layer if it extends beyond this depth. On this basis he said it may be appropriate to include reference to this depth within the condition. He proposed the following additional change:

At least one of the bores consented under CRC142848 shall be drilled to an appropriate depth, but not exceeding 15m below ground level, to confirm the thickness of the confining layer ~~11 m below the current ground level~~ and an assessment shall be made of the geological strata.

- 2.113 In her right of reply Ms Watson understood that Ecan was concerned about buoyancy uplift caused by reducing the weight of the overlying material (by extraction) such that the pressure exerted by the overlying strata was less than the pressure in the underlying aquifer. She said that Ms Torgerson had outlined at the hearing this was not a concern as CRM does not intend to dewater and the weight overlying the aquifer due to the water level in the pond will be significant. She submitted that the condition as proposed by CRM was appropriate given the proposed depth of extraction and the fact that no dewatering will occur.

Flooding

Applicant

- 2.114 In addressing the potential impact of local stormwater flow Ms Torgerson contacted Mr Chen, HDC Stormwater Engineer, to gain further information on the stormwater drainage in the subject area. Following a visit to the site Mr Chen concluded that it was likely that the overflow from the property north of Gartys Road could flow through the proposed quarry, and suggested that the bund parallel to Gartys Road would require an alternative overflow

path for the area north of Gartys Road, either crossing SH1 or along Gartys Road (draining towards the west).

- 2.115 Ms Torgenson was of the view that rather than creating an alternative flow path, a more sensible solution would be to allow for the natural drainage to continue passing through to the proposed quarry site at a similar rate to how it presently occurs. She said that the bunds could be configured to allow for the flow to pass through by installing culverts within the bund or by leaving an appropriate gap.
- 2.116 Having obtained an indicative contributing catchment area from Mr Chen to determine the sizing of an appropriate flow-through area or culvert(s), Ms Torgenson said that a spot elevation survey on the northern side of the proposed quarry site near Gartys Road should be undertaken to confirm the location of the current natural drainage path. The flow-through area could then be located at the location of the current natural drainage path. In her view if an adequately sized flow-through area or culvert(s) is provided in the bund, the proposed bund will not exacerbate or increase flooding to Gartys Road or SH1. She said a consent condition could be offered which requires the inclusion of a suitable flow-through area or culvert(s) in the bund along Gartys Road.

Response

- 2.117 Mr L Smart questioned where the surface water was going to drain to in a flood, contending that pumping to Ashworths No. 2 Drain would be required. His witness Mr Spence considered that the calculation provided by Ms Torgenson in relation to Ashworths No. 1 Drain did not include the additional runoff from the catchment north of Gartys Road. He considered more detailed assessment was needed.

Landscape

Applicant

- 2.118 In terms of screening of the south-western boundary Mr Craig in his supplementary evidence said that the boundary was reasonably well endowed with sizeable pine trees most of which ranged in height between 4 and 8 metres which he considered would be sufficient to screen views into the site from neighbouring properties. He said however there were some gaps which needed to be filled with additional trees in order to achieve effective screening. He indicated the method to be used would involve relocating existing self-sown (wilding) pines to these gaps which would achieve effective screening immediately. He said the relocated trees would be planted in a double row in accordance with the specifications incorporated on the amended Quarry Scheme Plan and would be undertaken prior to the commencement of quarrying. He noted that being transplanted there was a possibility that some of these trees would die. He said in the event this occurred the trees would be replaced during the winter months.
- 2.119 Mr Craig revisited the north-west boundary which included the dune area and based on his observations recommended that the setback be increased to 25 metres east of a point where the dune apex merges with the boundary. Mr Craig was confident that this distance would be sufficient to ensure enough depth of trees will be retained for screening purposes with the depth of trees ranging from 6 to 10. He noted that some trees will need to be removed due to them becoming potentially unstable however he said the remaining depth of trees in combination with the dune height would readily screen the quarry from view.

- 2.120 Mr Craig confirmed that the 3 metre high earth bund would extend for the entire length of the SH1 frontage. He said that the bund will be grassed and would be kept tidy either through mowing or other effective means (weed eater or such like).
- 2.121 In terms of post quarry rehabilitation and its planning Mr Craig said new features of the rehabilitation would now include:
- a) The provision of views into the site and pond area from SH1, Gartys Road and neighbouring properties or residences.
 - b) Consultation with neighbours with a view to achieving in the best manner possible the aforementioned outcomes.
 - c) Via the consultation process exploring ways the neighbours might want to integrate the rehabilitated site with their properties, based on the understanding that neighbours would contribute to this where their properties are involved.
- 2.122 Mr Craig said that as part of the rehabilitation process a landscape management plan would be prepared providing maintenance guidance and that indicators will be included so as to aid monitoring and effectiveness of the landscaping.
- 2.123 Mr Craig clarified the possible need to stockpile overburden where it was surplus to that required for the earth bunds, saying that this would be stored in the north east corner of the site as shown on the amended Quarry Scheme Plan. He said the stockpile would not exceed 3m in height, 10m in width and 150m in length. The stockpile, if it eventuated, would be temporary and used to rehabilitate the quarry. He considered that no adverse effects would arise from the stockpile as bunding and vegetation would effectively screen it from passers-by and the nearest residents.

Response

- 2.124 In response to the last paragraph above Mr Ensor said that the application refers to the stockpiling of sand and aggregate prior to processing or transporting off site and that bunds will be formed using overburden. However he notes the application does not specify that overburden will be stockpiled on site and on this basis the air discharge consent (CRC145675) that has been granted by ECan would not have considered top soil stockpiles as a potential source of dust. Mr Ensor considered there may be a scope issue associated with the stockpiling of overburden rather than using it to form bunds that will then be vegetated or otherwise stabilised.
- 2.125 In her right of reply Ms Watson said that it had been established by case law that amendments to applications were permissible provided they are within the scope of the original application. She referred to *Ayburn Farm Estates Limited v Queenstown Lakes District Council*³ considered the relevant case law and stated at paragraph 47:

“From these decisions we distil the following principles:

(a) Whilst there is no specific power to amend a resource consent application; it can be modified during a hearing.

(b) Whether or not the modification will be allowed will depend on whether it results in the application being materially or significantly different in its scope or ambit from that which was originally applied for and notified. This involves an analysis of the facts specific to the case being considered, and will include consideration of the environmental impacts of the proposed amendments;

³ [2011] NZEnvC 98

(c) The Court must consider whether there is any prejudice to the parties and the general public as a result of the modification.”

- 2.126 Ms Watson said it was clear from the application that overburden was to be removed before excavation commenced and was to be used to form bunds. She said that CRM has clarified that up to 3000 cubic metres of overburden, which may not be required to be used for the bunds may be stockpiled for use in the future rehabilitation of the site. Further, that the overburden stockpile will be grassed in the same manner as the bunds to ensure that it does not become a source of fugitive dust.
- 2.127 Ms Watson submitted that the stockpiling of overburden in this manner did not materially change the application and any adverse effects would be avoided by sowing the bund with grass seed. This she said does not result in any prejudice to the parties or the general public. She noted that the alternative was to remove the excess overburden from the site and then cart in additional material if required at the time of rehabilitation, which would produce additional truck movements and is ultimately a less satisfactory outcome for all concerned.
- 2.128 Turning to the other landscape matters, Ms Mehlhopt sought that the width of the existing trees on the western boundary of the site be retained and that a backup plan be put in place in case the trees were felled during winds or damaged in some other way.
- 2.129 Mr L Smart said that his experience was that transplanted trees of this size would not survive. He also considered that due to the height of the state highway that bunding along this frontage would only be 1.5-2m high relative to the road and that machinery on site would be clearly visible given the 5-6 years it would take trees to establish. He considered the bunding should be higher.
- 2.130 Other submitters considered a 10m high bund was necessary.
- 2.131 In her right of reply Ms Watson outlined the revised landscape plan. She noted the proposed amended to conditions to provide that the Rehabilitation Plan will:
- Provide an indication of the plantings which may be removed once the site is fully rehabilitated to allow view shafts for residents and passers-by.
 - Address the future use of the site which is envisaged to be passive recreation and conservation.
 - Outline the mechanisms to be used to facilitate the integration of the site into the surrounding area.
- 2.132 She said it was also proposed that the Community Liaison Group, established by condition will be consulted as part of the preparation of the Rehabilitation Plan. She submitted that the landscape and amenity concerns had been appropriately addressed by conditions.

Traffic

Applicant

- 2.133 Mr Chesterman’s supplementary evidence addressed proposed consent condition 29 and an issue arising because of a discrepancy between what was expected in terms of the actual wording of the condition and what was envisaged. As it currently stands, the condition promotes seal widening to a point 75 metres west of the centreline of the proposed site accessway which was well beyond the expectations he and the quarry operator envisaged. Mr Chesterman said that the intention was to provide at least 100m of seal widening that extends from the State Highway right through to the quarry access. This initially includes at least 75 metres of seal widening commencing at the State Highway and a further 25 metres

of seal widening. He proposed a slight amendment to the condition which required sealing to a point 10m to the west of the site access. He considered this would still achieve a safe road environment with appropriate visibility and safe stopping distances for approaching vehicles.

Response

- 2.134 Mr Kelly (Council Subdivisions Engineer) suggested an amendment to the condition which deleted any reference to a distance and instead add the sentence *“The reinstated pavement seal shall extend at least as far westward as the current seal extent”*.
- 2.135 Ms Watson in her right of reply said it was understood that a number of submitters remained concerned with the design of the upgrade of the Gartys Road / SH1 intersection. However, she said Mr Chesterman had confirmed that the intersection upgrade had been designed to the appropriate standard and NZTA had approved the upgrade. In terms of whether a further review condition was required to revisit the intersection in the future she submitted there was no evidence presented to support the imposition of a further review condition.

Noise

Applicant

- 2.136 Mr Hay’s supplementary evidence addressed the proposed noise condition as to whether compliance with the noise limit must be demonstrated at the application site boundary (Ms Bennett’s position) or at the notional boundary (applicant’s position). He said that the proposed wording by Ms Bennett was closely derived from Rule A1.2.9 of the District Plan and that there can be little doubt that the wording of the rule leaves something to be desired. He noted that the first sentence implies that noise produced by an activity must not exceed the District Plan noise limits at or beyond the application site boundary. He said although this was typical in urban areas, it is common to assess noise at the notional boundary of rural dwellings as the purpose of the noise limit is to protect amenity of outdoor recreation areas associated with the dwelling (Daytime) and sleep amenity (night-time), a rationale that was laid out in subsequent NZ Standards. He said that this point was reinforced by the sentence following the noise limits in the proposed condition which states:

“In the case of residential dwellings, noise is to be measured at the notional boundary of any habitable building.”

- 2.137 Mr Hay said he had clearly stated that assessment would occur at the notional boundary of any dwellings in his evidence in chief and also in his noise assessment report and that in his experience and others of his company; the interpretation applied by Council to A1.2.9 is that assessment occurs at the notional boundary in rural areas.
- 2.138 Mr Hay referred to the explanation which follows Policy 10.9 of the District Plan which states in the second and third paragraphs that:

“Noise controls within the rural area will apply in proximity of rural dwellings by utilising the notional boundary approach. The notional boundary is defined as a line 20 metres from the facade of any rural dwelling or the legal boundary where this is closer to the dwelling. All other activities shall be conducted so as to ensure that they do not exceed noise limits at, or outside the legal boundary. Activities which exceed noise limits will require resource consent.

The New Zealand Standard for Environmental Sound (NZS 6802:1991) “Assessment of Environmental Sound” provides a reasonable basis for assessment of most environmental noise and promotes the use of up-to-date information on local levels of intrusive sounds and

background noise before deciding on the specific standards for the District. The setting of noise performance standards specifically designed for Hurunui District will require further research and consultation."

2.139 Mr Hay said that not only did this explanation explicitly state that in rural areas assessment of noise is to occur at the notional boundary of dwellings, but the explanation also places considerable weight on the appropriateness of NZS6802:1991 as a guide for the setting of noise limits designed to protect amenity. He said that Policy 10.9 thus directly supports his interpretation that assessment in this instance should occur at the notional boundary of nearby dwellings.

2.140 Mr Hay said that his preference would be to tailor the proposed consent condition for this project as follows:

All activities shall be designed and conducted so as to ensure that the following noise limits are not exceeded at or within the notional boundary of any residential dwelling:

55 dBA L10 7am – 7pm daily

45 dBA L10 7pm – 7am daily

75 dBA Lmax All days between 10pm and 7am

The notional boundary is defined as a line 20 metres from the façade of any rural dwelling or the legal boundary where this is closer to the dwelling.

2.141 Ms Watson in the right of reply noted that a number of submitters had indicated that they considered a bund equivalent to that at the Taggart site on the corner of Cone and River Road, Rangiora, would be appropriate to address the effects (particularly noise) of the proposed activity. She advised that the Taggart bund was 10 metres high and 30 metres wide. She said that there was no expert evidence presented to support this proposition and noted that the Taggart site was a substantially different operation which involves crushing of aggregate and was also located across the road from Residential 2 land. She submitted that the expert evidence was that the bund proposed by CRM was entirely appropriate to mitigate the effects of the proposal.

Right of reply

2.142 A written right of reply was provided by Ms Watson on the 24th July 2014. In that reply she addressed a range of matters. A number of these have already been covered above. The following is a summary of the remaining matters in the right of reply.

Weighting of NRRP and PLWRP

2.143 In terms of whether any of the PLWRP provisions, which were relevant to the current assessment were under appeal to the High Court, Ms Watson advised me that Rule 5.128 was included in the Ngā Rūnanga of Canterbury and Te Rūnanga o Ngāi Tahu appeal to the High Court. She said however, that the issue raised did not relate to bore interference effects and there was no appeal which has raised an issue which was pertinent to my considerations. She said on this basis although the NRRP still needs to be considered, it was her submission that significant weight can be given to the PLWRP.

Preliminary Site Investigation

2.144 Ms Watson confirmed that a PSI had included a site inspection which took into account all materials on the site and concluded that no significant contaminants of concern associated with the past and present land use activities had been identified.

Perception

- 2.145 Ms Watson submitted that CRM had presented expert evidence from consultants in the areas of noise, landscape, traffic and water quality/quantity and air quality and that a number of the concerns that were being raised by submitters were not supported by expert evidence, for example noise. She submitted that an assessment of applications was not influenced by the number of people who express opposition to a proposal or remain concerned about the possible adverse effects. Instead she submitted that it was the adverse effects which are shown on the evidence to be well founded, rather than people's perceptions that are relevant, referring to *Contact Energy Ltd v Waikato RC (2000)*.

Electricity supply

- 2.146 In terms of the electricity supply Ms Watson said that the applicant had decided not to connect the site to the electricity supply and instead proposed to use a mobile generator to supply the relatively small amount of power required.

Removal of trees

- 2.147 In terms of the trees onsite Ms Watson said that CRM proposed to remove part of the forest before extraction of sand commences and that the trees at the southern end of the site would be retained until the extraction operations reach that area. She said that CRM proposed that any use of heavy vehicles to remove trees or logs from the site would be included within the daily truck movements proposed for the site.

Precedent and Integrity

- 2.148 In terms of plan integrity and precedent Ms Watson submitted that there should be no concern that future applications to extract sand will not be required to fully mitigate adverse effects or that the path to a grant will somehow be easier due to the grant of these consents. She said the proposal cannot be said to be "contrary" to the objectives or policies of the District Plan or the Regional Plans and as outlined in opening submissions the Rural Zone is the appropriate zone for a sand extraction operation and CRM is proposing a range of conditions and mitigation measures to ensure that the potential adverse effects of this proposal are adequately mitigated.

Conclusion

- 2.149 Ms Watson concluded her right of reply by saying the proposed activity will provide a high quality resource, which is needed to produce specialty sands vital to the Canterbury market; that CRM has proposed a comprehensive set of mitigation measures to address the potential adverse effects of the proposal and; that based on the evidence presented it is submitted that it is appropriate to grant the consent applications sought, subject to conditions.
- 2.150 The right of reply contained an updated suite of conditions.

3.0 Assessment

- 3.1 As discussed earlier I consider the various consents associated with the application can be unbundled. I have therefore assessed the land use applications as fully discretionary activities and the water take as a non-complying activity which necessitates assessment against the gateway test.
- 3.2 The applications are therefore to be considered under Section 104 and 104D (water take only) of the RMA. Section 104 sets out the matters to which I must have regard, subject to Part II

of the RMA (which contains the RMA's purpose and principles). Relevant to this case, the s104 matters include:

- any actual and potential effects on the environment of allowing the activity; and
- any relevant provisions of a national policy statement, regional policy statement or the district plan; and
- any other matter we consider relevant and reasonably necessary to determine the application.

3.3 Section 104D requires that consideration be given as to whether the effects on the environment will be minor or whether it will be contrary to the objectives and policies of the relevant plan. If both of those tests are not met then consent cannot be granted.

3.4 In assessing this proposal I am also able to have regard to the nature and scale of activities that might be permitted as of right on the site in terms of Section 104(2) of the Act (the permitted baseline).

3.5 On the issue of scope regarding the stockpiling of overburden I accept Ms Watson's contention that the stockpiling of overburden does not materially change the application, that any adverse effects will be avoided by oversowing it with grass, and it does not result in any prejudice to the parties or the general public.

Permitted Baseline and Future Environment

3.6 As none of the planning witnesses sought to promote a permitted baseline argument I have given it no further consideration.

3.7 During the hearing I asked what was to be considered in terms of the environment. In particular I asked Ms Watson as whether the recent case of *Burgess v Selwyn District Council*⁴ was consistent with the approach which had previously been taken in *Wilson v Selwyn District Council*⁵. Ms Watson submitted that the approach taken in *Burgess* was that it is inappropriate to consider a future environment which is artificial and when considering the future environment the approach was to consider activities (whether permitted or consented) that are likely to happen.

3.8 Ms Watson said that the approach applied in *Wilson* was criticised by the Court of Appeal in *Queenstown Lakes District Council v Hawthorn Estate Limited*⁶. In particular, the Court of Appeal stated, with reference to the comments made by Fogarty J in the *Wilson* case:

"[74] These observations by the Judge express too broadly the ambit of a consent authority's ability to consider future events. There is no justification for borrowing the "fanciful" criterion from the permitted baseline cases and applying it in this different context. The word "fanciful" first appeared in Smith Chilcott Ltd v Auckland City Council at [26], where it was used to rule out of consideration, for the purposes of the permitted baseline test, activities that the plan would permit on a subject site because although permitted it would be "fanciful" to suppose that they might in fact take place. In that context, when the "fanciful" criterion is applied, it will be in the setting of known or ascertainable information about the development site (its area, topography, orientation and so on). Such an approach would be a much less certain guide when consideration is being given to whether or not future resource consent applications might be made, and if so granted, in a particular area. It would be too speculative to consider whether or not such consents might be granted and to then proceed

⁴ [2014] NZEnvC 11

⁵ [2005] NZRMA 76/Fogarty J

⁶ (No.2) 12 ELRNZ 299 (CA)

to make decisions about the future environment as if those resource consents had already been implemented.”

- 3.9 Ms Watson advised that Fogarty J revisited the law on the environment in *Royal Forest and Bird Protection Society of New Zealand Incorporated v Buller District Council*⁷. He elaborated on his view of the environment taking into account the Court of Appeals’ comments in Hawthorn:

“[32] As already noted, Forest and Bird pursued the argument that the Environment Court was required by Hawthorn, at [84] to take into account the activities permitted by the existing coal mining licence, as being analogous to a permitted activity under a plan. By contrast counsel, for BCL were happy to be guided by my recent judgment, Queenstown Lakes District Council, arguing that [84] should not be read out of context, but rather consent authorities should pursue a real world analysis of the future environment. ...”

- 3.10 Ms Watson submitted that this was consistent with the approach taken by Judge Borthwick in Burgess and supports CRM’s view that houses permitted on the adjacent site cannot automatically form part of the receiving environment. A real world approach is required, taking into account the specific circumstances of the case.
- 3.11 I have considered the issue of the future environment carefully because I am conscious that adjoining land to the north and west could potentially contain dwellings in the future and in particular Mr Stringer had indicated that he had purchased one of these blocks of land and had intended to build on it.
- 3.12 My understanding is that the Stringer property is capable of providing for a dwelling as of right, however I consider it would be fanciful to accept that any dwelling would be located anywhere other than on the upper terrace of that property. I have therefore on the basis of Mr Stringers evidence accepted that a dwelling on his site on the upper terrace could form a part of the future environment and therefore considered the potential impact of the proposal in that regard. As I received no other evidence of potential development on any other sites not containing a dwelling I have not considered them in terms of potential future adverse effects on residential amenity.

Effects on the Environment

- 3.13 Having regard to the application and the evidence before me, I have concluded that the key potential effects on the environment that should be considered relate to visual amenity, noise, hours of operation, traffic generation, roading access and safety issues, groundwater and flooding. There are some additional matters which I have also addressed.

Visual Amenity

- 3.14 The landscape elements of the site currently include a mixture of exotic trees and remnant sand dunes with rough grass. It was described by the two landscape witnesses, Mr Craig and Mr Demsen, as having low-moderate landscape amenity. Both considered the proposed quarry could in landscape terms be considered a temporary activity.
- 3.15 The Quarry Scheme Plan (QSP) evolved considerably during the hearing to the point where I consider adequate screening from all vantage points is able to be achieved provided that appropriate conditions are established to ensure it occurs as proposed and is maintained.

⁷ [2013] NZHC 1324

- 3.16 The north-western boundary is proposed to retain trees to a depth of 20-25m. Provided these trees are retained or where necessary gaps filled in and replacement trees provided I consider that views into the site from the terrace area will be limited.
- 3.17 I was advised that the south-western part of the site would retain its existing trees for some time before the quarry pit reached this area. This therefore would provide a greater level of visual screening for longer and conversely the time neighbours are potentially exposed to greater visual effects will be much less. The QSP includes relocated trees to fill in gaps along this boundary. I see this as an acceptable approach provided trees which do not survive are replaced. Given the time it will take for the quarry activity to progress to this area it should be possible for wilding trees to be transplanted and established, providing a screen for neighbours.
- 3.18 In terms of the screening along the state highway I consider the 3m bund and tree planting will be sufficient to adequately screen the majority of the quarry activity, including the main excavation element. I am not convinced that it is totally necessary to ensure that every aspect of the quarry is fully screened from SH1. Vehicles are moving through this area at around 100 kph and glimpses of the site or activity within it would only be fleeting.
- 3.19 The rehabilitation plan is an important component of this proposal. I have reviewed the conditions proposed associated with rehabilitation and note that it is designed to include input from the community via a Community Liaison Group and that the payment of a bond to the Hurunui District Council required.
- 3.20 While I consider this is all appropriate I was somewhat confused by the timing of the provision to the Council of the rehabilitation plan. The conditions proposed require that the plan be submitted within 3 months of the commencement of quarry operations. As I have alluded to this is an important component of the proposal and one which I consider the community should be consulted on and have some input into. I therefore believe it would be more appropriate for the condition to 'delay' submitting the rehabilitation plan until 18 months after operations commenced which would enable the formation of the Community Liaison Group and provide for more meaningful input. Overall this should ensure that rehabilitation incorporates community aspirations, while I note that the bond will ensure that the rehabilitation actually occurs.

Noise

- 3.21 Noise was a key concern of submitters, in particular they questioned the accuracy of information provided by the applicant's noise expert and the impact the loss of trees from the site will have on noise. Notwithstanding this, no alternative expert evidence was provided by submitters substantiating these claims. Further, the District Council did not have the noise assessment audited and therefore I can only assume that they were satisfied with the assessment provided.
- 3.22 The closest dwelling to the proposed quarry operation is that of Ms Melhopt at approximately 180m from the site boundary and over 200m from any operational component. At that distance Mr Hay has calculated that the daytime noise received at the notional boundary of this dwelling from extraction in the centre/north of the site using an excavator and with the screen operating would be 55dB L_{A10} . The noise predicted at other dwellings is somewhat less than this. The evidence from Mr Hay therefore is that compliance with the noise provisions can be achieved. I have reviewed both the assessment provided with the application and the evidence of Mr Hay and accept that the predicted noise levels for both a drag line and excavator extraction operation can comply with the daytime noise limit at all dwellings

assessed. Further, even with the screen operating, which the applicant has indicated will be intermittent compliance is predicted to be achieved.

- 3.23 Notwithstanding my conclusion above I consider that should I reach a decision to grant consent that there is a need to ensure that the noise standards are being met while the quarry is actually in operation. In this regard I believe there would be a need for monitoring to ensure compliance.
- 3.24 I accept that there are other noise elements within the environment. Submitters in particular made reference to a debarker operating on the other side of the state highway which was causing them concern. Further, I acknowledge the comments of submitters regarding the trees; however I note that Mr Hay indicated that his calculations for the quarry were undertaken as if the trees didn't exist. While he acknowledged that the loss of the plantation may result in the ambient noise from SH1 and other activities to the east being increased, I have to accept that this could occur regardless of the quarry and to some extent already has with the wind damage which occurred last year.
- 3.25 Overall in terms of noise I am satisfied based on the evidence and conditions proposed, which include the disablement of reversing beepers and monitoring, that the noise effects of the proposal are sufficiently separated from neighbours so as to not adversely affect them.

Hours of Operation

- 3.26 The primary issue associated with the hours of operation was the proposed 6am start time and the associated disturbance and noise this might create. The applicant proposed during the hearing to limit operations to the loading of trucks and the transportation of material and was prepared to accept that no excavation or screening of material shall occur between 6am and 7am. Based on this Mr Hay considered noise from the site would not exceed the night time limit. Ms Bennett however remained concerned about the amenity impact of a 6am start time.
- 3.27 I accept that a 6am start time could be achieved within the noise standards provided it is limited to the loading of trucks and the transporting of material. That however does not necessarily mean that the noise from the loader starting and operating or an unknown number of empty trucks arriving will not create disturbance alongside other potential disturbance events such as vehicle lights or lights operating on the site. I was not provided with a great deal of evidence around this issue as a whole by the applicant, nor was there any reference to the ambient noise environment prior to 7am which I suspect will be much lower than the daytime measurements taken by Mr Hay which were done between 2.15pm and 3pm. In light of this lack of clarity I consider a 6am start would be inappropriate on this site in the circumstances.

Traffic Generation, Roading Access and Safety Issues

- 3.28 The level of traffic generation associated with truck movements was substantially reduced at the hearing from 120 as in the application to 60 movements per day. The key issues as I saw them associated with the level of generation proposed were the increased movements on Gartys Road and the operation of the intersection with SH1.
- 3.29 In terms of the former the application had confirmed and indeed offered a condition that no truck movements would occur to the west of the sites intersection with Gartys Road. That left a small section of some 100m of Gartys Road upon which trucks would travel. While I accept that these additional movements might at times cause an inconvenience I was not convinced that an adverse effect would occur, particularly as trucks would not pass any

houses. I also note that it is proposed to upgrade this section of road to a minimum seal width of 7.0 metres, with additional 0.5m metalled shoulders either side as part of the proposal. With regards to this upgrade I consider Mr Kelly's amendment to the condition to be appropriate.

- 3.30 The intersection upgrades with the State Highway have been agreed with the NZ Transport Agency (NZTA) and as I understood it provide for all turning movements. If there were any potential safety concerns I would have thought NZTA would have opposed the application or sought a higher level of intersection design.
- 3.31 Overall, therefore, I am comfortable that the traffic issues, including site access, associated with the proposal will not create effects beyond the minor threshold.

Groundwater

- 3.32 There were a number of issues relating to groundwater raised at the hearing. Principal amongst those was the potential impact on the bore of Ms Melhopt known as M34/0170 of a water take. The potential here was that bore M34/0170 could be adversely affected by the water take resulting in a reduced flow. The position of ECan was that further work was necessary to determine whether or not an adverse effect was likely.
- 3.33 As the hearing progressed there was agreement between the applicant and ECan that a condition could be drafted to adequately address this matter and that there were options available to address any adverse impact including drilling a deeper bore for the Melhopt's or providing a connection to the rural water supply. Nevertheless, the parties were unable to agree on the final wording of that condition. Ms Melhopt remained concerned about the impact on their water supply, the accuracy of any testing and the inconvenience any mitigation might provide.
- 3.34 The key difference between the parties on the condition is as follows. The ECan condition requires in the event that an assessment shows that interference effects on the bore exceed 20% of the available drawdown that *"the consent holder shall not commence mineral extraction activities until, in consultation with the owners of Bore M34/0170 and occupiers of 45 Gartys Road either:*
- a. Bore M34/0170 or a replacement bore is drilled deeper and the abstraction infrastructure including but not limited to the pump is upgraded to provide a reliable water supply; or*
 - b. A connection for the property at 45 Gartys Road is provided to the rural water supply, being the Ashley water network".*
- 3.35 The applicants condition requires (differences underlined) that *"the consent holder shall not commence mineral extraction activities until, it has employed its best endeavours to consult with the owners of Bore M34/0170 and occupiers of 45 Gartys Road and either:*
- a. The consent holder can determine to the satisfaction of the Canterbury Regional Council that Bore M34/0170 will be able to produce its required yield; or*
 - b. Bore M34/0170 or a replacement bore is drilled deeper and the abstraction infrastructure including but not limited to the pump is upgraded to provide a reliable water supply; or*
 - c. A connection for the property at 45 Gartys Road is provided to the rural water supply, being the Ashley water network".*

- 3.36 Ms Watson's key point here as I understood it was that the applicant should not be prevented from exercising its consent by being unable to consult with the owners of Bore M34/0170 and occupiers of 45 Gartys Road.
- 3.37 There is in my view in a situation such as this a high level of responsibility on the applicant to ensure that any effects are appropriately addressed. The ECan reporting officers made it very clear in their reports that they considered further investigative work was necessary before consent should be granted to ensure that interference effects on the bore were no more than 20% of the available drawdown. They have now accepted a condition which requires that work to be undertaken post a potential grant of consent. In these circumstances I do not consider it is sufficient to just employ 'best endeavours' to consult over a solution if an effect is identified. Nor do I consider that it is appropriate to then try and satisfy ECan that regardless of the 20% threshold there is still sufficient yield from the bore. The 20% threshold is established in the policy provisions of both the NRRP and LWRP and I can only assume it has been set at a level where effects are considered to be more than minor.
- 3.38 Consultation should always be undertaken in good faith which is incumbent on both parties. If an effect is identified in this case two solutions have been identified. Both solutions would likely result in improved water supply for 45 Gartys Road and I see no reason why positive consultation could not be achieved.

Flooding

- 3.39 I have considered the additional assessment undertaken by Ms Torgenson and the solution proposed to deal with flood water from north of the site and consider this to be appropriate. In particular, for reasons of visual amenity, I am of the view that culvert(s) through the bund rather than a break in the bund is the preferred approach. I was not convinced that any further modelling or assessment in this regard was necessary as the downstream effects of the quarrying of the site in terms of floodwaters were, in Ms Torgenson's opinion, unlikely to be exacerbated to any significant degree.

Additional matters

Aquifer Penetration

- 3.40 The potential of aquifer penetration was discussed at the hearing, the issue as I understood it being that the ECan officers were concerned about buoyancy uplift which could be caused by reducing the weight of the overlying material (by extraction) such that the pressure exerted by the overlying strata was less than the pressure in the underlying aquifer which could cause the aquifer to break through the underlying strata.
- 3.41 There were differences of view over the condition proposed, with Mr Nieuwkerk amending the proposed condition to refer to 'confirming the thickness of the confining layer' rather than just assessing the geological strata. Mr Ensor had then included a reference to not exceeding a depth of bore of 15m within the condition while the applicant refers to 11m. Mr Ensor had noted however that the maximum depth a bore which was consented to be drilled was 15m and that it may not therefore be possible to confirm the thickness of the confining layer beyond this depth.
- 3.42 Ms Watson in her right of reply had said that aquifer penetration was not a concern as CRM did not intend to dewater and the weight overlying the aquifer due to the water level in the ponds will be significant. She submitted that the condition as proposed by CRM was appropriate.

- 3.43 While I understand Ms Watson's point, I also consider it would be unwise to include the wording proposed by Mr Nieuwkerk in terms of confirming the thickness of the confining layer if that might not be achievable by drilling to a depth of 15m. I therefore would favour the wording of the applicant's condition with the proviso that the reference is to 15m. That does not mean they have to drill to 15m but rather that 15m is the limit.

Dust

- 3.44 Dusts effects have been addressed in the consent issued by ECan (CRC145675) and I note that the conditions of that consent require no objectionable or offensive discharge beyond the boundary, set extraction and screening levels per hour along with an overall yearly extraction volume and require the preparation of a Quarry Management Plan. Notwithstanding this, I note that the applicant has offered conditions in the land use consent requiring a further Quarry Management Plan and restricting vehicle speeds within the site to 15 km/hr.

Retail Sales

- 3.45 Submitters raised concerns with regards retail sales from the site. A condition is proposed stating there shall be no retail sales which would satisfy these concerns.

Dewatering

- 3.46 The issue of dewatering of the site to enable extraction was raised by submitters. It was confirmed during the hearing by the applicant that this would not occur and as a belts and braces appropriate I would propose that this is included as a condition of any consent.

Property Values

- 3.47 I acknowledge that there were concerns that the proposed quarry may result in a loss of property value or limit the ability to sell a property. Ms Bennett correctly noted that case law has previously established that a change in property values may be a symptom of actual or perceived amenity effects. The Court has generally concluded that taking into account any effects on property values is tantamount to double-weighting⁸. Therefore, while I acknowledge the concerns about a potential loss of value to their property, this is something I am not able to give any great weight to within the context of the District Plan or the RMA.

Positive Effects

- 3.48 In terms of positive effects I note that Ms Foote referred to the high demand for natural sand products over the next 10 years as a result of the Canterbury rebuild and that the proposal would help in the provision of this.

The Activity Overall

- 3.49 In considering the appropriateness of the activity itself I have looked at the guidance provided by the District Plan along with the evidence I received. I note that the District Plan recognises that:

*"The rural environment has characteristics and amenity values that differ from the acceptable amenity values in urban areas. In rural areas, the environment is both a working resource, in terms of land based activities such as farming, forestry and other rural industries, and a living environment for its residents."*⁹

- 3.50 I take from this that the level of amenity which can be expected in the rural environment differs from that of the urban environment.

⁸ Chen v Christchurch City Council (C102/97)

⁹ Issue 10 – Environmental amenity

- 3.51 I have also considered the distance between the proposed quarry and dwellings in this situation against other quarries referred to at the hearing and of which I am aware. CRM own a quarry at Woodend which has a number of residential neighbours within 200m of the edge of its operations. In the Miners Road/Old West Coast Road area where a number of quarries operate there are numerous rural dwellings within 200m of the edge of quarry operations. Again at the Selwyn quarry operation on Selwyn Road there are dwellings within 200m of the quarry edge. This would seem to indicate that quarries, if operating within established environmental limits and providing mitigation, are able to do so in relatively close proximity to residential dwelling without creating adverse effects of a significant nature.
- 3.52 As the Court acknowledged in *Road Metals Company Limited v Christchurch City Council* at paragraph 113:
- “... We must repeat that the rural zone around Christchurch, like the rest of New Zealand is a business zone. It is an eclectic mix of activities and, almost inevitable, quarrying is one of those activities within it. We note that in this case, as in other cases, it is the rural-residential component which struggles with the range of activities conducted in this rural zone, be it quarrying, cropping, silage making, intensive farming (piggeries) and the like. Rural character and amenity does not equate to noise free, peace and quiet and clean air. ...”*
- 3.53 The Court went further in *Yaldhurst Rural Residents Association Incorporated v Christchurch City Council* at paragraph 18 stating:
- “...We would go further and say that although quarrying might occur in any zone, it is largely constrained to rural zones because of the necessity of minimising effects beyond boundaries. We see it as a legitimate rural activity.”*
- 3.54 The Court in these cases was clearly acknowledging the business nature of the rural zone and that quarrying is an activity likely within that zone. They also highlighted the sometimes unrealistic expectations of the rural-residential component of this area in terms of rural character and amenity.
- 3.55 Also of some importance here is that the activity will in all likelihood last for a relatively short period of time (Mr Grant indicated that all being good it would take 7 years to excavate the site) and that ultimately the site will be rehabilitated into what some may see as an enhancement on the current state of the site.
- 3.56 Overall I note that activities such as is proposed here are not excluded from the rural environment and are indeed more appropriate in that environment, subject to tests against specific standards. In this case I have determined that the proposed activity is appropriate in terms of its scale, taking into account the conditions proposed, without creating adverse effects which are more than minor on the surrounding environment.

Plan Provisions

National Policy Statement for Freshwater Management

- 3.57 Mr Ensor referred to Objectives A1 and A2 of the NPSFM which deal with safe guarding freshwater quality. He said that by complying with the groundwater allocation limits and maintaining a very low potential stream depletion rate he was of the view that the application was overall consistent with these objectives. Having considered the water quality issues against these objectives I agree with Mr Ensor’s conclusion.

Regional Policy Statement

- 3.58 There is little reference to mineral extraction in the Regional Policy Statement (RPS) other than generic reference in Policy 5.3.2 which seeks to enable development which ensures that adverse effects are avoided, remedied or mitigated. Based on the evidence received the proposal is not inconsistent with this provision.
- 3.59 Ms Foote and Mr Ensor referred to a number of provisions within Chapter 7 regarding water quality. Both considered, and I agree, that the proposal is consistent with these provisions.

District Plan

- 3.60 The District Plan contains a number of policies which make specific reference to quarries and in my view these are the key provisions I must take into consideration.

Policies 1.7 and 1.8

- 3.61 Policy 1.7 provides for the extraction of land resources in a manner which avoids or mitigates any adverse environmental effects, while Policy 1.8 requires the rehabilitation of sites where extraction of land resources has occurred. The explanation to these provisions recognises that the District relies, to a significant extent, on the extraction of certain land resources, such as quarrying. It notes that such activities are fundamental to the successful and efficient development of the economy and will continue to be provided for. The explanation goes on to note that it is important to ensure that extraction is managed to minimise the loss of land resources and that rehabilitation occurs once extraction has been completed. This is all to be achieved through rules and the resource consent process.
- 3.62 The explanation to these provisions also explains however that quarries, due to the nature of the activity, have adverse effects on users of other properties and that residential uses are particularly sensitive to them. It states that not all of the adverse effects can be mitigated to the extent that they have no effect outside the property boundary and that potential conflict between quarrying and residential areas and residential activities is dealt with at policies 10.6 and 10.6(a).
- 3.63 What I take from the above is that the District Plan recognises quarrying is a major part of the Hurunui economy and provides for it to occur subject to avoiding or mitigation adverse effects. I consider this is important because Policy 1.7 puts to bed the idea that quarrying is somehow not appropriate within the district. The policy is very clear in that it provides for extraction. [emphasis added]
- 3.64 Given my conclusions that any adverse environmental effects have been adequately addressed and that the proposal is enabling the extraction of the sand resource along with a rehabilitation programme once quarrying ceases; I consider that it is consistent with these provisions.

Objective 10 and Policies 10.5, 10.6 and 10.9

- 3.65 These provisions are essential about amenity values and avoiding, remedying or mitigating adverse effects.
- 3.66 Policy 10.5 looks to avoid, remedy or mitigate adverse effects on amenity values while Policy 10.6 seeks to manage intensive land use so that a separation between it and residential activities is maintained. The explanation to this latter policy specifically addresses quarrying, stating that:

Quarrying and mining, for example, generally creates adverse traffic, dust, noise, vibration and visual effects that are more than minor. All reasonably practical mitigation measures

intended to internalize the effects may still fail to stop those effects from being experienced outside the boundary of the property. Those effects are experienced most acutely in residential areas. The location and operation of quarrying and mining therefore must be controlled throughout the district by resource consent procedures, and in particular it should generally be kept separated from residential areas.

The adverse effects of hard rock quarrying include blasting, noise, vibration, and explosive sounds of rocks being crushed. These effects are generally qualitatively worse than the effects of mining that is limited to sand extraction activities. The separation distance from residential areas for hard rock quarrying should generally be greater than that required for sand and gravel extraction activities.

3.67 Policy 10.6 sets up the resource consent process which this current proposal has followed. Of note here is that a distinction is made between hard rock quarrying and sand extraction in terms of effects and the distance from residential areas. While it is unclear from the policy and explanation whether the reference to 'residential areas' is designed to relate only to urban areas I have taken a conservative approach and decided to consider it in this instance.

3.68 I do not consider that all the effects of this proposal have been entirely 'internalised' to the site. In particular there will be noise and visual effects beyond the boundary of the site. Nevertheless, I consider that the separation distance provided between the site and the nearest residential dwellings or realistically potential dwelling site accompanied by the mitigation measures proposed are sufficient for the sentiments of both Policy 10.5 and Policy 10.6 to be achieved in this instance.

3.69 It is of note that the explanation Policy 10.9 which relates to the control of noise also makes a distinction between hard rock quarrying and sand and gravel extraction. The explanation to the policy states:

The noise (including vibration) emitted by quarries ... does at times exceed levels acceptable to the community even if it is below the standards referred to above. Rules that implement this policy therefore seek to ensure that in most cases there is a separation distance between hard rock quarrying and residential activities, especially in townships. As noise and vibration effects are generally greater for hard rock quarrying than they are for sand and gravel extraction activities the separation distances required for sand and gravel extraction activities will – subject to all other matters including the scale of the activity – generally be less than those required for hard rock quarrying. The purpose of that separation distance is to ensure that, first, the noise and vibration effects of quarrying and mining are dissipated by distance to residential activities;

3.70 Again I am satisfied that the proposed separation distances achieved and the noise levels calculated will ensure consistency with this provision.

Policy 12.10

3.71 Policy 12.10 relates to the promotion of a safe and efficient transport system which I consider the proposal is consistent with achieving.

3.72 Finally, I note that both Ms Bennett and Ms Foote referred to Objective 7 and Policy 7.2. These provisions relate to natural features and landscapes and fall under the Issue – Important landscapes. I was advised that the area was not identified as a landscape of any note and therefore I consider these provisions of not of any great relevance in terms of my consideration of this application.

Natural Resources Regional Plan and Proposed Land and Water Regional Plan

- 3.73 In terms of weighting of these two plans I consider that given the stage it has reached and the nature of the appeal as outlined to me by Ms Watson, I can give greater weight to the provisions of the PLWRP.
- 3.74 Mr Ensor referred to a number of Objectives and Policies from both the NRRP and the PLWRP relating to groundwater quality, water quantity (including drinking water), ecosystems and managing the interference effects (set at a 20% threshold in Policy WQN19(1) of the NRRP and Policy 4.59 of the PLWRP) between bores. He had in his 42A report concluded that the regional consents were inconsistent with some provisions of both plans on the basis that there was insufficient information to determine whether interference effects of no more than 20% of the available drawdown of bore M34/0170 could be achieved.
- 3.75 I took from the changed position with regard to the condition now proposed in relation to bore M34/0170 that Mr Ensor considered consistency with these provisions could now be obtained. I consider, based on the proposed ECan condition that to be correct. The applicants proposed subclause a. to the condition (referred to above) is therefore potentially inconsistent with these key provisions and is why I have not accepted it.
- 3.76 In relation to all other regional provisions, I consider the proposal is consistent with their intent.

Other Matters

- 3.77 I consider it is appropriate to determine whether allowing the proposal might impact upon the integrity of the Plans. While I acknowledge the application at the district level is for a discretionary activity the Environment Court has in the past given consideration to such circumstances¹⁰.
- 3.78 In terms of the District Plan it specifically acknowledges at a policy level the extraction industry and promotes the resource consent process so I am of the view that granting consent to this proposal would not impact on the integrity of that plan.
- 3.79 Looking at the Regional Plans, in particular the LWRP, I note that the non-complying status of the activity is driven by the uncertainty of the interference effects on bore M34/0170. Therefore should it be shown that those effects are acceptable or in the event that the effects are such that one of the two alternative solutions is required then I do not consider the integrity of the Plans is affected.

Section 104D

- 3.80 Section 104D is required to be assessed in terms of the water take consent, noting that I have accepted this can be unbundled from the other consents.
- 3.81 With the condition now proposed by ECan relating to bore M34/0170 which provides for proper assessment and potential solutions I consider that the effects on the environment can now be considered as minor and that the water take will not be contrary to the objectives and policies of the regional plans.

Part II Considerations

- 3.82 In exercising the broad overall judgement required I am satisfied that the proposal is in accordance with Part II of the Act in promoting sustainable management whilst avoiding or mitigating any adverse effects on the environment. In this regard I acknowledge that there

¹⁰ Norwood Lodge v Upper Hutt City Council (W073/04)

are limited areas in Canterbury where high quality sand such as here is available for excavation. I also consider that the rural zone is an appropriate location for such extraction activity.

- 3.83 While I accept that the proposal will result in a change in the environment and that there will be a level of disturbance, in my view there would be no effects which would impact in an adverse way which could be seen as any more than minor or which cannot be mitigated through conditions. Overall therefore I consider the various values sought by the District and Regional Plans are maintained and I note that the onus is on the applicant to ensure that they meet any conditions imposed.
- 3.84 With regards the matters under section 7 of the Act, I considered the proposal would, with the landscape treatment identified and levels of noise and traffic proposed, maintain amenity values and the quality of the environment as sought by sections 7(c) and (f) and ultimately is likely to result in an enhanced level of amenity once rehabilitation occurs. I also consider that conditions are able to ensure the quality and quantity of groundwater is maintained or solutions provided if necessary. I also note that the extraction of sand can be viewed as an efficient use of resource (section 7(b)) and while it might be considered a finite resource the proposal will not result in its exhaustion (section 7(g)).
- 3.85 I do not consider there are any section 6 or 8 matters of relevance in terms of the proposal.

4.0 Determination.

- 4.1 For the forgoing reasons set out above, having regard to Part II of the Act, and in accordance with the provisions of ss104 and 104B of the RMA, I have determined that resource consents RC130205, CRC142845 and CRC142846 to extract sand and gravel, use land for excavation and deposition over an unconfined aquifer and to take and use water for dust suppression at 11 Gartys Road, Leithfield, be granted subject to the conditions set out in Appendix A – C below.



Commissioner D. M. Chrystal

1st September 2014

Appendix A

RC130205 – Hurunui District Council

1. That the proposal proceeds in general accordance with the plans and details submitted with the application and further information received on 7 March 2014 and further refined by the evidence at the hearing and supplementary evidence dated 1 July 2014 and referenced as RC130205 in Council records and in accordance with the Quarry Management Plan to be submitted under condition 5.

Standards

2. Design and construction standards shall be in general accordance with the requirements of the Hurunui District Plan and NZS 4404:2010 Land Development and Subdivision Infrastructure unless otherwise agreed by Hurunui District Council.

Engineering plans

3. Two copies of plans and specifications for all accessway and road upgrading works shall be prepared by a suitably-qualified person and submitted to Council for written approval prior to commencement of works. Any subsequent amendments to the plans and specifications requested by the applicant shall be submitted to Council for specific approval.

Other resource consents

4. Copies of any other resource consents granted in respect of this development shall be submitted to the Council prior to commencement of any works.

Quarry Management Plan

5. The consent holder shall prepare, maintain and comply with the 'Gartys Road Quarry Management Plan (QMP).'

The QMP shall:

- i. Describe the content and purpose of the QMP;
- ii. Describe the QMP certification process including addressing QMP revisions;
- iii. Describe the operation of the Site in relation to its impact on the environment;
- iv. Define the actions to be taken to ensure compliance with all conditions of this consent and/or in response to any incident that may impact adversely on the environment;
- v. Identify the staff member responsible for each action;
- vi. Include details of the steps to be taken to correct any element of non-compliance;
- vii. Include details of stages, including location, area, depth and proposed start and finish dates for extraction;
- viii. Set out works and timeframes for site rehabilitation including plans showing the final landscaping design for the site;
- ix. Set out the relevant monitoring requirements;

- x. Set out the provisions for any complaints to be recorded and actioned in a coordinated way; and
 - xi. Include details of how to how a person responsible for the site can be contacted at all times.
- c. The QMP may be amended during the period of this consent as appropriate to improve management and contingency procedures. The QMP and any revisions shall include the best practicable options for achieving compliance with the conditions of this consent.
 - d. A copy of the QMP shall be made available to all persons authorised to carry out activities on the site.
 - e. A copy of the QMP shall be provided to the Council's Environmental Services Manager one month prior to first exercise of this consent for certification that the QMP:
 - i. Addresses the matters set out in this condition; and
 - ii. Outlines measures to ensure compliance with the conditions of this consent.
 - f. Where there is a conflict between the QMP and these consent conditions, these consent conditions shall prevail.

Operation

- 6. Hours of operation shall be limited to 7.00am to 6.00pm Monday to Friday and 7.00am to 12.00 noon Saturdays. The site shall be closed on Sundays and public holidays.
- 7. There shall be no retail sales on site.
- 8. Any buildings erected on the site shall be provided with a fire fighting water supply that complies with the *New Zealand Fire Service Fire fighting Water Supplies Code of Practice SNZ PAS 4509:2008*.
- 9. A public notice shall be displayed at the entrance to the site proving advice as to how a person responsible for the site can be contacted at all times.

Noise

- 10. All activities shall be designed and conducted so as to ensure that the following noise limits are not exceeded at or within the notional boundary of any residential dwelling:

55 dBA L10 7am – 7pm daily

75 dBA Lmax All days between 10pm and 7am

The notional boundary is defined as a line 20 metres from the façade of any rural dwelling or the legal boundary where this is closer to the dwelling.

- 11. Construction noise shall not exceed the recommended limits in, and shall be measured and assessed in accordance with, the provisions of NZS 6803:1999 "Acoustics – Construction Noise".
- 12. All reversing beepers on excavators and loaders operating on the site shall be disabled.

13. Monitoring of noise shall be undertaken by a suitably qualified expert within one month of excavation on the site commencing and thereafter on a six monthly basis for the first two years. The results of the monitoring shall be provided to the Hurunui District Council within one month of the monitoring being completed. Should the monitoring identify a non-compliance with the limits in condition 10, a report shall be provided accompanying the monitoring results detailing how the non-compliance will be mitigated. In the case where mitigation is undertaken and completed further monitoring shall be undertaken and reported to the Hurunui District Council within 2 months of the mitigation being completed.

Landscaping

14. The landscaping shown on the Quarry Scheme Plan prepared by Andrew Craig dated 1 July 2014 shall be established within the first planting season (May – August) prior to the commencement of operations on site. The plants shall have a minimum height of at least 0.6 metres at the time of planting and shall have a minimum spacing of 1.5m.
15. All landscape planting shall be maintained and any damaged, diseased or dead plants shall be replaced immediately with the equivalent species.
16. Prior to the construction of the bunds along Gartys Road a spot survey elevation on the northern side of the site near Gartys Road shall be undertaken to determine the location of the natural drainage path. Based on the contributing drainage catchment a suitably sized culvert(s) shall be installed in the bund to allow the natural drainage of land to the north of Gartys Road to continue onto the site.
17. The earth bunds shall be constructed to a minimum height of 3 metres above existing natural ground level at the earliest stage possible within the construction period. The bunds shall be fully completed and sown with grass prior to quarry operations commencing on the site.
18. The bunds shall be grassed with grass seed within 1 month of construction. The grassed bunds shall be maintained and when necessary, watered to ensure that the grass is retained in a healthy and tidy condition.
19. The earth bunds shall be retained for as long as quarrying activities continue on site.
20. Any overburden retained on site for use in the rehabilitation of the site shall be stockpiled in the north-eastern corner of the site as shown on the Quarry Scheme Plan prepared by Andrew Craig dated 1 July 2014. The stockpile shall be a maximum of three metres high and the maximum volume of material stockpiled shall be 3000 cubic metres.

Visual

21. All buildings shall be located in general accordance with the Quarry Scheme Plan prepared by Andrew Craig dated 1 July 2014.
22. Stockpiles shall not exceed 4.0 metres in height above the existing natural ground level.

Lighting

23. Light emissions from the site shall not exceed a measurement of 8 lux (lumens per square metre) measured at 1.5 metres above ground at the boundary.

Traffic

24. A maximum of 60 heavy vehicle movements shall occur per day.

Community Liaison Group

25. A Community Liaison Group shall be established within 6 months of extraction commencing. The group shall as a minimum consist of representatives from the applicant, the local community and the District Council. The Community Liaison Group shall meet a minimum of every 6 months for first two years. After two years the group shall review its on-going meeting requirements.

Accidental discovery protocol

26. In the event of any disturbance of koiwi (human skeletal remains), taonga or artefact material, the consent holder shall:
- a) Cease any further excavation for a period of at least 24 hours.
 - b) Immediately advise the Hurunui District Council, Te Ngäi Tüähuriri Rünanga, and the New Zealand Historic Places Trust of the disturbance.
 - c) The consent holder shall in conjunction with the Te Ngäi Tüähuriri Rünanga, arrange a site inspection by the appropriate tangata whenua and their advisers, including statutory authorities, who will determine whether the discovery is likely to be extensive and whether a thorough site investigation is required. Materials discovered will be handled and removed by iwi responsible for the tikanga appropriate to their removal or preservation

Construction management

27. A suitably-qualified person shall supervise the accessway and road upgrading works, and on completion of such works shall provide certification to the Council confirming that the works have been set out and constructed in accordance with the design drawings and specifications.

Road upgrading

28. Prior to commencement of site operations the proposed upgrade of the Gartys Road / State Highway 1 intersection shall be designed and constructed in consultation with and approval of the New Zealand Transport Agency.
29. Prior to commencement of site operations the consent holder shall upgrade Gartys Road from the State Highway 1 intersection to the proposed site accessway, from where there shall be a smooth sealed transition back to the existing unsealed formation.
- a) The existing sealed carriageway shall be tested with a Benkleman Beam to ascertain its strength and the extent of any reconstruction required. No more than 5% of deflections shall be over 1.0mm, and no single deflection shall be over 1.2mm.
 - b) New or upgraded pavements shall consist of at least 300mm granular subbase/basecourse material, and shall be specifically designed after subgrade strengths have been confirmed on-site.

- c) The new / upgraded pavements shall have a minimum seal width of 7.0 metres, with additional 0.5m metalled shoulders either side.
- d) The existing crest located approximately 50 metres west of the site accessway shall be lowered to improve sight distances from the site accessway. The reinstated pavement seal shall extend at least as far westward as the current seal extent.
- e) Benkleman Beam targets for new or upgraded pavements shall be as per (a) above, confirmed prior to surfacing.
- f) New sections of road carriageway shall be two-coat chip sealed (grade 3 and 5). Existing sections of carriageway accepted as not requiring strength improvements shall be single-coat chip sealed (Grade 5).
- g) Grass swales shall be provided on both sides of the road formation as required, discharging to appropriate cloth-lined, rock-filled soak pits.

Accessway

30. Prior to commencement of site operations a heavy vehicle accessway (vehicle crossing) shall be provided to the site from Gartys Road generally in accordance with Figure A5.8 of the Hurunui District Plan.
- a) The accessway pavement shall consist of at least 300mm granular subbase/basecourse material, and shall be specifically designed after subgrade strengths have been confirmed on-site.
 - b) The accessway shall be tested with a Benkleman Beam prior to surfacing. No more than 5% of deflections shall be over 1.0mm, and no single deflection shall be over 1.2mm.
 - c) The accessway shall be two-coat chip sealed (grade 3 and 5).
 - d) The accessway shall have a minimum sight distance to the west of 160 metres, measured at a height of 1.15 metres from a point 3 metres off the road carriageway to the centre of the oncoming traffic lane.
 - e) Any gates installed on the accessway shall be far enough from the road carriageway to allow truck and trailer units using the accessway to stop clear of the accessway while the gates are being opened or closed.

Inspections

31. Works inspections will be carried out to ensure the work is completed in accordance with the approved plans and specifications and to Hurunui District Council's standards. These inspections will be undertaken by Council engineering staff for a fee as defined in Council's schedule of fees and charges, payable by the applicant. The applicant shall notify the Council at least two working days prior to commencing various stages of the works to enable audit inspections to be carried out. Any other works directly associated with the subdivision shall also be charged at the rates defined in Council's schedule of fees and charges. The minimum level of inspections shall be as follows:

Accessway / Gartys Road upgrade:

- Before commencement of works (preconstruction site meeting).
- Following earthworks / excavation to subgrade / prior to placement of subbase material. Will include drainage inspections.
- Following compaction of basecourse and beam testing / immediately prior to sealing.

Where additional inspections are required because of faulty workmanship or work not being ready contrary to receipt of an inspection notification, these will be carried out for an additional fee at the rates defined in Council's schedule of fees and charges.

Maximum vehicle speed

32. The maximum speed for any vehicle on site shall be 15Km/hr.

Maintenance

33. The applicant shall be responsible for the maintenance of all site accessway / Gartys Road upgrading works for a period of 24 months following the date of completion of the works to the satisfaction of Hurunui District Council. Maintenance shall include repair to the satisfaction of Hurunui District Council of damage or defects in the works, however caused.

Use of Gartys Road

34. During site operations no heavy vehicles travelling to or from the site shall use the portion of Gartys Road west of the site accessway.

Rehabilitation

35. A Rehabilitation Plan shall be prepared and submitted to the Council's Manager Environmental Services within 18 months of the commencement of quarry operations, for certification that it documents as a minimum:

- (a) The timeframes for rehabilitation works, including but not limited to the following requirements:
 - (i) Rehabilitation shall be progressively undertaken and commenced no more than six months following cessation of quarrying activities:
 - (ii) Rehabilitation works shall be completed as soon as practicable having regard to any ongoing quarrying activities, but within the 12 months required by condition 38.
- (b) The rehabilitation measures proposed, including, but not limited to the following requirements:
 - (i) The battering of pit slopes so that they do not exceed a 1:4 grade above water level.
 - (ii) Shaping of the land form so that it exhibits a natural character devoid of any obvious man-made activity.

- (iii) The top soiling of the slope batters to a minimum depth of 300mm.
 - (iv) The sowing of a suitable grass species able to establish on the rehabilitated slopes.
 - (v) That when no longer required internal roading, plant and stockpile hardstand material will be removed, ripped, top-soiled and sown with suitable grass species.
 - (vi) That the rehabilitated land shall be maintained.
- (c) An indication of any areas of planting which may be removed once the site is fully rehabilitated to allow view shafts for residents and passers-by.
 - (d) The on-going use of the site which is envisaged to be passive recreation and conservation.
 - (e) The mechanisms to be used to facilitate the integration of the site into the surrounding area, for example linkages.
36. The Community Liaison Group established under condition 26 shall be consulted as part of the preparation of the Rehabilitation Plan under condition 36.
37. Written notice shall be provided to the Council within one month of the extraction activity ceasing on the site.
38. Upon completion of the extraction activity, the site shall be rehabilitated within 12 months in accordance with the certified Rehabilitation Plan.
39. Any material brought onto the site for rehabilitation purposes shall consist of clean sands and/or gravels only.

Bond

40. At least five working days prior to the commencement of extraction, the consent holder shall enter into an enforceable agreement acceptable to the Hurunui District Council and bond pursuant to section 108(2)(b) and 108A of the Resource Management Act 1991 to provide and to maintain until the rehabilitation of the site is complete:
- (a) A guarantor acceptable to the Hurunui District Council to bind itself to pay for the carrying out and completion of the obligations of the consent holder under the bond and the conditions of this consent in the event of any default by the consent holder or any occurrence of any adverse environmental effect requiring remedy; or
 - (b) A bank bond acceptable to the Hurunui District Council to secure the performance of the obligations of the consent holder under the bond and conditions of this consent in the event of any default by the consent holder or any occurrence of any adverse effect requiring remedy.
41. The cost of, and incidental to, the preparation of documentation to meet condition (41) shall be met by the consent holder.
42. The Hurunui District Council shall release the bond upon the rehabilitation of the site provided that the Hurunui District Council is satisfied that there are no outstanding compliance matters and/or remaining adverse effect due to the activity on the site.

Review condition

43. Pursuant to Section 128 of the Resource Management Act 1991, the Council may, at any time during the first year of operation of the quarry and thereafter within 10 working days of each anniversary of this consent, review the conditions of this consent to deal with any adverse effect on the environment which may arise from the exercise of this consent.

ADVICE NOTES:**Site Inspections**

Site inspections are an important component of the works. Please ensure contractors are aware of the requirements outlined in the Inspections clause. It is essential that the contractors are given sufficient detail from the conditions to ensure compliance of their works, with the conditions imposed in the consent.

Corridor Access Request

The applicant and / or the applicant's contractors will need to apply for a Corridor Access Request through 'beforeUdig' prior to any of the works commencing on or in Gartys Road. This can be done on-line at www.beforeudig.co.nz, or by phone at 0800 248 344. Part of this process involves preparation and approval of a traffic management plan.

Appendix B

CRC142845 Use of Land for Mineral Extraction Activities and the Deposition of Clean Fill over an Unconfined or Semi-Confined Aquifer

Scope

1. The use of land for mineral extraction activities, including the excavation of land and deposition into excavated land, shall apply to the property located at Gartys Road, Balcairn, located at or about map reference NZMG 260 M34:8033-6262 and labelled as the 'Site' on Plan CRC142845A, which forms part of this consent.
2. The works shall be limited to:
 - a. Preliminary works specified in Condition (5);
 - b. Extraction of sand and gravel and other natural material ('aggregate') as specified in Conditions (7-11); and
 - c. Rehabilitation of the site as specified in Condition (18).
3. Material deposited in the quarry excavation for the purposes of site rehabilitation shall be restricted to:
 - a. clean inert materials such as soil material, rubble, silts, sands, gravel and incidental vegetative matter. All other material shall be excluded from the site, including but not limited to, those materials defined as unacceptable in the document titled "A Guide to the Management of Cleanfills," Ministry for the Environment 2002; and
 - b. Soil used in rehabilitation works that arises from the stripping of overburden at this site.
4. The material deposited in the quarry excavation shall not contain more than 2.5 percent vegetative matter by volume.

Preliminary Works

5. Prior to the commencement of extraction of aggregate, the following works shall be undertaken:
 - a. Stripping of topsoil for use in construction of earth bunds;
 - b. The construction of earth bunds as shown the Quarry Scheme Plan;
 - c. All soil from the site which is not used for construction of the bunds shall be stockpiled for use in rehabilitation of the site in accordance with Condition (18).
6. At least one of the bores consented under CRC142848 shall be drilled to not more than 15 m below the current ground level and an assessment shall be made of the geological strata. The assessment shall consider whether extraction to a depth of 10 metres below the ground level is likely to breach the confining layer.

Excavation of Aggregate

7. The quantity of aggregate excavated from the site shall not exceed 150,000 cubic metres in any period of twelve consecutive months.

8. Excavation of aggregates shall commence from the centre of the property and work north and south;
9. Excavation shall not occur greater than 10m below the current ground level and no dewatering shall occur from the site.
10. No excavation of aggregates shall occur within 20m of the boundaries of the site or 25m from the boundary indicated on the Quarry Scheme Plan prepared by Andrew Craig dated 1 July 2014 and attached to this consent.
11. Record Keeping of Excavation:
 - a. The consent holder shall measure the total quantity of gravel, sand and other natural material excavated annually to within an accuracy of ten percent and shall record this measurement;
 - b. The consent holder shall provide records of the volumes of material excavated from the site to the Canterbury Regional Council upon request.

Bore Test

12. Prior to the commencement of mineral extraction activities the consent holder shall:
 - a. Undertake a rising head test or undertake a short duration pumping test in the up-gradient monitoring bore as shown on Plan CRC142845B to estimate the hydraulic conductivity of the shallow aquifer in which the quarry pit will be established.
 - b. Undertake an assessment of the groundwater drawdown effect on Bore M34/0170 using the method outlined in the attached Schedule 12 incorporating an expected seasonal maximum rate of take including water abstracted for dust suppression and evaporation from the excavation. This assessment will take into account the results of the test outlined in Condition 12(a) and the available drawdown of bore M34/0170 as determined by water level monitoring undertaken in this bore.
 - c. Prepare a report analysing the effect of the mineral extraction activity on the reliability of bore M34/0170 and provide this report to the Canterbury Regional Council.
13. If the assessment undertaken in accordance with Condition 12 shows that interference effects exceed 20% of the available drawdown in bore M34/0170, the consent holder shall not commence mineral extraction activities until, in consultation with the owners of bore M34/0170 and occupiers of 45 Gartys Road, either:
 - a. Bore M34/0170 or a replacement bore is drilled deeper and the abstraction infrastructure including but not limited to the pump is upgraded to provide a reliable water supply; or
 - b. A connection for the property at 45 Gartys Road is provided to the rural water supply, being the Ashley water network.

Deposition of Fill (Clean gravels, sand and soil)

14. Site Management

- a. The perimeter of the quarry or clean fill stockpile site shall be surrounded by secure fencing, with lockable access gates;
- b. The consent holder shall ensure that warning notices are erected and maintained at all entrances to the quarry or clean fill stockpile site;
- c. Warning notices shall be able to be read from a distance of five metres;
- d. The warning notices shall state:
 - i. Name of the site;
 - ii. Name of the owner of the site and a contact telephone number;
 - iii. Groundwater is vulnerable to contamination; and
 - iv. Only clean gravel, sand and soil may be deposited at this site; general refuse and hazardous wastes shall not be dumped at this site.

15. Record Keeping of Filling (Clean gravel, sand and soil)

- a. The consent holder shall ensure that only authorised persons are using the site for delivery and acceptance of materials at all times;
 - b. The consent holder shall keep a record of all fill material accepted and deposited;
 - c. The record shall include:
 - i. The name of the person and company delivering the fill;
 - ii. The date of deposition;
 - iii. A description of the material deposited;
 - iv. The volume of the material deposited; and
 - v. The weight of the material deposited.
 - d. The record shall be provided to the Canterbury Regional Council upon request.
16. The consent holder shall prepare and submit a report to the Canterbury Regional Council by October each year, providing information on the progression of filling and/or site rehabilitation.
17. The Canterbury Regional Council, RMA Compliance and Enforcement Manager, shall be notified no less than 48 hours prior to initial commencement of this works.

Site Rehabilitation

18. The site rehabilitation following the completion of quarrying stage shall be undertaken in accordance with the method and timing specified in the quarry management plan and shall be undertaken in accordance with the Rehabilitation Plan to be prepared as part of RC130205 – Hurunui District Council.

General

19. Refuelling of vehicles, equipment or machinery shall not take place within 20m of any quarried areas with open water.
20. All practicable measures shall be undertaken to prevent oil and fuel leaks from vehicles and machinery.
21. A spill kit capable of absorbing diesel fuel and oil products shall be kept on site at all times.
22. In the event of a spill of fuel or any other contaminant, the consent holder shall clean up the spill as soon as practicable and take measures to prevent a recurrence.
23. The consent holder shall inform the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager, within 24 hours of a spill event and shall provide the following information:
 - a. the date, time, location and estimated volume of spill;
 - b. the cause of the spill;
 - c. the type of contaminant spilled;
 - d. clean up procedures undertaken; details of the steps taken to control and remediate the effects of the spill on the receiving environment;
 - e. an assessment of any potential effects of the spill; and
 - f. measures to be undertaken to prevent a recurrence.
24. The hours of operation of the site shall be 7.00am to 6.00pm, Monday to Friday; and 7.00am to 12 noon on Saturdays. The site will not operate on Sundays and public holidays.
25. Quarry Management Plan
 - a. The consent holder shall prepare, maintain and comply with the 'Gartys Road Quarry Management Plan (QMP).'
 - b. The QMP shall:
 - i. Describe the content and purpose of the QMP;
 - ii. Describe the QMP certification process including addressing QMP revisions;
 - iii. Describe the operation of the Site in relation to its impact on the environment;
 - iv. Define the actions to be taken to ensure compliance with all conditions of this consent and/or in response to any incident that may impact adversely on the environment;
 - v. Identify the staff member responsible for each action;
 - vi. Include details of the steps to be taken to correct any element of non-compliance;
 - vii. Include details of stages, including location, area, depth and proposed start and finish dates for extraction;
 - viii. Set out works and timeframes for site rehabilitation including plans showing the final landscaping design for the site;

- ix. Set out the relevant monitoring requirements;
 - x. Set out the provisions for any complaints to be recorded and actioned in a coordinated way; and
 - xi. Include details of how a person responsible for the site can be contacted at all times.
- c. The QMP may be amended during the period of this consent as appropriate to improve management and contingency procedures. The QMP and any revisions shall include the best practicable options for achieving compliance with the conditions of this consent.
 - d. A copy of the QMP shall be made available to all persons authorised to carry out activities on the site.
 - e. A copy of the QMP shall be provided to the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager, one month prior to first exercise of this consent for certification that the QMP:
 - i. Addresses the matters set out in this condition; and
 - ii. Outlines measures to ensure compliance with the conditions of this consent.
 - f. Where there is a conflict between the QMP and these consent conditions, these consent conditions shall prevail.
26. In the event of any disturbance of Kiowa Tangata (human bones) or taonga (treasured artefacts), the consent holder shall immediately:
- a. Advise the Canterbury Regional Council of the disturbance;
 - b. Advise the Upoko Runanga of Tuahuriri, or their representative, and the New Zealand Historic Places Trust, of the disturbance; and
 - c. Cease earthmoving/excavation operations in the affected area until all appropriate statutory approvals have been obtained.

Note: This condition is in addition to any agreements that in place between the consent holder and the Upoko Runanga (Cultural Site Accidental Discovery Protocol) or the New Zealand Historic Places Trust.

- 27. The consent holder shall maintain a complaints register, and make this register available to the Canterbury Regional Council upon request.
- 28. A copy of this consent shall be given to all persons undertaking activities authorised by this consent.
- 29. The Canterbury Regional Council, RMA Compliance and Enforcement Manager shall be notified no less than 48 hours prior to the commencement of the preliminary site works described in Condition (5).

Groundwater Level Monitoring

- 30. At least six months before excavation is to commence, three groundwater level and quality monitoring bores (one up-gradient and two down-gradient) shall be installed at the general locations indicated on plan CRC142845B. The bores shall be accessible to the Canterbury

Regional Council at all times for the purpose of groundwater sampling. The bores shall be screened so that they intersect the water table at all times.

31. Every month, and at least six months prior to excavation commencing water level measurement in the groundwater level monitoring bores shall be taken using automatic water level loggers and recorded.

Groundwater Quality Monitoring

32. A representative sample of groundwater shall be taken (a) from each of the monitoring bores referred to in Condition (30) at least once every six months following the bore installation. The samples shall be collected by a suitably qualified and experienced person in accordance with the sampling standards AS/NS 5667.11:1998.
33. (a) all samples taken in accordance with Condition (32) shall be analysed to determine the concentration of contaminants listed in Table CRC142845.

Table CRC142845

Parameter	Trigger Concentration
Depth to water	No trigger value
pH	Outside of 7.0 – 8.5
Electrical Conductivity	No trigger concentration
Copper	1 mg/L
Lead	0.01 mg/L
Zinc	1.5 mg/L
Iron	0.2 mg/L
Manganese	0.04 mg/L
Hardness (total) (Ca + Mg) as CaCO ₃	200 mg/L
Nitrate-Nitrogen	11.3 mg/L
Chloride	250 mg/L
Sodium	200 mg/L
Sulphate	250 mg/L
Total petroleum hydrocarbons	0.7 mg/L

- (b) The laboratory carrying out these analyses shall be accredited to ISO Guide 25, either by TELARC or by an organisation with a mutual recognition agreement with TELARC established in accordance with ISO Guide 58 for those analyses. The results of these analyses shall be provided to the Canterbury Regional Council within two months of the sample collection.
34. If the results of analysis of groundwater in down-gradient bores sampled in accordance with Condition (29) show that the concentration of any contaminant analysed exceeds the trigger levels stated in Table CRC142845 which forms part of this consent, the consent holder shall repeat the groundwater sample collection including the analysis for volatile organic compounds, within one month of receiving the laboratory results described in condition (33).
35. If any of the parameters from samples collected in accordance with condition (34) exceed the trigger levels stated in Table CRC142845, which forms part of this consent, the consent holder shall:
- a. engage a suitably qualified expert to assess the potential contamination migration and mitigation measures to address any adverse effects that are related to the consent holders activities;
 - b. advise the Canterbury Regional Council within two months of the repeat sampling in Condition (34) about the results of the assessment and the implementation of mitigation measures.

Administrative

36. The lapsing date for the purpose of Section 125 shall be 31 May 2019.
37. The Canterbury Regional Council may, on any of the last five days of October each year, serve notice of its intention to review the conditions of this consent for the purposes of:
- a. Dealing with any adverse effect on the environment which may arise from the exercise of this consent and which is appropriate to deal with at a later stage; or
 - b. Requiring the adoption of the best practicable option to remove or reduce any adverse effect on the environment; or
 - c. complying with the requirements of a relevant rule in an operative regional plan.

Duration

38. This consent shall expire 20 years after the date of commencement of this consent.

Appendix C

CRC142846 Take and Use of Water for Dust Suppression

1. Water shall only be taken from the open excavation at the Gartys Road extraction site, at or about map reference NZMG 260 M34:8033-6262 shown on Plan CRC142846A which forms part of this consent.
2. Water shall be used for dust suppression at the Gartys Road extraction site at or about map reference NZMG 260 M34:8033-6262, shown on Plan CRC142846A, which forms part of this consent.
3. Water shall only be abstracted at a rate not exceeding 5L/s and a volume not exceeding 180 cubic metres per day.
4. The total annual volume used for dust-suppression activities shall not exceed 32,400 cubic metres.
5. The water shall be used in a manner that takes all practicable steps to:
 - a. Ensure that the volume of water used for dust suppression does not result in surface runoff or ponding; and
 - b. Avoid leakage from pipes and structures; and
 - c. Avoid the use of water onto unintended areas such as the adjacent pond or sealed roads.

Administrative

6. The lapsing date for the purpose of Section 125 shall be 31 May 2019.
7. The Canterbury Regional Council may, on any of the last five days of October each year, serve notice of its intention to review the conditions of this consent for the purposes of:
 - a. Dealing with any adverse effect on the environment which may arise from the exercise of this consent and which is appropriate to deal with at a later stage; or
 - b. Requiring the adoption of the best practicable option to remove or reduce any adverse effect on the environment; or
 - c. Complying with the requirements of a relevant rule in an operative regional plan.

Duration

8. This consent shall expire 20 years after the date of commencement of this consent.